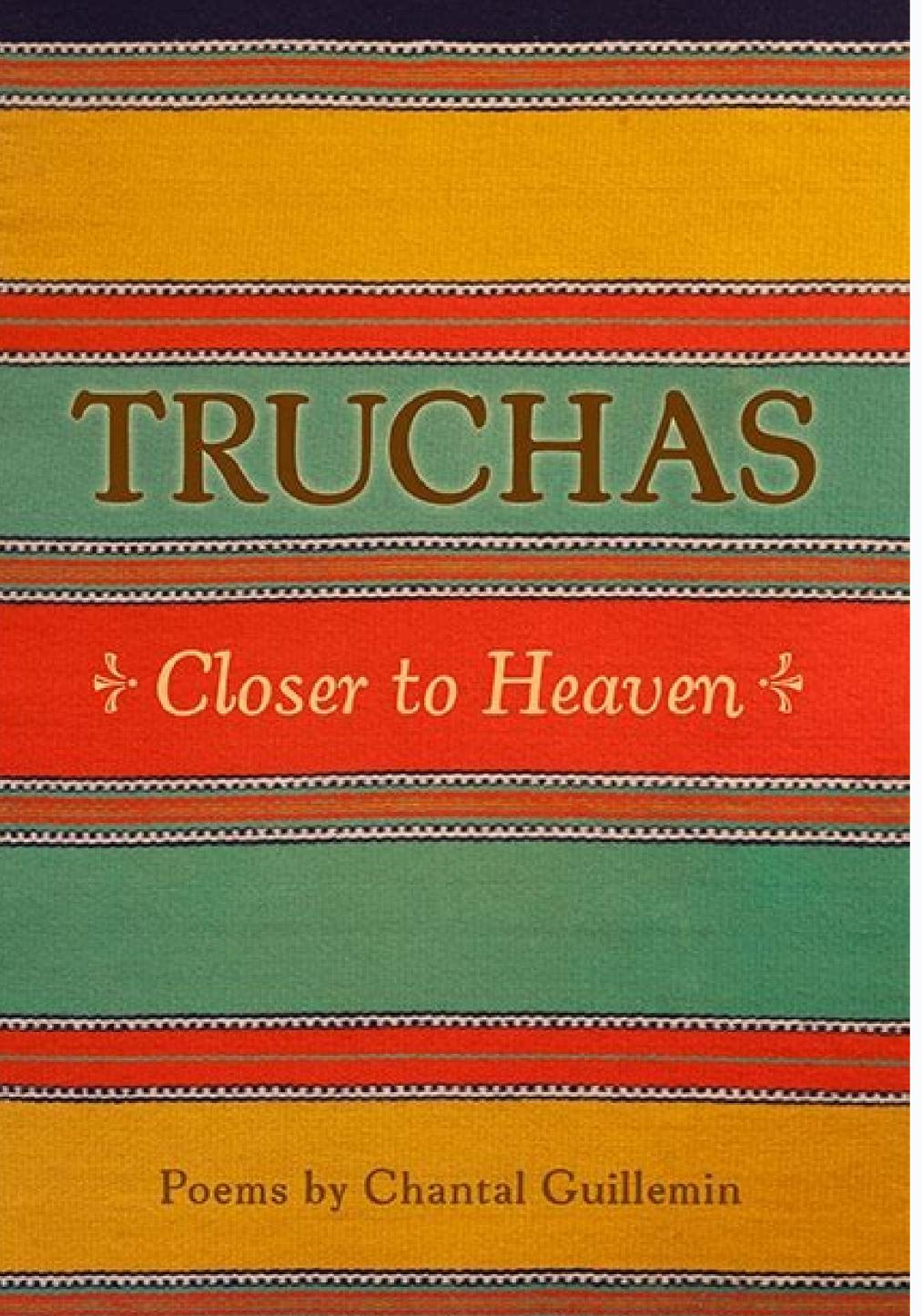
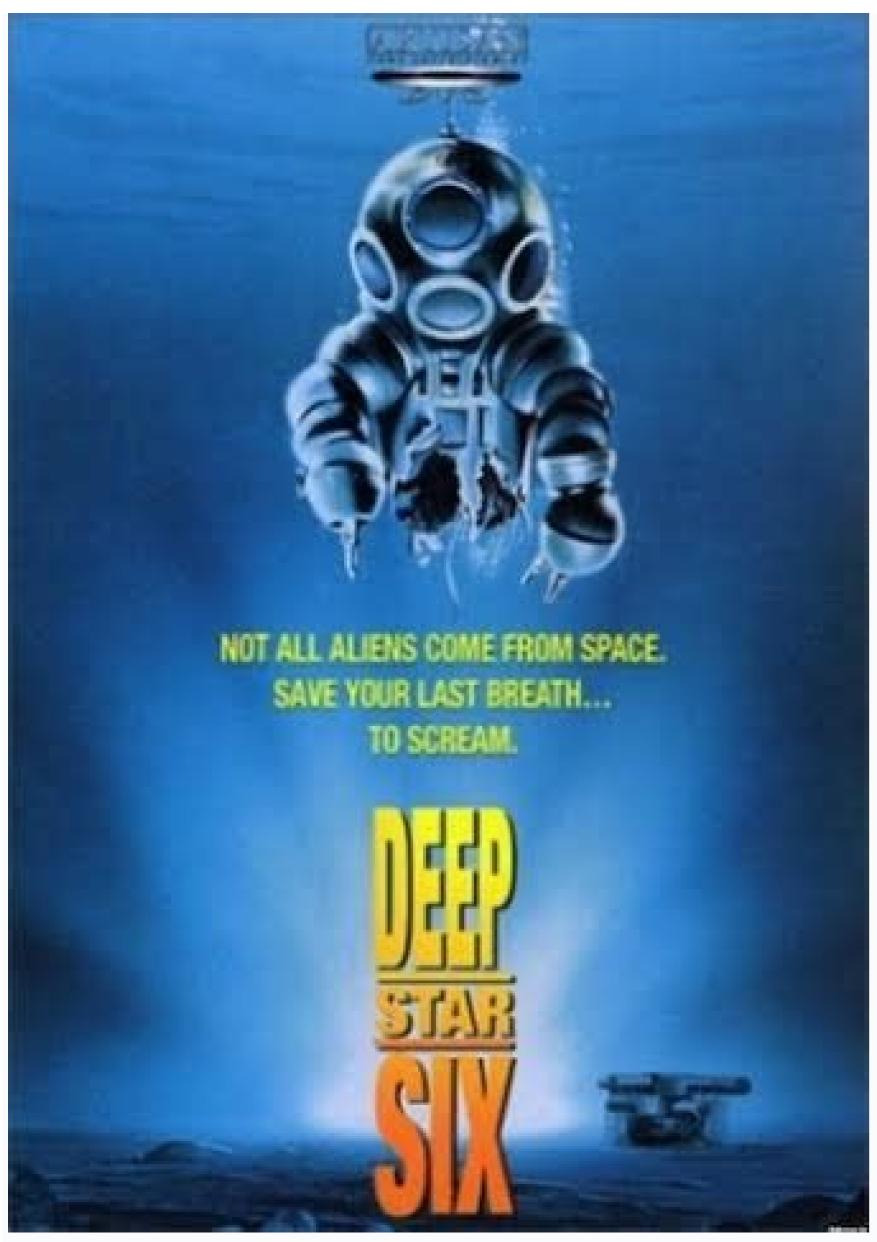
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Why do you get keloids from piercings. Should you take a piercing out if it has a keloid. What causes keloids from piercings. Why do i keep getting keloids on my piercings. Are keloids bad for piercings.

Compared with erythromycin, they have superior pharmacokinetic properties with enhanced tissue and intracellular penetration and a longer half-life that allows once- daily dosage. It is also used for treatment of and prophylaxis against Gram-positive infections in penicillin-allergic patients. Recurrence may cause skin lesions at non-genital sites such as the buttock and lower back. Hyperkeratotic crusted lesions characteristically affect the hands and feet. PTH levels rise as serum ionized calcium falls. A tender tendon nodule is palpable, usually in the distal palm. Longstanding anogenital LS is associated with an increased risk of squamous cell carcinoma in affected sites. Cardiac muscle can be involved. Hydrophiidae Envenomation produces muscle involvement, myalgia and myoglobinuria, which can lead to acute kidney injury. 674) but has a sharp margin and lacks satellite lesions. Boxes have been classified by the type of information they provide and have the following symbols: Emergency management E-Book extras Clinical Overviews, Special Topics, Clinical Cases and more in the Learning Resources, Videos and Assessments chapters online, accessible via the PIN page in the front of this book. Prescribing We have used the Recommended International Non- proprietary Names (rINNs) for all drugs. The precise molecular mechanisms that lead to type 1 diabetes are incompletely understood but involve the triggering of a selective autoimmune destruction of the insulin producing cells of a genetically predisposed individual. The technique requires training and the appropriate equipment. Few patients require admission Osteoarthritis 437 Rheumatoid arthritis 437 Rheumatoid arthritis 437 Spondyloarthritis 447 Infections of joints 454 Septic arthritis 455 Specific types of bacterial arthritis 455 Specific types of bacterial arthritis 466 Behcet's disease 466 Arthritis in children 467 Juvenile idiopathic arthritis 467 Rheumatological problems seen in other disease 468 Neurological disease 468 Endocrine and metabolic disorders 468 Miscellaneous arthropathies 468 to hospital but many receive day case infusions of biological disease-modifying drugs. Further reading Murray CJL, Lopez AD. Shedding of crystals into the subacromial bursa causes a bursitis with severe pain and shoulder restriction. 18.3. Pain in the neck and shoulder See Box 18.8. Mechanical or muscular neck pain (shoulder girdle pain) Unilateral or bilateral muscular-pattern neck pain is common and usually self-limiting. 674) and may occur in mycosis fungoides (see p. Patients are at high risk of sepsis and require expert intensive supportive care, as for extensive burns. Histology of skin lesions shows increased numbers of mast cells. • Digoxin-specific antibody fragments (digoxin-Fab) should be given intravenously for significant hyperkalaemia, marked arrhythmias (usually severe bradycardia compromising the cardiac output) and asystole. They negotiate a management strategy and share clinical decision-making with the person under their care. Haemodialysis is far sup erior and is used if neurological features are present and/or if renal function is impaired. In some countries it is also offered to children with idiopathic short stature. This is normal or raised. Serum TSH and free T4 should be measured to exclude hypothyroidism. New targeted biological therapies for inflammatory conditions may reduce the incidence of steroid- induced adrenal suppression. Measuring drug effects For many drugs, dosage adjustments are made in line with patients' responses (pharmacodynamics approach). Ruzicka T, Hanifin JM, Furue M et al. Growth and puberty 637 6\PSWRPV 6LJQV +HDGDQGQHFN &KDQJHLQIDFLDODSSHDUDQFH +HDGDFKHV 9LVXDOGHWHULRUDWLRQ 'HHSYRLFH *RLWUH)DFLDO 3URPLQHQWVXSUDRUELWDOULGJH 3ÚRJQDWKLVP,QWHUGHQWDOVHSDUDWLRQ/DUJHWRQJXH 9LVXDOILHOGGHIHFWV *HQHUDO 7LÚHGQHVV:HLJKWJDLQ %UHDWKŎHVVQHVV ([FHVVLŸHVZHDWLQ] 0XVFXODUZHDNQHVV -RLQWSDLQ *HQHUDO +LUVXWLVP 7KLFNJUHDV\VNLQ +DQGV 6SDGHOLNHKDQGVDQGIHHW 7LJKWULQJVRQILQJHUV &DUSDOWXQQHOV\QGURPH +RUPRQDO \$PHQRUUKRHDRUROLJRPHQRUUKRHD LQZRPHQ *DODFWRUUKRHD ,PSRWHQFHRUSRRUOLELGR 2WKHU *DODFWRUUKRHD +\SHUWHQVLRQ +HDUWIDLOXUH 2HGHPD \$UWKRSDWK\ 3UR[LPDOP\RSDWK\ *O\FRVXULDSOXVSRVVLEOHVLJQVRI K\SRSLWXLWDULVP ,QFUHDVHGJORYHRUKDWVL]H Fig. Treatment is by excision if possible but tumour margins are difficult to define clinically. Hyperplasia due to ectopic GHRH excess is very rare. Diagnostic criteria have a range of functions beyond treating individual patients, including a role in public health (in the compilation of statistics for monitoring trends in the incidence and distribution of diseases), research (to allow study of diseases and treatments in well-defined disease populations), and remuneration or reimbursement (in many health systems, payment to healthcare providers is on the basis of diagnostic codes assigned to patients receiving care). Lesions tend to run along dermatomal lines of the back, giving a 'Christmas tree' pattern. Ethanol is a CNS depressant and the features of ethanol intoxication are generally related to blood concentrations (Box 12.23). In children in particular, severe hypoglycaemia may accompany alcohol intoxication due to inhibition of gluconeogenesis. It is typically caused by Pseudomonas septicaemia in an immunocompromised or neutropenic patient. Kallmann's classically causes anosmia because the KAL1 gene provides instructions to make anosmin, which has a role both in development of the olfactory system and in migration of GnRH-secreting neurones. Septo-optic dysplasia This rare congenital syndrome (rarely associated with mutations in the HESX1 gene), presents in childhood with two out of the clinical triad of midline forebrain abnormalities, optic nerve hypoplasia and hypopituitarism. Sheehan's syndrome This is due to pituitary infarction following postpartum haemorrhage and is rare in developed countries but not uncommon in countries where there are not established obstetric services. Pituitary apoplexy A pituitary tumour occasionally enlarges rapidly owing to infarction or haemorrhage. In one outbreak, the first symptoms were experienced between 15 minutes and 38 hours after mussel consumption. Atypical naevi are associated with an increased risk of melanoma. These are detected by indirect immunofluorescent staining of fresh frozen sections of rat liver or kidney or Hep-2 cell lines. 273) with the addition of intravenous folinic acid 30 mg 6-hourly for 48 hours, which accelerates formate metabolism, thereby reducing ocular toxicity. Nerve agents are related chemically to organophosphorus insecticides (see below) and have a similar mechanism of toxicity but a much higher mammalian acute toxicity, particularly via the dermal Mercury Mercury is the only metal that is liquid at room temperature. External radiotherapy is normally used after pituitary surgery fails to normalize GH levels rather than as primary therapy. • d istal separation of the nail plate (onycholysis) and, rarely, loss of the nail plate • pink- (salmon patch) to yellow-brown (oil-drop) discoloration • subunqual hyperkeratosis. Disorders of pigmentation of growth suggests major physical disease; if no gastrointestinal, respiratory, renal or skeletal abnormality is apparent, then a cerebral tumour or hypothyroidism is most likely. CMAJ 2013; 185:309-316. We have included new clinical sciences to bear on the problems experienced by patients in day-to-day medical practice. Rechallenge with the suspected drug and dechallenge (i.e. stopping the suspected drug to see if the adverse effect disappears) may be appropriate in certain circumstances. The biological anti-IgE drug omalizumab is licensed for antihistamine-refractory CSU. The thirst axis 641 physicians elect to continue medical therapy rather than proceed to surgery. The joint capsule is formed by intermeshing tendons and ligaments. If injection in the clinic is unsuccessful ultrasound-quided corticosteroid injections may be more effective. Torn rotator cuff This condition is caused by trauma but also occurs spontaneously in the elderly and in RA. Severe anxiety or stress may exacerbate eczema in some individuals. A severe erosive variant can affect the vulva and vagina in women. Levels fall after 24-72 h, lasting for approximately 2 weeks. Characteristically, the diagnosis is made by a water deprivation test. 6HUXPLQVXOLQDXWRDQWLERGLHV, VOHWFHOODQWLERGLHV, &\$,\$,&\$ *\$' Fig. Oral ivermectin, as 2 doses 2 weeks apart, is effective, especially for use in communal settings (e.g. residential homes), but is unlicensed for this indication. Cutaneous, mucocutaneous and visceral disease (kala azar) may occur, depending on the infecting organism and host response. Loss of libido and erectile dysfunction are, however, common symptoms, even when hormones are normal, and long-term outcome studies of testosterone replacement are still awaited, divide by 2 3. The joints themselves are normal. There may be rouleaux formation as a consequence of the paraprotein. It can be given intramuscularly 2-4 µg daily, or intramuscularly 2-4 µg daily, or intramuscularly 2-4 µg daily. Occasionally, surgery is needed if symptoms persist. Carpal tunnel syndrome This condition arises due to median nerve compression in the limited space of the carpal tunnel. There are 300 million cases of scabies in the world each year. The diagnosis can be confirmed with microscopy and culture of a specimen taken with a routine microbial swab. Management Predisposing factors should be treated. 30.87) are characterized by a harsh mid-systolic ejection murmur, best heard on inspiration, to the left of the sternum in the second intercostal space. Clinical experience with linezolid has demonstrated efficacy in a variety of hospitalized patients with severe to life-threatening infections, including bacteraemia, hospital-acquired pneumonia, skin and soft tissue infection, and bone and joint infection. Progressed since? Adverse drug reactions. Again, anti-thyroid drugs are rarely successful in inducing a remission, although they can control the hyperthyroidism. De Ouervain's thyroidism from an acute inflammatory process, probably viral in origin. Control - How do you monitor your condition? There may be associated fever, malaise, myalgia, lymphadenopathy and mouth ulceration (or oral candidiasis). childhood and young adulthood, reaching a peak incidence around the time of puberty, but can present at any age. papulopustular rash on the trunk. Approximately 1% of all ADRs that lead to hospital admission are due to DDIs. A major risk factor for DDIs is polypharmacy, which is becoming more common because of the co-morbidities associated with an ageing population (See p. The mainstay of treatment for all types of gastroenteritis is oral rehydration solutions (ORS) (Fig. Scalp ringworm is spread by close contact (especially in schools and households) and by sharing of brushes or clippers. This is elevated in classical CAH, but may be apparent in late-onset CAH only after stimulation tests. • Substitution: An easier (and related) question is solved in place of a more difficult one. The vascular endothelium plays a critical role in maintaining vascular integrity and homeostasis. Low-risk patients can be managed initially with medical therapy but an invasive strategy with cardiac myocytes die due to prolonged myocardial infarction (STEMI) Myocardial infarction occurs when cardiac myocytes die due to prolonged myocardial infarction (STEMI) Myocardial infarction occurs when cardiac myocytes die due to prolonged myocardial infarction myocardial infarction occurs when cardiac myocytes die due to prolonged myocardial infarction myocardial infarction occurs when cardiac myocytes die due to prolonged myocardial infarction myocardial infarction occurs when cardiac myocytes die due to prolonged myocardial infarction myocardial infarction occurs when cardiac myocytes die due to prolonged myocardial infarction myocardial infarction occurs when cardiac myocytes die due to prolonged myocardial infarction myocardial infarction occurs when cardiac myocytes die due to prolonged myocardial infarction myocardial infarction occurs when cardiac myocytes die due to prolonged myocardial infarction myocardial infarction occurs when cardiac myocytes die due to prolonged myocardial infarction myocardial infarction occurs when cardiac myocytes die due to prolonged myocardial infarction myocardial infarction occurs when cardiac myocytes die due to prolonged myocardial infarction myocardia De Groot NM et al. The calcium in the valve generates abnormally intense echoes. Genetic susceptibility and inheritance Increased susceptibility to type 1 diabetes is inherited but the disease is not genetically predetermined. There may be a pulmonary ejection sound if the obstruction is valvular. 22.56 Alopecia areata. This may explain the predisposition to cutaneous infection, particularly with Staphylococcus spp. Some 70% improve over 5-20 days and mobilize the joint themselves. • Understanding more about the lifestyle of the patient. (B) Image A with colour Doppler demonstrating severe mitral regurgitation (MR) into the left atrium (LA). Severe metabolic acidosis, hypocalcaemia and acute kidney injury are well-recognized complications. Management If the patient presents early after ingestion, the priority is to inhibit metabolism using either intravenous fomepizole or ethanol; the former does not require monitoring of blood concentrations. Some individuals experience recurrent attacks of HSV ('cold sores') around the lips. -Are they aware if they are becoming hypoglycaemic? 440). The lice and eggs are not usually seen on the patient's skin but can be found on close inspection of clothing. The distribution of lesions is helpful in making a diagnosis (Fig. The affinity of the remaining haem groups for oxygen is increased. What is the family history? Box 18.2 Distinguishing patterns of rheumatic disease Regional Inflammatory Multisystem • Localized joint • W idespread joint pain • Reduced pain with • • • • • • Box 18.1 The 'top 10' rheumatic conditions that students should understand • R egional musculoskeletal conditions • Chronic pain syndromes • Osteoarthritis • Rheumatoid arthritis • Spondyloarthropathies • C rystal arthropathies • Infection-related arthritis • Autoimmune rheumatic diseases • Systemic vasculitides • Juvenile idiopathic arthritis • • • • • pain Increased pain with activity Short-lived stiffness Distal radiation Joint swelling Functional limitation Localized joint abnormalities on examination activity • Prolonged early morning stiffness • Multiple joint swelling • Functional limitation • Widespread joint abnormalities on examination ever F atique F Rash Alopecia Raynaud's phenomenon • Positive systems abnormalities on examination ever F atique F Rash Alopecia Raynaud's phenomenon • Positive systems abnormalities on examination ever F atique F Rash Alopecia Raynaud's phenomenon • Positive systems abnormalities on examination ever F atique F Rash Alopecia Raynaud's phenomenon • Positive systems abnormalities on examination ever F atique F Rash Alopecia Raynaud's phenomenon • Positive systems abnormalities on examination ever F atique F Rash Alopecia Raynaud's phenomenon • Positive systems abnormalities on examination ever F atique F Rash Alopecia Raynaud's phenomenon • Positive systems abnormalities on examination ever F atique F Rash Alopecia Raynaud's phenomenon • Positive systems abnormalities on examination ever F atique F Rash Alopecia Raynaud's phenomenon • Positive systems abnormalities on examination ever F atique F Rash Alopecia Raynaud's phenomenon • Positive systems abnormalities on examination ever F atique F Rash Alopecia Raynaud's phenomenon • Positive systems abnormalities on examination ever F atique F Rash Alopecia Raynaud's phenomenon • Positive systems abnormalities on examination ever F atique F Rash Alopecia Raynaud's phenomenon ever F Rash Alopecia Raynaud's ph resulting in a right-to-left shunt. Ligaments are variably elastic and this contributes to the stiffness or laxity of joints (see p. 'SCORTEN' is 22 22 698 Dermatology Box 22.33 SCORTEN prognostic score in toxic epidermal necrolysis Risk factor 0 1 Age 40 years Associated malignancy No Yes Heart rate (b.p.m.) 120 Serum urea (mmol/L) 9.6 Detached or compromised body surface 10% Serum bicarbonate (mmol/L) > 20 90% (From Bastuji-Garin S, Fouchard N, Bertocchi M et al. Dual- release, oral, once-daily hydrocortisone preparations are becoming increasingly available. Joint fluid should be cultured and antibiotic sensitivities requested. Diagnostic imaging and visualization • X -rays can be diagnostic in certain conditions (e.g. established RA) and are the first investigation in many cases of trauma. Patients with congenital heart disease require ongoing multidisciplinary specialist care and surveillance, as many need further intervention, surgery and electrophysiological input in adulthood. If disease is mono resistant, treatment options include ciprofloxacin, gentamicin, ceftazidine and piperacillin/tazobactam (tazocin). These include: • regular dental check-ups (6 months for all others) • disinfection of wounds and eradication of chronic bacterial carriage (skin, urine) • curative antibiotics for any focus of bacterial infection • no selfmedication with antibiotics • strict infection control during at-risk procedures Congenital heart disease 1107)HWDOFLUFXODWLRQ 3XOPRQDU\YHLQ \$RUWD 6XSHULRUYHQDFDYD 7ROXQJV /XQJV XQH[SDQGHG &ULVWDGLYLGHQV 3XOPRQDU\YHLQVIURP OXQJV \$2)RUDPHQRYDOH 0LWUDOYDOYH 3\$ 5\$ /\$ 6XSHULRU YHQDFDYD /\$ 59 /9 ,QIHULRUYHQDFDYD 3\$ 'XFWXVYHQRVXV /LYHU 6SKLQFWHULQ GXFWXVYHQRVXV /LYHU 6SKLQFWHULQ GXFWXV /LYHU 6SKLQFWHULQ GXFWXV /LYHU 6SKLQFWHULQ GXFWXV /LYHU 6SKLQFWHULQ GXFWXV /LYHU 6SKLQFWHULQ GXFWX /LYHU 6SKLQFWHU 6SKLQFWHULQ GXFWX /LYHU 6SKLQFWHU 6SKLQFWHU 6SKLQFWHU 6SKLQFWHU 6SKLQFWHU 6SKLQFWH 9HQWULFXODUVHSWXP 3XOPRQDU\YDOYH 2[\]HQVDWXUDWLRQRIEORRG 8PELOLFDOYHLQ +LJK 8PELOLFDODUWHULHV 0HGLXP /RZ Fig. 483) • Paget's disease (see p. N Engl J Med 2016; 374:611-624. In addition, the larger left ventricular size is mechanically less efficient, so that the demand for oxygen is greater and cardiac ischaemia develops. Clinical features Symptoms Parameter Normal Mild Moderate Severe In aortic regurgitation, significant symptoms occur late and do not develop until left ventricular failure develops. Ultraviolet phototherapy (see p. The characteristic sites involved are the flexures of the elbows, knees, ankles and Common rashes 661 Fig. Topical and oral azole antifungals can be effective but the complaint often relapses quickly. Subcutaneous mycoses (see p. Moderate or potent corticosteroids may also be used. mandate prolonged therapy with a combination of antibiotics such as rifampicin and clindamycin. Although some effects are obviously iatrogenic (e.g. acute anaphylaxis occurring a few minutes after intravenous penicillin), many are less so. • Do they drive, or engage in any other activities that may raise safety concerns in the context of hypoglycaemia? Medications • Do they drive, or engage in any other activities that may raise safety concerns in the context of hypoglycaemia? Medications • Do they drive, or engage in any other activities that may raise safety concerns in the context of hypoglycaemia? Medications • Do they drive, or engage in any other activities that may raise safety concerns in the context of hypoglycaemia? peptide) can also be used in AHF as a bolus injection followed by an infusion. In some, the adenoma secretes both GH and prolactin. Management Untreated acromegaly results in markedly reduced survival. and Streptococcus viridans, and are therefore often used in endocarditis. Their bites occur in groups or lines as intensely itchy papules on exposed areas, including the face and neck. • Anti-citrullinated peptide antibodies (ACPA). Treatment is symptomatic and supportive. Infective endocarditis. Bradyarrhythmias are common, and ECG conduction abnormalities are similar to those seen in quinine poisoning. Quinine Cinchonism (tinnitus, deafness, vertigo, nausea headache and diarrhoea) is common. Chest: • Examine for chest expansion and abnormal movement • Auscultate throughout both lung fields; consider other manœuvres such as percussion note or vocal fremitus if necessary 2. Common defects are upper temporal quadrantanopia and bitemporal hemianopia (see p. The dose is less critical unless optimizing height. Precocious puberty True precocious puberty True precocious puberty to exposure to either endogenous or sometimes exogenous sex steroids) types. - Have they needed external help to manage an episode of hypoglycaemia? They work by absorbing or filtering UV radiation (e.g. benzophenones, cinnamates, salicylates) or reflecting it (zinc/titanium dioxide). • Large: in adults these present with pulmonary artery and aorta. It typically presents in Classification of diabetes 705 &D &DOFLXPFKDQQHO E 6XOSKRQ\OXUHDUHFHSWRU, QVXOLQVHFUHWLRQ \$73VHQVLWLYH.FKDQQHO H UDQ Q PE UL]DWLR H D 0 SRO GH D *OXFRVHWUDQVSRUWHU */87 0HPEUDQH GHSRODUL]DWLRQ. *OXFRVHWUDQVSRUWHU */87 0HPEUDQH GHSRODUL]DWLRQ . *OX tricuspid stenosis and tricuspid regurgitation. MDM, mid-diastolic murmur; OS, opening snap; PSM, pansystolic murmur; S1, first heart sound; S2, second heart sound. 30.25) may occur whenever the right ventricle dilates: for example, in cor pulmonary hypertension. • In small defects the shunt velocity is high and the actual volume of blood shunting across the defect is small with no haemodynamic consequence. Further details of management and prognosis are given on page 537. Fig. Asymmetrical scaly rashes should be investigated for fungal infection by mycology of skin scrapings. Cervical spondylosis occurs in the older patient with posterolateral osteophytes compressing the nerve root and causing root pain (see Fig. This is thought to be the underlying mechanism behind the recently identified increase in risk of non-melanoma skin cancer among patients on long-term thiazide therapy. Double doses should be taken during these periods. Dexamethasone can be offered to the mother as it may prevent virilization of an affected female fetus by suppressing ACTH levels. Meticulous barrier nursing is needed to protect staff against infestation. Specific poisons 276.e7 Cytotoxic mushroom poisoning is caused by amatoxins and orellanin. The 24-hour mean of the sequence of daytime and nocturnal BP measurements is more predictive of cardiovascular events than both home and office BP measurements. Management involves frequent changing of the nappy and regular application of a barrier cream. Acrodermatitis enteropathica This rare but distinctive rash (see p. • Recency bias: Remembering most easily things that have happened most recently. Skin grafting may be required later. 18.4 Magnetic resonance image of the cervical spine. A large central disc prolapse (arrowed) is shown at the C6/7 level, and smaller disc bulges at C3/4 and C4/5. In larger defects, echocardiography is used to assess the size and location of the VSD and its haemodynamic consequences. They heal with scarring, and new lesions slowly spread out to form a chronic solitary, erythematous plaque. Ocular complications of atopic eczema include conjunctival irritation and, less commonly, keratoconjunctivitis and cataract. Investigations Atopic eczema is diagnosed on the history and clinical features. Anogenital warts (see p. This shifts the oxyhaemoglobin dissociation curve to the left, impairing liberation of oxygen to the cells and leading to tissue hypoxia. The adverse effects of co-trimoxazole are most commonly due to the sulphonamide component. Acitretin's metabolites have an extremely long half-life and pregnancy must be avoided for 3 years after completing treatment, so this drug is not suitable for women of childbearing age. Gonadotrophin- independent causes can also initiate gonadotrophin- dependent precocious puberty, as is the case in congenital adrenal hyperplasia. It presents with glove and stocking paraesthesiae some 1-4 weeks after exposure, followed by an ascending motor polyneuropathy in many cases. Infantile hemangioma. Percutaneous valve

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replacement A novel treatment for patients unsuitable for surgical aortic valve replacement is transcatheter aortic valve implantation (TAVI), with a balloon expandable stent valve of its relatively high prevalence and potential severity
Intraoperative hypertension is most commonly associated with inadequate analgesia or depth of anaesthesia, though it is prudent and inadvertent) omission of antihypertensive medications are the most common reasons for
postoperative hypertension. Information from Cancer Research UK on sun, UV and cancer. Primary cutaneous T-cell lymphoma (mycosis fungoides) Mycosis fungoides is a rare lymphoproliferative disease that usually follows an indolent course. Prolactin is under tonic dopamine inhibition; factors known to increase prolactin secretion (e.g. TRH) are
probably of less relevance unless the patient has primary hypothyroidism. GLUT-4 is normally present in the cytoplasm, but after insulin binds to its receptor, GLUT-4 moves to the cell surface where it creates a pore for glucose entry (see Fig. They tend to form an expanding annular lesion due to lateral growth: hence the name 'ringworm'. American
Academy of Dermatology. It is more common in poorer countries with social overcrowding, especially sub-Saharan Africa, and at any time there are approximately 130 million untreated cases. THE MEDICAL CONSULTATION The initial interaction - forming a rapport First impressions matter. Fallot's spells are episodes of severe cyanosis noted in
children due to spasm of the subpulmonary muscle; these can be relieved by increasing systemic +HDUWVRXQGV DQGPXUPXUV &RDUFWDWLRQ $[LOODU\DUWHU\ 6\VWROH 6 'LDVWROH 6
7KHGHVFHQGLQJDRUWDDQGLWV EUDQFKHVDUHSHUIXVHGE\ FROODWHUDOFKDQQHOVIURPWKH D[LOODU\DQGLQWHUQDOWKRUDFLF DUWHULHVWKURXJKWKH LQWHUFRVWDODUWHULHV Fig. TCIs are an effective option but are unlicensed for this form of dermatitis. If unavailable, such data must be obtained prospectively. Toe
nail psoriasis can be difficult to distinguish from nail tinea (see p. 30.92 Ventricular septal defect (VSD). Pathophysiology and auscultatory findings. Options include the range of chemo-immunotherapy chosen as first-line treatment and also use of purine analogues.
synovium is a feature of inflammatory arthritis. Ligaments and tendons These structures stabilize joints. Epidemiology of scabies. • Neurotoxins interfere with neuromuscular transmission. Grip strength can be measured. Lower limbs • Ask the patient to walk a short distance away from and towards you, and to stand still. A screening examination of
the locomotor system, known by the acronym GALS (global assessment of the locomotor system), has been devised. In those without an adequate shunt an atrial septostomy is performed: a Rashkind's balloon is deployed to dilate the foramen ovale and is used to maintain saturations at 50-80% until a definitive procedure can be performed.
Optimism: Assuming that negative outcomes will occur at a lower rate than they really do. • Ask the patient to lie prone. 1270) have evolved as routine non-invasive alternatives to liver biopsy to monitor for hepatotoxicity. • Onychogryphosis is severe nail thickening and curvature (ram's horn), which is common in the elderly, especially in the big toe-
nail, where trauma from ill-fitting footwear may be relevant. Katsarou A, Gudbjörnsdottir S, Rawshani A et al. 672) and trauma are the most common causes of abnormal nail growth (dystrophy). Br J Dermatol 2014; 171:696-712. The BP reductions accompanying such lifestyle changes are complementary and similar in magnitude (compared to half-
standard monotherapy) to those achieved by antihypertensive medications (Box 31.4). Septic fluid is opaque and less viscous, and contains up to 75 000 WCC/mm3. Other components of Graves' dermopathy, are very uncommon. Most patients will show no signs of toxicity but drowsiness, nausea, diarrhoea and sinus
tachycardia have been reported. The glucose tolerance test (see Box 23.8) is only required where there is diagnostic uncertainty and for diagnostic uncerta
with human herpesvirus- 8 (HHV- 8) but other factors must be involved, as HHV- 8 seroprevalence is up to 10% in the USA and 50% in some African countries. Gastric lavage should not be used, as it can speed up the rate of disintegration of the product ingested and increase toxicity. 664), fungal infection (p. Dandruff is thought to be a mild variant of
scalp seborrhoeic dermatitis. NSAIDs and intra-articular injections of local anaesthetic and corticosteroids are helpful in the painful phase. • Cyproterone acetate (50-100 mg daily) is an antiandrogen but is also a progestogen, teratogen and a weak glucocorticoid. However, in some patients, particularly elderly or diabetic ones, the symptoms may be
atypical and include dyspnoea, fatigue, pre-syncope or syncope. In severe poisoning, death occurs in minutes, and death rarely occurs more than 3 hours after exposure. The relevant aspects of history and examination in the assessment of growth and puberty Growth Charts showing normal centiles of
height and weight are essential to monitor growth; they are available for normal British children (Fig. Health is Global: An Outcomes Framework for Global Health 2011–2015. It is also the treatment of choice for mild C. 12.5 The metabolism of methanol. Fomepizole and ethanol inhibit ADH. Hypokalaemia also occurs. Transposition of the great
arteries In transposition of the great arteries (TGA) the right atrium connects to the morphological right ventricle, which gives rise to the pulmonary artery (Fig. Species that can penetrate intact skin to cause boil-like lesions include botfly and tumbu fly
HUMAN IMMUNODEFICIENCY VIRUS AND THE SKIN HIV infection is associated with a range of infective, inflammatory and malignant skin diseases that may be severe, atypical, difficult to diagnose and recalcitrant (see p. Unfractionated heparin (UFH) requires frequent monitoring; the low-molecular-weight heparin enoxaparin appears to be
superior and can be given subcutaneously twice daily. It may extend more widely on to the soles and sides of the feet, causing dryness, scaling and erythema, and the toenails are also often affected. Tigecycline is increasingly used in combination with other antibi otics (e.g. polymyxins) to treat infections caused by highly resistant, carbapenemase-
producing, Gram-negative bacteria. Common sites are the nape of the neck, outer calves and anogenital area. Florid cases can resemble pustular psoriasis. Mild cases of salicylate poisoning are managed with parenteral fluid and electrolyte replacement only. Panhypopituitarism refers to deficiency of all anterior pituitary hormones; it is most
commonly caused by pituitary tumours, surgery or radiotherapy. Dithranol is seldom used nowadays, as it stains the skin and clothing. Further reading Duval Z, Hoen B. Noticing that many of the healthcare staff treating her during her illness failed to introduce themselves, she created the 'Hello, my name is ...' campaign. 3.3). Even in the era of
complex technological investigations a careful physical examination performs a number of key functions, including: • Providing objective evidence (symptoms) from the history. • Collagenase and elastase break down fibrous structures in the extracellular matrix, facilitating progress of the neutrophi
through the tissues. The free androgen index ([testosterone/SHBG] *100) is often used and is high; free testosterone is difficult to measure directly. On occasion, if there is a possibility for confusion, we have also used non-SI units and given a conversion factor. In populations and societies in which such parasites are rare, eosinophils contribute mainly
to allergic disease, particularly asthma (see p. Look for circumstantial evidence if the answers are not clear. 432). The diagnosis should be confirmed with skin scrapings taken from the active margin or across the affected area. Patients who have successful corrective surgery are at high risk for the first 6 months postoperatively. All or most of the
sella turcica is devoid of apparent pituitary tissue but, despite this, pituitary function is usually normal, the pituitary being eccentrically placed and flattened against the floor or roof of the fossa. Indications • Diagnosis or exclusion of ACTH and GH deficiency Procedure • Test explained to patient and consent obtained • Should only be performed in
experienced, specialist units • Exclude cardiovascular disease (ECG), epilepsy or unexplained blackouts; exclude severe untreated hypopituitarism (basal cortison and glucose available for emergency • Overnight fast, begin at 08:00-09:00 hours • Soluble insulin, 0.15 U/kg, i.v. at time 0 •
Glucose, cortisol and GH levels at 0, 30, 45, 60, 90, 120 min Normal response • Cortisol rises above 550 nmol/La • GH rises above 5 nmol/La • GH rises above
be given to all those requiring atropine as soon as possible after exposure before 'aging' has occurred; for example, intravenous pralidoxime chloride 8-10 mg/kg per hour. Local tissue necrosis may occur. Hypertrophic disease and mucosal disease are usually more persistent. The natural
history is one of fluctuation, many patients showing a pattern of alternating relapse and remission; perhaps only 40% of subjects have a single episode. Symptoms tend to occur between 30 minutes and dilated collateral intercostal arteries may
cause rib notching. They resolve spontaneously. Nappy rash ('diaper dermatitis') This is an irritant contact dermatitis caused by prolonged skin contact with faeces and urine. Patients often become severely dehydrated. It occurs mainly in elderly females and is usually due to primary hyperparathyroidism. fluid is cloudy and contains more than 3000 causes are not contact with faeces and urine.
WCC/mm3. Too rapid infusion can produce symptomatic release of histamine (red man syndrome). At the upper limit of normal (295 mOsm/kg), maximum antidiuresis is achieved and thirst is experienced at about 298 mOsm/kg), maximum antidiuresis is achieved and thirst is experienced at about 298 mOsm/kg).
the itch-scratch cycle, along with habit reversal techniques und pustules occur with underlying diffuse swelling (Fig. Dystrophic Epidermolysis Bullosa Association. Initial infection develops in damaged, necrotic tissue;
toxins secreted by the bacteria destroy surrounding tissue and permit rapid spread of infection, contributing to severe systemic effects. 22.54 Patch-stage mycosis fungoides. N Engl J Med 2013; 368:1425-1433. Working out what is wrong with a patient involves not just technical skills, such as the assimilation of information, interpretation of data
and use of clinical reasoning to reach a diagnosis. Although patients with mild hypertension may achieve control with monotherapy, those with moderate or worse hypertension invariably require several drugs in combination. Nephrogenic diabetes insipidus may be inherited as a rare sex-linked recessive, with an abnormality in the vasopressin-2
receptor, or as an autosomal post- receptor defect in an ADH-sensitive water channel, aquaporin-2. • Respiratory muscle paralysis should be treated with assisted ventilation (common in krait bite). 17.26 Pathological fracture of long bone. A plain film showing a spiral fracture through the right humerus. It is given by daily
injection and its main role at the present time is treatment of patients in whom GH and IGF levels Growth and puberty 639 Box 21.49 Hormone structure Receptor Post-receptor activity Dopamine Hypothalamus Pituitary Amine Membrane - 7TM D2 receptor G-proteins
Inhibit cAMP Prolactin Pituitary Breast Other tissues Peptide - 199 AA Transmembrane PRLR Class 1 cytokine JAK2 and other pathways 7TM, 7 transmembrane (G-protein coupled receptor); AA, amino acids; cAMP, adenylate cyclase → cyclic adenosine monophosphate; JAK, Janus kinase. 20.24) or erythematous plaques with an inflamed border. The
dose can be titrated to produce a resting heart rate of 50-60 b.p.m. In patients with on-going angina, nitrates should be given either sublingually or intravenously. Early recognition and drug withdrawal can minimize morbidity and mortality. If there is significant collateralization, there may be minimal gradient, even in the setting of significant
coarctation. New sunscreen chemicals have been developed to give better protection, and the particle size of reflective sunscreens can be reduced (micronized) to improve their cosmetic acceptability. In acute eczema, oedema is prominent and tiny vesicles or larger bullae may be seen within inflamed skin. The rash may be complicated by secondary
bacterial infection. Further reading Boehncke W-H, Schön MP. The 'fingertip unit' can be used to guide topical steroid dosage. Some recovery of endogenous insulin secretion may occur over the first few months after diagnosis and treatment initiation (the 'honeymoon period'). Treatment is symptomatic and supportive. Paralytic shellfish (saxitoxin)
poisoning This is caused by bivalve molluscs being contaminated with neurotoxins, including saxitoxin, produced by toxic dinoflagellates on which the molluscs graze. In women of childbearing age, contraception is essential. Treatment of menstrual disturbance • C yclical oestrogen/progestogen administration will regulate the menstrual cycle and
remove the symptom of oligo-or amenorrhoea. This, in turn, is a manifestation of gonadal sex and subsequent sex hormone production. In about 50% of cases, no venom has been injected by the bite but, nevertheless, careful observation for 12-24 hours is necessary in case envenomation develops. 3.3 Opsonization. Bacteria are coated with a variety
of soluble factors from the innate immune system (opsonins), which enhance phagocytosis. 22.7 Rosacea. Papules and pustules on background erythema. Multiple deficiencies usually result from tumour growth or other destructive lesions. With time, insulin secretion declines, an observation referred to as the 'Starling curve' of the pancreas. (B)
Chronic plaque psoriasis on the elbows of an Indian patient. Ultrasound is particularly useful for periarticular structures, soft tissue swellings and tendons, and for detecting active synovitis in inflammatory arthritis. Both hormones have short half-lives in the circulation, being degraded within minutes predominantly by the enzyme dipeptidyl
peptidase-4 (DPP4). Treatment is by surgical debridement of necrotic tissue and intravenous benzylpenicillin and clindamycin. Folliculitis is a common superficial inflammatory disorder of the hair follicle, which presents as itchy or tender small papules and pustules (pimples). 22.59 Urticaria pigmentosa (mastocytosis) and Mongolian blue
spot in a baby. Bites present as itchy, urticated lesions, which are often grouped in clusters or lines. Arterial tourniquets should not be used, and incision or excision of the bite area should not be performed. • Occupation: jobs that involve heavy use of one part of the body can lead to soft tissue pain and/or OA; for example, in the low back, hips and
knees of people who do a lot of heavy lifting. This implies that genetic factors do not account entirely for the development of type 1 diabetes, and environmental triggers are also important. The severity of salicylate toxicity is dose-related. Management Fluid and electrolyte replacement are required with prompt correction of dehydration and
hypokalaemia. Eur J Endocrinol 2014; 170:G1-G47. DISORDERS OF CALCIUM METABOLISM Serum calcium levels are mainly controlled by parathyroid hormone (PTH) and vitamin D. Video demonstrations are available (see 'Further reading'). In the absence of a hypertensive emergency or other co-morbidity that requires acute BP management
(e.g. to facilitate thrombolysis in acute stroke), uncontrolled BP does not require immediate management. Seroconversion rash This non-specific maculopapular exanthem affects up to 75% of individuals a few weeks after contracting HIV. Physiological hyperprolactinaemia occurs in pregnancy, lactation and severe stress, as well as during sleep and
coitus. It may be accompanied by subjective symptoms, such as headache, dizziness and poor concentration. However, all biologic drugs remain expensive and have potential toxicity, as the long-term safety of the newer agents remains unknown. About 80% of patients also have laboratory features of atopy (raised total IgE and allergen-specific IgE
and mild eosinophilia). Management General measures include avoiding irritants (especially bar and liquid soap). Treatment by immersing the affected part in hot water may relieve local symptoms, as this denatures the thermolabile toxin. Jellyfish stings Most of the jellyfish found in North European coastal waters are non-toxic, as their stings cannot
penetrate human skin. Diagnosis and classification of diabetes mellitus. Local infiltration with anaesthetic or a ring block will usually alleviate local pain, though systemic analgesia may be required. It may also be needed to manage associated psoriatic arthritis and milder disease with psychological upset. • Is it arising from joints, spine, muscles or
bone, with local tenderness? Likewise, additional tests might be needed in order to demonstrate the extent, severity or treatment-responsiveness of the condition (Fig. Treatment choices depend on disease stage and extent. Doctors tailor their explanations to the needs and understanding of their patients. 23.9 Pancreatic islet showing infiltration by
chronic inflammatory cells (insulitis). They require long-term follow-up with serial photography and dermoscopy of atypical lesions. 8.3) interrupt bacterial protein synthesis by inhibiting ribosomal function (messenger RNA binding). Blood eosinophilia is usual with elevated hepatic transferases. Washington, DC: The National
Academies Press; 2015. The flexures are usually spared, which is a useful differentiating feature from atopic eczema. Ann Surg Oncol 2018; 25:2015–2110. (Courtesy of Dr P Matondo, Lusaka, Zambia.) • C hronic plaque psoriasis is the most common variant and is characterized by pink-red, well-demarcated plaques with silver- white scales, seen
especially on extensor surfaces of the knees (Fig. (B) Eye lens dislocation. • Nail psoriasis responds poorly to topical therapy and usually requires systemic drugs. Inflammatory cytokines such as IL-1β and IL-18. The most common sites of infection
for ESBL-producing Enterobacteriaceae are the urinary tract and, less frequently, the gastrointestinal or hepatobiliary tract. The differential diagnosis of calcific bursitis. It is unclear why this occurs but it seems that strict glucose control from diagnosis can
prolong β cell function. The sun protection factor (SPF) is a measure of UVB protection and the degree to which exposure can be prolonged before burning. Interventional options are either surgical repair or device closure. Affected mucosal surfaces are inflamed with superficial white or creamy pseudomembranous plaques, which can easily be
scraped away. E12.1) inhabit the Indian and Pacific Oceans between latitudes 30°N and 30°S. Dermatology nurse-led education of eczema sufferers and their families provides psychological support and improves adherence to treatment. Myeloma and other plasma cell disorders 409 • M RI spine. An acute monoarthritis may be due to trauma, gout
pseudogout or sepsis (fever or immunosuppression). National Academies of Sciences, Engineering, and Medicine. bOptimum choice of therapy needs close liaison with microbiology/infectious diseases departments. Hum Reprod 2016; 31:926-937. GROWTH AND PUBERTY Normal growth and puberty There are factors other than GH axis and the
hypothalamo-pituitary-gonadal axis that influence linear growth and dult height and timing of puberty in the human: • Genetic factors. If the lesion occurs in the distribution of the trigeminal nerve, it may be associated with ipsilateral meningeal vascular anomalies that can cause epilepsy and even hemiplegia (Sturge-Weber
syndrome). Nail changes affect up to 50% of people with psoriasis (Fig. Insulin is given as a bolus dose of 1 IU/kg, followed by an infusion of 1-10 IU/kg per hour with hypertonic glucose and frequent monitoring of blood glucose and frequent monitoring monitoring monitoring monitoring monitoring monitoring monitoring monit
substantial amount has been ingested, coma, convulsions and hypotension develop. This includes vancomycin- resistant enterococci, MRSA and Gram-negative bacilli, such as Acinetobacter baumannii, but not Pseudomonas or Proteus spp. Severe narrowing of the aorta encourages the formation of a collateral arterial circulation involving the
intercostal arteries. Hypophysitis and other inflammatory masses Reduction of excess hormone secretion Reduction is usually obtained by surgical removal but sometimes by medical treatment. Abnormalities of T-cell homeostasis - in particular, the pro- inflammatory T17 axis - are believed to be involved in creating an inflammatory loop with
dendritic cells and keratinocytes. It is relatively contraindicated in patients with mixed proconvulsant (e.g. tricyclic antidepressants)/benzodiazepine poisoning and those with a history of epilepsy because it may cause convulsions. Stimulants The most commonly abused stimulants are the amfetamines, cocaine and the synthetic cathinones. Treatmen
of advanced Kaposi's sarcoma is with radiotherapy, immunotherapy or chemotherapy. In the UK, patients with extensive hair loss are eligible for prescribed wigs and may benefit from joining patient support groups. Fig. Further reading Gershenwald JE, Scolyer RA. • Skeletal muscle necrosis leads to painful myopathy, myoglobinuria and paralysis.
Griseofulvin is a less effective drug but is still used for childhood tinea capitis. Candidosis Can
which may become massive. They can be removed under local anaesthetic with curettage, or treated with cryotherapy or electrodesiccation. Benign skin tumours Dermatofibroma (histiocytoma) Melanocytic naevi are the most common benign neoplasm in humans. They are synergistic at low doses with penicillins against
Enterococcus spp. About 57% of patients above the age of 65 years are on more than five drugs, with 12% being on more than five drugs. Many patients eventually become hypothyroidism. The first-line treatment is
non-steroidal anti-inflammatory drugs (NSAIDS) or aspirin I AVR V1 V4 II AVL V2 V5 III AVF V3 V6 II Fig. For example, a doctor assumes that a patient presenting with acute kidney injury is dehydrated and administers intravenous fluids, even in the absence of evidence to support this, because of unfamiliarity with less common causes of this
presentation, such as renal parenchymal disease. 688), especially if the pigmentation spreads on to the adjacent nail fold ('Hutchinson's sign'). This disability-adjusted life year (DALY) metric allowed the Unfortunately, this GBD equation has some limitations: for example, it does not incorporate rapid demographic changes such as changing age,
causes of death and disability. 20.20; see Box 20.36). Elsevier; 2016. MARFAN'S SYNDROME Marfan's syndrome (MFS) is a connective tissue disorder with autosomal dominant inheritance pattern and a prevalence estimated at 1:5000. The criteria for reporting vary across the world but, in general, all ADRs to new drugs or Box 12.9 Classification
and examples of adverse drug reactions Type A (augmented) • C ommon but only occasionally serious • Qualitatively normal, but quantitatively abnormal, manifestations of known pharmacology • Show a clear dose-response relationship • May occur after a single dose (hypotension with atenolol), or may develop after months (dependence with
opioids), or years (second malignancies with anticancer drugs) • Usually reproducible in animal models Type A adverse reaction Anticoagulants, e.g. haloperidol Acute dystonia/dyskinesia Parkinsonian symptoms Tardive dyskinesia Cytotoxic agents, e.g. 5-fluorouracil
Bone marrow dyscrasias Cancer Diuretics, e.g. furosemide Dehydration, renal impairment Insulin Hypoglycaemia Type B (idiosyncratic) • U sually rare and are often serious • Qualitatively abnormal responses to the drug (not predictable from its known pharmacology) • Show a dose-response relationship that is complex and not easily discernible •
Not reproducible in animal models Type of drug (or drug class) Further reading Coleman JJ, Pontefract SK. ECG changes (Box 30.40) are usually confined to the ECG leads that 'face' the infarction. *O\FRODWH *2 *O\R[\ODWH *2 | + )RPHSL]ROH (WKDQRO Fig. In the 21st century, professional roles and responsibilities are rapidly changing, and so
defining what it means to be a doctor is difficult. Atypical naevi that lack features of melanoma and do not warrant excision on presentation can be reviewed and rephotographed at 3-monthly intervals to detect early features of melanoma and do not warrant excision on presentation can be reviewed and rephotographed at 3-monthly intervals to detect early features of melanoma and do not warrant excision on presentation can be reviewed and rephotographed at 3-monthly intervals to detect early features of melanoma and do not warrant excision on presentation can be reviewed and rephotographed at 3-monthly intervals to detect early features of melanoma and do not warrant excision on presentation can be reviewed and rephotographed at 3-monthly intervals to detect early features of melanoma and do not warrant excision on presentation can be reviewed and rephotographed at 3-monthly intervals to detect early features of melanoma and do not warrant excision on presentation can be reviewed and rephotographed at 3-monthly intervals at a second excision of the second excision of
due to neoplasia, particularly large bowel tumours; guidance advocates regular colonoscopy to detect and remove colonic cancer, although the evidence is inconclusive. In babies with severe pulmonary stenosis, systemic-to-pulmonary artery shunts (i.e. a Blalock-Taussig subclavian-to-pulmonary artery shunts).
national formulary. If ingested, metallic mercury will usually 0HWKDQRO $'+ )RUPDOGHK\GH )'+ )RUPDOGHK\GH )'
and the target centile range for the son between 165 and 181 cm would be considered normal, and for the daughter between 151 and 169 cm. This is early development of pubic hair without significant other changes, usually after the age of 5 years and more commonly in girls. Diabetes insipidus History and examination Deficiency of vasopressin
(ADH) or insensitivity to its action leads to excess excretion of dilute urine with a compensatory increase Thirst and water regulation are largely controlled by vasopressin, also known as ADH, which is synthesized in the hypothalamus (see p. (From umassmed.org/ grace/grace_risk_table.aspx.) prediction score can be used in patients with ACS to
define risk. In reality, hand eczema often has a complex and mixed aetiology due to an inherent endogenous eczema tendency and an additional irritant and/or allergic component. The response to zinc is rapid and dramatic. 888.) The history is usually typical and diagnostic, the patient waking with numbness, tingling and pain in a median nerve
in most countries. Transthoracic echocardiography (TTE) may be helpful to confirm an MI, as wall-motion abnormalities are detectable early in STEMI. Hyperparathyroidism itself may be primary, secondary or tertiary. An example is interaction with immunosuppressants such as prednisolone and ciclosporin, where the use of SJW has led to allograft
rejection. Regular use of emollients may reduce steroid usage. Further reading Clark RF, Girard RH, Rao D et al. PTH effects are mediated at specific membrane receptors on the target cells, resulting in an increase of adenyl cyclase messenger activity. • High 24-hour urine volumes (3% occurs. speciosissimus. Current ESC guidelines recommend
surgical intervention in patients with symptomatic severe mitral regurgitation, LVEF of more than 30% and end-diastolic dimension of less than 55 mm, and in asymptomatic patients with left ventricular dysfunction (end-systolic dimension of less than 55 mm, and in asymptomatic patients with left ventricular dysfunction (end-systolic dimension of less than 55 mm, and in asymptomatic patients with left ventricular dysfunction (end-systolic dimension of less than 55 mm, and in asymptomatic patients with left ventricular dysfunction (end-systolic dimension).
velocity through the valve at >0.3 m/s/year Antibiotic prophylaxis against infective endocarditis is discussed on page 1106. With later downward growth of melanocytes into the dermis (compound naevi), the mole becomes raised and palpable, eventually maturing into an intradermal naevus with Dermatofibromas are firm, smooth, pink-beige nodules
which have a peripheral pigmented margin. The clinical significance of FosA-mediated resistance is unclear. They identified three groups of patients who could be considered at highest risk of developing infective endocarditis and who suffered significant morbidity and mortality complications from it: • those who have prosthetic valves (including
transcatheter devices) or material used for valve repair • those with a previous episode of IE • those with uncorrected cyanotic congenital heart disease or who have received palliative shunts. They may spread from person due to poor hygiene or overcrowding, and are more common in people with diabetes, malnutrition and
immunosuppression. It usually starts under the age of 2 years and is often associated with other atopic diseases, which present in a sequence described as the 'atopic march'. tonsurans (which does not fluoresce). • Insulin-like growth factor-1 (IGF-1), a somatomedin, stimulates growth. Tinea toenail infection is a common finding in the elderly and is
usually asymptomatic. CAD is the largest single cause of death in the UK and many parts of the world. Some patients with ccTGA may live a normal life, while others develop progressive tricuspid regurgitation and systemic ventricular failure or require pacemaker insertion (the AV node is abnormal, leading to heart block). HAE types I and II are
caused by mutations in the SERPING1 gene that result in decreased plasma levels of functional C1 esterase inhibitor (C1NH). • Subungual haemorrhage is common in the great toe-nails after trauma (football, running downhill). Bites by venomous snakes cause more than 100 000 deaths and many permanent sequelae each year (some 46 000 people
are killed each year in India alone). • Superficial spreading malignant melanoma is a large, flat, irregularly pigmented lesion that grows laterally before vertical invasion develops. Br J Dermatol 2016; 174:1194-1227. They cause brown discoloration of growing teeth and thus are not given to children or pregnant women. 430). Nerve root entrapmental pigmented lesion that grows laterally before vertical invasion develops. Br J Dermatol 2016; 174:1194-1227. They cause brown discoloration of growing teeth and thus are not given to children or pregnant women.
This is caused by an acute cervical disc prolapse or pressure on the root from spondylotic osteophytes narrowing the root canal. The echocardiogram may show a thickened and immobile tricuspid valve but this is not so clearly seen as an abnormal mitral valve. Management Medical management consists of diuretic therapy and salt restriction. tests
(prick tests and patch tests) have a limited role, especially in the acute setting, and drug challenge tests are time-consuming and potentially risky. Sodium fusidate is also available in topical preparations for use in minor skin conditions (impetigo) but these should be avoided to limit the risk of emerging resistance. Sulphonamides and trimethoprim
The sulphonamides are all derivatives of the prototype sulfanilamide, and act by blocking thymidine and purine synthesis by inhibiting microbial folic acid synthesis by inhibiting microbial folic acid synthesis. 05 /$ 309/ $09/ 3,6$ % Fig. If one child in a family has type 1 diabetes, each sibling has a 4-6% risk of developing diabetes. Mild cases can be managed by
avoiding the sun (with high sun protection factor (SPF) sunscreens and clothing) and gradually building up tolerance to sunlight. Tests should only be performed in centres experienced in their use and interpretation. (B) Colour Doppler can demonstrate the left-to-right shunt. It will result in clinical remission in a majority of cases (60-90%) with
pituitary microadenoma, but in only 50% of those with macroadenoma. Recovery takes from 48 hours to 1 week in the mild form, and from 1 to several weeks in the glucose used is oxidized to carbon dioxide and water. 1358). They are strongly associated
with small-vessel vasculitis. At other times, energy requirements are largely met by fatty acid oxidation. • CT and MRI (Fig. It may accompany the hypothyroid. There are many causes of hair loss, or alopecia (Box 22.30). It may be given orally, by suppository (well absorbed and
cheap) or intravenously (more expensive). N Engl J Med 2013; 369: 448-457. • Visual fields. Spermarche happens around stage 4. Larvae penetrate the skin and cause an intensely itchy serpiginous lesion, which migrates as the larva burrows within the epidermis. Immature cDCs and pDCs are present in the blood but at very low levels (80%). In the
presence of a pituitary mass on MRI, the level of prolactin helps determine whether the mass is a prolactinoma or a non-functioning pituitary tumour causing stalk-disconnection hyperprolactinaemia: levels of above 5000 mU/L in the presence of a microadenoma, or above 2000 mU/L in the presence of a microadenoma (or with no radiological
abnormality) strongly suggest a prolactinoma (see p. They may be multiple and familial. 1.4 Examples of different levels of diagnosis. Short courses of prednisolone can be given for prophylaxis or treatment. They are derived from the bone marrow, which can produce between 1011 (healthy state) and 1012 (during infection) new cells per day.
Surgery may restore normoprolactinaemia in people with microadenoma, but is rarely completely successful in those with macroadenomas and risks damage to normal pituitary function. Joint pain is localized but may radiate distally - shoulder to upper arm; hip to thigh and knee. Acute stressful events, such as bereavement, bullying, abuse and
redundancy, may exacerbate these symptoms. Look for abnormal posture or stance. The thirst axis of 43 than vasopressin and has no vasoconstrictive effects. At this point in the history, asking questions to form a review of systems can be valuable in eliciting further symptoms that the patient may not have mentioned or not thought relevant (Box
1.6). Past medical and surgical history This should include all significant medical conditions, including hospital admissions, long-term conditions, infe-threatening or life- changing conditions, and important investigations, procedures and therapeutic interventions (operations, endoscopies, biopsies and significant courses of treatment such as chemo-on
radiotherapy). Useful control can be achieved with dopamine agonists for prolactinomas or somatostatin analogues for acromegaly, but ACTH secretion usually cannot be controlled by medical means. There is some evidence that food allergens may play a role in triggering atopic eczema and that dairy products or eggs can worsen eczema in a
minority of infants under 12 months of age. Clinical features Atopic eczema has a variable clinical presentation is after puberty, orchidectomy is advised. The conventional regimen involves a dose of 45 Gy, given as 20-25 fractions via three fields. It may be
preceded by a prodromal phase of itch, tingling or pain, followed by a painful, unilateral, blistering eruption in a dermatomal distribution 22 22 672 Dermatology Fig. At normal concentrations, the kidney is the predominant site of action of vasopressin. Following absorption, ethanol is oxidized to acetaldehyde and then to acetate. Chvostek's and
 Trousseau's signs (see below) are monitored, as well as biochemistry. Graves' disease This is the most common cause of hyperthyroidism and is due to an autoimmune process. In early puberty, FSH begins to rise first, initially in nocturnal pulses; this is followed by a rise in LH with a subsequent increase in testosterone/ oestrogen levels. Stereotactic
(gamma-knife) radiotherapy is used in some centres, as it delivers a more concentrated field of radiation. Medical therapy There are three receptors and dopamine (D2) receptors in the periphery. This is a diagnosis of exclusion. However, the remainder
experience recurrent guttate attacks or develop chronic plaque psoriasis. Clippings should be taken from the proximal crumbly, white area of affected nails and plucked hairs or scrapings for diagnosis of scalp 22 22 674 Dermatology lozenges or powder, depending on body site. • Immobilization of the patient, especially of the bitten limb, is the most
important component of first aid. Cochrane Database Syst Rev 2018; 8:CD013099. Further 1 2 Diagnosis: the art of being a doctor ION INTEGRA MAT OR INTEGRA M
SIS Patient engages with healthcare system IO AT G RM IN I N F O HE R T GA Patient experiences a health problem d? This might be the case if: • the problem is mild or self-limiting • further investigation is unlikely to yield a specific cause, e.g. where a
patient with acute but resolving diarrhoea or vomiting is diagnosed with likely viral gastroenteritis without a specific pathological processes that cause the condition is amenable to active management • treatment is possible, but the patient is very frail
and the proposed investigations or treatments are felt, after discussion with the patient, to be inappropriate. The role of watchful waiting All diseases have a natural history. Lancet 2015; 385:1164-1165. There is an association with HLA-B8, DR3 and DR2; the concordance rate amongst monozygotic twins is 50% and that in dizygotic twins is 5%. There is an association with HLA-B8, DR3 and DR2; the concordance rate amongst monozygotic twins is 50% and that in dizygotic twins is 5%.
major deficiencies are of salt, steroid and glucose. Requirements Assuming normal cardiovascular function, the following are required: • 1 L of 0.9% saline should be given over 30-60 min with 100 mg of i.v. bolus hydrocortisone • Subsequent requirements are several litres of saline within 24 h (assessing with central venous pressure line if
necessary) plus hydrocortisone, 100 mg i.m., 6-hourly, until the patient is clinically stable • Glucose should be infused if there is hypoglycaemia • Oral replacement medication: initially, hydrocortisone 20 mg, 8-hourly, reducing to 20-30 mg in divided doses over a few days (see Box
21.19) • Fludrocortisone is unnecessary acutely, as the high cortisol doses provide sufficient mineralocorticoid activity - it should be introduced before discharge Box 21.19 Average replacement steroid dosages for adults with primary hypoadrenalism Drug Dose Glucocorticoid Hydrocortisone 20-30 mg daily (e.g. 10 mg on waking, 5 mg at 12:00
hours, 5 mg at 18:00 hours) rarely Prednisolone 7.5 mg daily (5 mg on waking, 2.5 mg at 18:00 hours) were treatment is with replacement glucocorticoid and mineralocorticoid; tuberculosis must be treated if
present or suspected. (From Moser DK, Riegel Coronary blood flow to a region of the myocardium may be reduced by a mechanical obstruction that is due to: • atheroma • thrombosis • spasm • embolus • coronary ostial stenosis • coronary arteritis (e.g. in systemic lupus erythematosus). Rarely, up to 6 weeks after ingestion, intestinal strictures
occur due to corrosive damage. Psoriasis is typically more severe in patients with HIV and close liaison between dermatologist and HIV physicians is needed, especially with low CD4 counts (5 mm) than common naevi, often with ill-defined, 'fuzzy' borders. Nat Rev Dis Primers 2017; 3:17016. 22.54). Types of dendritic cell The major types are the
conventional DC (cDC), the plasma cytoid DC (pDC) and a variety of specialized DCs found in tissues Innate immune system 47 Box 3.7 Molecules on dendritic cell Immature Mature ED1c + ++ - - CD123 (interleukin 3 receptor) - - + ++
Psoriasis Fig. This is useful if there is back pain; it may show imminent compression or collapse. The features observed in poisoning are due to metabolites predominantly, not the parent chemical. McCarthy MI. Nevertheless, insulin secretory abnormalities Classification of diabetes and progress.
with time; an early sign is loss of the first phase of the normal biphasic insulin secretion. • W hat snake species was responsible? Chronic exposure to lower doses produces gastrointestinal effects, accompanied by skin changes (hyperkeratosis of palms and soles, 'raindrop' pattern of hyperpigmentation and alopecia), neuro logical features (headacher to lower doses produces gastrointestinal effects, accompanied by skin changes (hyperkeratosis of palms and soles, 'raindrop' pattern of hyperpigmentation and alopecia), neuro logical features (headacher to lower doses).
sensorimotor neuropathy), abnormal liver biochemistry (non-cirrhotic portal hypertension is recognized), peripheral vascular arteriosclerosis and haematological abnormalities (pancytopenia). Management The identification of, and removal from, the source of exposure to arsenic is vital. It is usually triggered by a streptococcal throat infection. Racial
variation in hair growth must be considered, as certain races (e.g. Mediterranean and Asian) normally have more male- pattern hair growth than Northern European females. Angio-oedema without weals is classified into hereditary and acquired variants. (B) Continuous-wave (CW) Doppler signals obtained from the right upper parasternal edge.
where the high-velocity jet from the stenotic valve is coming towards the transducer. Candida albicans (see also p. Keeping doses to a minimum but combining different classes minimizes the chances of adverse effects and maximizes the likelihood of effectively lowering BP to target levels. Congenital pulmonary stenosis may be associated with
a lack of diagnostic resources, it also arises as a direct result of one or more cognitive biases. Although useful at a population level, and for the research and administrative purposes described, these criteria are rarely used in routine clinical practice. Overdiagnosis of a
screening programme, but is inappropriate because it is unlikely ever to cause harm to the patient in question. Levels are variable in other causes. Histology shows thickened ('hyalinized') dermal collagen and a thin, flat (atrophic) epidermis. The majority of adults with tetralogy of Fallot will have undergone complete repair but repair in childhood will
often leave them with significant pulmonary regurgitation, which is generally well tolerated into early adulthood; the majority, however, will need pulmonary valve replacement with time. Many OP insecticides require biotransformation before becoming active and so the features of intoxication may be delayed. Clinical features Poisoning is
characterized by anxiety and restlessness, which is typically followed by nausea, vomiting, abdominal colic, diarrhoea (particularly if exposure is by ingestion), tenesmus, sweating, hypersalivation and chest tightness. 559) is a commensal in the gastrointestinal tract and vagina. In severe cases, the antivenom infusion should be continued even if an
allergic reaction occurs, with subcutaneous injections of adrenaline being given as necessary. In contrast, other botanical poisons may occur from only small ingestions of yew (genus: Taxus), oleander (Thevetia peruviana and Nerium oleander) and cowbane (Cicuta). When examined from behind, the
scapula rotates earlier than usual during elevation. Erythromycin has a similar (but not identical) antibacterial spectrum to that of penicillin and may be useful in individuals with penicillin allergy, especially in the management of bacterial respiratory infections. Close inspection of the papules shows fine white streaks (Wickham's striae). • Avoidance
of aspirin and non-steroidal anti-inflammatory drugs is important, as they may aggravate bleeding. • Is there crepitus when the joint is moved? Interventions for bacterial folliculitis and boils (furuncles and carbuncles). Moderate to severe psoriasis is often associated with an inflammatory arthritis, metabolic syndrome and increased risk of
cardiovascular disease. • If there are no signs of puberty by 13 years, then puberty is delayed and further assessment is indicated. Eventually, when the right to left, causing cyanosis. Indeterminate leprosy presents with small, hypopigmented or
erythematous, circular, scaly macules with reduced sensation. Indometacin (a prostaglandin inhibitor) Clinical features In adults, PDAs are graded as: • Silent: tiny PDA, no murmur - incidental finding on echo. Potent topical or intralesional steroids can be tried if needed. Lichen sclerosus (LS) is a common inflammatory dermatosis of the common inflammatory dermatory dermato
the genital area. Patients may benefit from psychological support and skin camouflage advice. These may occur as an isolated abnormality. enteritidis will be affected and then only at a level of less than 20 cells per egg - harmless to most healthy individuals. Attention to airway, breathing and circulation should take priority. Diagnosis There are three
6HUXPSURODFWLQP8/ Fig. There are three types: • The 'classic' or 'sporadic' form occurs in elderly males, especially Jewish people from Eastern Europe. Very large tumours are occasionally removed via the open transcranial (usually transfrontal) route. The incretin effect is impaired in type 2 diabetes. Glucose reabsorption in the kidney The
sodium-glucose transporter 2 (SGLT2) is a sodium-dependent glucose from the renal filtrate and restore it to the circulation. Vasopressin (ADH) will only be significantly 21 21 596 Endocrinology Box 21.10 Causes of hypopituitarism Congenital • Isolated
antibodies Neoplastic • Pituitary or hypothalamic tumour • Craniopharyngioma • Meningioma • Gliomas • Surgery, especially transfrontal • Perinatal trauma Infiltrations • Sarcoidosis • Langerhans' cell histiocytosis • Hereditary
haemochromatosis • Hypophysitis: - Postpartum - Giant cell Others • Radiation damage • Fibrosis • Chemotherapy • Immunotherapy (ipilimumab, pembrolizumab, nivolumab) • Empty sella syndrome 'Functional' • Anorexia nervosa • Starvation • Emotional deprivation affected if the hypothalamus is involved by a hypothalamus tumour or major
suprasellar extension of a pituitary lesion, or if there is an infiltrative/inflammatory process. While typically sold as 'plant foods' or 'bath salts', these 'legal highs' are purchased for their recreational abuse potential. Thus isolated deficiencies of GH, LH/FSH, ACTH, TSH and vasopressin (ADH) are all seen, some cases of which are genetic and
congenital, and others sporadic and autoimmune or idiopathic in nature. Hepatomegaly, abdominal ascites and dependent oedema may be present. Investigations On the chest X-ray there may be a prominent right atrial bulge. A child with normal growth velocity is unlikely to have significant endocrine disease and the most common cause of short
stature in this situation is familial short stature or constitutional delay. Involvement of the foreskin can cause phimosis, and urethral disease may cause strictures and impaired micturition. From the triumvirate to the ominous octet: a new paradigm for the treatment of type 2 diabetes mellitus. Allergic and irritant contact eczema Allergic contact
eczema is an example of a delayed-type hypersensitivity. In Western Europe and North America, 80-90% of adults with type 2 diabetes are overweight and nearly a half are obese. Treatment is symptomatic and supportive. Diarrhoeic shellfish (okadaic) poisoning Okadaic poisoning occurs worldwide, often after eating bivalve molluscs such as mussel
and scallops. Cranial (neurogenic) diabetes insipidus and persistent vegetative states are possible long-term complications if hypoglycaemia is prolonged. Management The blood or plasma glucose concentration should be measured in experts in experts and should be measured urgently and intravenous glucose given, if necessary. Treatment is expensive and should be measured urgently and intravenous glucose given, if necessary.
centres. Antivenoms should be administered intravenously by slow infusion, the same dose being given to children and adults. Websites Dermatology information and images. This makes the enzyme resistant to spontaneous reactivation or treatment with oximes (pralidoxime, obidoxime or HI-6). Prophylactic antibiotic therapy may also be effective for
short stays but should not be used routinely. • Watch the patient stand and UVB. The appropriate dose is dictated by local experience. Traditional regimes combining tar or dithranol and UVB were once common but newer
therapies have taken their place. 12 12 276.e4 Prescribing, therapeutics and toxicology • C omponents of venom can act at many different sites in the coagulation pathways, resulting in anticoagulant or procoagulant or proc
insurance claims. Two different mechanisms are responsible for thrombosis on the plaques (Fig. Where do they live? Chronic urticaria is seldom caused by food allergy, and food allergy, and food allergy tests are not indicated. Cyanide reversibly inhibits cytochrome oxidase a3, so that cellular respiration ceases. Clinical features Inhalation of hydrogen cyanide
produces symptoms within seconds and death within minutes. The pituitary stalk is deviated slightly to the right. Box 17.25 Classification and definitions of plasma cell disorders (IMWG 2016) MGUS Smouldering myeloma Active myeloma Active myeloma Active myeloma Clonal plasma cells in bone marrow 10% Presence of myeloma-defining events None None Yes Likelihood of
progression ~1% per year ~10% per year n/a IMWG, International Myeloma Working Group; MGUS, monoclonal gammopathy of undetermined significance. Ultrasound may be used to guide local corticosteroid injections. This will almost always reveal the pituitary adenoma. 18.3 Common regional musculoskeletal problems. OA, osteoarthritis.
Ethanol: alternatively, a loading dose of ethanol 50 g can be administered, followed by an intravenous infusion of ethanol 10-12 g/h to produce blood ethanol concentrations of 500-1000 mg/L (11-22 mmol/L). Diabetic emergency
department or acute admissions unit. CLINICAL SKILLS FOR DIABETES MELLITUS Diabetes mellitus is a chronic condition, or for a host of reasons related or unrelated to their diabetes. • How long ago were you bitten? The liver also combines
three- carbon molecules derived from breakdown of fat (glycerol), muscle glycogen (lactate) and protein (e.g. alanine) into the six-carbon glucose molecule by the process of gluconeogenesis. Half of that blood is directed to the fetal ductus venosus and carried to the inferior vena cava; the other half enters the liver. This organism is of low virulence
 but is difficult to treat, and with the exception of infective endocarditis, infection with VRE is generally of low consequence. Our understanding of DLBCL's molecular and genetic features is growing, which has led to the description of subgroups. 562) is part of the normal skin microbiome. Although both white coat hypertension and masked
hypertension represent intermediate cardiovascular risk phenotypes, masked hypertension is treated using out-of-office values to guide treatment, while antihypertension are not recommended for use in white coat hypertension, despite elevated cardiovascular risk, due to a current lack of evidence. Warrell DA. • Blockade of noradrenaline
(norepinephrine) reuptake produces tachycardia. Treatment with high-dose steroids, ciclosporin and intravenous immunoglobulin therapy remains controversial, as high-quality clinical trials are lacking. Drug reaction with eosinophilia and systemic symptoms
(DRESS)/ drug hypersensitivity syndrome usually starts 2-6 weeks after initial exposure and is characterized by widespread erythema, facial oedema, fever, lymphadenopathy and hepatosplenomegaly. Chronic urticaria is managed with non- sedating antihistamines such as loratedine 10 mg daily; the dose may be increased fourfold if needed for
symptom control. Bariatric surgery is indicated for those with hypertension and a body mass index (BMI) of more than 35 kg/m2, but it is not commonly performed without the additional co-morbidity of type 2 diabetes. Some tests may combine both diagnostic and therapeutic potential. The mast cell also has a role in the early response to bacteria
through release of TNF- \alpha, in cell recruitment to inflammatory sites such as arthritic joints, in promotion of tumour growth by enhancing neovascularization and in allograft tolerance. Monocytes and macrophages (in tissue) ingest and kill bacteria, release pro-inflammatory molecules, present antigen to T
lymphocytes, and are necessary in immunity to intracellular pathogens such as mycobacteria. Lancet 2014; 383:1250-1263. Potassium hydroxide 5% lotion can be used in younger children. These are: • Viperidae (with two subgroups: Viperinae - European adders and Russell's vipers; and Crotalinae - American rattlesnakes, moccasins, lance-headed
vipers and Asian pit vipers) • Elapidae (African and Asian cobras, Asian kraits, African mambas, American coral snakes, including the death adder - Acanthophis antarcticus - and sea snakes) • Hydrophiidae (sea snakes) • Hydrop
substance (irritant) or allergy-provoking substance (allergen). 692). Generalized skin darkening can occur with chronic liver disease, especially haemochromatosis (see p. Potent topical steroids are usually required to clear individual lesions. Asteatotic eczema (winter eczema, eczema craquelé) This form of eczema often affects older people in
wintertime and can be intensely pruritic. Treatment is for a minimum of 2 weeks and, for complicated infection, the addition of a second agent should be considered (e.g. fusidic acid, rifampicin, gentamicin or ciprofloxacin). Posterior pituitary deficiency with diabetes insipidus is rare in an uncomplicated pituitary adenoma. Genetics Specific genes are
responsible for the development of the anterior pituitary, involving interaction between signalling molecules and transcription factors. Prolactinomas usually shrink in size on a dopamine agonist, and in macroadenomas any pituitary mass effects commonly resolve (Fig. - Have they experienced a foot ulcer? 134, © Elsevier.) a protein known as
fibrillin-1. Encephalopathy is more common in children than in adults but is rare in the developed world. Greater effects are obtained by combining medications from different mechanisms. If this is not the case, maturation is delayed and further assessment may be needed. Several classes of nerve agent are recognized: G
agents (named after Gerhard Schrader, who synthesized the first agents) and V agents (V allegedly standing for venomous). Treatment is not required, but destructive therapies such as cryotherapy or curettage may be helpful in older children. More selective second-generation (or 'atypical') antipsychotics include amisulpride, aripiprazole, clozapine,
olanza pine, quetiapine and risperidone. Clinical features These include impaired consciousness, hypotension, respiratory depression, hypothermia or hyperthermia, antimuscarinic effects such as tachycardia, dry mouth and blurred vision, occasionally seizures, rhabdomyolysis, cardiac arrhythmias (both atrial and ventricular) and ARDS. Five good
guestions to ask about chronic conditions are listed in Box 1.7. Drug history Document all medications the patient has been taking, including prescribed, over-the-counter and herbal or traditional treatments. Similarly other causes of hyponatraemia need to be excluded prior to diagnosing and investigating SIADH. In contrast to neutrophils, several
hundred times more eosinophils are present in the tissues than in the blood, particularly at epithelial surfaces, where they survive for several weeks. Like AL amyloid, all of these may be treated with myeloma-directed therapies, e.g. bortezomib, cyclophosphamide and dexamethasone. There is also a predisposition to diabetes mellitus, breast cancer,
emphysema and bronchiectasis; these are all unrelated to the testosterone deficiency. These are necessary for the removal of certain pathogens that live within mononuclear phagocytes (e.g. a hypothalamic tumour), this should be investigated and treated. 0DFURSURODFWLQRPD
0LFURSURODFWLQRPD, GLRSDWKLF K\SHUSURODFWLQDHPLD Surgery Trans-sphenoidal surgery is the appropriate first-line therapy. 967) can occasionally cause skin manifestations: • Lupus vulgaris usually arises as a post-primary infection. Compartment syndrome is uncommon. 22.53) is the most aggressive type. Often, it is appropriate to
stop at the level of a syndrome or clinical impression rather than continuing with investigations to demonstrate a precise histopathological cause. The prevalence of type 2 diabetes varies markedly across the world with stellite to the highest rates being in the Middle East and Pacific Islands, and lowest in Africa and Europe. 22.28 Intertrigo with satellite to the highest rates being in the Middle East and Pacific Islands, and lowest in Africa and Europe.
lesions typical of candidiasis. This so-called 'id reaction' probably relates to the host immune response to the fungus. Prophylaxis against endocarditis is discussed on page 1106. Thanks to Alex Mortimer, who took over as commissioning editor relatively late in the project, and from a standing start provided helpful quidance and direction in the final
stages of production. Given alone, they reduce GH to 'safe' levels in only a minority of cases, but are useful for mild residual disease or in combination with somatostatin analogues. 22,20). Warts may be tender if they affect pressure points or are sited around nail folds. Low complement levels indicate consumption and suggest an active disease
process in SLE. Joint aspiration and examination of synovial fluid Examination of joint (or bursa) fluid is used mainly to diagnose septic, reactive or crystal arthritis. It is thought be due to autoimmune T cell-mediated destruction of melanocytes and is associated with other autoimmune disease, especially that of the thyroid. Because of rapid advances
in the medical sciences, in particular, independent verification of diagnoses and drug dosages should be made. The presentation of the syndrome of inappropriate antidiuretic hormone secretion (SIADH) is usually vague, with confusion, nausea, irritability and, later, fits and coma. The ECG demonstrates both right atrial and right ventricular
hypertrophy, although it may sometimes be normal, even in severe pulmonary stenosis. E12.5), adders, pit vipers (Fig. The term tetralogy of Fallot represents a spectrum of disease: some patients will have only mild pulmonary stenosis, whereas the more severe extreme is pulmonary atresia in which the pulmonary vasculature can also develop
abnormally. CT, CT-PET or whole-body MRI may show characteristic lytic lesions. 23.4 The local regulation of insulin secretion from β cells. Glucose (on the left) enters the β cell via the GLUT-2 transporter protein, which is closely associated with the glycolytic enzyme glucokinase. Patch testing should be considered in all patients with chronic hand
eczema to identify contact allergies, as it is not possible to distinguish which patients have an allergic contact dermatitis from the clinical appearance. Other features should be treated symptomatically and supportively. Potent steroids should be treated symptomatically and supportively.
settles. In the 1970s the mean age of death was reported to be 32 years, but survival has significantly improved with better means of assessing for this condition and with prophylactic aortic root replacement for those with 30 30 1114 Cardiology (\HV /HQVGLVORFDWLRQ 5HWLQDOGHWDFKPHQWV *ODXFRPD 0RXWK +LJKDUFKHGSDODWH $2
/XQJV 6SRQWDQHRXV SQHXPRWKRUD[ $SLFDOEOHEV /9 3HFWXVH[FDYDWXP RUFDULQDWXP +HDUW $RUWLF QQJDUPV $UDFKQRGDFW\O\ 6FROLRVLV /RQJOHJV $ % $RUWLFVL]H 38°C, subacute onset, large effusion, tamponade,
lack of response to therapy) should be admitted for treatment. The underlying mechanisms of insulin resistance are not fully understood but result from nutrient excess. 17.18 Kaplan-Meier plot of overall survival of diffuse large B-cell lymphoma patients. Patients are grouped on the basis of gene expression profiling. 570) is the most common form
and presents as a chronic ulcer (oriental sore), which heals slowly over many months with scarring. We are particularly grateful to Pauline Graham and Helen Leng, the commissioning and development editors, who did so much to drive this project forward before they left Elsevier. Haemoglobin, white cell count and platelet count are normal or low.
Tips to treat the 5 most common nail disorders: brittle nails, onycholysis, paronychia, psoriasis, onychomycosis. 18.4). Most, but not all, patients will eventually progress to symptomatic myeloma, with a median time to progression of about 5 years. Erythema induratum (Bazin's disease) is a similar rash with deep inflammatory nodules on the calves
rather than the shin that may ulcerate. Mycobacterium marinum infection (fish tank/ swimming pool granuloma) This atypical/non- tuberculous mycobacterial infection presents with one or more painless inflammatory nodule on a hand or upper limb. Specific diagnoses are difficult to make clinically but may be clearer on imaging. Laryngeal
involvement may be life-threatening. Others will exhibit signs of increased extracellular volume and require diuretic therapy (see p. New immunomodulator drugs licensed for use in psoriasis include the intervertebral discs, the
sacroiliac joints, the pubic symphysis and the costochondral joints. Box 1.5 Using the time course of symptoms to suggest an underlying cause Onset of symptoms to suggest an underlying cause Onset of symptoms to suggest an underlying cause Onset of symptoms Possible causes Immediate (seconds to minutes) Vascular - thrombotic or embolic Anatomical - e.g. perforation of a viscus Electrical - e.g. dysrhythmias, seizures Hours to days Bacterial or
viral infections Inflammatory and autoimmune diseases Weeks to months Malignant diseases Weeks to months Malignant diseases Chronic infections, e.g. mycobacterial Months to years Degenerative conditions Fibrotic diseases.
biochemical abnormalities in almost every case. A decrease in DALYs for maternal and neonatal deaths can be accounted for by better education, nutrition or obstetric facilities. Androstenedione and dehydroepiandrosterone sulphate are frequently elevated in PCOS, and even higher in congenital adrenal hyperplasia (CAH) and virilizing tumours. The
haemodynamic consequences of the VSD are dependent on the defect and resultant shunt size. (Adapted from American Diabetes Association. Tsianakas A. Adapted from Kahneman D. 18.5 The shoulder region, showing site of injection and Fig. DIDMOAD (Wolfram's) syndrome is a rare autosomal recessive disorder comprising diabetes
insipidus, diabetes mellitus, optic atrophy and deafness, and is caused by mutations in the Box 21.52 Causes of diabetes insipidus Cranial diabetes insipidus - Hypothalamic tumour, e.g. glioma, germinoma - Metastases, especially breast -
Lymphoma/leukaemia - Pituitary with suprasellar extension (rare) • Infections: - Tuberculosis - Meningitis - Cerebral abscess • Inflammatory: - Hypophysitis • Post-surgical: - Transfrontal - Trans-sphenoidal

    V ascular: - H aemorrhage/thrombosis - Sheehan's syndrome - Aneurysm

Trauma (e.g., head injury) Nephrogenic diabetes insipidus • Familial (e.g., vasopressin receptor gene, aguaporin-2 gene defect) • Idiopathic • Renal disease (e.g., renal tubular acidosis) • Hypokalaemia • Drugs (e.g., lithium, demeclo cycline, glibenclamide) • Sickle cell disease • Prolonged polyuria due to any cause, including cranial
DI and primary polydipsia - can cause mild temporary nephrogenic DI DI, diabetes insipidus; DIDMOAD, diabetes insipidus, diabetes insipidus, diabetes mellitus, optic atrophy and deafness. The majority close spontaneously by the age of 10 years. Quinine cardiotoxicity is due to sodium-channel blockade. Lancet 2018; 391:2449-2462. Further reading Fuller LC. e.g. co-
amoxiclav Maculopapular rash Phenytoin Sulphonamides Toxic epidermal necrolysis Stevens-Johnson syndrome Diclofenac Isoniazid Hepatotoxicity Isotretinoin Depression, suicidal ideation Drugs can interact with each other (drug-drug interactions) (Box
12.10). 22.60 Morbilliform drug rash due to penicillin allergy. 30 30 1100 Cardiology Box 30.44 Causes and associations of the aortic regurgitation • Ruptured sinus of Valsalva aneurysm • Failure of prosthetic valve Chronic aortic regurgitation •
Rheumatic heart disease • Syphilis • A rthritides: - R eactive arthritis • Ankylosing spondylitis - Rheumatoid arthritis • Hypertension (severe) • Bicuspid aortic valve • Aortic endocarditis • Marfan's syndrome • Osteogenesis imperfecta • d e Musset's sign - head nodding with each heart beat • Duroziez's sign - a to-and-fro murmur heard when the
femoral artery is auscultated with pressure applied distally (if found, it is a sign of severe aortic regurgitation) • pistol shot femorals - a sharp bang heard on auscultation over the femoral arteries in time with each heart beat. Toenail tinea infection requires prolonged oral antifungal therapy. Oral ivermectin is often required for effective eradication of
all mites. Lice Lice are blood-sucking ectoparasites that cause three patterns of infection in humans. It is particularly useful for: • identification of different BP phenotypes • engagement of patients in healthcare visits. Excessive doses of steroids may also be absorbed from
skin when strong dermatological preparations are used, and along with inhaled steroids may rarely cause Cushing's syndrome; they may, however, quite commonly cause adrenal suppression. An occupational therapist can advise about the ergonomics of the workplace if the problem is work-related (see p. The common causative organisms are listed
in Box 20.45. Management of acute gastroenteritis In children in low-income countries, untreated diarrhoea has a high mortality due to dehydration, often on a background of malnutrition and other chronic infection. It contains sufficient knowledge and detail to be of great value in the day-to-day care of patients in hospitals and clinics, and in the
field. Opportunities for developing an understanding of global health include: • engaging actively in debates about the global economic and political determinants of health outcomes • travelling to see medicine being practised in a radically different context (e.g. as part
of a medical school elective, see p. Overdose with even small amounts can have profound effects. Clinical features Hypotension occurs due to peripheral vasodilation, myocardial depression and conduction block. 20.9). This 10th edition certainly maintains the high standard of its predecessors. 1.1 shows how diagnosis is often an iterative process, in
which information is gathered, interpreted and integrated to form a working diagnosis, and then communicated and acted on through treatment; all the time the working diagnosis is refined or revised using newly gathered information, including the patient's response to treatment. When not to investigate 8 Diagnostic criteria 8 Overdiagnosis8
Communicating a diagnosis 9 Explaining diagnoses to patients 9 Breaking bad news 10 Team communication 10 Shared decision-making 11 Managing uncertainty 11 Diagnosis, artificial intelligence and the future of medicine 11 by it because at the centre of any diagnosis of the future of medicine 11 by it because at the centre of any diagnosis, artificial intelligence and the future of medicine 11 by it because at the centre of any diagnosis of the future of medicine 11 by it because at the centre of any diagnostic conundrum is a human being. This is a higher-molecular-weight complex of
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prolactin bound to IgG, which is physiologically inactive but occurs in a small proportion of normal people and can therefore lead to unnecessary treatment. Males may develop LS at any age. If there is right axis deviation and a tall R in V1, this may represent established Eisenmenger's syndrome. Host immunity is also involved, and seborrhoeicand there is right axis deviation and a tall R in V1, this may represent established Eisenmenger's syndrome.
dermatitis is one of the earliest skin manifestations of HIV infection (see p. These may regrow spontaneously, to be followed by new areas of hair loss. CAD was responsible for 1 in 5 male deaths (approximately 80 000 deaths). The target INR is determined by what type of valve is inserted, Infective endocarditis 1103
where it is positioned, and whether the patient has additional risk factors for thromboembolism; useful in suspected aortic root abscess and essential in prosthetic valve endocarditis Box
30.48 Antibiotics in endocarditisa Clinical situation Suggested antibiotic regimen to start b,c,d Clinical endocarditis, culture results awaited, no suspicion of staphylococci Penicillin 1.2 g 4-hourly, gentamicin 80 mg 12-hourly Suspected staphylococci Penicillin 1.2 g 4-hourly Suspected staphy
Vancomycin 1 g 12-hourly, gentamicin 80-120 mg 8-hourly Streptococcal endocarditis (penicillin-sensitive) Penicillin 2 g 4-hourly, gentamicin 80 mg 12-hourly Staphylococcal endocarditis (penicillin-sensitive) Penicillin 1.2 g 4-hourly, gentamicin 80 mg 12-hourly Streptococcal endocarditis (penicillin-sensitive) Penicillin 2 g 4-hourly Streptococcal endocarditis (penicillin-sensitive) Penicillin 3 g 4-hourly Strepto
Flucloxacillin 2 g 4-hourly or Benzylpenicillin 1.2 g 4-hourly adapted from British Society for Antimicrobial Chemotherapy (BSAC) guidelines. • An immune response against the environment factor may cross- react with self-antigens, so-called 'molecular mimicry'. Where relevant, draw up a travel history, including
animal and insect bites, a sexual history (if a sexually transmitted disease, including HIV infection, is suspected), and hobbies, leisure activities and pets. Neutrophil phagocytosis is activated by interaction with bac teria, either directly or after bacteria have been coated (opsonized) Innate immune system 45 1HXWURSKLO %DFWHULXP Box 3.5
Contents and function of key neutrophil granules Function Antibacterial L&ELQDFWLYH FRPSOHPHQWE L&EUHFHSWRU DOVRFDOOHG0DF RU&5 Primary or azurophilic granules Secondary or specific granules Lysozyme Defensins Myeloperoxidase (MPO) Proteinase-3 Elastase Cathepsins Bactericidal/ permeability increasing protein (BPI)
Respiratory burst components (e.g. cytochrome b558) producing reactive oxygen metabolites, such as hydrogen peroxide, hydroxyl radicals and singlet oxygen Lycoyme Lactoferrin Cell movement $QWLERG\UHFHSWRU DOVRFDOOHG)F UHFHSWRU &UHDFWLYHSURWHLQ Fig. An acquired solitary pigmented streak may be caused
by a melanocytic naevus and needs to be differentiated from subungual melanoma (see p. symptoms of right heart failure. Treatment is symptomatic and supportive. Neurotoxic shellfish (brevetoxin) poisoning Neurotoxic shellfish poisoning is caused by brevetoxin produced by the dinoflagellate Gymnodinium breve. These dangers, along with the
benefits of the investigation result, need to be discussed with patients to help them make a good decision. Angina pectoris may arise. It is also important to remember that other diseases, notably UTIs and chest infections in the elderly, and malaria at any age, can present with acute diarrhoea. Vertigo, sweating, diplopia, headache, dysarthria,
incoordination, ataxia and seizures may follow. van der Wouden JC, van der Sande R, Kruithof EJ et al. Degludec is created by removing the threonine at position 29 of the B chain. It is the most common pituitary tumour in children but
may present at any age (Fig. If you, as the treating clinician, are unable to make sense of the information presented to you, you should be humble and insightful enough to seek help from others. One- third of patients present with changes in appearance, and one- quarter with visual field defects or headaches; in the remainder, the diagnosis is made by
an alert observer in another clinic: for example, in general practice, or in the diabetes, hypertension, dental, dermatology departments. MRI is the investigation of choice if surgery is being considered or the diagnosis is uncertain (Fig. Weekly monitoring of the full blood count for cytopenias, and for other serious adverse effects, is mandatory
Treatment is therefore indicated in all except the elderly or those with minimal abnormalities. • Transport of the victim to a medical centre should take place as quickly, safely and passively as possible. The role of infection models and PK/PD modelling for optimising care of critically ill patients with severe infections. The lower back, ears and scalp
are often also involved. • Surgery via the trans-sphenoidal route is usually the treatment of choice. It can affect all races. In approximately 5% of cases, infection may disseminate, with haematogenous spread to bones, joints and heart valves. The SFLC assay may show an abnormal ratio and an increased total amount of free kappa or lambda chains
Diuretic treatment in heart failure. Tinea may be transmitted to humans by other people (anthropophilic), animals (zoophilic) or soil (geophilic) or soil (geophilic). In addition, novel mutations within GH and growth hormone-releasing hormone (GHRH) receptor genes have been identified, which explain the pathogenesis of isolated GH deficiency in some children. The
aim of therapy is to achieve a mean GH level below 2.5 µg/L; this is not always 'normal' but has been shown to reduce mortality to normal levels and a mild steroid cream may be used for pruritus. 22.53 Nodular malignant melanoma. An ASD with a
significant left-to-right shunt causes right heart volume overload and right atrial and ventricular dilation. The end result is thickened, inflamed skin (plaques) with thick overlying scale. Clinical features Different patterns of psoriasis are
recognized and can occur together. 283), and reflecting on the successes and ongoing challenges of local healthcare provision. A right ventricular fourth sound and a prominent jugular venous a-wave are present when the stenosis is moderately severe. The African Programme for Onchocerciasis Control (APOC) has transformed the lives of millions of the stenosis is moderately severe.
people by the administration of a single, annual dose of the drug ivermectin. Many go on to develop life-limiting complications including cardiovascular, renal, eye and neurological disease. High-dose insulin (initial intravenous bolus of 1.0 IU/kg, followed by 1-10 IU/kg per hour) with hypertonic glucose to avoid hypoglycaemia, has been shown to
improve myocardial contractility and systemic perfusion. Calcium-channel blockers Calcium-channel blockers all act by blocking voltage-gated calcium channels. 232), have been reported. Lithium poisoning usually results from impaired renal elimination in an individual on lithium therapeutically; that is, chronic toxicity rather than
deliberate self-poisoning (acute toxicity). As a result, increased phosphorylation of intestinal transport proteins, with increased permeability to solutes, leads to diarrhoea, nausea, vomiting and abdominal pain. Transcription factor-7-like 2 (TCF7-L2) is the most common
variant observed in type 2 diabetes in Europeans, and KCNQ1 (a potassium voltage-gated channel) in Asians. Intravenous octreotide (50 µg), which inhibits insulin release, should be given as well as glucose. Antimalarials Chloroquine Severe poisoning may present with hypotension, cardiac failure, pulmonary oedema and cardiac arrest. It may be
advocated after medical tumour shrinkage or after surgery in larger tumours, especially where families are complete or if the drug treatment is poorly tolerated, but most workers simply advocate continuation of dopamine agonist therapy in responsive cases. • 'nephrogenic' diabetes insipidus - a rare condition in which the renal tubules are
insensitive to vasopressin, and an example of a receptor abnormality • inappropriate excess of the hormone (SIADH), a common cause of hyponatraemia in hospital patients. Glucagon 12 12 270 Prescribing, therapeutics and toxicology produces only a slight rise in blood glucose, although
it can reduce the amount of glucose required (see p. Shoulder pathology restricts or is made worse by shoulder movement. Some of these, such as serum cholesterol, smoking habits, diabetes and hypertension, can. This is heavily dependent on
phenotypic sex and normally assigned on appearance of the external genitalia at birth. Plasma viscosity is also raised in inflammatory disease. The International Statistical Classification of Diseases (ICD), now in its 11th edition, is produced by the World Health Organization in order to provide a standardized set of coding and diagnostic criteria across
the world. Anaphylaxis would be much more influential on antibiotic choice than a simple gastrointestinal disturbance. Serum alkaline phosphatase is usually normal. Scabies can be confirmed by demonstrating the mite and/or eggs on microscopy of potassium hydroxide-treated skin scrapings from the tip of a burrow, but this is time-consuming and
treatment is usually based on clinical features and risk factors. Management A topical scabicide (e.g. 5% permethrin) is applied overnight. MRI is more sensitive than X- rays in the early detection of articular assist device. 949). cannot be
reduced to safe levels with somatostatin analogues alone, or by surgery or radiotherapy. Hyperprolactinaemia The hypothalamic-pituitary control of prolactin secretion is illustrated in Fig. • What are the risks of the test to the patient? 433). Articular cartilage The hyaline cartilage lining the bones within a joint is called articular cartilage.
the pituitary is necessary if there are any clinical features suggestive of a pituitary tumour, and desirable in all cases when prolactin is significantly elevated (>1000 mU/L). If there is none, these lesions are managed conservatively and the only risk is an increased risk of endarteritis or endocarditis. Oxazolidinones interact reversibly as non-selective
inhibitors of monoamine oxidase and have the potential for interacting with serotoninergic and adrenergic agents. Occasionally, orf is complicated by erythema multiforme (see p. Confirmation is by chromosomal analysis. Further reading Ellison DH, Felker GM. Much of their work is reflected in the text of this edition, and so we thank them for their
input: • John V Anderson (Diabetes mellitus and metabolic disorders) • Rachel Buxton-Thomas (Respiratory medicine) • Carah R Doffman (Respiratory medicine) • Christopher J Gallagher (Malignant disease) •
Charles J Hinds (Critical care medicine) • Katharine Hurt (Respiratory medicine) • Miriam J Johnson (Palliative medicine) • Moriam J Linton (Molecular cell biology) • Adam Mead (Haematology) • Michael J O'Dwyer (Critical care medicine) • Donncha O'Gradaigh (Bone
disease) • David G Paige (Skin disease) • Rupert M Pearse (Critical care medicine) • Sean L Preston (Gastroenterology) • • • • atthew Smith (Malignant disease) M J Allister Vale (Poisoning) David Westaby (Biliary tract and pancreatic disease) Peter D White (Psychological medicine) We were saddened to
hear of the untimely death of Anthony J Frew (Respiratory medicine), who made a major contribution to this book but also to the wider practice of medicine. E6.7). When delay is great and problems are serious (e.g. severe teasing at school), low-dose, short-term sex hormone therapy is used to induce puberty. Blockade of the IL-4/IL-13 pathway is
being used therapeutically in the management of eczema and asthma, and anti-IL-31 therapy shows promise in the treatment of itch. Estimates of glomerular filtration rate (GFR), based on serum creatinine and demographic criteria, are also obtained, especially as several antihypertensive medications are potentially nephrotoxic. Ciclosporin is a
selective immunosuppressant that inhibits T lymphocytes. 1435) have dramatically reduced the prevalence of these diseases in recent years in countries with early access to therapy. They may also affect the beard area in men and spread due to shaving. They may also affect the beard area in men and spread due to shaving. They may also affect the beard area in men and spread due to shaving. They may also affect the beard area in men and spread due to shaving.
administered intravenously for serious infections. Antibiotic prophylaxis against infective endocarditis (see p. Examine the ankle joint and tendons, medial arch and toes while the patient approach but still maintaining the high standards of previous
editions. HCG- secreting tumours, androgen-and oestrogen- secreting tumours, including teratomas, are important conditions to exclude. Management Treatment is often required to maximize adult height, reduce psychosocial impact, and delay menarche. Urticaria is classified as acute or chronic (>6 weeks' duration). Data-gathering, further
information, initial treatment and the passage of time help to form and confirm a definitive diagnosis. Anti-tetanus prophylaxis must be given. Median survival has been extended well beyond 10 years. • Paralysis due to postsynaptic neurotoxicity may respond to anticholinesterases such as neostigmine. Activated glycoprotein (GP) IIb/IIIa receptors or
platelets bind to fibrinogen, initiating platelet aggregation. 1421) is usually sexually acquired and associated with anogenital ulceration. Therefore some patients, for example, women postmenopause with microprolactinomas, may not require any treatment. Its 23 23 704 Diabetes mellitus 0ROHFXODU IRUPVRI LQVXOLQ (QGRSODVPLF
UHWLFXOXP 1XFOHXV 5LERVRPHV 7UDQVIHU YHVLFOHV 3UHSURLQVXOLQ FLV*ROJL PLQ WUDQV*ROJL AUTOUVYOLQ &RQVWLWXWLYH SDWKZD\ &HOOPHPEUDQH Fig. Plasma sodium and
osmolality fall as a result and the urine produced is appropriately dilute. • Depending on current dose, doses need to be increased at times of serious intercurrent illness, accident and stress. As a first aid measure, a firm pressure bandage should be placed over the bite and the limb immobilized, as this may delay the spread of the venom. The clinical
features can also be mixed. Reactions to some preparations of antivenoms are common and include life-threatening anaphylaxis. A genetic basis for functional hypothalamic amenorrhea. In general, investigations should be avoided where: • the patient is too frail to derive any benefit from confirming a diagnosis • the patient agrees to have an initial
investigation, but will not accept intervention if the result is positive, e.g. the patient agrees to a myocardial perfusion scan but would not want to undergo subsequent coronary angiography or stenting elinician feels that investigation is not deemed to be in the patient's best interests - patients can refuse investigation or intervention,
but cannot demand it. Diagnostic criteria Some conditions are diagnosed with a single pathognomonic investigation result: for example, the presence of urate crystals on microscopic examination of synovial fluid is diagnostic of gout. Following corrosive ingestion, the vital aspects of management are early (within 24 h) assessment Specific poisons
273 of the severity of injury (ideally with endoscopy, or alternatively with CT imaging) and prompt surgical intervention to remove necrotic tissue, if indicated. Cyanide and its derivatives are used widely in industry. Sometimes a The medical consultation 5 1. Nolan CJ, Damm P, Prentki M. Haemodialysis should be considered if the blood
ethanol concentration exceeds 7500 mg/L and if a severe metabolic acidosis (see p. (B) St Jude double tilting disc. Early hypertensive kidney damage is most easily detectable through an increase in microalbuminuria on urine test strips or as an increased laboratory albumin: creatinine ratio. If the patient has clinical features of bronchospasm after
inhalation, then treat conventionally with nebulized bronchodilators and steroids. 456). Treatment is often unsatisfactory and has no impact on the long-term outcome. There is usually a rumbling mid-diastolic murmur, which is heard best at the lower left sternal edge and is louder on inspiration. Intensive Care Med 2017; 43:1021-1032. Effective
antivenom treatment should halt the progression of symptoms and reverse coagulopathy within 6 hours of administration. Various clinical patterns are recognized and severity is highly variable. Carbamate insecticides Carbamate
insecticides inhibit acetylcholinesterase but the duration of this inhibition is comparatively short-lived in comparatively short-li
moisturizers, household products • Rubber chemicals - in household and examination gloves and footwear • Metals - in jewellery, buckles, spectacle frames and gadgets, including mobile phones • Chemical hair dye - in permanent and semi-permanent colorants • Preservative chemicals - in cosmetics, toiletries, and household and industrial product
• Topical antibiotics and antiseptics - prescribed and over-the-counter • Other ingredients in medicated creams - e.g. lanolin, hydrocortisone • Adhesives - in footwear, acrylic nails, superglue • Leather and textile dyes frequently, either at home (especially when carring for young children) and/or in occupations such as catering, healthcare and
hairdressing. Eur Heart J 2010; 31:2915- 2957. Advice about sun protection therefore needs to take into account the individual's skin type. It involves the lower legs, lower back and other areas that have few sebaceous glands. Topical therapy is usually ineffective but systemic medication and biologics can improve nail dystrophy. An impression
formed at the end of a clinical consultation can often be refined by simple, quick and relatively non-invasive tests; but it might require complex, expensive or potentially hazardous investigations to produce a definitive diagnosis. It is usually preceded by a larger solitary 'herald patch'. Thrombus forms within the plaque, expanding its volume and
distorting its shape. • A glucose tolerance test is diagnostic if there is no suppression of GH. Local wounds often require little treatment. Is it getting worse, staying the same or starting to improve? In younger patients without co-morbidity there is a high expectation of cure. This has several subsections (Box 1.4). Other causes include chromosomal
abnormalities (e.g. Klinefelter's syndrome, Marfan's syndrome) or metabolic abnormalities. Communicating a diagnosis 9 Patient presents to hospital with acute central chest pain Diagnosis: tiredness, unclear cause Electrocardiogram performed and
serum troponin measured in emergency department Percutaneous angiography and echocardiography performed at local cardiac unit Diagnosis: ST-elevation myocardial infarction Diagnosis: acute thrombosis of left anterior descending artery, impaired left ventricular function A routine panel of blood tests is ordered by the doctor. Treatment is with
oral itraconazole. There are two peak ages of onset: early (age 16-22) is more common and is often associated with a positive family history, while late-onset disease peaks around 55-60 years. Poisoning with mefenamic acid commonly results in convulsions, though these are usually short-lived. A 'slow-burning' variant with slower progression to
insulin deficiency occurs in later life and is termed latent autoimmune diabetes in adults (LADA). 23 23 706 Diabetes mellitus )DVWLQJDQGSRVWSUDQGLDO *OXFRVH *O\FRJHQRO\VLV *OXFRQHRJHQHVLV 3DQFUHDV 0XVFOH Box 23.4 Aetiological classification of diabetes mellitus, based on classification by
the American Diabetes Associationa Type 1 diabetes (β-cell destruction) • Immune-mediated • Idiopathic Type 2 diabetes (this list is not exhaustive) )DVWLQJ 3RVLWLYHHIIHFW 3RVWSUDQGLDO 1HJDWLYHHIIHFW
Fig. Several of these loci define β cell development or function, and there is no overlap with the immune function genes identified for type 1 diabetes. These cause Skin infections 675 Fig. Gene expression profiling has recognized germinal centre B-cell-like (GCB) and activated B-cell like (ABC) subgroups, with the latter having an inferior clinical
outcome (Fig. Coma and respiratory depression develop in severe intoxication. Management If respiratory depression is given in an adult and this dose often needs repeating. The shunt direction is evaluated with colour Doppler. No systemic
treatment is required except in cases of severe systemic toxicity, when specific antivenom should be given, if this is available. Venomous snakes Contributed by C. The process of editing has been made much easier by the high standards and clear priorities set out by Parveen Kumar and Mike Clark through their careful editorial work on an
astonishing previous nine editions of this book. 1300), and endocrine disease. Melasma (chloasma) This is a common complaint in pregnant women and in women taking hormonal contraception. Cannabis use results in an overall increase in the relative risk for later schizophrenia and psychotic episodes (see p. Symptomatic relief can be obtained by
the following measures: • Fluid intake should be restricted to 500-1000 mL daily. Classification of diabetes mellitus Features Type 1 Type 2 Monogenic Secondary Age Younger (usually 30 years) Neonates to early adulthood Usually middle or older age Weight loss
Usually present Usually no No Depends on underlying cause Symptom duration Weeks Months/years Months Weeks or months Seasonal onset Yes No No HLA links Present in almost all with onset in early adulthood or (more commonly) earlier Unusual unless diabetes secondary to genetic conditions such as
haemochromatosis Pathogenesis Autoimmune disturbance No immune disturbance No immune disturbance No immune disturbance Ketonuria Yes No or minimal May be present Severity of symptoms Can be marked Variable but usually mild Not usually severe Depends on underlying cause Biochemical C-peptide disappears C-peptide
persists C-peptide persists C-peptide persists C-peptide persists HLA, human leucocyte antigen. The scarring of the clitoral hood. The two issues with an incidental adrenal mass are: • whether the lesion is functional or non-functional
• whether it is benign or malignant. • X-rays are of little diagnostic value in early inflammatory arthritis but are useful as a baseline from which to judge later change. Diabetes 2009; 58:773-795. Tedizolid is less myelotoxic and can also be given once daily (in contrast to twice-daily linezolid). They effectively reduce preload and produce coronary
vasodilation. The pre- sternal area may be affected in men and other sites include the large flexures and anogenital area. Mollusca may exhibit the Köbner phenomenon (see p. MRI is especially useful for detection of damage to non- bony tissues in the knee and torn rotator cuff muscles in the shoulder; detection of
nerve root compression in the spine; detection of inflammatory arthritis. (C-D) Examples of moderate hypertensive retinopathy. Simply giving patients chelation therapy and then returning them to a contaminated environment is of no value. Dysregulation of the autophagic pathway has
been associated with a number of diseases, including cancer, inflammatory disease and infections. • Hypothyroidism causes weight gain, slowness of thought and diffuse patterns, and non- scarring alopecia (where
follicles are preserved) and scarring alopecia (where an inflammatory process causes permanent destruction of follicles). An individual's sex can be defined in several ways: • Chromosomal sex. They are usually multiple and are frequently found on the face or the backs of the hands. Regular use of opiate analgesia may lead to gonadotrophin
deficiency and should be considered. If hepatotoxicity and encephalopathy develop in severe valproate poisoning, early intravenous supplementation with l-carnitine will reduce the formation of ammonia and other toxic metabolites of valproic acid. Except with subfertility, the symptoms are usually those of androgen deficiency. Further reading the
public/skin-cancer/. 30.59 and Box 30.29) includes oxygen and diuretics (e.g. i.v. furosemide 50 mg). • Some venoms contain haemorrhages. Lesions are intensely pruritic or sore, and appear as shiny, ivory-white, fissured patches on the vulva, or on the glans
penis and distal foreskin or penile shaft. Cutaneous LP usually resolves within 1-2 years, though it may relapse. • Do they ever suffer from hypoglycaemic episodes? Vesicles or plaques may occur: hence 'polymorphic'. Serotonin syndrome occasionally occurs (see p. Very high preoperative GH and IGF-1 levels are also poor prognostic markers of
surgical cure. Expert Opin Drug Saf 2012; 11:83-94. INFORMATION SOURCES Pharmacotherapy moves at a very rapid pace and it is impossible for anyone to keep up with contemporary advances. Occasionally, very large prolactinomas can be associated with such high serum prolactin levels that some assays give an artefactual falsely low result
serum digoxin concentration) need be given initially; a further dose is given if clinically indicated. $VSLULQ +\GURO\VLV 6DOLF\OLFDFLG +\GURO\VLV 6DOLF\OLFDFLG +\GURO\VLV 6DOLF\OLFDFLG
develop. Abnormalities of insulin action Insulin action is diminished in type 2 diabetes through the development of insulin resistance, which is defined as the inability of insulin action is diminished in type 2 diabetes through the development. • The
'hygiene hypothesis' proposes that a cleaner environment with less early stimulation of the immune system in childhood may lead to a relatively immature immune system prone to autoimmunity. predisposes to a number of other chronic diseases in adulthood including heart disease, hypertension and osteoporosis. Type 2 diabetes mellitus
Epidemiology Although diet can affect the risk of diabetes through changes in body weight, certain dietary patterns are associated with higher or lower risks of type 2 diabetes. Dorsal tenosynovitis is less common, except in RA. 69). ECGs are recommended in all hypertensive patients, as they are widely available and cheap, and do not require much
and hepatorenal toxicity. Clinical features and management Vapours from the mushrooms are irritating to the eyes and respiratory tract. Pityriasis versicolor is a common complaint in young adults, especially in warm climates. Under activation conditions, macrophages present antigen to T-lymphocytes (see p. 22.25 Viral wart. Both are due to a GH-
insecticides, pralidoxime should be used only rarely in carbamate poisoning. The initial day's readings are discarded and the rest of the values are averaged to calculate home BP. Repigmentation is less likely in established lesions and acral sites. All rights reserved. Reported attack rates vary from country but approach 50% for a 2-week
stay in some nations. Newer selective therapies include plasma-derived and recombinant C1NH, a kallikrein inhibitor (ecallantide) and a bradykinin B2 receptor $OOXUWLFDULD Fig. This cannot be investigated with prick tests or blood tests and the mechanism is unclear. Reach behind the neck and back. • Premature adrenarche. Fishermen should
transcription from DNA to mRNA by the blockade of nuclear RNA polymerase II; this results in impaired protein synthesis and cell death. disappear within 4-6 hours, though 'flashbacks' may recur after weeks or months. Genital mollusca are usually sexually transmitted in adults. Most cases are due to somatically acquired activating mutations of the
KIT receptor that controls mast cell proliferation and apoptosis. Death and serious morbidity are less common in adults but still occur, particularly in developing countries and in the elderly. • Have they ever required hospital (or intensive care) admission for diabetic emergencies? Diabetes and cardiovascular events in women with polycystic ovary
syndrome: a 20-year retrospective cohort study. In secondary gonadal failure, gonadotrophin deficiency, pituitary MRI scan, prolactin levels and other pituitary function tests are needed. Both conditions settle spontaneously eventually, but occasionally persist and require surgical release. Pain in the hand and wrist See Box 18.11. In the UK, most
MRSA infections are healthcare-associated. These areas are particularly vulnerable to the drying effects of soap and water. The point where a tendon or ligament joins a bone is called an enthesis and infertility, although advances in fertility techniques
and microdissection testicular sperm extraction (microTESE), offers some hope to men wanting to father their own child. Kallmann's syndrome This is isolated GnRH deficiency. Reliable sources of information (see next section) must be used when prescribing new drugs to patients who already are taking other medications to ensure that no significant
DDI exist. Extensive mast cell degranulation can lead to systemic symptoms, such as wheeze, flushing, syncope, diarrhoea and, very rarely, anaphylaxis. In the postprandial state, insulin concentrations are high and it then suppresses glucose production from the liver and promotes the entry of glucose into peripheral tissues, particularly skeletal
muscle and fat (increased glucose utilization). 8.4). A right ventricular heave (sustained impulse) may be felt. % Investigations The chest X-ray usually shows a prominent pulmonary artery owing to post-stenotic dilation. Computerized axial tomography (CT) is useful for detecting changes in calcified structures but the dose of radiation is high. Heart:
• Palpate the apex beat and examine for heaves and thrills • Auscultate for heart sounds, performing additional manœuvres as necessary 6. Crusted scabies (Norwegian scabies) Crusted scabies (Fig. Patch testing should be considered in all
patients with suspected allergic contact eczema or where this cannot be excluded. Epicondylitis but patients learn to initiate elevation using the unaffected arm. General supportive measures should be carried out, as necessary. - In the hands, can the patient perform fine movements? 991). • Is it worse in the morning and relieved by activity?
Frequent recurrences can be treated with prophylactic oral therapy. Varicella zoster virus Varicella zoster virus (VZV) causes the common childhood infection chickenpox and also herpes zoster (see p. Emergence of bacterial resistance is uncommon. Webber L, Vermeulen N. It may be caused by trauma, chemical irritation and infection with a range
of pathogens, most commonly Staph. 30.93). Investigations and treatment • C hest X-ray may demonstrate prominent pulmonary arteries and cardiomegaly due to right heart dilation. Hyponatraemia is very common during illness in frail elderly patients and it may sometimes be clinically difficult to distinguish SIADH from salt and water depletion,
particularly when mixed clinical features are present. 709)? Management of the disease • What do they understand about the role of self-management in diabetes? 1132). Chondrocytes secrete collagen and proteoglycans, and are embedded in the cartilage. Finally, thanks to our long-suffering families, who have endured much absence and distraction
as we have worked at antisocial hours on manuscripts at various stages of development. A tricuspid opening snap may occasionally be heard. 22.57 Dissecting cellulitis of the scalp in an Traction alopecia Hypertrichosis This form of scarring hair loss is caused by mechanical damage to the hair back into a bun or tight
plaits. Diversion of the steroid precursors into the androgenic steroid pathways occurs (see Fig. A generalized form of seborrhoeic eczema presents as erythroderma in the elderly (see p. 30.93): • Secundum defects (most common type): located in the mid- septum (fossa ovalis). • Weight gain (due to hypothyroidism; see above), or weight loss in
severe combined deficiency. Potent topical corticosteroids, topical tacrolimus and UV phototherapy may stimulate repigmentation, and this usually starts around hair follicles, giving a speckled appearance. Chichester: John Wiley & Sons; 2016. Particular syndromes related to hypopituitarism are described below. Indeed, this is sometimes 1 1 8
Diagnosis: the art of being a doctor Box 1.8 C ognitive biases leading to misdiagnosis • A nchoring: Relying too heavily on a piece of information offered early as a potential explanation. 'Anabolic' steroid (i.e. androgen) abuse causes similar biochemical findings and is likely if the patient appears well virilized. In familial acromegaly, there is an
increased onset before puberty compared with sporadic cases, leading to a higher prevalence of gigantism. History and examination Symptoms and signs of acromegaly are shown in Fig. Pulmonary regurgitation This is the most common acquired lesion of the pulmonary valve. (B) Opacification (silver or copper wiring) of arteriolar wall (white
arrows). • Surgical complications include necrotic tissue, which should be debrided and split skin grafts should be applied. They can provoke haemolysis in individuals with glucose-6-phosphate dehydrogenase deficiency and therefore should not be used in such people. 656) are sufficient to control atopic eczema in most people. If the cause is
gonadotrophin-dependent, treatment with long-acting GnRH analogues (given by nasal spray, by subcutaneous injection or by implant) causes suppression of gonadotrophin release via downregulation of the receptor - and therefore reduced sex hormone production - and is moderately effective. DIDMOAD, diabetes insipidus, diabetes mellitus, optic
atrophy and deafness. Parenteral therapy is indicated in immunocompromised patients. The latest allow the majority of patients to achieve a 90% reduction in PASI score ('PASI 90'). Autonomic symptoms are common and on examination the patient may be pale and clammy, with marked sweating. Issues with this approach include: • a requirement
for patients to obtain their own machine (expense) • a requirement for training • the lack of objective readings (i.e. the measurements are portable, oscillometric devices that measure BP discontinuously throughout a 24-hour period, most commonly throughout a 24-hour period averages, rather than independent evaluations).
every 20-30 minutes during waking hours and every 30-60 minutes during sleep. Our International Advisory Board members have provided much useful advice and written articles for the online version to help us with this task. • A re there any associated neurological features? The majority of adult patients with TGA who were born between the
1960s and mid-1980s will have had an 'atrial switch' operation. • Shock may occur as a result of loss of fluid into a limb or haemorrhage. Scaling needs removal with keratolytic agents, e.g. silicone lotion or coconut oil and salicylic acid ointment. Vancomycin is given intravenously for MRSA and other multi- resistant, Gram-positive organisms.
Examples are use of the INR or prothrombin time to titrate warfarin dosage to find the targeted level of anticoagulation for different diseases (see p. This approach would prevent undiagnosed children presenting with adrenal failure and identify those that may present later with precocious puberty. This appears as multiple small blisters or painful
punched-out crusted papules (Fig. Rarely, lymphadenopathy and splenomegaly may occur. 1.2 A basic approach to clinical examination. • Team discussions, where all team members are empowered to challenge the reasoning of more senior clinicians. Most chapters then cover basic sciences, including the anatomy and physiology of the relevant
organs in question, before dealing with individual conditions in order. The onset of anaphylaxis requires urgent treatment (see p. Subendocardial connective tissue matrix is then exposed and platelet adhesion occurs because of reaction with collagen. There is some overlap between food poisoning (defined as 'any disease of an infective or toxic nature
caused by or thought to be caused by the consumption of food and water') and gastroenteritis. • White cell count. It is often combined with medium-term treatment using a somatostatin analogue, dopamine agonist or GH antagonist because of the slow biochemical response to radiotherapy, which may take 10 years or more; it is also often associated
with hypopituitarism, which makes it unattr active in patients of reproductive age. Expert advice is essential in the confirmation and differential diagnosis of 21-hydroxylase deficiency; with ambiguous genitalia, advice must be sought urgently before any assignment of gender is made. Neurosurgical referral is recommended if the pain persists or if
the neurological signs of weakness or numbness are severe or bilateral. For decades, the treatment drug of choice has been intravenous vancomycin; pre-levels of 15-20 mg/L are required for maximum therapeutic efficacy. However, tolerance can become a problem and patients should be weaned off intravenous administration if symptoms resolve
Acute coronary syndromes 1087 Box 30.38 Pharmacological therapy in acute coronary syndrome Drug Dose Notes Aspirin, then 75-100 mg orally daily Prasugrel 60 mg o
(5 mg daily if 75 years old) Caution: increased risk of bleeding; avoid if CABG planned Ticagrelor Initially 180 mg, then 90 mg × 2 daily Antiplatelet drugs Antithrombin drugs Heparin 5000 units i.v. bolus, then 0.25 units/kg per hour Measure anticoagulant effect with APTT at 6 h Low-molecular-weight heparins, e.g. enoxaparin 1 mg/kg s.c. × 2 daily
Risk of bleeding Bivalirudin 0.75 mg/kg per hour for 4 h post PCI Fondaparinux 2.5 mg s.c. daily, for up to 8 days Rivaroxaban Oral 2.5-10 mg daily Glycoprotein IIB/IIIA inhibitorsa Abciximab 0.25 mg/kg i.v. bolus, then 0.125 \mug/kg per min up to 10 \mug/min i.v. \times12 h Indicated if coronary intervention likely within 24 h
Eptifibatide 180 μg/kg i.v. bolus, then 2 μg/kg over 5 min, then 0.15 μg/kg per min ×18 h Indicated in high-risk patients managed without coronary intervention or during PCI 2.5-5.0 mg i.v. Prescribe with antiemetic, e.g.
metoclopramide 10 mg i.v. Atenolol 5 mg i.v. repeated after 15 min, then 25-50 mg orally ×2 daily Analgesia Diamorphine or morphine Myocardial energy consumption Coronary vasodilation Glyceryl trinitrate
2-10 mg/h i.v./buccal/sublingual Maintain systolic BP >90 mmHg Plaque stabilization/ventricular remodelling HMG-CoA reductase inhibitors (statins) Rosuvastatin 20-40 mg orally Combine with dietary advice and modification ACE inhibitors Ramipril 2.5-10 mg orally Lisinopril 5-10 mg orally
Monitor renal function aNot now used in patients pre-treated with clopidogrel and aspirin prior to coronary intervention. Concomitant use of other drugs that cause QTc prolongation should be avoided unless absolutely essential. Polymyxin B, colistimethate sodium (polymyxin E) This is an old antibiotic class that, until recently, was
serious underlying disease, such as bronchial carcinoma and testicular tumours (e.g. Leydig cell tumour). IGF-1 may, in addition, play a major role in maintaining neoplastic growth. Non-essential surgery should be avoided. Dysplastic/pre-malignant skin lesions Actinic (solar) keratoses These are common on the sun-exposed areas of fair-skinned
individuals in later life, especially bald scalps. Chronic burning neck pain occurs because of muscle tension from anxiety and stress. Inflammatory Clinical conditions in rheumatology 417 • • Fig. Adults with undetected coarctation may present with hypertension, headaches, nosebleeds and, in severe coarctation, claudication and cold legs may be
present. Clinical features Physical examination of patients with significant coarctation reveals hypertension in the upper limbs and weak, delayed (radio-femoral delay) pulses in the legs. • Pressure immobilization can reduce systemic spread of large- molecular- weight neurotoxins and delay the onset of life- threatening neurotoxicity. 23.1 Estimated
age-adjusted prevalence of diabetes in adults aged 20-79 years in 2017. (From IDF Diabetes Atlas, 8th edition.) Physiology of insulin S A chain 1 Gly 2 Ile 3 4 5 6 7 8 9 Val Glu Gln Cys Cys Thr Ser S 10 Ile 11 12 13 14 15 16 17 18 19 20 21 Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn S B chain
SSSI2345678910111213141516171819202122324252627282930 Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr Leu Val Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr B Short-acting insulin analogues C Long-acting insulin analogues Lispro Glargine 192021 Tyr Cys Asn 192021 Tyr Cys Gly SSSS 1920
21 22 23 24 25 26 27 28 29 30 Cys Gly Glu Arg Gly Phe Phe Tyr Thr Lys Pro Thr 19 20 21 22 23 24 25 26 27 28 29 30 Cys Gly Phe Phe Tyr Thr Asp Lys Thr 2 Ile 3 20 21 Tyr Cys Asn S S S C NH S 19 20 21 22 23 24 25 26 27 28 29 30 Cys Gly Glu Arg Gly Phe Phe Tyr Thr Asp Lys Thr 2 Ile 3
Phe Tyr Thr Pro Lys Fig. Cover the injection site and advise the patient to rest the affected area for a few days. Azithromycin is also employed for trachoma, cholera and some sexually transmitted infections. • If it is, is there significant envenoming? NICE 2016; • lice. They are responsive to a range of pro- inflammatory stimuli, using their PRRs to
recognize PAMPs. Once activated, they engulf and kill microorganisms, especially bacteria and fungi, and release a range of pro-inflammatory cytokines. They are helpful in early disease when the RF is negative, to distinguish it from acute transient synovitis (see Box 18.28). We have tried to encourage generic skills to be applied thoughtfully to the
specialty in question: to encourage learners to adopt the approach taken by experts in the field, so that relevant questions are asked and key physical signs are carefully sought. Certain drugs can aggravate psoriasis, particularly lithium, antimalarials and beta-blockers. What are your biggest challenges in controlling your condition? Eosinophilia is
seen in eosinophilic granulomatosis with polyangiitis (EGPA) (see p. Once a diagnosis is made, the human tasks continue. 8.4 The structure of a tetracycline. The metabolic actions of the system are: • increasing collagen and protein synthesis • promoting retention of
calcium, phosphorus and nitrogen, necessary substrates for anabolism • opposing the action of insulin (a 'counter-regulatory' hormone effect). Drugs spellings follow international usage, e.g. bendroflumethiazide and not bendroflumethiazide and not bendroflumethiazide and not bendroflumethiazide and not bendroflumethiazide.
allowing maximal water diuresis. Plasmid- mediated resistance, due to the 8 8 166 Sepsis and the treatment of bacterial infection MCR-1 phosphoethanolamine enzyme that modifies bacterial LPS, has recently been described, although mostly in veterinary strains in South-east Asia. 0HWURQLGD]ROH 12 Sodium fusidate Sodium
due to relative insulin deficiency, resistance or both. Diabetes should be excluded. These include antimuscarinic agents, calcium oxalate crystals, cardiogenic glycosides, pro-convulsants, cyanogenic compounds, mitotic inhibitors, nicotine-like alkaloids, alkylating agent precursors, sodium channel activators and toxic proteins (toxalbumins). The vast
majority of those GLUT-4-containing vesicle Fig. Anti- flea treatment of the animal and furnishings is required. The cardinal features of inflammation are manifest in eczema as erythema, swelling, itch/soreness and loss of normal (skin barrier) function. • Concerns: Are they feeling anxious or worried about their symptoms? For this reason, an infusion
leaflet; LV, left ventricle; PISA, proximal isovelocity surface area. It may also be given for toxoplasmosis and nocardiosis. • Drug-induced. Further reading Bradberry S, Vale A. disease, its psychological impact, co-morbidities such as cardiovascular or liver disease, and the individual's wishes (Fig. They should take credit for the way that this book has
developed over the years, and no doubt will continue to help over future editions. Management has no effect on the long-term disease course. Lipids A full lipid profile should be obtained, including total cholesterol, high-density lipoprotein (HDL) cholesterol, non-HDL cholesterol and triglyceride concentrations. Its hepatic secretion is stimulated by a
is mild and wrongly attributed to heat ('prickly heat'). Closure (surgical or interventional) is offered for a significant shunt causing left atrial and ventricular enlargement with no evidence of irreversible pulmonary hypertension. Atrial septal defect (ASD) is often made in adulthood, as patients remain
asymptomatic through childhood and clinical signs can be subtle. 23 Diabetes mellitus Richard I.G. Holt Clinical skills for diabetes mellitus 699 Introduction 702 Clucose metabolism 702 Hormonal regulation 704 Classification of diabetes 704 Clinical approach to the person with diabetes 710
AND KNOWLEDGE Diabetes is the most prevalent and clinically important endocrine disorder, affecting around 10% of the adult population in most countries. • Ask the patient to stand on each leg. Box 1.3 S trategies in history-taking • B egin with open questions ('Could you tell me more about the pain?'): do this before moving to closed questions
to help rule certain key problems in or out ('Did the pain get worse after eating?'). Pituitary disease alone without hypothalamic involvement therefore does not lead to ADH deficiency, as the highest impact on populations and healthcare
systems in sub-Saharan Africa, South and South-east Asia, Latin America and Oceania. Treatment is with topical azoles or oral itraconazole for resistant cases. It does not improve and may be used when fertility is required. • D iseases are the company to the co
of the joints themselves. It has been shown that continuing rituximab or obinutuzimab 'maintenance' every 2 months for 2 years also lengthens progression-free survival, although any benefits for overall survival remain unproven. Second therapy and beyond Patients are managed expectantly in the first instance, provided full re-evaluation, including
repeat biopsy, reveals no evidence of transformation. Intracellular triglyceride accumulates in the liver and skeletal muscle and impedes the phosphorylation of the tricuspid valve (annuloplication). 30.99) consists on the liver and skeletal muscle and impedes the phosphorylation of the tricuspid valve (annuloplication).
of: • a large, malaligned VSD • an overriding aorta • right ventricular outflow tract obstruction • right ventricular hypertrophy. The effects of cocaine are experienced almost immediately after intravenous administration or smoking, about 10 minutes following intranasal administration and 45–90 minutes after ingestion. Invasion of a microbe through
the subcutaneous vasculature leads to a haemorrhagic occlusive vasculitis. They are also effective in the treatment of infections due to Bordetella pertussis (whooping cough), Campy lobacter and Chlamydia spp. Tinea unguium refers to a dermatophyte infection of the fingernails or toenails (Fig. • What other medications are they taking?
Complications • Have they suffered any cardiovascular events? Aspiration or breaking up of the deposit under ultrasound control may be required for persistent pain. The present generation of junior doctors and undergraduates must provide high-quality, patient-centred care in the context of a burgeoning body of medical research, patients
presenting with multimorbidity and resulting polypharmacy, continuing inequalities in society and across the world, and a medical culture that expects doctors to work within teams, bridging traditional specialty and professional divides. • Some phospholipase A2 toxins also directly damage myocytes and red blood cells (causing rhabdomyolysis and
haemolysis). Elapid snakes (kraits, cobras) most commonly cause neurotoxicity whereas viperine snakes (vipers, pit vipers, rattlesnakes, adders) cause local tissue damage and coagulopathy. Lastly, on a personal note, we have both enormously enjoyed our time as authors and editors of Clinical Medicine. Parental reassurance is usually all that is
                                                         ction neurotoxins (cobra and krait) are neutralized by antivenom, but presynaptic neurotoxins (krait) are less responsive and may need supportive therapy. Supportive treatment of complications • S nock usually results from nypovolaemia (extravasation of plood into the pitten limb).
and should be corrected with intravenous fluids. Tuberculoid leprosy presents with a few larger, hypopigmented (see Fig. Gadolinium injection enhances inflamed tissue. Immunosuppression and UV exposure can trigger a recurrence of HSV. Children and adolescents are usually affected. aureus induce flares, which may be mediated by superantigen
exotoxins that cause widespread T-cell activation. 550) can present with anaesthetic hypopigmented patches and should always be considered in people from endemic regions. 517) human herpesvirus 6 (see p. H. During an immune response, removal of immune complexes protects unaffected tissues from the deposition of these large, insoluble
composites, which could result in unwanted inflammation. In psoriatic arthritis and reactive arthritis, a finger may be swollen (dactylitis), or the distal interphalangeal (DIP) joints and nails are affected asymmetrically. Box 18.12 Causes of pain in the back (lumbar region) Mechanical • Trauma • Muscular and ligamentous pain • Lumbar spondylosis •
Facet joint osteoarthritis • Lumbar disc prolapse • Spinal and root canal stenosis • Spondylolisthesis • Disseminated idiopathic skeletal hyperostosis (DISH) • Fibromyalgia, chronic widespread pain (see p. Numbness, pins and needles and/or loss of power suggest 'nerve' involvement. Pathophysiology and treatment of type 2 diabetes: perspectives on
the past, present and future. Mechanical valves require formal anticoagulation for the lifetime of the prosthesis. • Antistreptolysin O titre - in rheumatic fever. Serum autoantibody studies • R heumatoid factors (RFs) (see also p. Hypothermia, hypoglycaemia and convulsions are occasionally observed in severe cases. Measurement of blood pressure
1135 History • duration of hypertension • symptoms (headaches, vision, epistaxis - usually asymptomatic) • co-morbidities (diabetes, CKD, CAD, stroke, gout) • family history, particularly young hypertension and cardio-renal events • hypertensive disorders of pregnancy, active attempt to become pregnant • Secondary causes - see Box 31.2
Thresholds (mmHg) Under 80 years: >140 or >90 (office) or >135 or >85 (ambulatory or home) Target (mmHg) • In UK, 80% arm circumference • Cuff at heart height • Arm supported Box 31.1 Phenotypes of hypertension and corresponding BP measurements Phenotype/
method Office BP Out-of-office BP Out-of-office BP Cardiovascular risk Normal Intermediate Hypertension Normal Intermediate Masked hypertension High Highest Ambulatory measurement • Legs uncrossed • Back supported • Uninterrupted rest for 5 min Record at least two readings
at each sitting Fig. Record when each was started, along with the dosing regimen; ask about side- effects and adherence to treatment. Cathinone (khat) is a naturally occurring stimulant derived from the plant Catha edulis. association.org.uk Psoriasis Association. While many plants contain gastrointestinal toxins, these rarely give rise to life-
threatening sequelae. It is characterized by a decrescendo diastolic murmur, beginning with the pulmonary component of the second heart sound that is difficult to distinguish from the murmur of aortic regurgitation ('Clinical memo', Fig. 21.37). MRSA and C. The synthesis, intracellular processing and secretion of insulin by the β cell is typical of the
way that the body produces and manipulates many peptide hormones. Multiorgan failure may occur and the mortality for TEN ranges from 30% to 50%. Surgical reconstruction of the mitral valve. Immunodiagnostic tests that can identify the offending specific snake venom antigens in wound swabs, serum, urine or other body
fluids are not widely available. Investigations The white blood count is commonly elevated and thrombocytopenia is often seen, particularly in patients with coagulopathy. Two major clinically relevant ANCA patterns are recognized on immunofluorescence: • proteinase 3 (PR3-ANCA), also called cytoplasmic or cANCA, producing a granular
immunofluorescence and seen in granulomatosis with polyangiitis (GPA) • myeloperoxidase (MPO-ANCA), also called perinuclear or pANCA, producing a perinuclear or pANCA, producing a perinuclear or pance (MPO-ANCA), also called perinuclear or pance (MPO-ANCA), also called perinuclear or pance (MPO-ANCA).
TRICUSPID VALVE Tricuspid stenosis This uncommon valve lesion, which is seen much more often in women than in men, is usually due to rheumatic heart disease and is frequently associated with mitral and/or aortic valve disease. Are there any particular areas where their symptoms might be making life difficult? Alopecia areata: a review of
disease pathogenesis. Treatment with topical steroids reduces inflammation and masks clinical signs, while allowing spread of the infection - 'tinea incognito'. 1065) occurs in quinine poisoning and does not respond to intravenous magnesium sulphate (see p. Patients need to be able to share their most intimate and worrying problems and this will be
impossible if they cannot develop confidence and trust in their clinicians. A family of specialized glucose-transporter (GLUT) proteins carry glucose through the membrane into cells. Diagnosis - HOW, WHY, WHERE and WHEN was your condition first diagnosed? Take the opportunity to review patients' fluid balance charts on ward rounds and try
(with supervision) to practise prescribing intravenous fluids appropriately. tinea. Moisturizers with or without topical steroids can be applied under occlusive damp tubular gauze bandages ('wet wraps'). Magdi Yaqoob and Kieran McCafferty Clinical skills for water balance, fluids and electrolytes 170 Assessing acid-base disturbance 171 Water and
electrolytes 172 Increased extracellular volume 177 Decreased extracellular volume 181 Disorders of sodium concentration 187 Hyperkalaemia186 Disorders of potassium concentration 187 Hyperkalaemia187 CORE SKILLS AND KNOWLEDGE Learning about fluid and electrolyte disorders and acid-base physiology can be a
daunting experience for medical students and practising physicians alike. National Institute for Health and Care Excellence (NICE) clinical guidelines. 12 12 260 Prescribing, therapeutics and toxicology Box 12.10 Some examples of drug interactions Implicated drug(s) Mechanism Clinical effect Digoxin Binding of colestyramine to
digoxin Reduced digoxin plasma concentration and reduced efficacy Oral contraceptive Warfarin CYP3A4 induction CYP3A4 inducti
Grapefruit juice Simvastatin CYP3A4 inhibition Myopathy Ritonavir Inhaled fluticasone CYP3A4 inhibition Cushing's syndrome Naproxen Methotrexate toxicity Bendroflumethiazide Lithium Inhibition of lithium excretion Lithium toxicity Verapamil Atenolol Atrioventricular node block Bradycardia,
heart block Ramipril Spironolactone Reduced excretion of potassium Hyperkalaemia Salbutamol Atenolol Opposing effects at the β-receptor Lack of bronchodilation Furosemide Digoxin toxicity Pharmacokinetic: enzyme induction Carbamazepine Phenytoin Rifampicin
Pharmacokinetic: enzyme inhibition Pharmacokinetic: excretion Pharmacokinetic: excretion Pharmacodynamic: synergistic interaction Pharmacodynamic: antagonistic interaction Polsoning is responsible for approximately 10% of acute hospital medical presentations and 1% of admissions. It usually presents with:
Galactorrhoea, spontaneous or expressible (60% of cases). For example, in the diagnosis of venous thromboembolism (VTE, see Ch. 29), measurement of serum D-dimer has a high sensitivity (a positive D-dimer do not have VTE). Microscopy and
mycological culture confirm the diagnosis and identify the organism. The figure presents a range of physical signs seen in people with diabetes; some are a direct result of complications of hyperglycaemia, and some are conditions associated with diabetes; some are a direct result of complications of hyperglycaemia, and some are conditions associated with diabetes; some are a direct result of complications of hyperglycaemia, and some are conditions associated with diabetes.
676 Dermatology Pubic lice (crabs, phthiriasis pubis) are transmitted by direct contact, usually sexual (see p. • Acute renal failure may need dialysis (common after Russell's viper bites). If a patient develops coma or shock, desferrioxamine should be given without delay in an intravenous dose of 15 mg/kg per hour (the total amount of infusion
usually not to exceed 80 mg/kg in 24 h). There are three types of joints: fibrous, fibrocartilaginous and synovial. Macroprolactinoma to smaller ones. Why? • Metformin (500 mg three times daily) is commonly used in this condition because of the recognized association between PCOS and
insulin resistance. 21.11 Pituitary apoplexy. A bright area of haemorrhage at the top of a pituitary adenoma (arrowed) is shown. Hypercalcaemia is much more common than hypocalcaemia and is frequently detected incidentally with multichannel biochemical analysers. A more detailed assessment is then carried out, including a 'general
examination' (hands, upper limbs, face and neck), examination of the likely affected system(s) as suggested by the history, and finally a wider examination of other organ systems. Many patients with repaired tetralogy of Fallot lead unlimited active lives. E12.1 Sea snake: Pelamis platurus. Food poisoning may also be caused by a number of non--
infectious organic and inorganic toxins (Box 20.47). These mature and pass towards the cell membrane, where they are stored before release. • Preterm birth (before 37 weeks' gestation) accounts for >1 million deaths per year. Diagnosis of melanoma is not always easy but the clinical signs listed in Box 22.28 help distinguish malignant from benign
moles. The peripheral sympathomimetic actions of amfetamines can be antagonized by β- adrenoceptor- blocking drugs but these are rarely required. • Nutritional factors. Atrial fibrillation may be present. Echocardiogram $ % & Fig. Further reading Basaria S. OP insecticides inhibit acetylcholinesterase, causing accumulation of acetylcholine at
central and peripheral cholinergic nerve endings, including neuromuscular junctions. Dicobalt edetate (and the free cobalt contained in the preparation) complexes free cyanide. 1. 22.11 Hand eczema. The hands, face and neck (Fig. These can be applied overnight and washed out with a coal tar shampoo. The objective of prevention is to reduce the
incidence of first or recurrent clinical events due to CAD, ischaemic stroke and peripheral artery disease. Many are admitted for other reasons but diabetes may complicate their hospital stay. Synovial joints (Fig. Review the results of blood gas analyses and work through any abnormalities shown. 169 9 170 Water balance, fluids and
electrolytes CLINICAL SKILLS FOR WATER BALANCE, FLUIDS AND ELECTROLYTES Assessing a patient's fluid status is a key skill for all doctors, requiring key clinical skills in history-taking (Box 9.1), examination (figure at bottom of this page), and data interpretation (Box 9.2). • Gonadotrophin levels. It improves slowly over many months.
Urticaria pigmentosa (cutaneous mastocytosis) This disorder is caused by a benign proliferation of cutaneous mast cells. However, their use in ACS patients should be restricted to patients with heavy thrombus burden identified during coronary angiography and for complications. Anti-ischaemia agents In patients should be restricted to patients with heavy thrombus burden identified during coronary angiography and for complications.
with no contraindications (asthma, AV block, acute pulmonary oedema) beta-blockers are administered orally, to reduce myocardial ischaemia by blocking circulating catecholamines. Other features include nausea, vomiting, seizures and a lactic acidosis. Management Intravenous atropine 0.6-1.2 mg, repeated as required, should be given for
bradycardia and heart block. Chronic lesions are at high risk of developing into squamous cell carcinoma. This will be aided by a set of formal observations (blood pressure, heart rate, oxygen saturation, respiratory rate, level of consciousness, capillary blood glucose and temperature). Glulisine is a similar analogue created by replacing asparagine at
position B3 with lysine and the lysine in position B29 is replaced by glutamic acid. VSDs can occur just below the pulmonary and demonstrate large-vessel vasculitis, e.g. Takayasu's arteritis (see p. 22.11) is a common problem that has a significant impact
on quality of life. N Engl J Med 2018; 379:1343-1352. Eczema/dermatitis The terms 'eczema' and 'dermatitis' are used interchangeably to describe an extremely common type of inflammatory rash. 13.2), which only have 10% of the disease burden (2006). Components that increase the risk include: dietary fat, particularly saturated fat, red and
processed meat, consumption of fried food, including French fries, increased intake of white rice and sugar-sweetened beverages. Wherever possible, the priority is to assess critically and stabilize vital systems. Transient neonatal diabetes mellitus occurs soon after birth and resolves at a median of 12 weeks; around 50% of people ultimately relapse
later in life. • Responses: What has the patient done about the symptoms? It is characterized by well-demarcated, shiny plaques with little, if any, scaling affecting the large flexures of the groin, natal cleft, axillae and submammary area. GH release is intermittent and mainly nocturnal, especially during REM sleep. If it goes well, the patient knows
they have been listened to, has had an opportunity to convey all of their concerns, and knows that the clinician cares for them and will act as their advocate. Axonal sensory motor neuropathy, seizures, coma and death have also been reported. Height velocity is the rate of current growth (centimetres per year), while the current attained height is
largely dependent upon previous growth. Oral antiviral therapy should be started within 72 hours of the onset of the rash and continued for 7-10 days to reduce pain, severity and viral shedding. These alkaloids are potent antagonists of acetylcholine at muscarinic receptors and produce the anticholinergic syndrome. Muscle spasm is worse while
standing and bending. Examine any restriction of straight-leg raising (see disc prolapse, below). If acne, hirsutism and menstrual disturbance are also present, there may be underlying polycystic ovary syndrome or an androgenic disorder. Amatoxins are found in Amanita phalloides, A. A high index of suspicion and a detailed drug history are essential.
There is no specific treatment for the intermediate syndrome apart from supportive care, including prolonged ventilation, though a prospective trial suggested that early treatment with oximes could reduce the likelihood of the syndrome developing. The rash is prominent on sun-exposed sites and worse in summer, but patients may not be aware of
their underlying photosensitivity. If this measure fails, the patient should be intubated and mechanical ventilation instituted. Many of these have particular patterns of geographic distribution, making local knowledge invaluable in assessing regional risks. Weight/body mass index (BMI) should be 4 20 ≥200 0 ≥90 100 BP, blood pressure; CCF,
congestive cardiac failure; GRACE, Global Registry of Acute Coronary Events; MI, myocardial infarction; PCI, percutaneous coronary intervention. The most common cause is frequent contact with soap or detergents and water at work ('wet work'). The latter results from damage to the red cell membrane by aggregates of RNA that accumulate owing
to inhibition by lead of pyrimidine-5-nucleotidase, causing characteristic 'basophilic stippling' of erythrocytes. Clinical features Methanol causes inebriation and drowsiness. Tetracyclines inhibit bacterial protein synthesis by interrupting ribosomal function (transfer RNA binding) and are active against Gram-positive and Gram-negative bacteria. The
thrombus is adherent to the surface of the plaque. Macleod's Clinical Examination, 14th edn. Liquid nitrogen cryotherapy can also be effective. 22.29 Scabies. Itchy papules and pustules centred on the web spaces of the hand. Multiple genetic psoriasis susceptibility loci have been identified, including PSORS1 (which accounts for 35-50% of the
heritable component). It is thought to be a cytotoxic T-cell-mediated autoimmune disease and potential triggers include hepatitis B virus and hepatitis B 
repeated infections with Staph. Ocular manifestations include photophobia, nystagmus and a squint. Dermatol Clin 2015; 33:175-307. Hair loss (alopecia areata Alopecia areata is a non-scarring hair loss disorder with a lifetime prevalence of about 2%. It is much less common nowadays due to the high absorbency of disposable nappies. The
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patient must therefore always be an active participant in the decision to use systemic therapy and must understand the rare risks as well as the benefits. DALYs measure health gaps, as opposed to health expectancies. • Echocardiography of suprasternal aortic arch windows can be difficult in adults but may demonstrate turbulence in the descending
aorta. Br Med J 2011; 342:2392. pulmonary artery. . It is well concentrated in bone and used for osteomyelitis. Nitrofurantoin This is an old agent that is still widely used as an oral treatment for uncomplicated UTI. They may cause irritation. Fig. Persistent fever Most patients with infective endocarditis should respond within 48 hours of initiation of
appropriate antibiotic therapy, as evidenced by a resolution of fever, reduction in serum markers of infection. Has the patient ever had anything like this in the past? difficile infection symptoms of infection control relies on: • Responsible use of antibiotics (see p. 22.57). There is an association with
cytotoxic T lymphocyte- associated antigen 4 (CTLA-4), HLA-DRBP*08 and DRB3*0202 on chromosome 6. It is usually asymptomatic and characterized by clusters of small flesh- coloured or slightly erythematous papules (with no scaling) in a ring shape with a dusky centre. Monospecific/monovalent antivenoms can be used only if the snake has been
positively identified, either by direct identification if the offending snake is brought to hospital or by detection of venom antigens in body fluids using immunodiagnostic tests. These are endemic in poor countries and constitute a huge physical and financial burden on their societies. Patients with pre-existing uncontrolled hypertension are more likely
to experience intraoperative BP lability (i.e. hypotension or hypertension), which is a risk factor for myocardial ischaemia and injury. All ionizing radiation carries a small risk of future malignant disease, and invasive procedures may cause bleeding, infection or injury to internal organs. It is also more common in obese children due to reduced SHBG
levels, leading to higher free circulating androgens. About 50% of secreted insulin is extracted and degraded in the liver; the remainder is broken down by the kidneys. 18.2 and Box 18.7. APPROACH TO THE PATIENT A full description of how to take a musculoskeletal history is found on page 412. People should aim to reduce their intake of sugar
and food products that contain refined sugars (e.g. fructose), and to eat at least five portions of fish per week, and four to five portions of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. Skin manifestations of tuberculosis (see p. There are discussed on page 551. 
are, however, concerns about the potential adverse consequences of this practice. Problems of therapeutic steroid therapeutic replacement for endocrine deficiency states, synthetic glucocorticoids are widely used for many non-endocrine conditions. It is increasingly used to examine the shoulder and other structures
during movement, e.g. shoulder impingement syndrome (see p. cte le ormation bee t inf nc en i ol c fi Ha ss uf 1 Treatment The explanation of The planned path of the health problem care based on the that is communicated diagnosis to the patient Outcomes Patient and system outcomes Learning from diagnostic errors, near misses and accurate,
timely diagnoses Time conceptualization of the diagnostic process. Difficulty with this indicates a loss of flexion or grip. Examine the hands for swelling, wasting and deformity. The new topical antibiotic retapamulin is effective but expensive, and is used as second-line treatment. Which healthcare professionals are involved with your care? The ESC
recommends that these groups should receive antibiotic prophylaxis during high-risk procedures. Curr Opin Inf Dis 2013; 26:123-126. SIADH will not respond (but will excrete the sodium and water load effectively); sodium depletion will respond. Severe hip disease causes the pelvis on the non-weight-bearing side to sag (positive Trendelenburg test).
However, invasive disease, lentigo maligna melanoma (see next section), may occur, especially in larger lesions. It causes widespread pink-beige scaly macules on the torso. These include intravenous fluids with volume expanders for hypotension and diazepam for anxiety. The drug is well absorbed orally but must be given in combination with another
staphylococcal agent to prevent resistance, which may occur rapidly. Steroid- sparing agents should always be considered, and screening and prophylactic therapy for osteoporosis introduced (see p. J Eur Acad Dermatol Venereol 2012; 26(Suppl 1):1-29. At high concentrations, vasopressin also causes vasoconstriction via the V1 receptors in vascular prophylactic therapy for osteoporosis introduced (see p. J Eur Acad Dermatol Venereol 2012; 26(Suppl 1):1-29. At high concentrations, vasopressin also causes vasoconstriction via the V1 receptors in vascular prophylactic therapy for osteoporosis introduced (see p. J Eur Acad Dermatol Venereol 2012; 26(Suppl 1):1-29. At high concentrations, vasopressin also causes vasoconstriction via the V1 receptors in vascular prophylactic therapy for osteoporosis introduced (see p. J Eur Acad Dermatol Venereol 2012; 26(Suppl 1):1-29. At high concentrations, vasopressin also causes vasoconstriction via the V1 receptors in vascular prophylactic therapy for osteoporosis introduced (see p. J Eur Acad Dermatol Venereol 2012; 26(Suppl 1):1-29. At high concentrations, vasopressin also causes vasoconstriction via the V1 receptors in vascular prophylactic therapy for osteoporosis introduced (see p. J Eur Acad Dermatol Venereol 2012; 26(Suppl 1):1-29. At high concentrations in vascular prophylactic therapy for osteoporosis in vascular prophylactic therapy 
tissue. 21.13A). Widespread infection should raise the possibility of immunosuppression, especially HIV infection of young sheep and goats. 21.34. Collagen is produced in larger quantities by the smooth muscle and the whole sequence of events cumulates as an 'advanced or raised fibrolipid
plaque'. Adrenaline (epinephrine) must be kept available whenever antivenom is administered, to treat possible anaphylactic anticoagulation with low-molecular-weight heparin. 23.7). An approach to hypopigmentation. Complement Complement
proteins are produced in the liver and circulate in an inactive form. For example, an elderly patient is sent to hospital by their GP with a 'suspected chest infection' and the doctor in the emergency department fails to consider other possible causes of breathlessness, such as heart failure or pulmonary embolus. difficile nucleic acid. Management
Treatment is with metronidazole 400 mg three times daily (in mild disease) or oral vancomycin 125-500 mg four times daily (in more severe or relapsing cases). It is impracticable to screen all hypertensive patients for secondary endocrine causes. Twin studies show 73% concordance in monozygotic twins, compared with 20% in dizygotic pairs. Insertensive patients for secondary endocrine causes.
the needle, injecting local anaesthetic as it advances; if a joint effusion is suspected, attempt to aspirate as you advance it. The major psychoactive constituent is δ-11-tetrahydrocannabinol (THC). 258) and are thus dose-dependent. 1425). 30.85 Aortic regurgitation: colour Doppler. A regurgitant jet (green) can be seen passing retrogradely into the
left ventricle from the aorta. The milestones of puberty in the two sexes are shown in Fig. Muscle fasciculation and flaccid paresis of limb muscles, and, occasionally, paralysis of extraocular muscles is observed. The 20-minute whole-blood clotting test (20 WBCT) is a good bedside indicator of envenoming by species that cause coagulopathy. In most
cases, infection is superficial and limited to the stratum corneum, which elicits no inflammation, or the deeper layers of the epidermis, including hair and continuous wave Doppler imaging of the proximal pulmonary arteries may demonstrate the
shunt. There are now hundreds of derivatives and most are considerably more potent than THC. Clinical features cannabis intoxication initially causes euphoria followed by distorted and heightened images, colours and sounds, altered tactile sensations and sinus tachycardia. virosa and A. • Using lists of disease classes to avoid jumping to
conclusions: simple aides-mémoire encourage clinicians to consider, for example, malignant, infectious, vascular, metabolic, inflammatory and degenerative causes of a particular problem. Levels of diagnostic depth A clinical impression is formed by taking a comprehensive history and undertaking a relevant physical examination. Examples of
successful interventions include campaigns for the provision of vaccines by the Global Alliance for Vaccines and Immunization (GAVI) and initiatives to reduce the economic exploitation of child labour. Adam Feather, David Randall and Mona Waterhouse 2020 Preface to the Tenth Edition ix HOW TO USE THIS BOOK There is a broad movement
through the book from early chapters which focus on general principles of clinical practice, to later chapters that deal with individual organ systems and clinical subspecialties. Patients often mentally rehearse a script relating to the symptoms or problems they wish to describe. The drug is released during prolonged chewing of plant leaves. Tissue
valves are preferred in the elderly and in cases where anticoagulants must be avoided, but are contraindicated in children and flatter than common warts and often flesh-coloured or lightly pigmented; they are best seen with side-on lighting. UVB and
UVA are potentially mutagenic and carcinogenic, especially in fair-skinned people. There is generally a progressive loss of anterior pituitary function. Defects in articular cartilage and underlying bone are features of osteoarthritis. Synovium and synovial fluid The joint capsule, which is connected to the periosteum, is lined with synovium, which is a
few cells thick and vascular. Methaemoglobinaemia of >30% should be treated with intravenous methylthioninium chloride 1-2 mg/kg. A careful history of occupation and recreational activities may indicate the need to test with extra allergens: for example, plants in a gardener or rubber glove chemicals in a surgeon. Various factors can contribute to
acute elevations of BP, such as antihypertension (see earlier), anxiety, pain, bladder distension, recreational drug withdrawal and neurological injury. It is characterized by well-demarcated, red plaques with a thick, silver scale. STEMI, ST-elevation myocardial infarction. The book they produced has
become an international medical best-seller, and has played a crucial part in the education of a generation of doctors - among them a new team of editors, humbled to be standing on the shoulders of these medical giants. • What is the sensitivity and specificity of the test? If the cause is gonadotrophin-independent, inhibitors of steroidogenesis,
antiandrogens, and aromatase inhibitors are also used. There is concern about QTc prolongation, and concomitant prescribing with other QTc prolongation drugs should be avoided whenever possible. Aminoglycosides Aminoglycosides (Fig. The two antibody treatments show no overall survival difference, but progression-free survival at 3 years
appears improved with the use of obinutuzimab. Erysipelas is more common on the face and is more sharply demarcated. Fragrance-free moisturizers should be used liberally on all dry skin areas and reapplied as often as needed. Most commonly, carbapenem-resistant Pseudomonas causes device-related infections or infection of the lower respiratory
tract. • Complement. The algorithm on page 182 helps guide decision- making regarding intravenous fluid therapy in such patients. Unless 17 OHP and cortisol at 0 and 60 minutes. Clinical features of acute or chronic eczema (see earlier) may
predominate and the pattern can change with time. A notable exception is the 'Portuguese man-o'-war' (Physalia physalis), whose sting contains a toxic peptide, phospholipase A, and a histamine- liberating factor. Profound sexual dysfunction can result from LS in both men and women. Infestations usually require expert pest control for eradication
Over a dozen different species of Malassezia have been identified and there is increasing evidence of their causal role in three common dermatoses: • pityriasis versicolor • seborrhoeic eczema (see p. The testes may be small and soft, and there may be gynaecomastia. - Is there any reason to suspect monogenic diabetes (p. (Causes are discussed on particular testes).
Warts on the face may become elongated ('filiform'). Envenomation by European adders (Vipera berus) is rarely fatal. Elapidae There is not usually any swelling at the site of the bite, except with Asian cobras; in these cases, the bite is painful and is followed by local tissue necrosis. They are also active against group A and
group B streptococci. It is characterized by an impaired ability of insulin to: • inhibit hepatic glucose output • stimulate gluc
stage. National Guideline Clearinghouse clinical guidelines in the USA. Arrhythmias are relatively uncommon. Peak velocity (m/s) 4.0 Signs Peak pressure drop (mmHg) 40 1.5-2.0 1.0-1.4 2.0 (Source: British Society of Echocardiography.), 96 $9 /9 39: $ 09 /$ % Fig. In people who frequently immerse their hands in
water (e.g. cleaners, caterers), Candida may cause chronic infection of the nail folds ('paronychia') and nail infection of skin. Meticulous UV protection is required to prevent sunburn and reduce the risk of skin cancer. Hyperpigmentation
Fig. During this time, the insulin dose may need to be reduced or even stopped. Atopic eczema This type of constitutional eczema is extremely common, affecting up to 20% of children. It requires at least two measurements some months apart and, ideally, multiple serial measurements. This is a powerful cell type that functions as a critical bridge
between the innate and adaptive immune systems. Most patients have a normal puberty; while in adulthood, infertility is one of the most common presentations. Severe agitation and violent behaviour are seen occasionally. Passive elevation reduces impingement and is less painful. However, low growth velocity without an apparent systemic cause
requires further investigation. Mast cells are found in tissues (especially skin and mucosae) and basophils in the blood. Is there a hormonal excess? Many skin pathogens can also be found on living skin as commensals, and microbial dysregulation, altered environmental factors, trauma, host immunity and host genetic variation may drive the transition
from commensal to pathogen and subsequent skin disease. Coronary atherosclerosis is a complex inflammatory process characterized by the accumulation of lipid, macrophages and smooth muscle cells in intimal plaques in the large and medium-sized epicardial coronary arteries. Oedema is a prominent feature. 9 Water balance, fluids and
electrolytes M. Fixed flexion at the elbow indicates an elbow problem. A delay in administration reduces its efficacy, but antivenom may remain useful for as long as signs of systemic envenoming persist. The aortic root may also be enlarged. These are the most common locomotor problems, and are generally self-limiting or respond to simple
analgesia, physiotherapy or exercise. The pattern of chronic neck pain is often complex, involving pain in the neck, shoulder and arm. 1031) • Ensure that the trachea is central • Palpate for cervical and supraclavicular lymphadenopathy or other masses 5. They are highly effective against many Gram-negative organisms, $PLQRJO\FRVLGH $PLQR
VXJDU $PLQR VXJDU *O\FRVLGLFOLQNDJH 2 2 $PLQR VXJDU Fig. Surgical success rates are variable and highly dependent upon experience, and a specialist pituitary surgeon is essential. This complicates dosing strategies and increases the potential for toxicity. Measurement of serum procollagen 3 peptide levels and liver fibroelastography (see
p. As a result of improved medical and surgical management, the majority of those born with congenital cardiac disease are surviving into late adulthood, having families and leading active lifestyles. Thanks to Louise Cook, who completed various aspects of development with a close eye for detail. Type 1 diabetes mellitus Epidemiology Type 1 diabetes
is a disease of insulin deficiency and accounts for 5-10% of all cases of diabetes. Transient renal impairment is common after ibuprofen overdose. Overall incidence is approximately 3-4/million per year and the prevalence is 50-80/million worldwide. The rash lasts 2-4 weeks and is usually more severe in the elderly or immunocompromised with
involvement of more than one dermatome. In addition to inhibition of acetylcholinesterase, a chemical reaction known as 'ageing' also occurs rapidly and more completely than in the case of insecticides. Myocardial ischaemia/infarction should be treated conventionally. Ethanol is commonly ingested in beverages and deliberately with other
substances in overdose. Large amounts of information gathered from the history, examination and available investigation results need to be assimilated and synthesized into a working diagnosis. Tricuspid stenosis is also seen in the carcinoid syndrome. Pathophysiology Tricuspid valve stenosis results in a reduced cardiac output, which is restored
towards normal when the right atrial pressure increases. Vancomycin can cause ototoxicity and nephrotoxicity, and thus pre-dose (trough) serum levels should be monitored regularly. Clinical Medicine has always attempted to bridge the gap between basic introductory texts and larger reference works: to be as comprehensible as it is comprehensive and larger reference works.
Closure of an ASD is indicated if there is a significant left-to- right shunt, resulting in right atrial and ventricular enlargement with normal pulmonary vascular resistance and oxygen saturations. It may also be the presenting feature of immediate (type 1) allergy, especially in young children with atopic eczema (see p. The inflammatory response may
extend upwards to the epidermis. Telogen effluvium This type of diffuse, non- scarring hair loss is associated with increased hair shedding and usually presents 2 or 3 months after pregnancy or a severe illness. Many different herbal-drug interactions have been described, the best recognized of which is with St John's Wort (SJW), which is an inducer
of P450 enzymes and drug transporters, such as P-glycoprotein. Carbapenem-resistant isolates with OXA-48 or KPC production may be susceptible to quinolones and aminoglycosides, and so other commonly used therapeutic options are available for treatment. By contrast, type 2 diabetes diagnosed after the age of 80 years has a limited effect on life
expectancy. 448). Dermoscopic (trichoscopic) examination can help to identify whether follicles are still present and histology of scalp biopsies is helpful when there is diagnostic uncertainty. It often runs a chronic relapsing course for many years, with a reported lifetime prevalence of up to 15%. Its activity thus determines the renal threshold for
glucose, which normally averages approximately 10-11 mmol/L (180-200 mg/dL). ACTH levels are low in secondary hypoadrenalism. Box 21.22 Endocrine causes of hypertension Excessive production of catecholamines
Phaeochromocytoma Excessive growth hormone (GH) production • Adrenal adenoma (Conn's syndrome) • Idiopathic adrenal hyperaldosteronism Excessive production of other mineralocorticoids • Cushing's syndrome (massive excess of cortisol, a weak
mineralocorticoid) • Congenital adrenal hyperplasia (in rare cases) • Tumours producing other mineralocorticoids, e.g. corticosterone Exogenous 'mineralocorticoid preparations Even in the absence of symptoms, biochemical tests to exclude
secretory activity should be performed, as adrenal adenomas often secrete cortisol at a low level - 'autonomous cortisol secretion', which may confer increased cardiovascular risk. Muscle spasm is palpable and tender, and may lead to abnormal neck posture (e.g. acute torticollis). In adolescence, gynaecomastia and micro-orchidism (mostly from the
age of 14 years), as well as a poor muscular bulk with excessive long legs (due to lack of epiphyseal closure), small shoulders and broad hips should raise suspicion. Evidence suggests that evolutionarily conserved molecular patterns in mitochondria (organelles that were originally derived from bacteria) can also activate monocytes. The illness is itself
rapidly progressive without intervention, death occurring within months rather than years. Management Initial treatment should be initiated immediately after the diagnosis is confirmed. Acute urticaria is often triggered by infections. Venlafaxine is a serotonin norepinephrine reuptake inhibitor (SNRI) with a similar toxicity profile to the
SSRIs but with greater risk of cardiac arrhythmias and convulsions. This leads to engulfment of the bacteria into phagosomes and fusion with granules to release antibacterial agents. Their major action is to increase glucose-induced β-cell insulin secretion, while suppressing glucagon secretion, but they also slow gastric emptying and induce satiety.
For adrenaline and noradrenaline, we have added epinephrine and noreginephrine and noreginephrine and include a feeling of constriction in the chest and
dyspnoea. In contrast, patients with oligoarticular (50% above baseline • raised serum lactate • severe abdominal pain. Diagnosis biagnosis is made by detecting A or B toxins in the stools using ELISA, or PCR for C. Musculoskeletal pain may also affect people's ability to do their job, or care for children or dependents. 22.19). Recent studies have
shown that some people with type 1 diabetes continue to produce small amounts of insulin for many decades after diagnosis. • Urine electrophoresis and immunofixation can assess light- chain excretion, although this is now being superseded by the SFLC assay. Radiology • S keletal imaging. The baseline ECG is rarely normal, but if it is, it should be
repeated every 15 minutes, while the patient remains in pain. 22.17 Management of psoriasis. Vitamin D analogues should be limited to less than 100 g per week as higher doses may cause hypercalcaemia. Food-drug interactions are also becoming increasingly recognized. Other destructive treatments include curettage and cautery, and laser
therapy, but these may cause considerable pain and scarring. Molluscum contagiosum is a common childhood skin infection and is caused by a pox virus. TOE may be helpful if the images are not clear, and guides device closure of the ASD. 22.15A) and elbows (Fig. Pustules, oedema and golden-crusted inflamed papules
strongly suggest secondary infection. Patients may experience the symptoms of right heart failure (see p. Each pathway culminates in the cleavage of C3 and C5. Histamine is a low-molecular-weight amine (111 Da) with a blood half-life of less than 5 minutes; it constitutes 10% of the mast cell's 3 3 46 Immunity Box 3.6 Mast cell and basophil
mediators Mediators Effects Pre-formed Histamine Vasodilation Vascular permeability 1 Smooth muscle contraction in airways Proteases Digestion of basement membrane causes 1 vascular permeability and aids migration Proteoglycans (e.g. heparan) Anticoagulant activity Synthesized de novo Platelet-activating factor (PAF) Vasodilation
Leukotriene B4 (LTB4), LTC4, LTD4 Neutrophil and eosinophil activation and chemoattraction Vascular permeability ↑ Bronchoconstriction Vascular permeabili
for the first time in pregnancy and is described in more detail on page 740. Medicine 2016; 44:113-115. Mushrooms is invariably intentional. How active are they? Immediate irrigation of the skin with copious volumes of water is the priority.
followed by the prompt application of calcium gluconate gel to reduce pain and limit skin damage. It is given intravenously and pre-dose (trough) serum levels are monitored to optimize efficacy. Lipopeptides Daptomycin is a lipopeptide with a similar spectrum to that of vancomycin, and is given by the intravenous route. In patients planning
pregnancy, it is useful to know the size of the pituitary lesion before starting dopamine agonist therapy. More commonly, it can be acquired as a result of renal disease, sickle cell disease, drug ingestion (e.g. lithium), hypercalcaemia or hypokalaemia. The infusion is continued until the glycol is no longer detectable in the blood. 12.3); these two
pathways become saturated, with the consequence that the renal excretion of salicylates stimulate the respiratory centre, increase the depth and rate of respiration, and induce a respiratory alkalosis. In general, therapy for
3 weeks or less, or a dose of Box 21.20 Major adverse effects of corticosteroid therapy Physiological • Adrenal suppression (secondary) Pathological cardiovascular • Increased blood pressure Gastrointestinal • Polyuria • Nocturia Central nervous • Depression • Euphoria • Polyuria • Nocturia Central nervous • Depression • Euphoria • Polyuria • Nocturia Central nervous • Depression • Euphoria • Polyuria • Nocturia Central nervous • Depression • Euphoria • Polyuria • Nocturia Central nervous • Depression • Euphoria • Polyuria • Nocturia Central nervous • Depression • Euphoria • Polyuria • Nocturia Central nervous • Depression • Euphoria • Polyuria • Nocturia Central nervous • Depression • Euphoria • Polyuria • Nocturia Central nervous • Depression • Euphoria • Polyuria • Nocturia Central nervous • Depression • Euphoria • Polyuria • Nocturia Central nervous • Depression • Euphoria • Polyuria • Nocturia Central nervous • Depression • Euphoria • Polyuria • Nocturia Central nervous • Depression • Euphoria • Polyuria • Nocturia Central nervous • Depression • Euphoria • Polyuria • Nocturia Central nervous • Depression • Euphoria • Polyuria • Nocturia Central nervous • Depression • Euphoria • Polyuria • Nocturia Central nervous • Depression • Euphoria • Polyuria • Nocturia Central nervous • Depression • Euphoria • Polyuria • Nocturia Central nervous • Depression • Euphoria • Eu
Glycosuria/hyperglycaemia/ diabetes • Impaired growth • Amenorrhoea Bone and muscle • Osteoporosis • Proximal myopathy and wasting • Avascular necrosis of the hip • Pathological fractures Skin • Thinning • Easy bruising Eyes • Cataracts Increased susceptibility to infection (Signs and fever are frequently masked) • Septicaemia • Fungal
infections • Reactivation of tuberculosis • Skin infections (e.g. fungi) prednisolone of less than 5 mg per day, will not result in significant long-term suppression of the normal adrenal axis. Details on how to seek permission, further information about the publisher's permissions policies and our arrangements with organizations such as the Copyright
Clearance Center and the Copyright Licensing Agency, can be found at our website: www.elsevier.com/permissions. There is no evidence of follicular development. This may be mistaken for a bacterial infection and inappropriately treated with an antibiotic. Other macrolides include azithromycin and telithromycin. Infection may also spread to the
palm (tinea manuum), especially in manual workers. coli bacteraemic isolates are now ESBL producers. When a patient suffers an ADR, this should be reported to the regulatory agency; for example, through the UK's Yellow Card reporting scheme to the Medicines Healthcare Products Regulatory Agency. Cold sores may be treated with aciclovir
cream, used early to shorten an attack. Prophylactic antibiotic therapy reduces the risk of further attacks during treatment but the effect wears off after discontinuation. Necrotizing fasciitis This fulminant, rapidly spreading, life-threatening bacterial infection of the subcutaneous and deep soft tissues causes severe tissue destruction and is associated
the cationic proteins, of which there are four main types: major basic protein (MBP), eosinophil neurotoxin, which are all potently toxic to helminths; and eosinophil peroxidase, similar to neutrophil myeloperoxidase, similar to neutrophil myeloperoxidase, similar to neutrophil myeloperoxidase. 17.24). Staging and prognosis Fig. Joint stiffness for more than 30 minutes each morning - think
of inflammatory arthritis. Inorganic acids such as hydrochloric and sulphuric acid are generally more toxic than organic acids such as acetic acid. Concomitant statin use is avoided. Whiplash injury is a common cause of chronic neck pain, although most people recover within a few weeks or months. The type of snake should be identified, if possible.
NICE 2015; topicsummary. Skin infections  671 Mycobacterial infections Leprosy (Hansen's disease) Leprosy (see p. Useful information regarding the severity of the condition can be obtained indirectly by observing the dynamics of ventricular function. Ingestion of food causes perioral and sometimes generalized urticaria (hives) and gastrointestinal
symptoms (reflux, vomiting and diarrhoea). In the UK the majority of these patients will be reviewed in designated specialists often look after them in local hospitals and all physicians should therefore have a practical understanding of congenital heart disease. Ventricular septal
defect Ventricular septal defect (VSD) is the most common congenital cardiac malformation. Head lice (pediculosis capitis) infestation is an extremely common problem in schoolchildren, especially girls. Blue naevus is an acquired blue-grey mole caused by a deeper proliferation of melanocytes in the mid-dermis. Basal cell papilloma (seborrhoeic
keratosis/wart) SKIN TUMOURS This is an extremely common, harmless growth that affects older adults and is caused by overgrowth of the basal keratinocytes. Disseminated intravascular coagulation and acute kidney injury are recognized. STAT proteins are translocated from the cytoplasm into the cell nucleus and cause GH-specific effects by
binding to nuclear DNA. Treatment of port-wine stains is with a vascular laser: for example, a pulsed dye laser. The patient should be thoroughly assessed with a vascular laser: for example, and is effective against multidrug- resistant Pseudo monas, as well as
less toxic than colistin. Extended-spectrum β-lactamase-producing Enterobacteriaceae ESBLs are inactivating enzymes that confer resistance to most β- lactam antibiotics, including penicillins, cephalosporins and aztreonam. • Subfertility. There can be a decrease in the flow of oxygenated blood to the myocardium that is due to: • anaemia
carboxyhaemoglobulinaemia • hypotension, causing decreased coronary perfusion pressure. Flea eggs can lie dormant in soft furnishings (e.g. carpets) for many months, hatching when disturbed by vibrations. Nature 2000; 403:503-511.) Prognosis There has been a dramatic improvement in the overall survival pattern of follicular lymphoma since
anti-CD20 therapy initiation. Other features described include malaise, dry mouth, metallic taste, myalgia, arthralgia, blurred vision, photophobia and transient blindness. It may also occur following tetralogy of Fallot repair. • Hypoadrenalism causes mild hypotension, hyponatraemia and, ultimately, cardiovascular collapse during severe intercurrent
stressful illness. • Large (non-restrictive) VSDs usually present with heart failure symptoms in childhood and eventually lead to pulmonary hypertension and Eisenmenger's syndrome. These pinhead white papules are commonly found on the face of infants. The value of performing a physical examination can be significant in reinforcing to patients that
they have been dealt with thoroughly and compassionately. The symptoms include severe low back pain, excruciating muscle cramps in all four limbs, abdomen and cardiogenic pulmonary oedema. Table of contents: Kumar & Clark's
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CARDIOVASCULAR DISEASE AND B VITAMINS......Page 1258Zinc deficiency......Page 1258Zinc deficiency......Page 1260Nutritional requirements in the elderly......Page 1261Genetic and environmental factors......Page 1262Peripheral signals (1st order in Fig. They have a central punctum and contain 'cheesy' keratinous matter. Investigation will lead to
the demonstration of either locally or systemically advanced disease in the majority of cases. Mild steroids rarely cause skin atrophy but this is a significant risk with potent and superpotent steroids, especially if applied under occlusion or with a keratolytic such as salicylic acid. 2[DODWH 12 12 274 Prescribing, therapeutics and toxicology
Ingestion of hydrofluoric acid causes severe corrosive injury to the gastrointestinal tract. However medicine evolves in the future, at the centre of everything we do must remain the huge privilege and pleasure of caring for, supporting, empowering and helping people so that their health and social needs are optimally met. High-dose corticosteroids
and immunosuppressants such as methotrexate are used for treatment. (E-F) Severe hypertensive retinopathy. CMR can be helpful for palmoplantar postulosis. Systemic therapy Systemic therapy is usually indicated for widespread disease that
has failed to respond to topical agents and phototherapy. Following initial myocardial infarction (MI), there is a three-to sixfold increase in the risk of heart failure and stroke. If the patient has had any surgical interventions a comprehensive anaesthetic history should be sought and recorded. 30.91). Positivity for RF and/or ACPA is associated with a
worse prognosis and an increase in the likelihood of bony erosions in people with RA. • Flexural psoriasis tends to affect older adults with a raised body mass index. Savage MO, Burren CP, Rosenfeld RG. The illness is characterized by flushing, headache, sweating, dizziness, burning of the mouth and throat, abdominal cramps, nausea, vomiting and
diarrhoea; it is usually short-lived, the mean duration being 4 hours. Metabolic acidosis and cardiorespiratory depression are observed in severe cases. 21.33. Others include tinidazole and nimorazole. 30.61 Mechanisms underlying the development of thrombosis on plaques. The value of silibinin and benzylpenicillin is not proven. Recent data
confirm the profound BP-lowering effect of such surgery, which may be due to additional gut hormonal changes postoperatively, in addition to expected weight loss. Drug treatment A single antihypertensive medication at standard dose reduces BP by about 9/5 mmHg in mild hypertension. Intoxication may follow ingestion, inhalation or dermal
absorption. 183). A change of antibiotic dosage or regimen should be avoided unless there are positive cultures or a drug reaction is suspected. 21.13A). Hypothalamo-pituitary-adrenal axis 605 History and examination Classical CAH presents at birth with: • Ambiguous genitalia in females (clitoral hypertrophy, urogenital abnormalities and
labioscrotal fusion are common) or • Adrenal failure (collapse, hypotension, hypoglycaemia), sometimes with a salt-losing state (hypotension, hypoglycaemia). RFs are antibodies (usually immunoglobulin (Ig) M, but also IgG or IgA) against the Fc portion of IgG. Mucosal involvement ranges from asymptomatic, reticulate white streaks on the buccal
mucosa and lateral tongue to a severe, painful, erosive LP). • Ask the patient specifically about their ideas, concerns and expectations (ICE): • Ideas: What do they think might be going on? It is thought to be caused by a delayed-type hypersensitivity to an endogenous antigen that occurs in the skin after UV exposure
(photoantigen). Tall stature can occasionally be due to hyperthyroidism. • Poisoning in children aged 1.3 (in the absence of another cause, e.g. warfarin) OR paracetamol concentration is detectable • If the paracetamol concentration is not detectable • If the paracetamol concentration is not detectable, the INR and ALT are normal, and the patient is asymptomatic, no treatment with an antidote is
indicated. Further reading Leaute-Labreze C, Harper JI, Hoeger PH. If so, how often do the carers attend and what do they do for the patient? Physical examination The physical examination, including any objective observations, should be used to confirm or refute the initial diagnosis/diagnoses made from the history. Provided that the valve is not
severely deformed or heavily calcified, critical aortic stenosis in childhood or adolescence can be treated by valvotomy (performed under direct vision by the surgeon or by balloon dilation using X- ray visualization). PTH has several major actions, all serving to increase plasma calcium by: • increasing osteoclastic resorption of bone (occurring rapidly).
• increasing intestinal absorption of calcium (a slow response) • increasing synthesis of 1,25-dihydroxyvitamin D3 • increasing renal tubular reabsorption of calcium • increasing excretion of phosphate. Unfortunately, 'steroid phobia' is common among patients or their carers, and leads to under-use of an otherwise effective treatment. • Clubbing is
discussed on page 937. 2015 ESC Guidelines for the management of Infective endocarditis: The Task Force for the Management of Infective Endocarditis of the European Society of Cardiology (ESC). For the most part, then, the target has been an office BP of less than 140/90 mmHg, with stricter targets for patients with diabetes and proteinuric
chronic renal disease (105 Isolated systolic hypertension > 140 135 90%), which means that if criteria are positive, true left ventricular hypertrophy is likely to be present. There are numerous examples: members of the Nod-like receptor (NLR) family can be activated by stimuli such as viruses, Fig. However, there is a progressive loss of sexual
function with reduction in morning erections and frequency of intercourse. LH and FSH are both low in the prepubertal child. • C MR and CT are helpful for assessing anomalous pulmonary venous drainage and confirming sinus venous defects. These include rare pituitary-specific conditions (e.g. autoimmune (lymphocytic) hypophysitis, giant cell
hypophysitis, postpartum hypophysitis), or pituitary manifestations of more generalized disease processes (sarcoidosis, Langerhans' cell histiocytosis, granulomatosis with polyangiitis). Rarely, tumours enlarge during pregnancy to produce headaches and visual field defects. ni.go v.uk/articles/hello-my-name. aureus infections, such as osteomyelitis (it
is well concentrated in bone) or endocarditis, and as an adjunctive agent for other staphylococcal infections accompanied by septicaemia. Orf has long been recognized in farm workers but may also affect children, who catch the infection at 'petting stations' in city farms. The binding of insulin to its receptor initiates many intracellular actions,
including translocation of these vesicles to the cell membrane, carrying GLUT-4 with them; this allows glucose transport into the cell. Kahn SE, Cooper ME, Del Prato S. Kallmann's syndrome This is isolated gonadotrophin (GnRH) deficiency (see p. (C) Aortic valve tissue prosthesis (aortic view). Taking over is an honour and a great responsibility, and
we are grateful for the legacy they have left, as well as for their continued support and input as we have brought this current edition to products, methaemoglobin. Ethylene glycol is found in a variety of common household products,
including antifreeze, windshield washer fluid, brake fluid and lubricants. The hydrophobic 'pre' portion of pre-proinsulin allows it to transfer to the Golgi apparatus, and is subsequently enzymatically cleaved off. Tissues such as muscle and fat have insulin-responsive glucose transporters and absorb glucose in response to postprandial peaks in glucose
and insulin. The rate is up to four times higher in Afro-Caribbean patients and onset may be delayed by months or years after starting therapy, so a careful drug history is essential. Management Acute urticaria is usually self- resolving. • Serum protein electrophoresis and immunofixation characteristically shows a monoclonal band and immunofixation characteristical shows a monoclonal shows a monoclonal band and immunofixation characteristical shows a monoclonal shows a monocl
paresis (see Fig. • GH acts by binding to a specific (single transmembrane) receptor located mainly in the liver (Box 21.46). In older children and adults, balloon dilation and stenting is the preferred option. This observation led some to question the role of β-cell function in the aetiology of diabetes. Pain often radiates upwards to the occiput and is
commonly T1 Medial upper arm associated with tension headaches. Saxitoxin blocks voltage-gated sodium channels in nerve and muscle cell membranes, thereby blocking nerve signal transmission. Clinical features and management Symptoms develop within 30 minutes. Further reading British National Formulary. Difficulties with these movements
indicate a shoulder or rotator cuff problem. - Might it be secondary to another disease process (p. pylori: see page 1173. Measurement of the serum lithium concentration confirms the diagnosis. A metabolite of orellanin inhibits protein synthesis in the kidneys. Clinical features and management Symptoms are typically delayed for 2-4 days. Further
reading Creamer D, Walsh SA, Dziewulski P. Acromioclavicular osteophytes increase the risk of impingement and may need to be removed surgically. 3. These molecules interdigitate and form myofibrils, which cause muscle contraction in a similar way to myocardial muscle (see p. E12.9) occurs initially; this progresses with involvement of bulbar
muscles and, ultimately, paralysis of the diaphragm. It presents at birth as a flat, red area and is commonly found on the face. 1038) and possibly identify the cause. The major hazards are detailed in Box 21.20. Most ADRs resolve spontaneously when the drug is withdrawn, but specific therapy is sometimes required for ADRs that cause acute patients.
harm (see p. Viperidae (Viperinae and Crotalinae) Russell's viper causes most of the snake-bite mortality in India, Pakistan and Myanmar. In general, therapy has three aims: removal/ control of the tumour, reduction of excess hormone secretion and replacement of hormone deficiencies. Julie Taylor and Anne Collett acted as production managers and
we are grateful to them for their experience and efficiency in bringing a large and spreading project together into a finished piece of work. Surgical release of the contracture is restricted to those with severe deformity of the fingers. Pain in the lower back Low back pain is a common symptom. 22.18) that usually affect the flexural aspect of wrists,
forearms and lower legs. (especially C. Further reading Buss PJ, Christiansen SC. Body lice (pediculosis corporis) are associated with poverty and neglect, and are seldom seen in developed countries except in long-term homeless people. The rash may be widespread and lead to scarring hair loss and nail damage. ADH, alcohol dehydrogenase; ALDH,
aldehyde dehydrogenase; AO, aldehyde oxidase; GO, glycolate oxidase; LDH, lactate dehydrogenase. SJW can lead to increased drug metabolism, reduction in drug concentration, and failure of therapeutic effect. Lancet 2015; 386:983-994. add parental heights 2. 677). Neutrophilia is seen in bacterial infection (e.g. septic arthritis). • Small: no
haemodynamic effect or significant shunt but audible systolic or continuous murmur. Prenatal diagnosis Prenatal genetic counselling is essential (see Ch. 2). Patients with uncontrolled BP (evidence of chronic poor continuous murmur. Prenatal diagnosis Prenatal
>180/110 mmHg) are commonly referred back to their primary care doctor for adequate management of hypertension prior to elective procedures, though this is not a reason to delay necessary emergency surgical intervention. A recalcitrant purpuric nappy rash in the Fig. It does not inactivate thrombin and has no effect on platelets. 21.17 CT scan
showing bilateral adrenal calcification. • Calcitonin (200 units i.v. 6-hourly) has a short-lived action and is little used. Management The underlying cause of aortic regurgitation (e.g. syphilitic aortitis or infective endocarditis) may require specific treatment. St Louis: Mosby; 2003, p. (B) CT scan confirms the circumferential pericardial effusion
(arrowed). The latter is detected by specific G- protein- coupled, calcium- sensing receptors on the plasma membrane of the parathyroid cells. 204) • Carry out a feet-to-face examination - spend 30 seconds looking the patient up and down, noting any striking abnormalities - facial asymmetry, scars, deformities, skin lesions, amputations, sweating
breathlessness, discomfort • Look for clinical clues around the bed - oxygen, intravenous fluids, sputum pot, urinary catheter 3. Interventions for cutaneous molluscum contagiosum. Do they have in formal or formal carers? There are three main groups of venomous snakes, representing some 200 species, which have in their upper jaws a pair of
enlarged teeth (fangs) that inject venom into the tissues of their victim. For example, a frail 93-year-old man with dementia is visited at home by his GP at the request of his daughter. N Engl J Med 2020; 382:706-716. Common rashes 667 Fig. Patients may present in adulthood with a history of cryptorchidism with primary testicular failure (due to
the testicular damage before or during surgery) or gonadotrophin deficiency (presumably the initial cause of maldescent). Klinefelter's syndrome is a common chromosomal abnormality, affecting 1 in 1000 males (47XXY and variants, e.g. 46XY/47XXY mosaicism), i.e. a male with an extra X chromosome. 21.35 The control and
actions of prolactin. Prolactin is mainly controlled by tonic inhibition by hypothalamic dopamine. Different patterns of hyperthyroidism and their distinctive features are outlined in Box 21.29. • Oral phosphate (sodium cellulose phosphate 5 g
three times daily) produces diarrhoea. The book has been described as the 'gold standard, thorough guide to clinical medicine', and is used by the majority of medical schools around the world. ESC Guidelines for the management of grown-up congenital heart disease. Positron emission tomography (PET) scanning uses radionuclides, which decay by
emission of positrons. Given continuously, it produces amenorrhoea, and so is normally given for days 1-14 of each cycle. Aetiology The condition appears to be polygenic, with epigenetic and environmental triggers. Occasionally, in fitter patients, allogeneic HSCT is considered. *&*OLNH SDWLHQWVGHDWKV $FWLYDWHG%OLNH
                                    2YHUDOOVXUYLYDO\HDUV $OOFOLQLFDOULVNSDWLHQWV *&%OLNH 3UREDELOLW\ &//6// $OOSDWLHQWV 3UREDELOLW\ \( \) (1) ($OOSDWLHQWV 3U
1RGDOPDUJLQDO]RQH \PSKRSODVPDF\WLF 30/%&/ SDWLHQWVGHDWKV $FWLYDWHG%OLNH SDWLHQWVGHDWKV 3 2YHUDOOVXUYLYDO\HDUV Fig. 21.34). • Ingestion. The glans penis may be affected in uncircumcised males (candidal balanitis). Scorpion venoms stimulate the release of acetylcholine and catecholamines, causing
both cholinergic and adrenergic symptoms. Clinical features and management Severe pain occurs immediately at the site of puncture, followed by swelling. They are often recalcitrant in people with impaired immunity (e.g. transplant recipients). The transporter protein GLUT-4 (bottom right) is stored in intracellular vesicles. aureus or occasionally
both. Effects include altered time and space sense, depersonalization, hallucinations, derealization and euphoria. More often, they result from primary testicular sperm extraction (microTESE), offers some hope to men with
primary hypogonadism wanting to father their own child. The diagnosis is made by exclusion of other pathologies and may require a skin biopsy. • Radiotherapy - by conventional linear accelerator or newer stereotactic techniques - is usually employed when surgery is impracticable or incomplete, as it controls but rarely abolishes tumour mass.
Neurological involvement classically causes progressive descending paralysis. Because of its adverse effect profile, use in developed countries was largely restricted to the treatment and prevention of Pneumocystis jiroveci infections, such as acute
exacerbations of chronic bronchitis and UTI, as it appears to carry a relatively lower risk for triggering C. (F) Signs of malignant hypertension in grade 4 disease, with a swollen optic disc and macular exudate. 673), psoriasis, trauma or a combination of these. The pain is often worse during the middle of the range of abduction, reducing as the arm is
raised fully; a so-called 'painful arc syndrome'. pneumoniae meningitis, in combination with other effective antibiotics, when disease is caused by penicillin-resistant strains. 608). Primary hyperaldosteronism Any patient receiving steroids, or who has recently received a 4 week course of steroids (within the last 6 months) and may still have adrenal
suppression, requires steroid cover around the time of surgery (Box 21.21). Increased mineralocorticoid secretion from the adrenal cortex, termed primary hyperaldosteronism, accounts for 5-10% of all hypertension. Alternatively, and more simply, a pre-dose level can be checked prior to drug administration and appropriate drug adjustments made
with subsequent doses. Occasionally, eyebrows, eyelashes and the beard area are affected. • Intravenous bisphosphonates are the treatment of choice for the hypercalcaemia of malignancy or of undiagnosed cause. 8.3 The structure of an aminoglycoside. Salicylic acid can help remove scales but increases steroid potency when used concurrently.
23.6). It is thought to be caused by a genetically determined increased sensitivity to androgens and there is often a positive family history. Gordon CM. Visual field examination commonly reveals defects, such as bitemporal hemianopia. Box 17.20 Indications for treatment of low-grade non-Hodgkin lymphoma at presentation or progression • • • • •
• S tage I disease; possibly limited stage II disease Rapidly progressive disease Organ impairment (i.e. bone marrow failure, urinary tract obstruction) Bulky disease (i.e. lymph node mass >7 cm) Histological transformation Ascites or pleural effusion Philosophy of physician and patient Initial treatment: advanced disease (stages II-IV) Chemo-
immunotherapy incorporating an anti- CD20 monoclonal antibody (either rituximab or obinutuzumab) is the treatment of choice. Amfetamines are central nervous system (CNS) and cardiovascular stimulants. Typical doses are bromocriptine 10-60 mg daily or cabergoline 0.5 mg daily (higher than for prolactinomas). E12.4 Ceylon krait: Bungarus
ceylonicus. A clear cut-off line can usually be found between clothed (unaffected) and exposed (affected) sites. People with a history of atopic eczema are at significantly increased risk. 1HFURWLF FHQWUH Angina 1081 Lifestyle modifications Patients should eat a diet with a reduced fat intake (<30% of total energy intake, saturated fats <7%
total energy intake) and a dietary cholesterol intake of less than 300 mg/day. The patient remains in sinus rhythm, which is unusual, and there is a prominent jugular venous a-wave. The main adverse effect is a burning or prickling sensation that usually improves with continued treatment. 21 21 634 Endocrinology Box 21.47 Assessment of problems
of growth and development )HPDOH %UHDVWVWDJH +HLJKWVSXUW 3XELFKDLU +HLJKWVSXUW 0DOH 7HVWLFXODUYROXPH P/ P/ P/ $JH\HDUV Fig. Such needs are complex, may be triggered by natural disasters or armed conflict, and must be addressed using a multiprofessional approach. Once these factors have been
corrected, there are no data to support the further active lowering of BP in the postoperative period without evidence of acute end-organ damage, though it is usual practice to try to keep BP below 180/110 mmHg, in part to reduce the risk of problems with postoperative haemostasis. Blood pressure on the wards Patients with hypertension are often
admitted to hospital for other medical reasons. • Bromocriptine is the longest-established therapy and is therefore preferred if pregnancy is planned; initial doses should be small (e.g. 1 mg), taken with food and gradually increased to 2.5 mg two or three times daily. A rise in liver enzymes is often seen with drug-induced toxicity. These lesions may be a small (e.g. 1 mg), taken with food and gradually increased to 2.5 mg two or three times daily. A rise in liver enzymes is often seen with drug-induced toxicity.
associated with diabetes insipidus and/or an unusual pattern of hypopituitarism. Other lesions Carotid artery aneurysms may masquerade as pituitary tumours and must be diagnosed before surgery. • C erebral precocity is when precocious puberty is associated with a cerebral abnormality, acquired or otherwise, such as a tumour, previously
acquired brain injury, for example, radiotherapy. Once elevated, the arm can be held in place by the deltoid muscle. These classify the prognosis as very good (0 points), good (1-2 points) or poor (>2 points). Elsevier Inc., 2018, Figs 52.1 and 52.2; E-F from Innes JA, Dover AR, Fairhurst K. The evidence that testosterone replacement in these men has
positive benefits is lacking but should be discussed and trialled. Am J Hematol 2016; 91:719-734. Pruritus is usually severe, leading to excoriations and lichenification. Overdrive pacing may be required if torsades de pointes (see p. ccTGA is often associated with cardiac lesions: • systemic (tricuspid) AV valve abnormalities with valve insufficiency
VSD • subpulmonary stenosis • complete heart block • WPW syndrome • dextrocardia. 22.27). • Emotional deprivation and psychological factors. Since lithium is &RQMXJDWLRQZLWK JOXFXURQLFDFLG *RQMXJDWLRQZLWK JOXFXURQLFD *RQMXJDWLRQXLW JOXFXURQLFD *
6DOLF\OSKHQROLF JOXFXURQLGH Fig. 22.17). difficile in hospitals or residential care. Clostridium perfringens C. Monoclonal gammopathy of clinical significance: a novel concept with therapeutic implications. Mild pulmonary stenosis may be asymptomatic. The weekly exercise recommendations are 150 minutes or more of moderate-intensity
aerobic activity or 75 minutes of vigorous-intensity aerobic activity. The practice in CAH of giving the larger dose of glucocorticoid at night to suppress the morning ACTH peak, with a smaller dose in the morning, is largely outdated. Clinical features and management The bite quickly becomes painful, and generalized muscle pain, sweating, headache
and shock may occur. Common features of poisoning include tachypnoea, sweating, vomiting, epigastric pain, tinnitus and deafness. 30.91 Anatomy showing the circulation. AO, aorta; LA, left atrium; RV, right atr
reduction in GFR associated with chronic BP- lowering from any cause, and this usually reflects intra-renal haemodynamic changes rather than intrinsic renal damage; it is therefore common practice to allow GFR to reduce by up to 10% on initiation of antihypertensive therapy. Parveen Kumar and Michael Clark 2020 Dr Michael L Clark and
Professor Dame Parveen J Kumar on the occasion of the publication of Clinical Medicine in 1987. After acidosis has been corrected with sodium bicarbonate, the preferred treatment for arrhythmias caused by antipsychotic drugs (including torsades de pointes) is intravenous magnesium (see p. Trimethoprim is similar in molecular
structure to the potassium-sparing diuretic amiloride; monitoring of renal function is required when using trimethoprim or co-trimoxazole, particularly when the patient is prescribed other potassium- sparing drugs (e.g. angiotensin- converting enzyme (ACE) inhibitors) and during prolonged therapy to avoid hyperkalaemia. 1 1 &+ &+&+ 2+ Fig.
Marrying content and process in clinical method teaching: enhancing the Calgary-Cambridge guides. Fertility is possible with gonadotrophin therapy. Normosmic idiopathic hypogonadotropic hypogonadotropic hypogonadotrophin therapy. Normosmic idiopathic hypogonadotropic hypogonadotrophin therapy.
types of crystals can be identified using polarized light microscopy. 30.98 Severe aortic coarctation in an adult. The coarctation congenitally corrected transposition of the great arteries is shown on cardiac magnetic resonance angiography. Avoid the ulnar nerve when injecting golfer's elbow. In paediatric practice an LHRH may also be performed,
although the discriminatory value of this test is low. A deeper variant affecting beard follicles ('sycosis barbae') causes multiple swollen papules that may coalesce to form pustule-studded plagues. The number of people living with diabetes increased from 108 million in 1980 to 422 million in 2014. Reliable prescribing advice can be found in: • The
Summary of Product Characteristics (SmPCs) produced by manufacturers and vetted by drug regulatory authorities. A number of options are available, which will be determined by the individual patient and the first-line therapy. Increases heart rate and cardiac output, and also diuresis as haemodynamics are improved Milrinone Bolus 25-75 µg/kg
over 10-20 min then 0.375-0.75 µg/kg per min Inhibits phosphodiesterase and maintains cAMP Increases cardiac output and stroke volume, reduces PAP/PCWP/total peripheral resistance/BP Levosimendan Bolus 12-24 µg/kg over 10 min then 0.05-2 µg/kg per min Positive inotropic drug with vasodilator effects by increasing sensitivity of contractile
proteins to calcium and opening potassium channels Increases cardiac output and reduces PCWP Noradrenaline (norepinephrine) 0.2-1.0 μg/kg per min Stimulates α, β1- and β2-receptors Increases
cardiac output, heart rate, total peripheral resistance and BP 0.5 mg i.v. repeated after 2-6 h Inhibits myocardial sodium/potassium ATPase, leading to increased calcium and sodium exchange Increases cardiac output and slows AV conduction Use in AF; avoid in ACS Antithrombin Low-molecular-weight heparin Vasodilators Diuretic Furosemide
PAP, positive airway pressure; PCWP, pulmonary capillary wedge pressure; s.c., subcutaneous. Pulmonary venous blood returns to the left atrium and then, via the morphological right ventricle, to the aorta. In the UK, NICE guidelines recommend that primary care should use the QRISK®3 risk assessment tool (see Further reading) to identify people
who are likely to be at high risk (10-year risk of cardiovascular disease ≥10%). They may blister, and often resolve with hyperpigmentation. Drug-induced and drug-exacerbated dermatosis (Box 22.31). Severe
cutaneous adverse drug reactions Severe drug reactions Severe drug rashes are listed in Box 22.32. Further reading Iorizzo M. Both drugs are typically administered as monthly depot injections and are generally well tolerated; they are, however, associated with an increased incidence of gallstones and are expensive. 3.16. Tigecycline is an injectable glycylcycline that is
structurally related to the tetracyclines. More 'permanent' solutions include electrolysis and a variety of 'laser' hair removal systems; all appear effective but have not been evaluated in long-term treatment. 1064). Filaggrin deficiency leads to impaired skin barrier function and dry
may show permanent neurological sequelae, including parkinsonian-like signs as well as blindness. Management The social and occupational dimensions of lead poisoning must be recognized. X-ray skeletal surveys are now outdated due to their poor sensitivity, although plain films may pick up a presenting pathological fracture. They
may rarely be associated with systemic syndromes (e.g. Peutz- Jeghers, see p. Many different viruses can cause exanthems, e.g. echovirus (see p. At the same time, a number of other hormones, including noradrenaline (norepinephrine), cortisol and growth hormone, are released. Diabetes results from defective insulin release rather than β-cell
destruction, and can be treated successfully with sulphonylureas, even after many years of insulin therapy. How I manage monoclonal gammopathy of undetermined significance. Candidal intertrigo causes irritation and soreness; affected areas are glazed and inflamed, with a ragged, peeling edge that may contain a few small pustules. E12.8)
perfringens infection is due to inadequately cooked food, usually meat or poultry allowed to cool for a long time, during which period the spores germinate. 450) may affect up to 40% of individuals with moderate to more severe psoriasis. Specific poisons 267 Clinical features and management In most cases, minor gastrointestinal disturbance is the
only feature but, in more severe cases, coma, convulsions and acute kidney injury have occurred. 21.23 Hyperthyroidism: symptoms or signs of greater discriminant value. difficile infection, amoebiasis, giardiasis and infection with Trichomonas vaginalis. Glycoproteins ensure a low coefficient of friction
between the cartilaginous surfaces. 232) with continuous positive airway pressure (CPAP) or, in severe cases, with intermittent positive pressure ventilation (IPPV). be eliminated per rectum, though small amounts may settle in the appendix and remain there for years. Most infections caused by vancomycin-resistant enterococci (VRE) are healthcare-
associated. Edited by Professor Dame Parveen Kumar and Clark' has become synonymous not just with a medical textbook, but with the combination of excellence and accessibility they sought to provide. UK National Pest Technicians Association. Tropical dermatoses Skin diseases that feature among the 'neglected
tropical diseases' defined by the World Health Organization (WHO) include scabies, leprosy, leishmaniasis, dracunculiasis (guinea worm), lymphatic filariasis and onchocerciasis. LP-like (lichenoid) rashes may be caused by drugs (e.g. antihypertensives, antimalarials, NSAIDs) and contact allergens. This blood goes into the left ventricle and is pumped
through the aorta into the fetal body. Examine the fluid in the syringe and decide whether or not to proceed with a corticosteroid injection (if fluid is clear or slightly cloudy) or send for microbiological tests. Gram-staining is essential if septic arthritis is suspected and may identify the organism immediately. 519) and Epstein-Barr virus (see p.
Reapply scabicide to the hands if they are washed during the treatment period. Cardiac Nursing. If the testosterone was taken in the morning, such test results can be interpreted as mild gonadotrophin deficiency or lower end of the normal, but may also be seen in people with obesity and diabetes mellitus, who commonly have low circulating SHBG
levels associated with insulin resistance and therefore low total testosterone levels but normal free testosterone levels. Seizures may result. Primary inflammatory disease of muscle (myositis) is far less common. INVESTIGATION OF RHEUMATIC DISEASE Investigations are unnecessary in many of the common musculoskeletal problems; the
diagnosis is clear from the history and examination findings. 30.62). Further reading Vale JA, Bradberry S. The test may also be used to assess response to treatment with antivenom. An early interruption may throw them off course and cause them to forget key points, leaving them feeling dissatisfied with the interaction. A further defence mechanism
is the formation of neutrophil extracellular traps (NETs) from DNA, which bind pathogens to facilitate killing. Collagenase CD11b/CD18 (adhesion molecule) N-formyl-methionyl- leucylphenylalanine receptor (FMLP-R) Eosinophils Eosinophils release pro-inflammatory mediators to provide immun ity against parasites. 18 18 418 Rheumatology
0XVFXODUQHFNSDLQ XQLRUELODWHUDO *ROIHU¶VHOERZ 5RWDWRUFXII WHQGRQLWLV )UR]HQVKRXOGHU DGKHVLYHFDSVXOLWLV &KHVWZDOO V\QGURPH 0HFKDQLFDO ORZEDFNSDLQ XQLODWHUDO ELODWHUDO
^{\prime}H4XHUYDLQ^{\prime}V WHQRV\QRYLWLV 7ULJJHU ILQJHU )LUVW FDUSRPHWDFDUSDO2^{\circ} 3UHSDWHOODUEXUVLWLV 2VJRRG±6FKODWWHU^{\prime}V Mechanical or muscular neck pain ^{\circ} Whiplash injury ^{\circ} Disc prolapse - nerve root entrapment
Ankylosing spondylitis • Shoulder lesions: - Rotator cuff tendonitis - Calcific tendonitis or bursitis - Impingement syndrome or rotator cuff tear - Adhesive capsulitis (true 'frozen' shoulder) - Inflammatory arthritis or osteoarthritis • Polymyalgia rheumatica • Fibromyalgia (chronic widespread pain) • Chronic (work-related) upper-limb pain syndrome
Tumour Box 18.9 Cervical nerve root entrapment: symptoms and signs Nerve root Sensory changes Reflex loss Weakness C5 Lateral forearm Biceps Elbow flexion Thumb and index finger Supinator Wrist extension C7 Middle finger Triceps Elbow extension C8 Medial forearm None Finger flexion None
Finger abduction and adduction 7URFKDQWHULFEXUVLWLV &RPSDUWPHQW V\QGURPHV 0RUWRQ¶V PHWDWDUVDOJLD Elbow flexion 3ODQWDUIDVFLLWLV Little and ring fingers Fig. Empirical treatment therefore includes antibiotics such as linezolid, clindamycin or co-trimoxazole. Vancomycin-resistant enterococci Vancomycin resistant enterococci Vancomycin resistant.
in enterococci is mediated through changes in the peptidoglycan precursor from D-Ala-D-Ala to D-Ala-D-Lac, preventing glycopeptides (vancomycin and teicoplanin) binding to these cell-wall precursors and inhibiting cell-wall synthesis. These include prolactinoma, co-secretion of prolactin in tumours causing acromegaly, stalk compression due to
pituitary adenomas and other pituitary masses, polycystic ovarian syndrome, primary hypothyroidism and idiopathic hyperprolactinaemia. Eur Heart J 2015; 36:3075-3128. Diagnosis is confirmed by measuring the erythrocyte acetylcholinesterase activity; plasma cholinesterase activity; plas
is a high-pitched early diastolic murmur best heard at the left sternal edge in the fourth intercostal space with the patient leaning forwards and the breath held in expiration. Treatment is indicated for lesions associated with: • visual obstruction or feeding difficulties • ulceration or bleeding • life-threatening lesions associated with high-output
cardiac failure from vascular shunting or consumptive coagulopathy (Kasabach-Merritt syndrome). • Finasteride (5 mg daily), a 5α-reductase inhibitor that prevents the formation of dihydrotestosterone in the skin, has also been shown to be effective but long-term experience is limited. Additionally, headaches and/or visual field defects occur if there
is a pituitary macroadenoma (more common in men). Investigations Hyperprolactinaemia should be confirmed by repeat measurement. It is the inevitable result of population health screening and poses risks to patients because of the potential for unnecessary further diagnostic procedures, therapy, or insurance charges. Stevens-Johnson syndrome
and toxic epidermal necrolysis Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) are severe mucocutaneous disorders that are considered variants of a disease spectrum. 21.36 Macroprolactinoma (arrowed). (A) Before treatment. An alternative model suggests that diagnosis proceeds instead primarily by pattern recognition, the
kind of 'type 1 thinking' that allows humans to make quick judgements of new situations by comparing them with similar situations encountered in the past. TTE may detect alternative diagnoses, such as aortic dissection, pericarditis or pulmonary embolism. Management Early medical management Initial assessment involves rapid triage for chest
pain (note that time is muscle) and referral for reperfusion therapy (primary PCI or thrombolysis). They appear as scaly, erythematous papules or patches and feel gritty and rough. The rash is most prominent on the torso and proximal limbs, and consists of circular or oval pink macules with a collarette of fine scale. morphological left ventricle, which
pumps deoxygenated blood into the pulmonary arteries. 1.3C). Moments of human connection, such as a shared interest in a place or activity, can be powerful in building a relationship between clinician and patient. 6WDEOHDQJLQDSHFWRULV $GYHQWLWLD 0HGLD $WKHURVFOHURWLF SODTXH syndromes of unstable angina and myocardial
infarction (Fig. Complications, seen when cabergoline is used in higher doses in Parkinson's disease, include pulmonary, retroperitoneal and pericardial fibrotic reactions, and cardiac valve lesions. Magnetic resonance imaging (MRI) shows bone changes and intra-articular structures in striking detail. A frequent cause of referral is men with poor
libido or erectile dysfunction with equivocal lowering of serum testosterone (7-10 nmol/L) without elevation of gonadotrophins. 21.30). The scale of the problem worldwide Although global life expectancy has increased by 5.5 years in females; WHO 2017/18), several unacceptable facts remain: •
Around 5.4 million children under the age of 5 die each year. The concentration of hydrogen ions, leading to metabolic acidosis. Clinical features Mild intoxication may result in no more than lethargy and occasional abdominal discomfort, though abdominal pain, vomiting, constipation
and encephalopathy (seizures, delirium, coma) may develop in more severe cases. 22.9 Eczema herpeticum. Multiple punched-out crusted erosions. In males: • Puberty before 9 years in boys is likely to be precocious and further assessment is necessary. 22.23 Primary herpes simplex infection. The presence of a paraprotein does not in itself make a
diagnosis of myeloma. Investigations General • F ull blood count. These include disorders such as systemic lupus erythematosus (SLE), where the locomotor symptoms are just one manifestation of a systemic disorder. COMMON REGIONAL MUSCULOSKELETAL PROBLEMS See Fig. 673) and the two diseases may coexist. Eosinophils are activated
and recruited by a variety of mediators via specific surface receptors, including complement factors and LTB4. The microbiome of the skin varies greatly, according to body site and between individuals, and its role in health and disease is the subject of considerable interest. In addition to this fixed obstruction, variations in the tone of smooth muscle
in the wall of a coronary artery may add another element of dynamic or variable obstruction. 6WUHVV 6OHHS5(0 +\SRWKDODPXV *+5+ 3LWXLWDU\ 6RPDWRVWDWLQ ,*)2 *+ (SLSK\VLV /LYHU Physiology Growth hormone (GH) is the pituitary factor responsible for stimulation of body growth in humans. Biopsy shows numerous acid-fast bacilli.
This 'back to the drawing board' approach, which draws on the strengths of both types of thinking, has been suggested as new evidence becomes available (Fig. Initial sinus bradycardia may be followed by supraventricular arrhythmias with or without heart
block, ventricular premature beats and ventricular tachycardia. They start on the face and limbs, but spare the mucosae. Mycosis fungoides and Sézary's syndrome usually run chronic relapsing courses. It inhibits the activity of the protein phosphatases 1 and 2a. 1.3A). 185). 1297) and the prevention of travellers' diarrhoea; it
may be of short-term benefit in irritable bowel syndrome. 12.4 The metabolism of ethylene glycol. Fomepizole and ethanol inhibit ADH. There is raised pulmonary vessels, but significant pulmonary vessels, but significant pulmonary vessels findings features. Clinical findings features are considered by the clinical findings for th
in a patient with an ASD and significant shunt might be a flow murmur from increased blood flow across the pulmonary valve and a fixed, split second heart sound (see Fig. A healthcare system is generally busy and confusing, so help patients understand where they are in their journey through it. Multiple myeloma: 2016 update on diagnosis, risk--
stratification, and management. Philadelphia: Saunders; 2007, p. Transient polyuria with proteinuria, haematuria and, characteristically, leucocyturia is followed by oliguria and then anuria. Tinea capitis is the most common dermatophyte infection in young children, especially those of black African origin, whose hair and scalp seem more susceptible
to fungal invasion. On the ECG, the enlarged right atrium is shown by peaked, tall P waves (>3 mm) in lead II. Children require the same dose as adults. Small black dots (thrombosed vessels) may be visible on close examination (Fig. Acute poisoning with these compounds may be direct, due to ingestion of the salts, or indirect, from accidental
inhalation of phosphine generated during their approved use. Clinical features Ingestion causes vomiting, epigastric pain, peripheral circulatory failure, severe metabolic acidosis, acute kidney injury and disseminated intravascular coagulation, in addition to the features induced by phosphine. Scattered eroded and hyperkeratotic nodules are typically
found on the upper trunk and the extensor surfaces of the limbs. Bronchospasm and hypoglycaemia are rare complications. Toxicity occurring during chronic administration is common, though acute poisoning is infrequent. Management Glucagon 50-150 µg/kg (typically 5-10 mg in an adult), followed by an infusion of 5-10 mg/h, is the most effective
 agent. Lesions are widespread with additional involvement of the oral cavity, bowel and lungs. RFs are detected in many autoimmune rheumatic disorders (e.g. SLE), in chronic infections, and lateral extension compressing the left cavernous sinus
(coronal MRI). This diagnosis may be considered inappropriate on a number of grounds: • While blood pressure is an acceptable target blood pressure to guide intervention. These drugs were used as a short-term treatment while other modalities become effective,
but now are sometimes used as primary therapy. 3ODVPDJOXFRVH PPRO/ Insulin molecule Glucose molecules Insulin receptor 0HDOV Cell membrane  Outside cell  Inside cell (cytoplasm) 3ODVPDLQVXOLQ P8/ GLUT-4 Translocation of GLUT-4 vesicle to cell membrane  Outside cell  Inside cell (cytoplasm) 3ODVPDLQVXOLQ P8/ GLUT-4 Translocation of GLUT-4 vesicle to cell membrane  Outside cell  Inside cell  In
growth Effects on lipid metabolism Fig. N Engl J Med 2017; 377:1964-1975 Ponikowski P, Voors AA, Anker SD et al. Herbal medicines are taken by almost 20% of the population but are rarely asked about when a patient's clinical history is taken. 30 30 1110 Cardiology Secundum defects can often be closed with a device by an interventionalist if
the defect is not too large and there are adequate rims of atrial septal tissue (Fig. However, a 2010 US Food and Drug Administration (FDA) alert raised concerns about the efficacy of tigecycline in some serious infections (notably ventilator-associated pneumonia) and it should 7HWUDF\FOLQH &+ $ % & ' &+ 1 2+ 2+ &21+ 2+ 2 2+ 2 Fig. 18 18
416 Rheumatology Box 18.5 Conditions in which rheumatoid factor (RF) is found in the serum Condition RF (IgM) % Autoimmune rheumatoid arthritis 70 Systemic sclerosis 70 Systemic lupus erythematosus 25
Sjögren's syndrome 80 Sjögren's syndrome 80 Sjögren's syndrome 90 Polymyositis 40 Systemic sclerosis 30 Rheumatomyositis 40 Systemic sthritis Variable Juvenile idiopathic arthritis Variable Juvenile idiopathic art
Drug-induced lupus >95 Infectious mononucleosis Sarcoidosis Myasthenia gravis 50 Cryoglobulinaemia Idiopathic pulmonary fibrosis 30 Chronic infectious mononucleosis 5-10 Leprosy Relatives of people with rheumatoid arthritis Normal population 8 Infective endocarditis
Syphilis • S erum uric acid - for gout. 7HWUDVSDQLQ &DWLRQWUDQVSRUWHU=Q7 Fig. Subsequently, with maintenance of anaesthetic drugs and loss of baroreflex regulation of BP. It may improve menstrual cyclicity and ovulation; some patients also report
improvement in hirsutism and ease of weight loss, but gastrointestinal upset may limit use. 21 21 632 Endocrinology Box 21.45 Disorders of sexual differentiation Condition Chromosomes Gonads Phenotype Remarks Turner's syndrome 45X (50%) 46,X,i (Xq) (5-10%) 45,X, mosaicism (remainder) Streak Female Often morphological features (e.g.
short stature, web neck, coarctation of aorta) Gonadal dysgenesis 46XX Ovary Female with variable virilization Obvious androgen excess Virilizing tumour 46XX/XY or mosaic
Testis and ovary Male or ambiguous Klinefelter's syndrome 47XXY Small testes Male, often with gynaecomastia Many are hypogonadal Testicular feminization 46XY Testesa Ambiguous 5α-Reductase deficiency 46XY Testes Cryptorchid, ambiguous 5α-Reductase deficiency 46XY Testes Cryp
ambiguous Anorchia 46XY Absent Immature female Impaired conversion of testosterone to dihydro testosterone aGonadectomy advised because of high risk of malignancy. difficile infection. 1431). Failure of this protective mechanism can result in immunopathology: for example, in the joints, kidney and eye. Neutrophils (see also p. • Do
they supply regular urine samples to screen for diabetic nephropathy? Poisoning, particularly with verapamil and diltiazem, causes heart block and hypotension; in severe poisoning, there is a substantial fatality rate. • Ask the patient to lie supine. - What size needles do they use? It is a psychiatric disturbance characterized by the excessive intake of
water. It may be associated with photophobia, diarrhoea and alopecia. Severe gastrointestinal symptoms, diaphoresis, salivation and skeletal muscle stimulation may precede the seizure activity. Conium maculatum (poison hemlock) contains a variety of volatile piperidine alkaloids, which have a toxic activity similar to that of
nicotine. ADRs are also more common in women than in men. After the menopause, HRT preparations that contain medroxyprogesterone (rather than more androgenic progestogens) may be helpful. The disease can be asymptomatic in its most severe form, with 1 in 3 myocardial infarctions going unrecognized. *RRGUHVSRQVH 2UDOWKHUDS\"
IXURVHPLGH $&(, .H\ $&(, %13 &3$3 17* 3'(, 6%3 $QJLRWHQVLQFRQYHUWLQJHQ]\PHLQKLELWRU 6\VWROLFEORRGSUHVVXUH Fig. Fig. If initial
syndrome. This may lead to cardiac conduction disturbances, notably QT interval prolongation and an increased risk of ventricular arrhythmias, particularly torsades de pointes (see p. 6. Cradle cap and a non-itchy napkin dermatitis may represent infantile variants of seborrhoeic eczema. Aetiology It is thought that a lipophilic
commensal yeast, Malassezia (see p. Infestation presents with itchy papules and excoriations. Specific poisons 276.e3 Fig E12.3 Indian krait: Bungarus caeruleus. They are tumorigenic in animals and mutagenic for bacteria, although carcin ogenicity has not been described in humans. Pain in the shoulder can sometimes be due to problems in the
neck; the differential diagnosis is shown in Box 18.10. Starting the drugs while the patient is still in hospital increases the likelihood of these individuals receiving secondary drug therapy. Coronary angiography within 24 h. Further
reading Dalal A, Eskin-Schwartz M, Mimouni D et al. Equimolar quantities of insulin and C-peptide are released into the circulation via the 'regulated pathway'. Over the years, to keep up to date and advance with the times, we have travelled widely across the world, visiting many countries and developing lifelong friendships. Spontaneous recovery is
usual after a few months, though a chronic variant is recognized. Metabolic causes of hair loss Iron deficiency may be associated with increased hair shedding and hair thinning, and is a common finding in menstruating women who do not eat red meat. N Engl J Med 2017; 376:826-835. This allows unchecked activation of the complement cascade.
FSH and TSH, and occasionally ACTH. / & Fig. 21.9). Clinical utility of the Revised International Staging System in unselected patients with newly diagnoses of 'shoulder' pain • R otator cuff tendonitis pain is worse at night and
radiates to the upper arm. HLA genes are highly polymorphic and modulate the body's immune defence system. Balloon dilation (valvuloplasty) has been tried in adults, especially in the elderly, as an alternative to surgery. Diagnosis requires a complete medical and family history, examination, relevant investigations and, in equivocal cases, genetic
analysis. Overt primary infection causes clusters of painful blisters on the face (Fig. • Defensins are naturally occurring cysteine-rich antibacterial and antifungal polypeptides (29-35 amino acids). There may be 'B' symptoms, which should not be confused with symptoms related to the site of involvement. Skin swellings are not itchy and usually last
for several days. Timing of parental puberty is a strong determinant of timing of puberty in the child. These features are also seen in chronic widespread pain (see p. 173). Therapeutic exercises and physiotherapy help in later phases. Fungus may confine itself to the hair shaft (endothrix) or spread out over the hair surface (ectothrix). 30.94). Initial
medical therapy includes oxygen (if saturations are 219 10 1.5-2.0 1.0-1.5 35 mm indicates left ventricular hypertrophy.) Left ventricular hypertrophy occurs in about 50% of patients with mitral regurgitation. Respiratory mucosal and pulmonary involvement may require ventilation, and upper gastrointestinal involvement can cause haemorrhage.
Malignant change and development of squamous cell carcinoma may rarely complicate chronic ulcerated LP. Pain radiates into the forearm on using the affected muscles -typically, gripping or holding a heavy bag in tennis elbow or carrying a tray in golfer's elbow. • A right heart catheter study may be necessary in the adult who is diagnosed with a
PDA and significantly raised pulmonary pressure to estimate the shunt and pulmonary vascular resistance. Short- wavelength UVC is filtered out by the atmosphere (Box 22.29). Units of measurement We have used the International System of Units (SI units) throughout the book. Symptoms usually resolve within a few weeks. 22.16). • B2M and LDH
These categories guide the margins of the subsequent wide local excision and the likely benefit from a sentinel lymph node biopsy (SLNB) to detect occult metastases in the adjacent lymph nodes. Disorders of magnesium concentration 191 Hypomagnesaemia191 Hypermagnesaemia192 Disorders of phosphate concentration 192
Hypophosphataemia 193 Hyperphosphataemia 195 Acid-base disorders Normal acid-base disturbance Respiratory acidosis and alkalosis Metabolic acidosis and alkalosis 195 196 198 198 Key skills to master for undergraduates include: • c omprehensively assessing a patient's fluid status and gaining confidence
in prescribing intravenous fluids and diuretics appropriately • developing an appropriate diagnostic approach to abnormal blood pH and diagnosing the common causes of acidosis and alkalosis. Short-term use (e.g. for acute asthma) carries
                            ificant side-effects, except for the simultaneous suppression of immune responses. The receptor comprises a dimer with two α-subunits, which include the binding
                                                                                                                                                                                                                                sites for insulin, and two β-subunits, which traverse the cell membrane. In general, symptoms of deficiency of a pituitary- stimulating
of primary deficiency of the peripheral endocrine gland (e.g. TSH deficiency and primary hypothyroidism cause similar symptoms due to lack of thyroid hormone secretion). The pustules are sterile and can be triggered by sudden withdrawal of potent topical or systemic corticosteroids. More widespread infection, tinea pedis, tinea manuum and tinea
capitis require oral antifungal therapy with itraconazole or terbinafine for 1-2 months. Such small lesions are sometimes detected during MRI of the head for other reasons - so-called 'pituitary incidentalomas'. Sporotrichosis, or 'rose gardener's disease', usually causes a slowly growing, inflamed nodule at the site of skin inoculation, with new lesions
developing along lymphatics and blood vessels - 'sporotrichoid spread'. For instance, in multiple sclerosis, where an initial presentation with symptoms suggestive of a demyelinating illness is usually termed a 'clinically isolated syndrome', some patients will suffer no further episodes while others will progress to multiple sclerosis. There are
qualitative or quantitative variations in the chemistry of venoms in different snake species of the same family. Susceptibility testing for each of these drugs against CRE isolates is not well standardized. Paraffin-containing emollients are a fire hazard as they impregnate clothes and bedding, making them highly flammable. Discoid eczema (nummular
eczema) Discoid eczema is characterized by well- demarcated, inflamed scaly patches, sometimes with tiny vesicles. ACE inhibitors are useful in patients. Widespread infection or bullous impetigo should be treated with oral antibiotics for 7 days
(flucloxacillin or erythromycin or clarithromycin if the patient is penicillin-allergic). Renal function should be closely monitored, as vancomycin is nephrotoxic. • Nearly 1.35 million people die from road traffic collisions every year. Cardiovascular surveillance and management The primary cause of death in MFS is cardiovascular. It has been very hard
work but also a huge responsibility to assemble the correct medical facts to inspire the next generation of young doctors. Coma, convulsions and metabolic acidosis may then supervene. Management Oxygen should be administered intravenously; the dose is repeated in severe
cases. Mani H, Levy MJ, Davies MJ et al. Nystatin is ineffective. 477) • Osteomalacia (see p. 591) and then migrates in neurosecretory granules along axonal pathways to the posterior pituitary. They do require ongoing specialist follow-up as, in those with transannular patch repair (surgical or interventional), pulmonary valve replacements are needed
during follow-up and late complications include ventricular and atrial arrhythmias, heart failure and sudden death. Fig. The mechanisms initiating puberty are thought to result from withdrawal of central inhibition of GnRH release and involve a complex interplay between hypothalamic peptides, as well as external factors. Heart 2006; 92:1373-1377,
with permission.) The echocardiogram (Fig. • Expectations: What are they hoping for from this consultation? Levels may increase with stress; if this is suspected, a cannula should be inserted and samples taken through it 30 minutes later. The first arterial switch procedure was performed in 1975 and it is now routinely performed in babies with TGA
in the first 2 weeks of life. A small minority deteriorate 12-48 hours after ingestion and develop shock, metabolic acidosis, acute tubular necrosis and, in some studies, is associated with increased cardiovascular risk. clues (Fig. 68). The effects of these on quality
of life should be assessed. Advanced disease treatment options include radiotherapy, oral retinoids (bexarotene) and chemotherapy. The majority of UK cases are due to T. Exposure to phosphine causes lacrimation, rhinorrhoea, cough, breathlessness, chest tightness, dizziness, diplopia, headache, nausea, drowsiness, intention tremor and ataxia.
Severe insulin poisoning A continuous infusion of 10-20% glucose (with K+ 10-20 mmol/L) is required, together with carbohydrate-rich meals, though there may be difficulty in maintaining normoglycaemia. Sulphonylurea poisoning The administration of glucose increases already high circulating insulin concentrations. Targeted agents and
immunotherapies: optimizing outcomes in melanoma. Non- cardiogenic pulmonary oedema has been reported in severe heroin overdose. Occasionally, agitation is sufficiently severe for patients to require sedation in a critical care environment. Anticonvulsants Clinical features of poisoning with anticonvulsant drugs are
summarized in Box 12.24. Management Elimination of carbamazepine can be significantly increased by multiple-dose activated charcoal. They are more noticeable in people with a dark skin or a tan and can be mistaken for vitiligo, but lesions are hypopigmented. Miosis is characteristic. Management First aid • R eassurance
should be given, as even the most venomous species often bite without injecting enough venom to be harmful. The same is true of the height spurt, shown here in relation to other data. • Demeclocycline (600–1200 mg daily) is given if water restriction is poorly tolerated or ineffective; this inhibits the action of vasopressin on the kidney, causing a
reversible form of nephrogenic diabetes insipidus. In more severe poisoning, convulsions, hypotension, pulmonary oedema and cardiorespiratory arrest are seen (due to ventricular arrhythmias that are often preceded by ECG conduction abnormalities, particularly QT prolongation). There is sometimes a history of trauma or an insect bite. The
mortality correlates well with the severity and duration of metabolic acidosis. Pain in muscles and ligaments (myofascial pain) is a very common cause of locomotor symptoms. Where highly burdensome treatment is contemplated (such as surgery or chemotherapy for cancer), it is usually necessary to obtain a formal histological d iagnosis by tissue
biopsy before starting treatment. The function of GLUT-1 to -3 is insulin-independent but insulin stimulates glucose uptake into muscle and adipose tissue through GLUT-4. Raised anti-dsDNA is highly specific for SLE; the levels usually rise and fall in parallel with disease activity so can be used to monitor the level of treatment required. • • • • • some
show a paradoxical rise; about 25% of acromegalics have a positive diabetic glucose tolerance test. Trimethoprim is a 2,4-diaminopyrimidine, which prevents the bacterial reduction of dihydrofolate. If dialysis is used, the frequency of fomepizole dosing should be increased to 4-hourly because fomepizole is dialysable. Dyspnoea and
stridor due to laryngeal oedema may follow, depending on the concentration of hydrogen fluoride. IGF-1 has peripheral actions, including bone growth, and exerts negative feedback to the hypothalamus and pituitary. Nat Rev Endocrinol 2017; 13:71-72. Conversely, some types of food poisoning (e.g. botulism) do not primarily cause gastroenteritis.
Ovarian ultrasound. 419). Molluscum contagiosum is common, especially on the face, and lesions may be large (>1 cm in diameter) and extensive (a pattern rarely seen in immunocompetent adults). Cochrane Library: systematic reviews of treatment. There is an initial activation of Th2 CD4 lymphocytes in the skin, with increased interleukin (IL)-4,
IL-5 and IL-13 levels that lead to raised levels of immunoglobulin E (IgE) and IL-31, a key mediator of itch. Begin with an open question, and then proceed to asking about the presence or absence of relevant symptomatic relief. A large
number of victims survive with permanent sequelae of envenoming, both physical and psychological (e.g. post-traumatic stress disorder). 21.9 Craniopharyngioma (arrowed): a partially cystic pituitary and suprasellar mass. (A) Sagittal MRI. British Association of Dermatologists' guidelines for the management of cutaneous warts 2014. 22.58
Strawberry naevus (cavernous haemangioma). The main problems with VADs include thromboembolism, bleeding, infection and device malfunction, Introductions are about making a human connection between one human being who is suffering and vulnerable, and another human being who wishes to help. Growth and puberty 633 • S mall for
gestational age; 15% of these infants do not catch up and can also have an earlier and more rapidly progressive puberty. National Eczema Society. • Pitting can be caused by psoriasis, alopecia areata, atopic eczema and trauma. 1 point is given for each prognostic marker. Sézary's syndrome is treated with extracorporeal photopheresis, in which the
patient's leucocvtes are mixed with psoralen and irradiated with UVA ex vivo. Kaposi's sarcoma This tumour of vascular and lymphatic endothelium presents as purplish nodules and plaques. 30.96). Biopsies can be taken, surgery performed in certain conditions (e.g. repair or trimming of meniscal tears), and loose bodies removed. • Building rapport
with patients. reduction of their 'nitro' group to a nitrosohydroxyl amino group by microbial enzymes, nitroimidazoles cause strand breaks in microbial DNA. It is likely that as awareness improves, the diagnosis rate will increase. Pain may take a few weeks or months to settle and the patient The shoulder is a shallow joint with a large range of
movement. Antivenom Antivenom is indicated for the treatment of systemic or severe local envenoming. (B) Pink fluorescence under a Wood's lamp. They have a high specificity for RA (90%, with a sensitivity of 60%). Lesions are multiple small (1-3 mm), translucent, firm papules with a central dimple ('umbilicated') containing soft, white, keratinous
matter that can be extruded by squeezing. Cellulitis and erysipelas Cellulitis and erysipelas are caused by superficial and deeper infection of the dermis and subcutaneous tissues, respectively. The latest class of nerve agents to receive notoriety are the Novichok agents, which are potent contact poisons. Clinical features Systemic features include
increased salivation, rhinorrhoea, bronchorrhoea, miosis (which is characteristic) and eye pain, abdominal pain, nausea, vomiting and diarrhoea, involuntary micturition and defecation, muscle weakness and fasciculation, tremor, restlessness, ataxia and convulsions. Although ACEIs and ARBs are often withheld arbitrarily for 24 hours preoperatively,
it is usual to continue antihypertensive medications throughout the period unless there is documented hypotension or other related issues, such as withholding nephrotoxic antihypertensives if there is acute kidney injury. Intraoperative Sympathetic activation during induction of anaesthesia can cause elevation of BP by 30 mmHg, with
far larger responses in patients with untreated hypertension. The islet antigens include insulin itself, the enzyme glutamic acid decarboxylase (GAD), protein tyrosine phosphatase (IA-2, also known as ICA512), the cation transporter ZnT8 and tetraspanin 7 (Fig. There are three groups of pathogenic fungi that commonly affect the outer layer of skin or
keratinizing epithelium: dermatophytes, Candida albicans and Malassezia (formerly Pityrosporum). A short trial of HCG occasionally induces descent; an HCG test with a testosterone response Hypothalamo-pituitary-gonadal axis 627 Box 21.41 Causes of gynaecomastia • P hysiological: - Neonatal - Pubertal - Old age • Hypothalamo-pituitary-gonadal axis
Hyperprolactinaemia • Renal disease • Liver di
cyproterone - Others; gonadotrophins, cytotoxics HCG, human chorionic gonadotrophin, I Emerg Med 2007; 33:33-37. Sodium valproate is a suitable alternative. Acute generalized exanthematous pustulosis/toxic pustuloderma is an exanthematous pustulosis/toxic pustuloderma has a suitable alternative.
sterile pustules around the neck, axillae and groin. Eflornithine cream (an antiprotozoal) inhibits hair growth by inhibits ha
maximal benefit, and long-term therapy is frequently required as the problem tends to recur when treatment is stopped. The risks and benefits of long-term systemic therapy require careful evaluation and should be discussed with the patient or their careful evaluation and should be discussed with the patient at this point can be very helpful
in ensuring that a good rapport is established, before proceeding to talk about the problem that has led the patient to seek medical help (Box 1.2). Information-gathering Once a rapport has been established, the consultation is generally divided into three parts: history, examination and investigations/ management. Although office BP is no longer
recommended as the sole measure for diagnosis in many guidelines, it is still advocated for on-going monitoring and medication titration, as no cardiovascular outcome trials have used out-of-office readings to adjust treatment. Home measurement of BP at home by the patients themselves, using the same type of machine as in
the clinic. • Autoimmune rheumatic diseases. The majority of patients have soft tissue complaints or osteoarthritis, with inflammatory arthritis and autoimmune rheumatic diseases having a much lower prevalence, of between 0.01% and 1% of the population. It may regress or persist until puberty. Patients with a total cholesterol concentration of
more than 7.5 mmol/L and a family history of premature coronary heart disease may have familial hypercholesterolaemia. 8QVWDEOHDQILQDSHFWRULV (QGRWKHOLXP 0\RFDXVLRQRI WKHOXPHQ 1HFURWLF FHQWUH 8OFHUDWHG
¿EURXVFDS 1HFURWLF FHQWUH Fig. The Y chromosome confers male sex; if it is not present, development follows female lines. 30.59 Algorithm for the management of acute heart failure with systolic dysfunction. Blistering lesions seen in SSSs can resemble toxic epidermal necrolysis (TEN, see p. A clinical interaction that begins badly often
runs into problems later on. Recurrence may occur in adulthood, especially as a localized hand eczema. • Hypertonic saline may be indicated when the syndrome is very severe (i.e. acute and symptomatic), but this is potentially dangerous and should only be used with extreme caution (see p. We are grateful to the International Advisory Board, who
have supplied a significant amount of online material that helps to ensure this book maintains the global relevance it has always striven to enjoy. Daily urine output may reach as much as 10-15 L, leading to dehydration that may be very severe if the thirst mechanism or consciousness is impaired or the patient is denied fluid. Select an appropriate
potency, according to the body site, surface area and patient age, to minimize the risk of adverse effects (Box 22.14) and allow safe, intermittent long-term treatment. 30.95). It recognizes that health is determined by challenges that transcend national boundaries, and looks at healthcare needs across the world as well as within individual nations.
Further reading Spasovski G, Vanholder R, Allolio B et al. C1NH activity is normal in type III HAE. spontaneous infarction or regression of a pituitary tumour. Topical therapy is usually applied once or twice daily to skin plaques.
Tedizolid has recently been approved for use in skin and skin structure infections. This complication is especially seen following envenoming by sea snakes. A small proportion of glyoxylate is metabolized to oxalate. Fertil Steril 2004; 81:19-25. Respiratory failure will ensue in severe cases and is exacerbated by the development of bronchorrhoea and
pulmonary oedema. This includes the oral tyrosine kinase inhibitors vemurafenib and dabrafenib, and the MEK inhibitor trametinib for patients whose melanomas demonstrate the BRAF V600 mutation. Continuous cardiac monitoring is required because of the high likelihood of significant cardiac arrhythmias. TCIs may also be helpful. Approximately
100 different molecules in neutrophil granules (Box 3.5) kill and digest micro organisms, for example: • Myeloperoxidase and cytochrome b558 are key components of major oxygen-dependent bactericidal systems. 21.10), gliomas, chondromas, germinomas and pinealomas. A number of 'counter-regulatory hormones' that antagonize the action of
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insulin are also important in maintaining normoglycaemia. Spread is by direct contact and is facilitated by trauma. Prolactin stimulates lactation but also inhibits both hypothalamic gonadotrophin- releasing hormone (GnRH) secretion and the gonadal actions of luteinizing hormone (LH). Epidemiology and characteristics of adverse drug reactions

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caused by drug-drug interactions. 3.2). - What are the usual readings? The 8th American Joint Committee on Cancer (AJCC) melanoma staging system, published in 2017, defines four broad categories of tumour, T1-4, ranging from T1a (4.0 mm with ulceration). Pet dander can aggravate eczema. Untreated scaphoid fractures can eventually cause
pain because of failed union. Ganglion A ganglion is a jelly-filled, often painless swelling caused by a partial tear of the joint capsule or tendon sheath. Individuals are highly infectious and may be the source of outbreaks if the diagnosis is delayed - which it often is, due to lack of symptoms. There is a small risk of developing mast cell leukaemia.
 Familial cases of resistance to GH that is caused by an abnormal GH receptor (Laron-type dwarfism) are well described. Often, pituitary apoplexy can be managed conservatively with replacement of hormones and close monitoring of vision, although if there is a rapid deterioration in visual acuity and fields, surgical decompression of the optic chiasm
may be necessary (Fig. Skin and mucosal lesions usually respond to potent or superpotent topical corticosteroids and topical tacrolimus (see p. Symptomatic and supportive care is required. If clinically significant methaemoglobin aemia (generally above 30%) develops in primaquine poisoning, methylthioninium (methylene blue) 1-2 mg/kg body
weight should be administered. cyclase and promoting formation of cyclic adenosine monophosphate (cAMP) from adenosine triphosphate (ATP); cAMP, in turn, exerts a direct beta-stimulant effect on the heart. Initially, autoantibodies directed against pancreatic islet constituents appear in the circulation and often predate clinical onset by many
years. Snake bite. Snake venoms are capable of producing adverse effects in one or more systems of the body. Neurological features are seen in 20% of children. Suspicious lesions should be completely and promptly excised with a narrow (2 mm) margin for review by a dermatopathologist experienced in melanoma diagnosis. Oral anti-androgen
 therapy is occasionally helpful. Further reading Mella JM, Perret MC, Manzotti M et al. Forming a diagnosis is a complex process, which always starts with taking a history. European evidence based (S3) guidelines for the treatment of acne. Features include: • pitting of the nail plate Fig. Hypokalaemia is common and is due to chloroquine-induced
potassium-channel blockade. Painful gynaecomastia may be treated with a 3-6-month trial of tamoxifen, and surgery is occasionally necessary if the symptoms or cosmetic appearance are unacceptable. The ageing male In the male, there is no sudden 'change of life'. Generally, results are poor and such treatment is reserved for patients unfit for
surgery or as a 'bridge' to surgery (as systolic function will often improve). Always ask about housing, occupation, tobacco smoking, alcohol intake, and use of recreational and illicit drugs. Tigecycline is active against many organisms resistant to tetracycline, as it avoids common bacterial efflux pump systems. As diabetes is a long-term condition
 there is an opportunity to build up long-term patient relationships. 22.20 Classification of urticaria. • Swelling • Does it affect one joint or several? Metastases occasionally present as apparent pituitary tumours, typically accompanied by headache and diabetes insipidus. A variety of inflammatory masses occur in the pituitary or hypothalamus.
Stingray envenomation: a retrospective review of clinical presentation and treatment in 119 cases. After resolution, post- inflammatory hyperpigmentation is common, especially in people with psoriasis often feel stigmatized by their skin disease. /$ /$ $6' 5$ 5$ $ % Fig.
Colistimethate sodium (CMS) is an inactive prodrug, metabolized in vivo to the active component colistin. Causes associated with normotension include congestive cardiac failure and cirrhosis, where excess aldos terone production contributes to sodium retention. the development of osteoporosis (following NICE guidance), patients should be
informed of the rationale. Steroids and surgery Hypothalamo-pituitary-adrenal axis 607 Aetiology Adrenal adenomas (Conn's syndrome; see Box 21.22) originally accounted for 60% of cases of primary hyperaldosteronism but represented a rare cause of hypertension. Rarely, dissection of the aorta, myocarditis, myocardial infarction, dilated
cardiomyopathy, subarachnoid haemorrhage, or cerebral haemorrhage or infarction may occur and can be fatal. This may lead to arrhythmia, which is often the presenting symptom, along with breathlessness and exercise intolerance. Limbs: • Inspect for skin changes and deformity; assess the joints • Assess for peripheral oedema • Check peripheral
pulses • Consider the need for formal examination of the peripheral nervous system 9. Vomiting occurs first, followed by shock and then neurological symptoms and muscle weakness, with paralysis of the respiratory muscles in severe cases. Topical therapy This is given for chronic plaque psoriasis, usually as a vitamin D analogue (calcipotriol,
 calcitriol, tacalcitol) and an emollient to reduce scaling. 650). In addition, inhalation of methylene chloride is metabolized in vivo to carbon monoxide poisoning, as methylene chloride is metabolized in vivo to carbon monoxide poisoning, as methylene chloride is metabolized in vivo to carbon monoxide. Polarized light microscopy is performed for crystals: • gout: negatively bi-refringent, needle-shaped crystals
of sodium urate • calcium pyrophosphate deposition arthropathy: rhomboidal, weakly positively bi-refringent crystals of calcium pyrophosphate. Confocal microscopy or excision by Mohs' technique can help improve margin control. Box 1.9 T he role of watchful waiting in diagnosis • A 77-year-old woman is undergoing CT scanning of the coronary
arteries after an episode of chest pain. Mild steroids • • • utaneous atrophy and telangiectasia C Striae Steroid-induced rosacea, perioral dermatitis and folliculitis Tinea incognito (a tinea infection modified by a topical
steroid applied inappropriately) • Ocular adverse effects (cataract, glaucoma) • Adrenal suppression (from systemic absorption with long-term use of potent steroids) in the periocular area and in young children. Patients should be advised not to carry heavy items. Molecules $OWHUQDWLYH SDWKZD\ & aAntigen Box 3.4 Soluble components of
innate immunity 0DQQRVHELQGLQJ OHFWLQ0%/ SDWKZD\ &ODVVLFDO SDWKZD\ AVLVRIFHOOV μPHPEUDQHDWWDFN¶FRPSOH[ &E±& Fig. 18.6) but needs physiotherapy followup to prevent recurrences. It is
predominantly composed of type II collagen, encoded by the COL2A1 gene, which forms a mesh-like network. It presents as orange-beige scaly plaques in the large flexures (axillae and groin) or maceration in the toe webs (Fig. We hope you will find this edition helpful in your efforts to learn and practise medicine. Such differences may also occur
within a species, depending on their geographical distribution. Lipopeptides with very long elimination times, such as dalbavancin, are used as single-dose therapies for skin and soft tissue infections. Oxazolidinones Linezolid was the first oxazolidinone antibacterial to be developed. Travellers who have visited tropical or subtropical countries may
also be affected by skin diseases, especially cutaneous leishmaniasis, 
androgen deficiency. Psoriasis. The biochemically inert peptide fragment known as connecting (C-)peptide splits off from proinsulin in the secretory process, leaving insulin as a complex of two linked peptide chains. With the first breath after delivery, the lungs expand, vascular resistance in the pulmonary arteries falls, more blood moves from the
right atrium to the right ventricle and pulmonary arteries, and oxygenated blood travels back to the left atrium through the pulmonary veins. Sunlight is the main source of vitamin D and individuals who do not have photosensitivity benefit from short-term sun exposure (without burning) to maintain levels. NSAIDs and opiate analgesics should be
avoided, as they can aggravate urticaria. Localized blistering (clear or blood-stained), necrosis, abscess formation, lymphangitis and lymphadenopathy may occur. Complete removal with wide margins may involve disfiguring surgery, and although its cure rate is low, topical imiquimod may be an alternative when surgery is contraindicated. Box
22.28 Clinical criteria for the diagnosis of malignant melanoma ABCDE criteria (USA) • Asymmetry of mole • Border irregularity • Colour variegation • Diameter > 6 mm • Inflammation • Oozing or bleeding • Mild itch or altered
sensation Major criteria • Change in size Malignant melanoma Malignant melanoma (or just 'melanoma') is the most serious form of skin cancer, as although it represents only 4% of cases of skin cancer, it causes 80% of skin cancer, as although it represents only 4% of cases of skin cancer, it causes 80% of skin cancer, as although it represents only 4% of cases of skin cancer, as although it 
Brevetoxins open voltage-gated sodium ion channels in cell walls and enhance the inward flow of sodium ions into the cell. Clinical features and management The symptoms of neurotoxic shellfish poisoning occur within 30 minutes to 3 hours and last a few days; they include nausea, vomiting, diarrhoea, chills, sweats, reversal of temperature
sensation, hypotension, arrhythmias, numbness, tingling, paraesthesiae of the lips, face and extremities, cramps, bronchoconstriction, paralysis, seizures and then spreads proximally. Included among the tetracyclines are tetracycline, are tetracycline, paraesthesiae of the lips, face and extremities, cramps, bronchoconstriction, paralysis, seizures and then spreads proximally. Included among the tetracyclines are tetracycline, are tetracyclines are tetracycline, are tetracyclines are tetracyclines.
oxytetracycline, doxycycline and minocycline. In 2017, globally over a million children and adolescents had type 1 diabetes with approximately 132 600 new cases every year. The coronary arteries are re-implanted. • E CG may demonstrate left ventricular hypertrophy. 21.10 Meningioma (arrowed) involving the pituitary fossa. Note the typical
 'dural tail'. Initial impressions on approaching the patient, or as they come into the consultation area - the 'end of the bed': • Establish whether the patient is well or unwell. This may 22 22 694 Dermatology HAIR DISORDERS be triggered by drugs, including aspirin and opiates, and allergens. Montelukast may also be helpful in those with aspirin
sensitivity. Bacterial infections (See also Chapter 20.) Impetigo is a highly contagious infection that usually affects children (Fig. Aetiology Disorders that cause hypopituitarism are listed in Box 21.10. The G agents are both dermal and respiratory hazards, whereas the V agents, unless aerosolized, are contact poisons. Regular blood tests are
needed to check liver function and monitor for bone marrow suppression. • A peak COHb concentration of 8 mg/L is indicative of severe poisoning. 22.26). Tissue macrophages involved in chronic inflammatory foci may undergo terminal differentiation into multinucleated giant cells, typically found at the site of the granulomata characteristic of
tuberculosis and sarcoidosis (see pp. The intermediate syndrome usually becomes established 1-4 days after exposure, when the symptoms and signs of the acute cholinergic syndrome are no longer obvious. If so, have they tried to quit? 262). IGF-1 reflects mean 24-hour GH acute cholinergic syndrome are no longer obvious.
levels and is useful in diagnosis. Its use should be restricted to gentamicin-resistant organisms. Alternatively, boluses of pralidoxime chloride 30 mg/kg may be given 4-to 6-hourly. Pain usually derives from inflammation of these sites because the synovial membrane is relatively insensitive. Skeletal muscle This tissue consists of bundles of myocytes
containing actin and myosin molecules. Meticulous sun protection with high SPF sunscreens is needed to prevent relapse. Post-inflammatory hyperpigmentation This phenomenon occurs in dark-skinned individuals at the sites of skin trauma or inflammatory hyperpigmentation This phenomenon occurs in dark-skinned individuals at the sites of skin trauma or inflammatory hyperpigmentation This phenomenon occurs in dark-skinned individuals at the sites of skin trauma or inflammatory hyperpigmentation This phenomenon occurs in dark-skinned individuals at the sites of skin trauma or inflammatory hyperpigmentation This phenomenon occurs in dark-skinned individuals at the sites of skin trauma or inflammatory hyperpigmentation This phenomenon occurs in dark-skinned individuals at the sites of skin trauma or inflammatory hyperpigmentation This phenomenon occurs in dark-skinned individuals at the sites of skin trauma or inflammatory hyperpigmentation This phenomenon occurs in dark-skinned individuals at the sites of skin trauma or inflammatory hyperpigmentation This phenomenon occurs in dark-skinned individuals at the sites of skin trauma or inflammatory hyperpigmentation This phenomenon occurs in dark-skinned individuals at the sites of skin trauma or inflammatory hyperpigmentation This phenomenon occurs in dark-skinned individuals at the sites of skin trauma or inflammatory hyperpigmentation This phenomenon occurs in dark-skinned individuals at the sites of skin trauma or inflammatory hyperpigmentation This phenomenon occurs in dark-skinned individuals at the sites of skin trauma or inflammatory hyperpigmentation This phenomenon occurs in dark-skinned individuals at the sites of skin trauma or inflammatory hyperpigmentation This phenomenon occurs in dark-skinned individuals at the sites of skin trauma or inflammatory hyperpigmentation This phenomenon occurs in dark-skinned individuals at the sites of skin trauma or inflammatory hyperpigmentation at the skin trauma occurs in dark-skinned individuals at the skin trauma occurs in
typically start on the buttocks and can resemble eczema, psoriasis or fungal infection; asymmetry and atrophy are useful Fig. 30.120 Pericardial effusion. (A) Note the globular appearance to the cardiac silhouette on chest X-ray. Most incidentalomas are asymptomatic and benign, but direct guestioning may reveal symptoms of endocrine
hypersecretion such as cushingoid features, catecholamine excess, virilization in women, or evidence of endocrine hypertension, pulmonary stenosis, abnormalities of genitalia, retardation of growth and deafness). 482) Neoplastic (see p. Both mechanica
prostheses and tissue valves are used. 8.2 and Box 18.7). These are followed by tender maculopapular erythematous lesions on the torso and inflamed mucosal surfaces. When you are unsure or ignorant of a drug, it is essential to research and record the class, common side-effects and interactions. Bone scintigraphy utilizes radionuclides, usually
99mTc, and detects abnormal bone turnover and blood circulation; although non-specific, it helps in detecting areas of inflammation, infection or malignancy. How does it have an impact on your life? Seborrhoeic eczema Clinical features Seborrhoeic eczema is extremely common in adults of all ages and in its mildest form is often overlooked. It is a
complex mixture of more than 100 different components. Once-daily dosing is used for most indications, with a serum drug level taken at 6-14 hours post dose, followed by application of an appropriate nomogram to determine the subsequent frequency of dosing (e.g. every 24 or 48 hours). Online, readers will find a range of additional resources,
including self- assessment questions, bite- sized overview topic pages covering major conditions, clinical skills videos and expanded coverage of subjects with a father with diabetes (5-7%) than with a mother with diabetes (2-5%). Current
recommendations suggest that BP is measured on two or more occasions in sequence, in the morning prior to medicines and again in the evening for 4-7 days. The causes are listed in Box 21.54. 30.61): 30 30 1080 Cardiology • T he first process is superficial endothelial injury, which involves denudation of the endothelial covering over the plaque.
A valve replacement from within the same patient (i.e. pulmonary to aortic valve position) is termed an autograft. It causes antimuscarinic effects - a dry mouth, nausea and vomiting - leading to blurred vision, hallucinations, confusion and hyperpyrexia. Cicuta species Cicuta species Cicuta species Cicuta species of insulin does not, of itself, classify an individual's diabetes
Mercury salts are well absorbed following ingestion, as is mercury vapour following inhalation of mercury vapour causes headache, nausea, cough, chest pain and, occasionally, a chemical pneumonitis. 593). Child B (blue) shows the course of a child with constitutional growth delay without treatment. Response is
variable and must be monitored carefully with enquiry about fluid input/output and plasma osmolality measurements. Trimethoprim alone is often used for empirical treatment of UTIs. Resistance to sulphonamides is often plasmid-mediated and results from the production of a sulphonamide-resistant dihydropteroate synthase. • Resultant high or
high-normal plasma sodium (hypernatraemia). Hypopigmented patches are also common in pityriasis versicolor (see p. Lymphopenia is found in viral illnesses or SLE. Attacks usually start in childhood and can be spontaneous or triggered by minor trauma. The most common is hypothalamic-pituitary surgery, following which transient DI is common
frequently remitting after a few days or weeks. 30.87). Combined hormone pills will produce a slow improvement in hirsutism in a majority of cases and should normally be used first unless there is a contraindication, such as a history of thrombosis. • Have you brought the snake along, and if not, can anyone describe it? Management consists of
malathion or permethrin for the patient and high-temperature washing and drying of clothing. The pain may radiate to the forearm. • Anterior pituitary tumour (see Boxes 21.5, 21.7 and 21.11). The use of artificial intelligence, which
applies vast, unsorted clinical and academic datasets to produce algorithms that can inform diagnostic and management questions, provides a fundamental challenge to the historically crucial role of doctors in these areas. 22.13) are commonly involved due to their frequent contact with allergens. Maculopapular (morbilliform) exanthems These areas.
the most common type of hypersensitivity rash (Fig. If testosterone is unequivocally low (5 nmol/L). Undressing and dressing during the examination 3. Functional hypothalamic amenorrhea. The risk of progression to myeloma is approximately 1% per year, with risk factors including elevated SFLC ratio, paraprotein of more than 15 g/L and non-IgG
subtype. Solitary plasmacytoma This is an isolated tumour of neoplastic plasma cells. The MDGs were only partially achieved and were succeeded by a new set of Sustainable Development. Envenoming may cause both local and systemic effects. The decision to use
chelation therapy is based not only on the blood lead concentration but also on the presence of symptoms. Puberty ,*)2 %RQH Fig. A separate GH-stimulating system involves a distinct receptor (GH secretagogue receptor), which interacts with ghrelin. For example, a doctor may respond differently to a radiology report of an incidentally discovered
adrenal mass that is reported as 'probably benign', compared to the same mass if the report reads 'unable to exclude malignancy'. Other features include myoclonic jerks, muscle fasciculation and seizures. Proteinuria and nephrotic syndrome are observed rarely. Metronidazole plays a major role in the treatment of anaerobic bacterial infections,
particularly those due to Bacteroides spp. Respiratory Cough, sputum (volume, frequency, consistency, colour, freshness of breath, exercise tolerance, orthopnoea, wheeze, chest pain Cardiovascular Chest pain, shortness of breath, cough
sputum, orthopnoea, swelling of ankles (peripheral oedema) or abdomen (ascites), paroxysmal nocturnal dyspnoea, palpitations Gastrointestinal General - normal and present weight, appetite, oral intake Upper - dysphagia (level: high - base of neck, mid and lower chest), c onsistency of food tolerated/not toler
abdominal pain, early satiety, nausea/vomiting (volume, frequency, consistency, colour, freshness, altered food (regurgitation), altered food (regurgitation), altered food, blood), h aematemesis (volume, frequency, consistency, colour, freshness, altered nature, clots) Lower - lower abdominal pain, altered food, blood), h aematemesis (volume, frequency, consistency, colour, freshness, altered nature, clots) Lower - lower abdominal pain, altered food, blood), h aematemesis (volume, frequency, consistency, colour), blood per
rectum, mucus per rectum, anal pain Hepatobiliary and pancreatic Jaundice, associated pain, pruritus, symptoms of encephalopathy, abdominal swelling (ascites) Renal Urine (frequency, volume, colour, freshness, clots), symptoms of bladder outflow tract obstruction (hesitancy,
frequency, small volume, terminal dribbling) Box 1.7 F ive questions for the patient with a long-term condition 1. It is often familial and is usually X-linked, resulting from a mutation in the KAL1 gene, which encodes anosmin-1 (producing loss of smell); one sex-linked form is due to an abnormality of a cell adhesion molecule. Accidents and trauma
Conflict and catastrophe Economics and politics in global health Social determinants of health Human rights and the value of engagement in global health Food Programme, alongside individual charities and local government health systems, and interventions are
often directed by international targets such as the United Nations' Sustainable Development Goals. Renal function should be assessed. The pain may be produced by tapping the nerve in the carpal tunnel (Tinel's sign) or by holding the wrist in flexion (Phalen's test). Nodal osteoarthritis This affects the DIP and, less commonly, PIP joints, which are
initially swollen and red. Affected nails are dystrophic, thick (subungual hyperkeratosis) and discoloured (white-yellow-beige). prepubertal (no signs of puberty) and stage 5 adult appearance, are genitalia (changes in the scrotum and penis) and pubic hair (5 stages). It presents with a widespread, intensely itchy, excoriated, eczematous rash that is
triggered by a hypersensitivity ('allergy') response to mite antigens. Rarely, it is amelanotic (non- pigmented) and can mimic pyogenic granuloma. High- dose benzylpenicillin and clindamycin are used in confirmed GAS infection, and a broad-spectrum antibiotic combination with additional metronidazole is used where the pathogen is unknown. The
concept is that poor nutrition early in life impairs β-cell development and function, predisposing to diabetes later on. The increase in reported food poisoning in development and function and distribution of food. It has been widely used in the treatment of severe psoriasis and is a useful drug in unstable or
erythrodermic disease due to its rapid onset of action. Plane warts are much less common and are caused by certain HPV subtypes. Blood moves from the inferior vena cava to the right atrium of the heart. Glynn M, Drake WM (eds). Vasopressin stimulation of the V2 receptors (Box 21.50) allows the collecting ducts to become permeable to water via
the migration of aquaporin- 2 water channels, thus permitting reabsorption of hypotonic luminal fluid (see p. Saturated fats should be replaced by monounsaturated and polyunsaturated fats (rapeseed and olive oils). 22.56). Chronic back pain is the cause of 14% of long-term disability in the UK. This is achieved by the release of pro-inflammatory
mediators, which are toxic, cationic proteins. 435). First carpometacarpal osteoarthritis This causes pain at the base of the thumb when gripping, or painless stiffness at the base of the thumb, often in people with nodal OA. Scaphoid fractures These cause pain in the anatomical snuffbox. Immunotherapy with immune checkpoint-blocking agents,
including CTLA4 antibody (ipilimumab) and programmed death 1 protein antibody (PD-1 antibody - pembrolizumab, nivolumab), has led to significant improvements in survival for patients with advanced melanoma with tolerable toxicity. Shoulder and pelvic girdle stiffness and pain in a patient over 55 years may be polymyalgia rheumatica (see p. 30).
30 1112 Cardiology resistance using postural manoeuvres, such as squatting. Hyperprolactinaemia, rather than prolactin deficiency, occurs relatively early because of loss of tonic inhibitory control by dopamine. Cochrane Database Syst Rev 2017; 6:CD009758. Defects in the innate immune system have also been identified in atopic eczema
including epidermal antimicrobial peptides, Toll- like receptor 2 expression and epidermal tight junctions. • Use plain English: avoid medical jargon or complicated vocabulary, unless it is clear that the patient is able to understand this. DiMeglio LA, Evans-Molina C, Oram RA. Thyroid eye disease is a feature of Graves' disease. 517), measles (see p
What is causing them concern? It is very common in Oriental children, less common in Diack Africans and rare in Caucasians. There is a slight male preponderance. The 17 SDGs (Fig. These have been followed by IL-12/23, IL-17 and selective IL-23 inhibitors. Small lesions within the pituitary fossa, 'microadenomas', are very common on MRI (10% of
normal individuals in some studies). While MRSA is primarily seen in the UK in association with intravascular devices, in the USA it has been described as frequently causing severe skin and soft tissue infections. • Each day, 830 women die from preventable causes related to pregnancy and childbirth. Initially, it causes severe shoulder pain and a
gradually reducing range of movement, leading to a 'frozen' phase where there is loss of all shoulder movements but little pain. Early inflammatory arthritis and polymyalgia rheumatica in the elderly may present with shoulder movements but little pain. Early inflammatory arthritis and polymyalgia rheumatica in the elderly may present with shoulder movements but little pain. Early inflammatory arthritis and polymyalgia rheumatica in the elderly may present with shoulder movements but little pain. Early inflammatory arthritis and polymyalgia rheumatica in the elderly may present with shoulder movements but little pain. Early inflammatory arthritis and polymyalgia rheumatica in the elderly may present with shoulder movements but little pain. Early inflammatory arthritis and polymyalgia rheumatica in the elderly may present with shoulder movements but little pain.
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Acknowledgements for the Tenth Edition As always, this book is made what it is by the diligence and expertise of the individual chapter authors, who have worked hard to ensure that the content they provided is up to date, well presented and reflective of modern practice. Zaenglein AL. Fine combing of wet hair after applying conditioner can also be
done repeatedly to remove young lice before they mature. Signs (see Fig. Some individuals react more vigorously to bites while others appear unaffected. 464). Snyder PJ, Bhasin S, Cunningham AM et al. Frequent use of a bland moisturizer and soap substitute is usually all that is needed. Hand eczema (Fig. They may not be related to
sun exposure. Management In the UK, all people with suspected melanoma should be referred urgently (2-week wait pathway) to the local hospital's multidisciplinary skin cancer team. • Beau's lines (transverse lines) are horizontal grooves in the nail due to a temporary growth arrest associated with an acute sev ere illness. $FXWH
&KURQLF!ZHHNV 6SRQWDQHRXV XUWLFDULD&68 ,QGXFLEOH FKURQLFLQGXFLEOH FKURQLFLQGXFLEOH FKURQLFUSRQWDQHRXV XUWLFDULD&68 ,R Fig. There may be a widespread inflammatory rash with scaly, crusted plaques resembling infected eczema or psoriasis. Chronic urticaria is divided into spontaneous (or idiopathic) and inducible types (Fig. The
complement-derived anaphylatoxins C3a, C4a and C5a activate basophils and mast cells, as does IgE. • Does it affect the limb girdles or periphery? • Suspected secondary causes: - Young age (37.5°C • Tachycardia: >90 beats/min • Erythrocyte sedimentation rate: >30 mm/h • Anaemia: In less severe cases, cholinergic symptoms are usually evident
within 2 hours and typically resolve within 24 hours. X-rays can detect joint space narrowing, erosions in RA, calcification in soft tissue, new bone density (osteopenia) or increased bone density (osteopenia) or 
insulin concentration, which falls back to baseline within 2 hours (Fig. However, this distinction may be blurred; for example, Australasian elapids may cause both neurotoxicity and coagulopathy. Treatment options include silicone gel or dressings, pressure garments, cryotherapy and intralesional corticosteroids. Malathion can be used if permethrin
is unavailable; benzyl benzoate is employed occasionally but is irritant and should not be used in children. • Sinus venosus defect), or the inferior part of the septum near the inferior vena cava (inferior sinus venosus defect) entry point. wrists (Fig.
 Rupture of the atheromatous plaque exposes the circulating platelets to adenosine diphosphate (ADP), thromboxane A2 (TxA2), adrenaline (epinephrine), thrombin and collagen tissue factor. Treatment of acute respiratory, cardiac and kidney injury is instituted as necessary. 21.28). bC-reactive protein (CRP) is an acute phase protein. Physiotherapy
helps persistent stiffness. Two common sites where the insertions of tendons into bone become inflamed (enthesitis) are the common wrist flexor origin at the medial epicondyle ('golfer's elbow'). Acquired angio-oedema may be idiopathic or associated with
lymphoproliferative or autoimmune disorders. 430) Inflammatory • Infective lesions of the spine • Axial spondyloarthritis/sacro iliitis (see p. PVL-positive strains $ % Fig. Usually, other valves also need replacement because tricuspid valve stenosis is rarely an isolated lesion. Tricuspid regurgitation Functional tricuspid regurgitation (see Fig. However
type 2 diabetes is becoming increasingly common in children and young adults. Fetal origins of diabetes There is a J-shaped relationship between low weight in adulthood. Primary pituitary carcinomas are very rare, but occasionally
prolactin-and ACTH-secreting tumours present in an aggressive manner, which may require chemotherapy in addition to conventional treatment. Symptomatic and supportive care should be given as necessary. Alternative agents in mild DI, probably working by sensitizing the renal tubules to endogenous vasopressin, include thiazide diuretics,
 carbamazepine (200-400 mg daily) or chlorpropamide (200-350 mg daily) but these are rarely used. Nephrogenic diabetes insipidus In this condition, renal tubules are resistant to normal or high levels of plasma vasopressin (ADH). Repeated scratching or rubbing causes thickened skin with the prominent lines (lichenification) of chronic eczema
Pasireotide (acting on SSTR 1, 2, 3 and 5) is a newer agent but its role in acromegaly is still being evaluated. Dopamine agonists Dopamine agonists Dopamine agonists Dopamine agonists act on D2 receptors (see pp. When second remission is achieved, in appropriate patients, high-dose treatment and autologous SCT are used to consolidate the response. Enhanced nephrotoxicity occurs
with other nephrotoxic drugs, and enhanced ototoxicity with some diuretics. Side-effects include gastrointestinal disturbances, headache, rash, hypertension, reversible but potentially severe cytopenias, and occasional reports of optic and peripheral neuropathy in patients receiving linezolid for longer than 28 days. The subjective nature of these
symptoms has led to controversy about their cause. Management is with reassurance (the patient is often distressed and anxious), analgesia, a short-term support collar and physiotherapy. What medications do you take? When did you last have a check-up? This widening pulse pressure (the difference between systolic and diastolic BF
usually 1% per year, using validated cardiovascular risk equations), or evidence of organ injury due to hypertension (hypertension (hypertension teft ventricular or mitral pathology, this needs to be considered when considering whether and how to close the defect (Fig. Aspiration and the considered when considered when considering whether and how to close the defect (Fig. Aspiration and the considered when considered when considering whether and how to close the defect (Fig. Aspiration and the considered when considering whether and how to close the defect (Fig. Aspiration and the considered when considering whether and how to close the defect (Fig. Aspiration and the considered when considered when considering whether and how to close the defect (Fig. Aspiration and the considered when considering whether and how to close the defect (Fig. Aspiration and the considered when considering whether and the con
analysis of synovial fluid are always indicated when septic or crystal-induced arthritis is suspected, particularly a monoarthritis. 22.14 Lichen simplex from chronic rubbing. Management of erythrasma is with topical or oral macrolides. Extra-pancreatic features may also be present. McKelvey I. Hypoglycaemia is also observed in those who are
malnourished or who have fasted in the previous 24 hours. There are three major conditions that are usually caused by excess secretion from pituitary adenomas and which will show positive immunostaining for the relevant hormone: • prolactin excess (prolactinoma or hyperprolactinaemia): histologically, prolactinomas are 'chromophobe' adenomas and which will show positive immunostaining for the relevant hormone: • prolactinoma or hyperprolactinaemia): histologically, prolactinoma are 'chromophobe' adenomas are 'chromophobe' adenom
(a description of their appearance on classical histological staining) • GH excess (acromegaly or gigantism): sometimes due to specific G- protein mutations (see p. 30.101 Marfan's syndrome. (A) High arched palate. At least 5 days' treatment is usually required. Lead Methanol Exposure to lead occurs
                                                                painted items in their homes (pica), and the use of lead-containing cosmetics or 'drugs' has also resulted in poisoning. Methanol is used widely as a solvent and is found in antifreeze solutions. It can also pick up occult lesions not seen on CT (as per the updated diagnostic criteria). Histology Bone marrow aspira
or trephine shows characteristic infiltration by clonal plasma cells (see Fig. As in boys, pubic hair and axillary hair are also staged, with menarche happening around stage 4. Polyuria is helped by thiazide diuretics. Other causes of polyuria and polydipsia Diabetes mellitus, hypokalaemia and hypercalcaemia should be excluded. They fade in the
winter. Lentigines These persistent pigmented macules look similar to freckles. An increased host response causes pustules and an inflammatory exudate, and certain types of tinea can trigger a severe inflammatory reaction with a swollen purulent mass or 'kerion'. Lesions may be secondarily infected with Staph. Activated charcoal may bind metal
phosphides. Active external cooling should be employed for hyperthermia and if uncontrolled, intravenous dantrolene 1 mg/kg body weight should be considered (see p. The differential diagnoses include nail psoriasis and traumatic nail dystrophy (which may coexist with fungal infection). Management Localized tinea of the body or flexures is treated
with an antifungal cream (clotrimazole, miconazole or terbinafine for 1-2 weeks). Accompanying features of muscles innervated by some cranial nerves. • Bone and liver biochemistry. Further reading Tängdén T, Ramos Martín V, Felton TW et al. 18F- Fluorodeoxyglucose uptake indicates areas of increased glucose
metabolism. (Reproduced from Tuladhar SM, Punjabi PP. Mucosal involvement is seen in about 50% of patients with cutaneous LP and the oral mucosa may also be affected in isolation. Rook's Textbook of Dermatology, 9th edn. It also requires compassion, empathy, trust, respect and humour: the stuff that makes up a relationship between human
beings. Are they able to adjust doses of insulin or other medications according to blood glucose levels and carbohydrate intake? In some cases, numbness and paraesthesiae of the lips, tongue and throat occur. Hepatic glucose production rises as insulin levels fall. 2. This section outlines an approach to people with diabetes in non- emergency settings
(Box 23.1). Opportunistic infections that may affect the skin include cytomegalovirus (pustules or necrotic ulcers) or Cryptococcus (red papules, psoriasiform or molluscum-like lesions). contain l- hyoscyamine and atropine. This chapter reviews the physiology that underpins normal fluid, electrolyte and acid-base balance, and discusses disorders of
blood chemistry caused by dietary factors, underlying medical conditions, and medical treatments. The rate and magnitude of any increase in BP may be more important than the absolute level of BP in determining the severity of organ injury; this is key in obstetric medicine, where the usual BP in younger women may be verging on hypotensive (90-
110/60-70 mmHg), and pre-eclampsia may develop with a BP over 140/90 mmHg. In all hypertensive emergencies, intravenous antihypertensive medication therapy is indicated to cause rapid reduction of BP, as this is thought to minimize on-going organ damage and prevent or reduce the risk of morbidity and mortality. Management aims at
eradication but this is difficult because treatment is time-consuming and re-infestations are common. Abnormal hips or knees must be examined with the patient lying down. 30.99 Fallot's tetralogy. Pathophysiology and auscultatory findings. This may produce severe headache, double vision and sudden severe visual loss, sometimes followed by
acute life- threatening hypopituitarism. LA, left atrium; RA, right atrium; RA, righ
tuberculosis and malaria. Br J Dermatol 2018; 178:839-853. Urticaria and angio-oedema Urticaria (hives, 'nettle rash') is a common skin condition characterized by short-lived, itchy swellings or 'weals' that clear within minutes to hours without residual dryness or skin flaking (Fig. A Doppler echocardiogram is the investigation of choice.
Management Management of severe pulmonary stenosis requires pulmonary valvotomy (balloon valvotomy or direct surgery). $ & Fig. Hypertension is treated to reduce these major cardiovascular and renal events. camouflage. Symptoms are usually maximal within 2 hours and Neurotoxic mushroom
poisoning Clinical features and management Diarrhoea, abdominal pain, diaphoresis, salivation, lacrimation, miosis, bronchorrhoea, bronchorrh
own experience and knowledge in evaluating and using any information, methods, compounds or experiments described herein. The valves consist of two basic components: an opening to allow blood to flow through and an occluding mechanism to regulate the flow. It is also present in many cosmetic and antiseptic preparations. (B) Increased leaflet
motion/ prolapse. The lesions can become itchy or sore, and bleed easily when scales are removed. Type B adverse reaction Benzylpenicillin Radiological contrast media Anaphylaxis Broad-spectrum penicillins. Regular users are at risk of dependence. Hypotension that persists despite volume replacement may respond to IV glucagon, which activates
myosin kinase independent of calcium. • Nerve conduction studies and electromyography are used to diagnose nerve entrapment syndromes (such as carpal or tarsal tunnel) and to distinguish myositis from neuropathies. Myiasis is an infestation of the skin with developing fly larvae (maggots). Complications of shingles include severe, persistent pain
(post-herpetic neuralgia), ocular disease (if the ophthalmic nerve is involved) and, rarely, a motor neuropathy. Management Herpes zoster requires adequate analgesia and antibiotics (if secondary bacterial infection is present). 30.100 Transposition of the great arteries. - Is there evidence of hypoglycaemia or hyperglycaemia? In boys, pubertal
induction is with testosterone. Mechanical ventilation, the administration of an inotrope (see p. When injected into the skin, histamine induces the typical 'weal and flare' or 'triple' response: reddening (erythema) due to increased blood flow, swelling (weal) due to increased vascular permeability, and distal vascular changes (flare) due to effects on
local axons. It has more favourable pharmacokinetic properties, allowing once- daily or thrice-weekly dosage. 'Freebase' or 'crack' cocaine comprises crystals ('rocks') of relatively pure cocaine without the hydrochlor ide moiety. A blood methanol concentration of 500 mg/L (15.6 mmol/L) confirms severe poisoning. There is much overlap. For example,
a cardiologist recommends that a patient undergo high-risk elective valve replacement, despite colleagues suggesting conservative management because of the patient's co-morbidities. Vasopressin therefore reduces diuresis and results in overall retention of water. ESHRE Guideline: Management of women with premature ovarian insufficiency.
Assessing a patient's fluid status Box 9.1 Clues to volume Symptoms Peripheral oedema Breathlessness on exercise Orthopnoea Paroxysmal nocturnal dyspnoea Pa
administration Recent diarrhoea or vomiting Symptoms suggesting sepsis Use of diuretics Box 9.2 Clues to volume (haemodilution': fall in blood haemoglobin concentration and packed cell volume (haemodilution': fall in blood haemoglobin concentration and packed cell volume (haemodilution': fall in blood haemoglobin concentration and packed cell volume (haemodilution': fall in blood haemoglobin concentration and packed cell volume).
most girls will be either 'in puberty' or 'completing puberty'. Excision is not needed unless lesions are symptomatic or there is diagnostic uncertainty. Epidermoid cyst ('sebaceous cyst') and pilar cyst Epidermoid cysts are cystic swellings derived from an occluded follicle. Head Lice - Management. Infection is usually acquired by coming into contact
with non-chlorinated water or by cleaning out a fish tank without gloves. Further reading Ingram JR, Collier F, Brown D et al. Methotrexate is given orally or by subcutaneous injection in low dose (up to 25 mg) once a week, with folic acid on other days to reduce gastrointestinal upset. 22.15C). Patients with profound hypotension may require
inotropes and vasopressors to improve haemodynamic status and alleviate symptoms but these have not been shown to improve mortality. aureus and/or streptococci is common, especially in moist flexural areas such as the neck and groin. Edinburgh: Elsevier; 2018. Management is with topical antiseptics, systemic antibiotics and improved nutrition.
Clinical trial evidence shows no benefit with prolonged physiotherapy. Pain in the shoulder Fig. Mild poisoning commonly causes drowsiness, sinus tachycardia, dry mouth, dilated pupils, urinary retention (all antimuscarinic effects), and increased reflexes and extensor plantar responses. This will lower the heart rate and blood pressure, reducing
myocardial oxygen consumption. Box 21.48 Clinical features of common causes of short stature Cause Family history Growth pattern, clinical features and puberty Bone age Remarks Constitutional delay Often present Slow from GH
deficiency Growth velocity measurement vital Familial short stature Positive Slow from birth, clinically normal Wed heights of family members Growth velocity measurement vital Familial short stature Positive Slow from birth, clinically normal Wed heights of family members Growth velocity measurement vital Familial short stature Positive Slow from birth, clinically normal Wed heights of family members Growth velocity measurement vital Familial short stature Positive Slow from birth, clinically normal Wed heights of family members Growth velocity measurement vital Familial short stature Positive Slow from birth, clinically normal Wed heights of family members Growth velocity normal Wed heights of family members 
vital Increased suspicion if child is plump Primary hypothyroidism Rare Slow growth, immature and delayed puberty Marked delay Measure TSH, T4 in all cases of short stature Clear clinical signs not obvious Small bowel disease Sometimes Slow, immature, usually thin for height, delayed puberty Delayed Diarrhoea and/or macrocytosis/ anaemia
Occasionally no gastrointestinal symptoms GH, growth hormone; TSH, thyroid-stimulating hormone. The diagnosis of drug eruptions can be challenging because individual drugs can cause different rashes and these sometimes mimic constitutional inflammatory rashes or viral rashes. Full blood count, serum electrolytes, glucose and lipid profile
should be obtained. Hydrogen cyanide is also released during the thermal decomposition of polyurethane foams, such as that in mattresses. Approximately 1-3% of cases of diabetes diagnosed under the age of 30 years are caused by mutations in a single gene (monogenic mutation). • TTE should be performed without delay to confirm the diagnosis of
heart failure (see p. Coma and convulsions follow and a variety of neurological abnormalities, including nystagmus and culture. Inflammatory dermatoses Severe, extensive seborrhoeic eczema (see p. The cause is unknown. Each piece of evidence should be
weighed according to the degree of confidence you have in its accuracy, and no significant findings should remain unexplained. Less commonly, delirium, hallucinations and cardiac arrest supervene. More severe scalp involvement can look like psoriasis (sebo-psoriasis). It is increasingly used in the UK, particularly for resistant UTI, and is available in
oral and intravenous formulations. Rifaximin This is a rifamycin with poor gastrointestinal absorption. Small defects may predispose to endarteritis and should be considered for device closure unless clinically silent. Coarctation of the aorta is a narrowing of the aorta at, or just distal to, the insertion of the ductus arteriosus
(distal to the origin of the left subclavian artery; Fig. Specific poisons 276.e5 A B Fig. More severe intoxication is associated with agitation, paranoid delusions, hallucinations and violent behaviour. 30.93 Atrial septal defect (ASD). Pathophysiology and auscultatory findings. All other ASDs are closed surgically, and if there is anomalous pulmonary
venous drainage, it is redirected to the left atrium at the same time. is given to stimulate duct closure. Subcutaneous mycoses include a range of Skin infections of the subcutaneous disease that arises in previously
health people is often caused by group A streptococcus (GAS), while disease related to abdominal surgery or immunosuppression is often caused by mixed aerobic and anaerobic populations. Skin infections 669 antagonist (icatibant). 22.27 Dermatophyte infection of the nail. White, crumbling dystrophy. It is used particularly for complicated skin
and soft tissue infections, including those caused by MRSA, and is also a useful alternative agent for endocarditis, bone and joint infections, and Gram-positive bloodstream infections, and is also a useful alternative agent for endocarditis, bone and joint infections, and Gram-positive bloodstream infections, and Gram-positive bloodstream infections.
same time, even if asymptomatic. Somatostatin receptor agonists Octreotide and lanreotide are synthetic analogues of somatostatin, which act selectively on somatostatin receptor subtypes (SSTR2 and SSTR5) and are highly expressed in GH-secreting tumours. • Age: osteoarthritis, polymyalgia rheumatica and giant cell arter itis present mainly in
patients over the age of 50. Occasionally, arsenic is found in Chinese and Indian traditional remedies. Clinical features Acute ingestion causes abdominal pain, vomiting and diarrhoea. In some cases, we have divided up larger chapters to highlight conditions that straddle traditional subspecialty boundaries but require a joined-up approach: Sepsis and
the treatment of bacterial infection, (Ch. 8), Venous thromboembolic disease (Ch. 29), Hypertension (Ch. 31) and Obstetric medicine (Ch. 38). They have a broad spectrum of activity that covers selective Gram- negative organisms (Salmonella, Shigella).
membrane. Resistance to ceftazidine/avibactam in KPC and OXA-48 producers has been reported but remains rare. Isolated subacromial bursitis occurs after direct trauma, falling on to the outstretched arm or elbow. Note the absence of pericardial calcification that is a feature of chronic pericardial disease. - Have they required any retinal
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prognosis......Page 1504Major nuclear power plant accidents......Page 1505ELECTRIC SHOCK......Page 1506INHALED SMOKE......Page 1507Serum/urine values......Page 1507Serum/urine values......Page 1507Serum/urine values......Page 1507Serum/urine values......Page 1508 Citation preview Kumar & Clark's Clinical Medicine Tenth Edition Edited by Foreword by Adam Feather MBBS, FRCP, FAcadMEd Professor Dame Parveen J Kumar CBE,
Consultant Physician and Clinical Director St Mary's Hospital The Isle of Wight, UK David Randall MA, MRCP Clinical Research Fellow Barts and The London, UK Mona Waterhouse MA (Oxon), MRCP Consultant Physician and
Endocrinologist St Bartholomew's Hospital, Barts Health NHS Trust London, UK BSc, MD, DM(HC), FRCP (L&E), FRCPath Professor of Medicine and Education Barts Health NHS Trust and Homerton University Hospital NHS
Foundation Trust London, UK Michael L Clark MD, FRCP Honorary Senior Lecturer Barts and The London School of Medicine and Dentistry, QMUL, and Princess Grace Hospital London, UK Use the PIN code on the inside front cover to access additional online content. Itch is variable. 1024). Management This includes use of bland (perfume-free)
emollients such as a 50:50 liquid paraffin: white soft paraffin mix, and short-term prescription of a moderately potent topical steroid. The danger lies in their continuance, often through medical oversight or patient default. WFS1 gene on chromosome 4. Tinea unguium and onychomycosis is a broad term for fungal nail infection.
Other species of Candida may be isolated from vaginal infections and immunocompromised hosts. Intermediate-risk patients with diabetes mellitus, renal impairment (estimated glomerular filtration rate 65 years 2 Anterior Leads showing ST elevation Age >75 years 3 Small V3-V4 History of angina 1 Extensive V2-V5 History of hypertension 1
Anteroseptal V1-V3 History of diabetes 1 Anterolateral V4-V6, I, AVL Systolic BP 100 b.p.m. 2 Inferior II, III, AVF Killip score II-IV 2 Posterior MI or LBBB 1 Subendocardial Any lead Delay to treatment >4 h 1 Right ventricle VR4 Total score 0: risk of death at 30 days 0.8% 1
1.6% 2: 2.2% 3: 4.4% 4: 7.3% 5: 12.4% 6: 16.1% 7: 23.4% 8: 26.8% 9-16: 35.9% BP, blood pressure; LBBB, left bundle branch block; MI, myocardial infarction; TIMI, Thrombolysis in Myocardial infarction; TIMI, Thrombolysis in Myocardial infarction; TIMI, Thrombolysis in Myocardial infarction. This needs to be dosed appropriately and pre-drug levels should be taken, to minimize the risk of both nephrotoxicity and neurotoxicity. The
umbilical vein and the ductus venosus close off within 2-5 days of birth, leaving behind the ligamentum venosus of the liver, respectively. Adult congenital heart disease CONGENITAL HEART DISEASE Fetal circulation Oxygenated blood and nutrients are supplied to the developing fetus via the placenta and the umbilical
vein (Fig. 602 and 639). It is associated with malnutrition and poor hygiene: for example, in intravenous drug users. Steroids can cause avascular necrosis. 12.4) is metabolized to glycolate, the cause of the acidosis. 448) Metabolic • Osteoporotic spinal fractures (see p. If there is pulmonary hypertension, the right ventricle will be hypertrophied.
Herpes simplex virus (HSV) can cause widespread infection of the skin, 'eczema herpeticum'. knowledge and expertise is shared in a collaborative environment. Once the pain settles, arthroscopic release speeds functional recovery. Pain in the elbow Pain in the elbow can be due to epicondylitis, inflammatory arthritis or, occasionally, OA. The
majority of men with Klinefelter's syndrome have relative testosterone deficiency (low-normal levels). More regular follow-up is mandated to ensure that this does not indicate progressive renal decline. TREATMENT Meta-analyses of large-scale RCTs have shown that a 10/5 mmHg reduction in BP is associated with a 15% reduction in all-cause
mortality, 35% reduction in stroke, 40% reduction in heart failure and 20% reduction in myocardial infarction. The exact relationship between serum iron or ferritin levels and optimum hair growth is unclear. Dissecting cellulitis This is a chronic scarring folliculitis of the scalp that predominantly affects black men and may be associated with severe
acne and hidradenitis suppurativa. (D) A cotton-wool spot (white arrow), retinal haemorrhages and microaneurysms (black arrows). Topical calcineurin inhibitors (TCIs) (tacrolimus ointment and pimecrolimus cream) are licensed for the treatment of atopic eczema in adults and children over the age of 2 years. Spondylosis seen on X-ray increases
after the age of 40 years but it is not always related to pain. An increasing number of synthetic cathinone derivatives are available, the best-known of which is mephedrone (4-methyl methcathinone). • Ethnicity: SLE is more common in African-Caribbean people than in other ethnicities. Further advice may be obtained in the UK from the National Pest
Technicians Association, a professional trade body (see Further reading). It is best used in combination with other anatomical imaging techniques. The rash resembles crazy paving with dry scales and inflamed cracks. Lispro is created by reversing the order of the amino acids proline and lysine in positions 28 and 29 of the B chain. Mechanical versus
tissue valves Mechanical valves, being artificial structures, are more durable than their tissue counterparts, which tend to degenerate after 10 years. • Sexual orientation - heterosexual, homosexual or bisexual i, isochromosome. Trichophyton rubrum is the most common pathogen. Methodological variation can falsely and hugely over-or
underestimate BP. The characteristic features of the syndrome are weakness of the muscles and accessory muscles, including neck muscles and accessory muscles. For the treatment to be successful, the measures listed in Box 22.17 should be followed. 21.31 The age of development of features of
puberty. Stages and testicular size show mean ages, and all vary considerably between individuals. British Association of Dermatologists. Other viral infections that are typically more severe or widespread include herpes simplex, shingles and viral warts. 3.4) • machinery for sensing pathogens • the ability to process and present antigens to CD4 and
CD8 T lymphocytes, coupled with the ability to activate these T lymphocytes from a naive state • the ability to dictate the T lymphocyte's future function and differentiation. As a result, poisoning is seldom severe but deaths still occur. The patient should be asked not only about prescription drugs but also about over-the- counter medicines, herbal
medicines and illicit drugs. Familial isolated vasopressin deficiency causes DI from early childhood and is dominantly inherited, caused by a mutation in the AVP-NPII gene. Rajkumar SV. The definition of a dendritic cell is one that has: • dendritic morphology (Fig. This raises the possibility that the initiating event in the pathogenesis may be an TPO
antibodies may be raised Focal uptake of tracer in nodules with reduced uptake in rest of thyroid gland Minimal uptake of tracer infection with possible 'molecular mimicry' in a genetically susceptible individual, but the precise initiating mechanisms remain unproven in most cases. Tanner staging In males the first sign of puberty is testicular volumes
reaching 4 mL; testicular volumes continue to increase until adult sizes are reached (15-25 mL). The bone that abuts a joint (juxta-articular bone) is highly vascular and comprises a light framework of mineralized collagen enclosed in a thin coating of tougher, cortical bone. Complications of HSV infection include corneal ulceration, eczema herpeticum
(see p. Medicine 2016; 44:75-204. The pigment changes take months to resolve and recurrences are common. • Low-dose FSH is used for non-responders to clomifene. Drugs with combined somatostatin and dopamine receptor activity are under development.
receptor antagonist that exerts its effect by binding to and preventing dimerization of the GH receptor. Exceptions are the relative absence of hirsutism, acne, hypertension and severe sodium retention, as the common synthetic steroids have low androgenic and mineralocorticoid activity. SDG 3 now also includes non-communicable diseases, mental
health, road accident injuries and universal health coverage (Box 13.1). GLOBAL BURDEN OF DISEASE There is a gross global mismatch in the use of funds, research and development with the majority (90%) going to high-income countries (Fig. pneumoniae carbapenemases (KPC), New Delhi metallo-β-lactamases (NDM), Verona integron-encoded
metallo-β-lactamase (VIM), imipenemase (IMP) metallo-β-lactamase and the oxacillin carbapenemase (OXA). In 2010, cardiovascular diseases were the UK's biggest killer, accounting for nearly 180 000 deaths. Intralesional steroid injections may help in early disease and some advocate transcutaneous needle aponeurotomy. Various other biological
drugs and small- molecule drugs are under investigation, and include phosphodiesterase-4 inhibitors and JAK inhibitors are usually affects the elderly and those with varicose eczema (varicose eczema usually affects the elderly and those with varicose eczema, stasis, gravitational eczema) Venous eczema (varicose eczema usually affects the elderly and those with varicose eczema usually affects the elderly and those with varicose eczema usually affects the elderly and those with varicose eczema usually affects the elderly and those with varicose eczema usually affects the elderly and those with varicose eczema usually affects the elderly and those with varicose eczema usually affects the elderly and those with varicose eczema usually affects the elderly and those with varicose eczema usually affects the elderly and those with varicose eczema usually affects the elderly and those with varicose eczema usually affects the elderly and those with varicose eczema usually affects the elderly and those with varicose eczema usually affects the elderly and those with varicose eczema usually affects the elderly and those with varicose eczema usually affects the elderly and those with varicose eczema usually affects the elderly and those with varicose eczema usually affects the elderly and those with varicose eczema usually affects the elderly and those with various eczema usually affects the elderly affects the elder
respiratory depression and pulmonary oedema may develop. These can impair growth by complex, poorly understood mechanisms, probably involving temporarily decreased GH secretion. • Oligomenorrhoea or amenorrhoea or amenorrhoea. It may be missed because of the murmur of coexisting mitral stenosis. Treatment is symptomatic and supportive. Ciguatera
fish poisoning Over 400 fish species have been reported as ciguatoxic (cigua is Spanish for poisonous snail), though barracuda, red snapper, amberjack and grouper are most commonly implicated. Ingestion of inorganic or organic mercury compounds causes an irritant gastroenteritis. Hirsutism can cause severe psychological distress in some
individuals. Efficacy and safety of finasteride therapy for androgenetic alopecia: a systematic review. Underlying viral infection, especially HIV, and systemic disease, such as systemic lupus and leukaemia, may also increase the risk of drug rashes (see Fig. Extrapyramidal effects, including acute dystonic reactions, occur but are not dose related. This
includes dental procedures that involve manipulation of the gingival or periapical part of the teeth or perforation of the oral mucosa. It is only slowly bactericidal (in contrast to β-lactams). Plasma calcium measurements are perforated (in contrast to β-lactams).
weeks. Acquired melanocytic naevi (moles) appear in childhood, adolescence and early adult life, increasing in size and number. Pigment may be lost from overlying hair. The three main genera that affect humans are Trichophyton, Micro sporum and Epidermophyton. 21.31) and many other national and ethnic groups. If an androgen-secreting tumour
is suspected clinically or after investigation, then more complex investigations include dexamethasone suppression tests, CT or MRI of adrenals, and selective venous sampling. Diagnosis Most patients presenting with a combination of hirsutism and menstrual disturbance will be shown to have PCOS, but the rarer alternative diagnoses should be
excluded; the latter include late-onset CAH (early onset, raised serum 17α-hydroxyprogesterone), Cushing's syndrome (look for other clinical features), and virilizing tumours of the ovary or adrenals (severe virilization, markedly elevated serum testosterone). Phaeochromocytoma must be excluded before surgery due to the risk of perioperative
hypertensive or hypotensive crises (see p. The diagnosis is made by identifying eggs ('nits'), which are firmly stuck to the hair shaft, or the adult lice, which can be caught between the teeth of a fine comb. In girls with primary amenorrhoea, assessment for pelvic abnormalities is essential and if the uterus is absent further investigations for disorders
of sex development are warranted. Management In constitutional delay, if any progression into puberty is evident clinically, investigations are not required. Non-insulin injectable therapies for type 2 diabetes 719 Which drug and when? 720 Measuring the metabolic control of diabetes 720 Whole-pancreas and pancreatic islet transplantation 721
Diabetic metabolic emergencies 722 Complications 726 Other ways in which diabetes can affect the eye 729 Diabetic retinopathy 726 Other ways that diabetes can affect the eye 729 Diabetic neuropathy 731 The diabetes can affect the eye 729 Diabetic neuropathy 726 Other ways that diabetes can affect the eye 729 Diabetic neuropathy 726 Other ways that diabetes can affect the eye 729 Diabetic neuropathy 731 The diabetes can affect the eye 729 Diabetic neuropathy 731 The diabetes can affect the eye 729 Diabetic neuropathy 731 The diabetes can affect the eye 729 Diabetic neuropathy 731 The diabetes can affect the eye 731 Diabetic neuropathy 731 The diabetes can affect the eye 731 Diabetic neuropathy 731 The diabetes can affect the eye 731 Diabetic neuropathy 731 The diabetes can affect the eye 731 Diabetic neuropathy 731 The diabetes can affect the eye 731 Diabetic neuropathy 731 The diabetes can affect the eye 731 Diabetic neuropathy 
complications of diabetes 735 Cancer 735 Skin and joints 735 Psychosocial implications of diabetes in special situations 737 Organization of diabetes care 741 Key skills within diabetes in special situations 737 Organization of diabetes care 741 Key skills within diabetes in special situations 737 Organization of diabetes care 741 Key skills within diabetes in special situations 737 Organization of diabetes care 741 Key skills within diabetes care 741 Key skills within diabetes in special situations 737 Organization of diabetes care 741 Key skills within diabetes in special situations 737 Organization of diabetes care 741 Key skills within diabetes care 741 Key skills within diabetes in special situations 737 Organization of diabetes care 741 Key skills within diabetes (as with any patient with a long-term condition), and involving them actively in the management of their
illness, and understanding the role of the multidisciplinary team in preventing and managing long-term diabetic complications. It earning about the acute management of diabetic emergencies (hypoglycaemia, diabetic ketoacidosis and hyperosmolar, hyperglycaemic state).
oral hypoglycaemic agents Diabetes is best learned in outpatient settings by listening to people with diabetes. The rash is occasionally pustular and the child is not well, but the complaint resolves spontaneously within a few days. Milia 'Milk spots' are small follicular epidermal cysts. • What type of diabetes do they have? 8.5 The structure of
metronidazole, a nitroimidazole. In addition, the chemokines eotaxin-1 (CCL11) and eotaxin-2 (CCL24) are highly selective in eosinophil recruitment. Magro L, Moretti U, Leone R. • Serum calcium. Migration has led to changing patterns of fungal infections in Europe (e.g. Trichophyton tonsurans from Central America, Trichophyton violaceum from
India and Pakistan). Avoid blindly putting hands or feet into termite holes, crevices in trees, bushes and under logs. These patients can be managed with close monitoring in clinic. Monoclonal gammopathy of undetermined significance (MGUS) describes an isolated finding of a monoclonal
paraprotein in the serum or urine that does not fulfil the diagnostic criteria for smouldering or symptomatic myeloma. It is more common in black Africans. Hypertrichosis refers to excessive hair growth, which happens earlier in girls than
boys. Disorders of stature Short stature When children or their parents complain of short stature, particular attention should focus on: • small for gestational age • possible systemic disorders - any system but especially small bowel disease • evidence of skeletal, chromosomal or other congenital abnormalities • possible symptoms and signs of a
hypothalamic or pituitary tumour • endocrine status - particularly thyroid • dietary intake and use of drugs, especially steroids for asthma • emotional, psychological, family and school problems. They are flattened due to pressure but still have a characteristic warty (papillomatous) surface. Type 1 diabetes. Replacement dosage details are shown in
Box 21.19. A randomized controlled trial has shown that digoxin-specific antibody fragments can rapidly and safely reverse yellow oleander-induced arrhythmias, restore sinus rhythm and rapidly reverse bradycardia and hyperkalaemia. Ciguatoxin opens calcium
channels of the cell plasma membrane. Clinical features and management The onset of symptoms occurs from a few minutes to 30 hours after ingestion of toxic fish. Consistently slow- growing children require full endocrine assessment. A number of 'risk' factors are known to predispose to the condition (Box 30.30). London New York Oxford
Philadelphia St Louis Sydney 2021 © 2021, Elsevier Limited. - Are they in contact with a specialist nurse or dietitian? The pain does not usually respond to sublingual glyceryl trinitrate, and opiate analgesia is required. Multidisciplinary team meetings bring clinicians from different specialist nurse or dietitian? The pain does not usually respond to sublingual glyceryl trinitrate, and opiate analgesia is required.
that all relevant Clinical diagnostic reasoning 7 A The traditional model of diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a clinical problem B Pattern-based diagnosis A patient presents with a c
the consultation, one diagnosis (or more) is considered likely by pattern recognition, based on previous clinical experience (Type 1 thinking) This hypothesis is subsequently tested against further findings, and either confirmed or refuted A combined approach A patient presents with a clinical problem Often a diagnosis is readily apparent by pattern
recognition but sometimes the presentation does not fully match any common or previously encountered conditions Clinical information is re-evaluated and alternative (perhaps rarer) possibilities are considered Fig. 676). Clinical features Symptoms Patients with tricuspid stenosis are likely to have left side rheumatic valve disease that may be the
main driver of symtoms. Creatine kinase levels are elevated when myotoxicity occurs. Acute stress and exercise both stimulate GH release, while, in the normal subject, hyperglycaemia suppresses it. Cells of the monocyte/macrophage lineage are highly sophisticated phagocytes. GH excess therefore produces gigantism in children (if acquired before
epiphyseal fusion) and acromegaly in adults. It is estimated that up to 80% of the diagnosis can be made on the basis of a careful history alone. In girls, low-dose oral or transdermal oestrogen increased slowly to optimize breast development and, in those hoping for further height gain, introducing progesterone to induce withdrawal bleed when
bleeding occurs, or after 2 years of unopposed oestrogen. These can be treated curatively with radiotherapy, although a high proportion (especially bone plasmacytomas) will eventually progress to systemic myeloma. Heavy chain-only
paraprotein. Blood 2018; 132:1478-1485. • Mild gynaecomastia - often seen in men due to the associated hypogonadism rather than being a direct effect of prolactin. despite the widely varying effects of food, fasting and exercise. School, general practitioner, clinic and home records of height and weight should be obtained, if possible, to allow
growth-velocity calculation. Often, however, isolates are multidrug-resistant, with the exception of intravenous colistin. It is active against many Gram-positive organisms and E. The blisters occur in crops and may become purulent before crusting. Diagnosis and Management of Adult Congenital Heart Disease, 3rd edn. Sea snakes (Fig. A more
common localized, pustular rash on the palms and soles (palmoplantar pustulosis) is considered to be a variant of psoriasis. Bundles of myofibrils (fasciculi) are covered by connective tissue, the perimysium, which merges with the epimysium, which merges with the epimysium (covering the muscle) and forms the tendon, which attaches to the bone surface (enthesis). Human leucocyte
antigen system Genetic susceptibility is polygenic but the greatest contribution comes from polymorphisms in the HLA region. Thornhill MH. Macrophages have pro- inflammatory and microbicidal capabilities similar to those of neutrophils. Following the sting or bite, patients should be observed for 2 hours for any signs of evolving urticaria, pruritus
bronchospasm or oropharyngeal oedema. The antivenom used depends on the biting species. It may present in adolescence with a receding frontal hairline, followed by thinning over the vertex. Apart from the clear indications related to hypertensive emergencies described earlier, there are other reasons to mandate referral to specialist secondary
care: • Patients taking \geq 3 drugs with uncontrolled hypertension (resistant hypertension). In resistant cases oral corticosteroids may be effective, and in some patients pericardiectomy may be appropriate. Additional perianal involvement is common in females, leading to a 'figure-of-eight' distribution. Lateral MI produces changes in leads I, AVL and
V5/V6. These include the gene encoding insulin and other genes involved in immune responses. Environmental factors Despite the genetic susceptibility to type 1 diabetes and only 10% of individuals with HLA- susceptible genes develop type 1
diabetes. • Primary hypothyroidism must be excluded since this is a cause of hyperprolactinaemia. Manipulating the diet (e.g. following a dairy-free or egg-free diet) may help a minority of infants with moderate to severe eczema. 23.4 illustrates the cellular events triggering the release of insulin-containing granules. Ciguatera fish contain ciguatoxin
maitotoxin and scaritoxin, which are lipid-soluble, heat-stable compounds that are derived from dinoflagellates such as Gambierdiscus toxicus. People with psoriasis should be asked specifically about joint symptoms and the Psoriasis Epidemiology Screening Tool (PEST) score can be used as a guide for rheumatological referral. Management There is
no curative treatment and the choice of therapy is determined on an individual basis, according to the site and severity 22 Systemic therapy Methotrexate, ciclosporin, acitretin, dimethyl fumarate, apremilast Phototherapy Topical
by direct contact with the larvae of hookworm from animal faeces, usually acquired by walking or lying on sandy beaches. 22.15 Psoriasis. (A) Chronic plaque psoriasis of the knees. Box 21.51 Factors affecting vasopressin (ADH) release Increased osmolality • Hypotension • Nausea • Hypothyroidism • Angiotensin II
 • Adrenaline (epinephrine) • Cortisol • Nicotine • Antidepressants Decreased by • Decreased by • Decreased osmolality • Hypervolaemia • Hypertension • Ethanol • α -Adrenergic stimulation Box 21.50 Hormones and receptors of the posterior pituitary axes Hormone Source Site of action Hormone structure Receptor Post-receptor activity Vasopressin (antidiuretic
hormone, ADH) Hypothalamus \rightarrow pituitary Kidney Peptide - 9 AA Membrane - 7TM AVPR1A G-proteins PLC/IP3 Hypothalamus \rightarrow pituitary (ACTH secretion) Peptide - 9 AA Membrane - 7TM AVPR1B G-proteins PLC/IP3 Hypothalamus \rightarrow pituitary (ACTH secretion) Peptide - 9 AA Membrane - 7TM AVPR1B G-proteins PLC/IP3 Hypothalamus \rightarrow pituitary Vascular Peptide - 9 AA Membrane - 7TM AVPR1B G-proteins PLC/IP3 Hypothalamus \rightarrow pituitary (ACTH secretion) Peptide - 9 AA Membrane - 7TM AVPR1B G-proteins PLC/IP3 Hypothalamus \rightarrow pituitary Vascular Peptide - 9 AA Membrane - 7TM AVPR1B G-proteins PLC/IP3 Hypothalamus \rightarrow pituitary Vascular Peptide - 9 AA Membrane - 7TM AVPR1B G-proteins PLC/IP3 Hypothalamus \rightarrow pituitary Vascular Peptide - 9 AA Membrane - 7TM AVPR1B G-proteins PLC/IP3 Hypothalamus \rightarrow pituitary Vascular Peptide - 9 AA Membrane - 7TM AVPR1B G-proteins PLC/IP3 Hypothalamus \rightarrow pituitary Vascular Peptide - 9 AA Membrane - 7TM AVPR1B G-proteins PLC/IP3 Hypothalamus \rightarrow pituitary Vascular Peptide - 9 AA Membrane - 7TM AVPR1B G-proteins PLC/IP3 Hypothalamus \rightarrow pituitary Vascular Peptide - 9 AA Membrane - 7TM AVPR1B G-proteins PLC/IP3 Hypothalamus \rightarrow pituitary Vascular Peptide - 9 AA Membrane - 7TM AVPR1B G-proteins PLC/IP3 Hypothalamus \rightarrow pituitary Vascular Peptide - 9 AA Membrane - 7TM AVPR1B G-proteins PLC/IP3 Hypothalamus \rightarrow PLC/
Hypothalamus \rightarrow pituitary Uterus and breast Peptide - 9 AA Membrane - 7TM OXTR G-protein coupled receptor; cAMP, adenylate cyclase \rightarrow cyclic adenosine monophosphate; OXTR, oxytocin receptor. It is a type of
'out- of-office' BP measurement and is closely approximated to daytime ambulatory BP. Telangiectasia may be evident, and early lesions in girls can present with haemorrhagic blisters that are occasionally mistaken for signs of sexual abuse. LP appears as clusters of intensely pruritic, purple-pink, poly gonal papules (Fig. Vasopressin levels become
virtually undetectable. 638). Replacement of hormone deficiencies See Box 21.9. Replacement of hormone deficiencies, i.e. hypoptuitarism, is discussed further on page 597. Differential diagnosis of pituitary or hypothalamic masses Although pituitary adenomas are the most common mass lesion of the pituitary (90%), a variety of other conditions
may also present as a pituitary or hypothalamic mass and form part of the differential diagnosis. Poisoning (parts 1 and 2). 275), since the carbamate- enzyme complex tends to dissociate spontaneously. Clinical features Although carbamate- enzyme complex tends to dissociate spontaneously.
with a carbamate can be severe and fatal. Lancet 2014; 383:1068-1083. A diagnosis of diabetes in a man or woman at the age of 55 years reduces life expectancy by 5 and 6 years, respectively. 22.10 Seborrhoeic eczema affecting the sides of the nose. Recalcitrant and recurrent oropharyngeal candidiasis is a particular problem. 656). These drugs
cause immune-related adverse events (irAEs) in various organs, including in endocrine glands, resulting in thyroiditis (1%), hypophysitis (9%), adrenalitis (1%) and type 1 diabetes mellitus (60% grade I motility and 30 nmol/L, suggests ovulation Maintenance of bone mass Ultrasound of ovaries To confirm ovulation Both sexes Basal LH/FSH
Demonstrates state of feedback system for hormone production (LH) and germ cell production (FSH) HCG test (testosterone or oestradiol measured) Response shows potential of ovary or testis; failure demonstrates primary gonadal problem Clomifene is an
oestrogen antagonist and causes LH/FSH to rise LHRH test (rarely used) Shows adequacy (or otherwise) of LH and FSH stores in pituitary FSH, follicle-stimulating hormone: • S erum creatinine and electrolytes. Infection is usually food-or
water-borne and younger travellers are most often affected (probably reflecting behaviour patterns). Lancet 2010; 375:77-88. Impetigo - Summary. Thus, some people with immune- mediated type 1 diabetes may not require insulin at the point of diagnosis, whereas many with type 2 diabetes will eventually do so. • If serum osmolality is >300
mOsm/kg and/or urine osmolality 600 mOsm/kg. The efficacy of tetracyclines is reduced by antacids and oral iron-replacement therapy. It is active against almost all the common urinary pathogens, with the exception of Proteus spp., and resistance remains rare. It is a key part of all medical interactions but its duration and extent will be guided by the
patient's history and the acuity of the presentation. 7. Axis Basal investigations Common dynamic tests Other tests Pituitary hormone End-organ product/function HP-ovarian LH FSH Oestradiol Progesterone (day 21 of cycle) Ovarian ultrasound LHRH testa HP-testicular LH FSH Testosterone Sperm count LHRH testa Growth GH IGF-1 IGF-BP3
Prolactin Prolactin HP-thyroid TSH Free T4, T3 HP-adrenal ACTH (tetracosactide) stimulation test Glucagon test GH response to sleep, exercise or
arginine infusion GHRH testa - - TRH testa Posterior pituitary Thirst and osmoregulation aReleasing hormone tests were a traditional part of pituitary function testing but have been largely replaced by the advent of the NICE guidelines
recommending cessation of antibiotic prophylaxis for prevention of infective endocarditis: before and after study. Cushingoid - Butterfly (malar) rash (SLE) - Tight skin (scleroderma) Eyes - Episcleritis - Scleromalacia (RA) - Red, painful eye - Dry eyes Mouth - Ulcers | Systemic - Small | sclerosis Nose - Beaky | Osteoarthritis Large weight-bearing
joints Rheumatoid arthritis (RA) Hands, feet, elbows, temporomandibular, sternoclavicular, acromioclavicular, cervical spine; any synovial joint Lymphadenopathy (RA) Psoriatic rash Lungs Infection Bronchiectasis Pleural effusions Rheumatoid nodules Hands and wrists Rheumatoid arthritis - Ulnar deviation - Subluxation of MCPs - PIP joints - Fixed
flexion (Boutonnière's) - Fixed extension (swan neck deformity) - Swellings and deformities - SLE - Gottron's nodules Osteoarthritis - Heberden's cyst) Heart Murmurs Pericardial sounds Splenomegaly Tenosynovitis Hips - OA Carpal tunnel Nails Vasculitic lesions Dystrophy and
pitting in psoriasis Bowed deformity in Paget's Oedema Feet Deformities Foot broader Hammer toe deformities Ulcers Sensory polyneuropathy Acute gout 18 18 414 Rheumatology Examination of the joints See page 415 for more detailed examination of the joints See page 415 for more detailed examination for limb and spinal disease and a detailed examination of the joints See page 415 for more detailed examination for limb and spinal disease and a detailed examination of the joints See page 415 for more detailed examination for limb and spinal disease and a detailed examination for limb and spinal disease and a detailed examination of the joints See page 415 for more detail on how to structure both a screening examination for limb and spinal disease and a detailed examination for limb and spinal disease and a detailed examination of the joints See page 415 for more detailed examination for limb and spinal disease and a detailed examination for limb and spinal disease and a detailed examination for limb and spinal disease and a detailed examination for limb and spinal disease and a detailed examination for limb and spinal disease and a detailed examination for limb and spinal disease and a detailed examination for limb and spinal disease and a detailed examination for limb and spinal disease and a detailed examination for limb and spinal disease and a detailed examination for limb and spinal disease and a detailed examination for limb and spinal disease and a detailed examination for limb and spinal disease and a detailed examination for limb and spinal disease and a detailed examination for limb and spinal disease and a detailed examination for limb and spinal disease and a detailed examination for limb and spinal disease and a detailed examination for limb and spinal disease and a detailed examination for limb and spinal disease and a detailed examination for limb and spinal disease and a detailed examination for limb and spinal disease and a detailed examination for limb and spinal disease and a detailed examination 
individual joints. This causes overproduction of antimicrobial peptides, inflammatory cytokines and chemokines, amplifying the immune response and driving abnormally rapid keratinocyte proliferation. For this reason, treatment of hypertension without managing other modifiable cardiovascular risk factors (raised cholesterol, diabetes mellitus,
tobacco smoking, obesity) is suboptimal. Tendon damage, including rupture, can occur within 48 hours of use. Candida can also infect the oral mucosa, especially after broad- spectrum antibiotics and in the immunocompromised and older denture wearers. It is a 51-amino acid peptide hormone comprising two polypeptide chains, the A and B chains
(Fig. Treatment needs to be continued for at least 6 months. 22 22 696 Dermatology Fig. 305). The contents of neutrophil granules are released both intracellularly (predominantly azurophilic granules) and extracellularly (
treatment if there are suggestive symptoms (see p. These effects are mediated by increasing synaptic concentrations of adrenaline (epinephrine) and dopamine. • R espond to the patient's body language: note whether the patient becomes distressed or embarrassed. It is also recommended in those with troublesome galactorrhoea. • Considering the patient becomes distressed or embarrassed. It is also recommended in those with troublesome galactorrhoea.
patient problems in language devoid of assumption, as far as possible, seeking to describe a patient's problems succinctly and objectively without recourse to previous diagnostic reasoning. • Extra-articular symptoms: • Osteoarthritis and soft tissue problems are not usually associated with symptoms outside the joints. This is referred to as
Eisenmenger's syndrome. Clinical features • R estrictive VSDs ('maladie de Roger') are often found incidentally, as patients are asymptomatic. 1420). Management There is no definitive cure and warts may persist for months or years before spontaneously clearing. • Are they aware of key lifestyle interventions around healthy eating, weighting the same of the same of
reduction and exercise? Common causes include antibiotics, NSAIDs, anticonvulsants, allopurinol, dapsone and nevirapine. Many patients are hypovolaemic on admission to hospital as a result of acute illness. Erythema nodosum is the most common (see p. Treatment of difficult-to-treat sites is outlined in Box 22.16. Phototherapy Guttate psoriasis is
usually treated with topical therapies and/or UVB phototherapy (see p. When associated with pins and needles or numbness, it suggests a neurological cause arising at the wrist, elbow or neck. 626) caused by mutations in the KAL1 gene, which is located on the short (p) arm of the X chromosome. Other topical agents include coal tar and tazarotene (a
retinoid), though these are less popular due to irritancy. Mutations include the KISS1 gene, which codes for kisspeptin, the protein that acts on the GPR54 receptor, and the FGFR1 gene. Special instances of hypogonadism Oligospermia and azoospermia are less popular due to irritancy. Mutations include the KISS1 gene, which codes for kisspeptin, the protein that acts on the GPR54 receptor, and the FGFR1 gene.
gonadotrophin therapy. • Prednisolone (30-60 mg daily) is effective in some instances (e.g. in myeloma, sarcoidosis and vitamin D excess) but in most cases is ineffective. Tinea pedis frequently flares in hot weather, causing pustules or blisters, and this can be misdiagnosed as eczema. Diastolic fluttering of the mitral leaflets or septum occurs in
severe aortic regurgitation (producing the Austin Flint rumble). • Leuconychia (white nails) is seen in hypoalbuminaemia. Assessment of LH, FSH, oestradiol or testosterone will identify primary hypogonadism. A central distribution of fat increases the risk of type 2 diabetes, and so for any given level of obesity, the more visceral fat an individual has
the higher the risk of type 2 diabetes. Diet Physical inactivity Physical inactivity and sedentary behaviour are also associated with an increased risk of diabetes. Diet Physical inactivity Physical inactivity and sedentary behaviour are also associated with an increased risk of diabetes. Diet Physical inactivity Physical inactivity and sedentary behaviour are also associated with an increased risk of diabetes. Diet Physical inactivity Physical inactivity and sedentary behaviour are also associated with an increased risk of diabetes. Diet Physical inactivity Physical inactivity and sedentary behaviour are also associated with an increased risk of diabetes. Diet Physical inactivity Physical inactivity and sedentary behaviour are also associated with an increased risk of diabetes. Diet Physical inactivity Physical in
and action in the pathogenesis of type 2 diabetes has been much debated and likely differs between different people. Palumbo A, Avet-Loiseau H, Oliva S et al. However, in many cases, sunscreens are not applied in adequate amounts and so do not provide the SPF as labelled. 22.14). The condition may remit spontaneously after several years,
especially in children. The administration of multiple doses of activated charcoal is used but the effect on survival is debated. Leg length inequality leads to a scoliosis that decreases on sitting or lying (the lengths are measured with the patient lying down). Guidelines for rapid examinations of the limbs and spine are shown in Box 18.3. Examining are
individual joint involves three stages: looking, feeling and moving (Box 18.4). Coma and convulsions occur in severe poisoning. For example, according to the 2018 diagnostic criteria for systemic lupus erythematosus, published jointly by the American College of Rheumatology and European League Against Rheumatism, patients need to score ten or
more points from different domains, including symptoms, signs, haematological and immunological blood tests, and histology (see p. 21.38). Ambulatory BP monitoring is now recommended in the UK instead of office BP for diagnosis, and is recommended as a complementary strategy to office BP in most other high-income health economies. Other
common papulosquamous rashes Pityriasis rosea is an acute, self-limiting exanthem, which is thought to be caused by a viral infection, possibly human herpesvirus (HHV)-6 and HHV-7. It can be seen in anorexia nervosa, porphyria cutanea tarda and underlying malignancy, and is caused by certain drugs (e.g. ciclosporin, minoxidil).
781). Standard deviation scores (SDS) based on the degree of deviation from age-sex norms are widely used. Depending on the context and the acuity of the situation, these may occur in isolation, follow on from one another or, in severely ill patients, happen synchronously. The second type needs replacement only until breast-feeding finishes. UV-
absorbing chemicals may occasionally cause allergic contact dermatitis and, in rare instances, photoallergic contact dermatitis (where the sunscreen becomes allergic contact dermatitis and, in rare instances, photoallergic contact dermatitis (where the sunscreen becomes allergic contact dermatitis and, in rare instances, photoallergic contact dermatitis and, in rare instances, photoallergic contact dermatitis and, in rare instances, photoallergic contact dermatitis (where the sunscreen becomes allergic contact dermatitis).
consultation skills. Viral infections Viral infections Viral exanthem The most common cutaneous manifestation of viral infections is a widespread maculopapular rash or exanthem that predominantly affects the torso and proximal limbs. 5.1). The golden minute At the start of the consultation the clinician should avoid interrupting the patient for as long as possible minute affects the torso and proximal limbs. 5.1).
Hydrofluoric acid is considered separately (see p. Warn the patient that the pain may increase initially but to report urgently if this persists beyond a few days, if the swelling worsens or if they become febrile, because this might indicate an infected joint. Tendon sheaths and bursae are also lined by synovium. These are usually detected by a
precipitation test (Farr assay), ELISA or an immunofluorescent test using Crithidia luciliae (which contains dsDNA). Some patients require arthroscopic surgery. Calcific tendonosis and bursitis Calcium pyrophosphate deposits in the tendon are visible on X-ray but they are not always symptomatic. This kink in the aortic contour in the upper left
mediastinum is shaped like a number 3 and known as the '3 sign'. • Echocardiography is used to confirm the diagnosis; it demonstrates the defect in the septum. Physical tests, such as lightly scratching the skin for dermographism or an ice cube test for cold urticaria, are helpful in demonstrating the cause. Ten-year risk estimates are less useful than
lifetime risk estimates in young patients, given the powerful role of age in all cardiovascular risk scores. The pattern of joint involvement is a useful clue to the diagnosis (Box 18.2). There is some evidence that low birth weight may predispose to hypertension, diabetes and other health problems in later adult life (see p. Pitted keratolysis responds to
astringents such as potassium permanganate soaks, antiperspirants and topical imidazoles or fusidic acid. This process can lead to abnormalities of bone growth and remodelling (see p. The N- methylated derivative, metamfetamine (MDMA),
known as ecstasy, are common examples. Aortic valve replacement will usually be needed a few years later. PTH, an 84- amino- acid hormone derived from a 115- residue pre- prohormone, is secreted from the chief cells of the parathyroid glands. Type 2 diabetes is a polygenic disorder and, as with type 1 diabetes, genome-wide studies of association
between common DNA variants and disease have allowed identification of numerous susceptibility loci. dChoice of antibiotic for staphylococci depends on sensitivities. Percutaneous collagenase injection into the lesion has been shown to be effective in several studies and is now first-line treatment used before surgery. aureus-secreting Panton
Valentine leukocidin (PVL). Are they limited in any daily activities by physical or mental health problems? Monochromator phototesting across the solar spectrum can be done to confirm UVB sensitivity and other causative wavelengths. The causes are listed in Box 18.12. Both a decrease and an increase in DALYs may reflect improved outcomes. It has
the added effect of inhibiting staphylococcal toxic shock syndrome toxin 1 (TSST-1) and alpha toxin production, and has a role in infections caused by S. However, in chronic poisoning the plasma lithium concentration may not be markedly above the upper end of the therapeutic range despite the presence of severe neurological features (which are
due to accumulation of lithium in the CNS). Ultrasound may also reveal virilizing ovarian tumours, although these are often small. 18.1 Normal synovial joint. The rash is often misdiagnosed as candida intertrigo (see p. Anaemia (normally normocytic) occurs due both to inhibition by lead of several enzymes involved in haem synthesis.
and to haemolysis. 22.12). The 'Clinical skills' sections at the beginning of many of the chapters in this book present additional questioning techniques relevant to particular medical importance: • Elapidae: African and Asian
cobras (Fig. • GH deficiency causes growth failure in children, and impaired wellbeing in some adults. The anti-IL-4/IL-13 monoclonal antibody dupilumab, given by subcutaneous injection every 2 weeks, has been shown to be a highly effective and safe treatment for adult atopic eczema and is now licensed in the UK to treat moderately severe
disease. All antibiotics given i.v. cMonitor vancomycin and gentamicin levels, and adjust if necessary. It is caused by Staphylococcus aureus or Streptococcus pyogenes. Other endocrine causes of hypertension should also be considered if there is clinical suspicion (Box 21.22). Genetic studies have identified a primary abnormality in skin barrier
function: in particular, loss-of-function mutations in the filaggrin gene, which are associated not only with atopic eczema but with other atopic diseases and food allergy. A similar fibrosis occurs in the filaggrin gene, which are associated not only with atopic eczema but with other atopic diseases and food allergy. A similar fibrosis occurs in the feet and is often more aggressive. 22.21) and is spread by direct contact. 21 21 594 Endocrinology Box 21.7 Tests of hypothalamic-pituitary (HP)
function All hormone levels are measured in plasma unless otherwise stated. in volume overload associated with renal disease) or low (in heart failure or cirrhosis) 2EVHUYDWLRQFKDUW Tachycardia Hypotension if severe volume depletion Postural hypotension (fall of systolic BP > 20 mmHg after standing for 2 min) )DFH Periorbital oedema )DFH
Dry mouth 1HFN Raised JVP (see p. It can be given orally or parenterally, but oral intake is associated with significant gastrointestinal side- effects, while the intravenous formulation is very irritant and causes phlebitis. These counter-regulatory hormones increase hepatic glucose production and reduce its utilization in fat and muscle for any given
insulin concentration. CLASSIFICATION OF DIABETES Diabetes may be primary (idiopathic) or secondary (Box 23.4). Antivenom only neutralizes circulatory venom, and will not neutralize or combine with venom once the venom is attached to target organs: that is, platelets, red blood cells, vascular endothelium, renal tubules, muscles or
neuromuscular receptors. Most patients recover in 2-3 weeks. Phosphides Aluminium and zinc phosphides are used as rodenticides and insecticides and insecticides. • Are there aggravating or precipitating factors? This increased understanding of variability within the disease may help us define groups of patients who are likely to do badly with conventional
treatment, and towards whom future targeted therapies may be directed. Clinical features The majority of patients present with painless lymphadenopathy clinically, at one or several sites. 6, with permission from Oxford University Press and the European Society of Cardiology.) Patients with AHF should be managed in a high-dependency area with
regular measurement of temperature, heart rate, blood pressure and cardiac monitoring. It is a considerable financial and societal burden, as it impairs the ability to work and to carry out the tasks of daily living. Risk factors for coronary artery disease CAD is an atherosclerotic disease that is multifactorial in origin, giving rise to the risk factors for coronary artery disease.
concept. Replacement is usually given by transdermal gel or by intramuscular injection (Box 21.40). 22.23) or a painful ulcerative gingivostomatitis. CLINICAL CONDITIONS IN RHEUMATOLOGY These can be divided into three types: • Pain arising from soft tissues around joints, such as muscles and tendons. • Nodular malignant melanoma (Fig
Usually, however, most patients suffer only mild gastrointestinal symptoms. Features of skin failure can ensue (see p. If these two antidotes are not available, intravenous sodium thiosulphate 12.5 g, which acts by enhancing endogenous detoxification, and intravenous sodium nitrite 300 mg should be administered. 660), minimizing contact with
irritants and avoiding exposure to allergens (Box 22.15). Acad Med 2003; 78:802-809. Sites of predilection are the finger webs, palms, soles, wrists, axillae, male genitalia, and around the nipples and umbilicus. Further reading Warrell DA. The syndrome must be distinguished from dilutional hyponatraemia due to excess infusion of glucose/water
solutions or diuretic administration (thiazides or amiloride; see p. Accurate identification of the biting species, ideally by examination of the dead snake, is crucial. Opportunities for learning include sitting in general and specialist rheumatology clinics, observing musculoskeletal and joint injection lists, talking with and examining patients attending to the dead snake, is crucial.
day units for infusions of medication, and attending imaging meetings. 411 18 412 Rheumatology CLINICAL SKILLS FOR RHEUMATOLOGY Taking a musculoskeletal history and examination, and then supported by investigations. • Inhalation. (B)
Pattern-based diagnosis. Treatment for metastatic melanoma (stages 3 and 4) has been revolutionized in the last few years with the advent of targeted therapy. Dermatology images (atlas). 515). Herpes zoster (shingles) 'Shingles' results from reactivation of latent VZV infection. T1-weighted MRI is used for anatomical detail, T2- weighted for fluid
detection and short tau inversion recovery (STIR) for the presence of bone marrow oedema. Further reading Foster HE, Kay LJ, May CR et al. Upper and lower endoscopies with mucosal biopsies are performed urgently to exclude gastrointestinal malignancy Diagnosis: iron deficiency anaemia Diagnosis: duodenal ulcer secondary to Helicobacter
pylori infection, with slow chronic blood loss Fig. 23.8). • Is it constant or does it come in short-lived or longer episodes? Pharmacists and consultant nurses are now taking a bigger role in patient care, and Clinical Medicine is the book used by many of these professionals as a source of evidence-based medical information. 1244) is a manifestation of
zinc deficiency, which can occur in three settings: • an inherited defect in zinc transporter protein in the gastrointestinal tract (presents during breast-feeding) in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings: • an inherited defect in zinc transporter protein in three settings:
on mutual respect, rejecting a traditional paternalistic view of medicine ('doctor knows best'), and assisting joint exploration of the biomedical and the patient perspectives on the problem. Glucose transport Cell membranes are not inherently permeable to glucose. This diffuse, aching, dural pain is followed by sharp, electric shock-like pain down the
arm, in a nerve root distribution, often with pins and needles, numbness, weakness and loss of reflexes (Box 18.9). The presence of broken hairs and 'exclamation mark' hairs (narrow at the scalp and wider Box 22.30 Causes of alopecia Scarring alo
irradiation • Idiopathic ('pseudopelade') Non-scarring alopecia • Androgenic alopecia • Trichotillomania (self-induced hair-pulling) • Tinea capitis • Traction alopecia • Metabolic (iron deficiency, hypothyroidism) • Drugs (e.g. heparin, isotretinoin, chemotherapy) Birth marks and neonatal rashes 695 Fig. 0-
10% Viral pathogens 0-10% Giardia intestinalis 0-3% a sometimes have a role, especially in children in developing countries. 22.26 Tinea cruris. Ringworm of the groin. A polyarthritis is more likely to be due to OA or RA. 8.18CD.) 31 31 1142 Hypertension Box 31.4 Impact of lifestyle changes on BP Lifestyle change Expected mean BP reduction
Regular cardiovascular exercise (30 min daily) 5 mmHg Weight reduction if overweight (body mass index > 25 kg/m2) 1 mmHg/kg Increased intake of fruits and vegetables, reduced intake of fruits and vegetables, reduced intake of saturated fat 10 mmHg Dietary salt reduction 180/110 mmHg) are associated with greater perioperative harm, such as myocardial injury, though there is no clean
evidence that 31 31 1144 Hypertension reducing BP acutely in the preoperative period to controlled levels is beneficial. 0-15% Salmonella spp. Toxic jellyfish, Carukia barnesi, cause the Irukandji syndrome (see below). Clinical features and management Local pain occurs,
followed by myalgia, nausea, griping abdominal pain, dyspnoea and even death. Do they describe it as tight, dull, electric or burning? • a voidance of piercing or tattoos • limitation of the usage of infusion catheters, preferring peripheral catheters, preferring 
normal skin microbiome but can also act as pathogens. These are measured to establish a prognostic score. Because of the volume overload there is commonly an ejection systolic flow murmur. The pain may radiate to the left arm, neck or jaw. It is crucial for doctors to re-evaluate an initial diagnosis actively in situations where things 'don't quite fit
rather than persisting with a hastily formed assumption that may prove incorrect. Diagnostic error and patient safety It has been estimated that 10-15% of medical diagnoses are wrong. Glucose taken up by muscle is stored as glycogen or metabolized to lactate or carbon dioxide and water. Patch and plaque-stage mycosis fungoides usually responds
to potent topical corticosteroids and UV phototherapy. Thyroid function tests show initial hyperthyroidism, the erythrocyte sedimentation rate (ESR) and plasma viscosity are raised, and thyroid uptake scans show suppression of uptake in the acute phase. Non-invasive continuous positive airway pressure/positive pressure ventilation (CPAP/NIPPV;
see p. Changes in plasma osmolality are sensed by osmoreceptors in the anterior hypothalamus. Milder deficiencies may not be obvious and require specific testing (Box 21.7). Management depends on the type and size of tumour (Box 21.8). A family history may confirm that other family members experienced the same delayed
development, which is common in boys but very rare in girls. Investigations These are similar to those for short stature which may coexist and polyuria. Different clinical patterns are recognized, and the morphology may be mixed and can
       with time in an affected individual. - Are they taking ACE inhibitors or angiotensin receptor blockers? The skin should be carefully examined to look for fissures or erosions that can allow entry of pathogens. However, as with most phenotypes, there is a threshold value that makes most healthcare professionals anxious about increased cerebral
and cardiovascular risk, even in inpatients, and it is therefore common for BPs consistently above 180/110 mmHg to be treated, where there is no other clear precipitant. Removal/control of tumour This is only required if the tumour is large enough to cause, or is likely to cause, anatomical effects or if it is secreting excess hormones. Metallic mercury
is very volatile; when spilled, it has a large surface area so that high atmospheric concentrations may be produced in enclosed spaces, particularly when environmental temperatures are high. Arch Dermatol 2010; 146:1141-1150. • Cervical nerve root pain is usually associated with pins and needles or neurological signs in the arm. Mirtazapine, an
antidepressant that acts via presynaptic alpha blockade to increase central serotonin release, is probably the safest antidepressant in overdose, causing mainly only sedation. Opiates and opioids Clinical features Management Cardinal signs of opiate poisoning are pinpoint pupils, reduced respiratory rate and coma. Prolonged courses of anti-
staphylococcal oral antibiotics such as rifampicin and clindamycin may be helpful. Increased hair growth Hirsutism (see p. The procedure is unsuccessful and the patient suffers significant complications, but the doctor subsequently recommends a second procedure rather than conservative management, in order to try to salvage something
from the situation. Four clinical types exist: • Lentique maligna melanoma is invasive tumour that develops within pre-existing lentique maligna. In cases where no clear lesion is present, or in postoperative cases where residual disease is being sought, there is increasing interest in the use of functional imaging such as positron emission tomography
(PET). What is their occupation? 1444) is a common complaint in women and may require oral azole antifungal therapy. Malassezia Fig. 22.60). Treatment is assigned on the basis of the revised International Prognostic Index (R-IPI; Box 17.21 and Fig. 17.19). 17 404 Haematological oncology Box 17.21 Adverse prognostic factors in diffuse large B--
cell lymphoma (R-IPI) • Age >60 years • Stage III or IV, i.e. advanced disease • High serum lactate dehydrogenase level • More than one extranodal site involved • ECOG performance status 2 or more (see Box 6.13)

ECOG, Eastern Cooperative Oncology Group; R-IPI, revised International Prognostic Index. IDF Diabetes Atlas, 9th edn; ...
Stereotactic techniques use either a linear accelerator or multiple cobalt sources ('gamma-knife'). viii For this reason, we have introduced into this edition a number of new chapters to equip readers to address these new chapters to equip readers to equip readers to experiment and the company of the comp
multimorbidity (Ch. 15), Haematological oncology (Ch. 17) and Men's health (Ch. 40). Nail dystrophy is also a feature of various genodermatoses including nail patellar syndrome, ectodermal dysplasias (abnormal hair, teeth and nail) and pachyonychia congenita. LP may köbnerize: that is, localize to areas of superficial trauma. Insulin autoantibodies
also appear in the circulation but do not contribute to the ICA reaction. The use of beta-blockers in cocaine poisoning is controversial. Treatment for fertility in PCOS • C lomifene or letrozole is given daily on days 2-6 of the cycle and is effective in 75% of women in achieving ovulation. Fig. Kurtz S, Silverman J, Benson J et al. Hands: • Look for
peripheral signs of serious conditions like infective endocarditis or chronic liver disease • Feel the temperature of the hands and the volume status 7. Maintenance can again be given. As well as welcoming a number of new contributors to this edition, we would like to thank various others who have
stepped down this time around - especially those who have had a long association with the book. Parathyroid glands, which are situated posterior to the thyroid; occasionally, additional glands exist or they may be found elsewhere in the neck or mediastinum. They are usually applied once or twice a day to
inflamed skin. requirement is 1 mg/kg body weight per minute, or approximately 100 g daily in a 70 kg person. Nerves may be enlarged and palpable. This is particularly necessary for people with darker skins living in temperate climates, who are at risk of vitamin D deficiency. REM, rapid eye movement. The ductus arteriosus usually closes off within
1 or 2 days of birth, completely separating the left and right systems. Varying grades of dyspnoea occur, depending on the extent of left ventricular dilation and dysfunction. 13.1) cover a vast area for improvement and emphasize the fact that achievement of the good health and wellbeing goal (SDG 3) is inextricably linked to other major areas such as
politics, economics and agriculture. Activation of innate immune responses is mediated through interaction between: • the pathogen-associated molecular patterns, PAMPs) • the host side, comprising a limited portfolio of receptors (pattern recognition receptors, PRRs). • The self-
antigens may be modified and become antigenic. To the fullest extent of the law, no responsibility is assumed by Elsevier, authors, e ditors or contributors for any injury and/or damage to persons or property as a matter of products liability, negligence or otherwise, or from any use or operation of any methods, products, instructions, or ideas
contained in the material herein. Primary diabetes is classified into: • Type 1 diabetes, which usually has an immune pathogenesis and is characterized by severe insulin deficiency. However, long-term use is often complicated by nephrotoxicity and hypertension. However, these disorders form some of the most common presentations to hospital and
may complicate a wide range of other conditions, and so all doctors need to be confident when approaching them. The mainstay of treatment is a carbapenem. In severe poisoning, an initial dose of 1.2 mg is likely to be required and repeat
doses necessary. Monogenic diabetes is caused by a single gene mutation, which is dominantly inherited and predominantly affects β-cell function. There is a 1:4 chance of an affected child if one child in the family is already affected. The consensus (Rotterdam) criteria 2003 for diagnosis of PCOS are at least two of the following: • clinical and/or
biochemical evidence of hyperandrogenism • oligo-ovulation and/or anovulation • polycystic ovaries on ultrasound. Management Local therapy for hirsutism Regular plucking, bleaching, use of depilatory cream, waxing or shaving is used. 22.15B).
and the main points to consider are: 1. • Tetanus prophylaxis should be given as per requirement. Chronic inducible urticaria), cold (cold urticaria), sunshine (solar urticaria) and sweating (cholinergic urticaria). It is less effective than
ciclosporin or methotrexate but lacks immunosuppressant effects and may be used in combination with UVB and PUVA. The apex beat is displaced laterally and downwards and is forceful in quality. Boils may coalesce to form carbuncles, which are larger swellings with multiple pus-discharging openings and systemic upset. Plants. Management
involves physical methods, such as bleaching, waxing, electrolysis, intense pulsed light (IPL) and laser therapy. Muscular-pattern neck pain is not localized but affects the trapezius muscle, the C7 spinous process and the paracervical musculature (shoulder girdle pain). It presents as a rapidly growing pigmented nodule, which bleeds or ulcerates.
seriously compromise the choice of antibiotics. • Inhibition of serotonin reuptake induces hallucinations. It can affect any age group. Nat Rev Clin Oncol 2017; 14:463-482. DISORDERS OF PIGMENTATION Hypopigmentation Freckles (ephelides)
These extremely common pigmented macules appear in childhood after sun exposure. Hypokalaemia should be corrected in 70% of people with RA, but are not diagnostic. For these reasons, clarithromycin (which has similar antimicrobial properties but fewer
side-effects) is often preferred. We offer our own take on the clinical method and the importance of building a therapeutic relationship with patients in a new first chapter, describing what we believe remains key to the art of medicine: diagnosis (Ch. 1). Box 23.2 shows the checks (covering history, examination and selected investigations) that should
form part of the annual screening process. 699 23 700 Diabetes mellitus Examination The physical examination carried out in people with diabetes will be determined by the clinical context and any presenting complications. 626). Indications for antivenom include: • spontaneous systemic bleeding • incoagulable blood based on the 20 WBCT or
other laboratory tests (e.g. international normalized ratio, INR) 12 12 276.e6 Prescribing, therapeutics and toxicology • s hock, indicated by low or falling blood pressure or cardiac arrhythmia • ptosis, diplopia, neck muscle weakness, paralysis of limb muscles, respiratory paralysis, altered sensorium • black urine positive for
blood/haemoglobin/myoglobin (indicating rhabdomyolysis or intravascular haemolysis) • local swelling after bites on the fingers and toes, or swelling after bites by species likely to cause necrosis. • Scrofuloderma occurs due to discharge from an affected lymph node into the skin with ulceration and
scarring. It is given in S. 18.1) include the ball-and-socket joints (e.g., hip) and the hinge joints (e.g., hip) and hinge jo
snakes are found in most parts of the world except in very cold regions such as Antarctica and islands such as Ireland, New Zealand and most islands of the Western Mediterranean, Caribbean and Pacific. There are surface receptors for the cytokines IL-3 and IL-5, which promote the development and differentiation of eosinophils. Mast cells
and basophils Mast cells release pro-inflammatory and vasoactive mediators, and have a role in allergy. Parenteral sodium calcium edetate 75 mg/kg per day or oral succimer (DMSA) 30 mg/kg per day is of similar efficacy. Potential carbapenem- sparing options include intravenous amikacin or intravenous temocillin but the suitability of these choices
depends on sites of infection. • Hygiene, which should involve all health workers, as well as patients and relatives. 159). • Cocaine is a powerful local anaesthetic and vasoconstrictor. 270). Patients are highly infectious at this time due to very high viral loads. Cutaneous infection and opportunistic infection and vasoconstrictor.
immune deficiency. Above this level, plasma vasopressin increases in direct proportion to plasma osmolality. The dose of antivenom should be repeated if life-threatening bleeding, shock or paralysis persists a few hours after the first infusion, or if the blood remains incoagulable when retested after 6 hours. • Signpost: explain what you have just
covered and what you are now going on to explore, and why. Posterior osteophytes may cause spinal claudication and cervical myelopathy. Whiplash injury results from acceleration forces applied to the neck, usually in a road traffic accident when the car of a person wearing a seat belt is struck from behind.
Inflammation occurs with repeated or unaccustomed use, or in inflammatory arthritis. 726) - Visual acuity Eyelids - xanthelasma Cataracts Face Cranial nerve palsy, particularly CNIII Eye movements Ptosis Retinopathy Neck Carotid pulses/bruits Check thyroid gland for goitre (autoimmune) Mouth Candidiasis Hands Carpal tunnel Dupuytren's
contracture Muscle wasting Limited joint movement Insulin injection sites Bruising Lipohypertrophy (glove and stocking) Reflexes (lost in sensorimotor neuropathy) Necrobiosis lipoidica (From Palastanga N. Although often viewed as a disease of affluence
around three-quarters of those with type 2 diabetes live in low- and middle-income countries and the most rapid rise in incidence is occurring in countries with type 2 diabetes live in low- and middle-income countries and the most rapid rise in incidence is occurring in countries with type 2 diabetes live in low- and middle-income countries and the most rapid rise in incidence is occurring in countries with rapidly growing economies, such as India and China. Using this pharmacokinetic approach, therapeutic drug monitoring is used in two major situations: 

Output

Description:
prophylactically to maintain the absence of a condition, such as seizures, cardiac arrhythmias, depressive or manic episodes, asthma relapses or organ rejection • to avoid serious toxicity, as with the aminoglycoside antibiotics which, unlike most antibiotics, have a narrow therapeutic range. Sites of predilection include the shoulders, upper back and
chest, earlobes and chin. If the left-to-right shunt is significant, it will result in left heart volume overload. Small tumours producing no significant symptoms, pressure or endocrine effects may be observed with appropriate clinical, visual field, imaging and endocrine assessments. Systemic effects • C oagulopathy and haemorrhage include bleeding
from the gums and other sites (Fig. Skull sutures are fibrous joints. Efforts to improve global health are championed by non- governmental organizations such as the World Health Organization (WHO), the United Nations Children's Fund (UNICEF) and INTRODUCTION Complex individual and community health needs are present in high-, as well as
low-and middle-income countries (LMICs), but may be particularly acute in times of crisis, for example during or after armed conflict. E12.2), Asian kraits (Figs E12.3 and E12.4), African mambas, American coral snakes, most Australo-Papuan venomous snakes and sea snakes • Viperidae: i.e. vipers (Fig. It can also be classified according to duration
(acute, subacute or chronic). features (deep voice, clitoromegaly, dysmenorrhoea, acne) are present, a full endocrine assessment is necessary. These newer products can be used for treatment of acute attacks of HAE, and C1NH is also used for prophylaxis. Urticarial vasculitis If urticarial weals are painful and last for more than 24 hours, leaving
bruising or a blemish, this may indicate an underlying vasculitis rather than ordinary urticaria. See Fig. If not identified on amniocentesis, only 10% are diagnosed prepuberty; early indications of the condition include cryptorchidism, behavioural problems, and learning disabilities as well as tall stature. The incidence increases with age but it may also
affect young people. Unfortunately, topical corticosteroids, sedating antihistamines and antipruritics have limited effectiveness. Treat the head and neck regions in infants (up to 2 years of age). When we started those many years ago, our aim was to produce a comprehensive book of medicine which had a sound grounding in the basic sciences for
understanding the mechanisms of diseases. This is often a clinical diagnosis and echocardiography is used to confirm the VSD and assess for left heart dilation. Common causes of secondary hyperaldosteronism are accelerated hypertension and renal artery stenosis, when the patient will also be hypertensive. There may be underlying emotional
stress: hence the alternative name, 'neurodermatitis'. Psoriasis is a common chronic inflammatory skin disease that affects 2% of the population. Hypothyroidism, usually transient, may then follow after a few weeks. Other sites that may be affected include the abdomen and perianal and perianal and perianal and perianal areas. • Could a drug be a cause? A simple decision
plan based on clinical criteria helps to distinguish those most at risk and who warrant radiography. • Diabetes insipidus (DI) - serum osmolality rises above normal without adequate concentration of urine osmolality rises above normal without adequate concentration of urine osmolality rises above normal without adequate concentration of urine osmolality rises above normal without adequate concentration of urine osmolality rises above normal without adequate concentration of urine osmolality rises above normal without adequate concentration of urine osmolality rises above normal without adequate concentration of urine osmolality rises above normal without adequate concentration of urine osmolality rises above normal without adequate concentration of urine osmolality rises above normal without adequate concentration of urine osmolality rises above normal without adequate concentration of urine osmolality rises above normal without adequate concentration of urine osmolality rises above normal without adequate concentration of urine osmolality rises above normal without adequate concentration of urine osmolality rises above normal without adequate concentration of urine osmolality rises above normal without adequate concentration of urine osmolality rises above normal without adequate concentration of urine osmolality rises above normal without adequate rise and urine osmolality rises above normal without adequate rise and urine osmolality rises above normal without adequate rise and urine osmolality rises above normal without adequate rise and urine osmolality rises above normal without adequate rise and urine osmolality rises above normal without adequate rise and urine osmolality rises above normal without adequate rise and urine osmolality rises above normal without adequate rise and urine osmolality rises above normal without adequate rise and urine osmolality rises above normal without adequate rise and urine osmolality rises are rise and urine rise and urine rise and urine rise are rise and urine rise and ur
malaise, fever and circulatory disturbance (see p. The development of atherosclerosis follows endothelial dysfunction, with increased permeability to and accumulation of oxidized lipoproteins, which are taken up by macrophages at focal sites within the endothelium to produce lipid-laden foam cells. The lesion consists of histiocytes, blood vessels and
varying degrees of fibrosis. It may resolve spontaneously or progress to one of the other types. Inhalation by small children of substantial quantities of talcum powder has occasionally given rise to severe pulmonary oedema and death. Hydrofluoric acid, a solution of hydrogen fluoride in water, is a colourless,
fuming liquid that is widely used in industry. • Tobacco use kills more than 7 million people each year and 80% of users live in an LMIC. • Pain: • Where is it? Medicine 2016; 44:120-124. Plants Life-threatening poisoning from plant ingestion is rare, though many plants contain potentially toxic substances. Late complications include coronary
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complications, narrowing of the pulmonary arteries, which are stretched around the aorta, and neovalvular regurgitation. 30.70. Blood tests and other imaging Blood samples should be taken for cardiac troponin I or T levels, although treatment should not be appropriate, then
undergoing invasive diagnostic procedures may not be appropriate either. - Is the movement fluid? In more severe cases, dystonia, dysphagia, muscle weakness, paralysis, ataxia and respiratory depression occur. It exists in three oxidation states (elemental/metallic Hg0, mercurous Hg22+ and mercuric Hg2+) and can form inorganic (e.g. mercuric
chloride) and organic (e.g. methylmercury) compounds. They are characterized by varying extents of blistering/epidermal detachment and mucosal ulceration (see Box 22.19): Dermatosis Drugs Acne Androgens (danazol) Acneiform Corticosteroids, EGFR inhibitors Angio-oedema ACE inhibitors Urticaria Penicillin, aspirin, NSAIDs, iodine contrast
media Vasculitis Gold, hydralazine, NSAIDs, proton pump inhibitors Fixed drug eruption Phenolphthalein in laxatives, tetra cyclines, diuretics, diuretics, anti-TNF biologics, ison iazid, interferons Photosensitivity Thiazides, quinolones, tetracyclines, diuretics,
amiodarone Pseudoporphyria Naproxen, diuretics Leg ulcers Hydroxyurea Anogenital ulcers Nicorandil Erythema multiforme Barbiturates, etravirine Lichen planus-like (lichenoid) Antimalarials, thiazides, statins, diuretics Psoriasiform Methyldopa, gold, lithium, beta-blockers Toxic epidermal
necrolysis Penicillin, co-trimoxazole, carbamazepine, NSAIDs, nevirapine, efavirenz Pemphigus Penicillamine, ACE inhibitors Erythroderma Gold, sulphonylureas, allopurinol, nevirapine, efavirenz Pemphigus Penicillamine, ACE inhibitors Erythroderma Gold, sulphonylureas, allopurinol, nevirapine, efavirenz Pemphigus Penicillamine, ACE inhibitors Erythroderma Gold, sulphonylureas, allopurinol, nevirapine, efavirenz Pemphigus Penicillamine, ACE inhibitors Erythroderma Gold, sulphonylureas, allopurinol, nevirapine, efavirenz Pemphigus Penicillamine, acceptance and acceptance a
factor. 23.6). Hormonal regulation Insulin is a major regulator of intermediary metabolism but its actions in the fasting and postprandial states differ (Fig. Type 1 diabetes and type 2 diabetes represent two distinct diseases from the epidemiological point of view, but from a clinical perspective, the two conditions appear as a spectrum - distinct at the
two ends but overlapping in the middle. Physical signs (Fig. In the fetus there is an opening between the right and left atrium, bypassing the pulmonary circulation. Antiplatelet drugs The platelet is a key part of the thrombosis cascade involved in ACS. In one outbreak
involving 187 cases, there were 26 deaths. Plantar, oculocephalic and oculovestibular reflexes may be abolished temporarily. In addition, about 1 in 4 patients in primary care will have even pigmentation and regular
borders. The surrounding skin usually shows signs of chronic sun damage (Fig. It usually affects the limbs and torso, and is intensely itchy, which helps differentiate it from psoriasis. 64). Fig. * Establishing the presence of complications - neuropathy, eyes and retinopathy, kidney disease, skin changes including ulceration, cardiovascular disease
including peripheral vascular disease, foot complications, soft tissue infection. The aorta is reconnected to the right ventricle and the pulmonary artery is connected to the right ventricle. Death occurs from respiratory failure within minutes but individuals with mild or moderate exposure usually recover completely. There may be specific features of
chordal or papillary muscle rupture. Okadaic acid is produced by dinoflagellates belonging to the geneus Dinophysis. • ECG may show right bundle branch block and right axis deviation. Where, and with whom, do they live? About 60% of human melanomas have an activating mutation in the BRAF V600 protein kinase, which is now a target for
'personalized' chemotherapy (see later). It is flaws in the processing, storage and distribution of food products that allow massive amplification of the infection, resulting in extensive contamination. Joint involvement is often not the most prominent symptom. When insulin binds to the α-subunits, it induces a conformational change in the β-subunits
resulting in activation of tyrosine kinase and initiation of a cascade response involving a host of other intracellular substrates. Activity should be restricted until the inflammatory markers are normalized. The solid arrow indicates the jump bypass graft; the dotted arrow indicates severe aortic coarctation. • Have the symptoms responded to
medication? The rash develops over days and consists of very small circular or oval plaques on the torso. Monitoring is necessary to ensure therapeutic and non-toxic drug concentrations. The ingested organism produces an Bacterial infections of the gastrointestinal tract  

543 enterotoxin that causes watery diarrhoea with severe abdominal pain,
usually without vomiting. Travellers' diarrhoea Travellers' diarrhoea is defined as the passage of three or more unformed stools per day in a resident of an industrialized country travelling in a developing nation. Choosing appropriate and the patient and the
cost to providers, can be challenging, and each chapter in this book will provide guidance in specific contexts. Further reading Bailey DG, Dresser G, Arnold JM. Numbers 2-5 indicate stages of development. In congenitally corrected transposition of the great arteries (ccTGA), systemic venous return to the right atrium enters a
+HDUWVRXQGVDQGPXUPXUV $RUWD 6\VWROH /HIWDWULXP 3XOPRQDU\DUWHU\ 9HQWULFXODU VHSWDOGHIHFW 5LJKWDWULXP 6 'LDVWROH 6 6\VWROLFHMHFWLRQPXUPXURIWHQDVVRFLDWHGZLWKD WKULOOLQWKHVHFRQGOHIWLQWHUVSDFHFORVHWRWKHVWHUQXP
6LOJOHVHFROGKHDUWVRXOGEHFDXVHWKHSXOPRODU\ FRPSROHOWLVWRRVRIWWREHKHDUG /HIWYHOWULFOH 2YHUULGLOJDRUWD 3DWKRSK\VLRORJ\ 5LJKWYHOWULFXODU RXWIORZREVWUXFWLRO 5LJKWYHOWULFOH 5LJKWYHOWULFXODU K\SHUWURSK\ ‡ ‡
)DOORW¶VWHWUDORJ\LVFKDUDFWHUL]HGE\DODUJHYHQWULFXODUVHSWDO GHIHFWDQDRUWDWKDWRYHUULGHVWKHOHIWDQGULJKWYHQWULFXODURXWIORZWUDFWREVWUXFWLRQDQGULJKWYHQWULFXODUK\SHUWURSK\
:LWKVXEVWDQWLDOREVWUXFWLRQRIWKHULJKWYHQWULFXODURXWIORZWUDFW EORRGLVVKXQWHGWKURXJKWKHYHQWULFXODUVHSWDOGHIHFWIURPULJKWWROHIW 7KXVWKHSDWLHQWLVFHQWUDOO\F\DQRVHG Fig. Hutchinson's Clinical Methods: An Integrated Approach to Clinical Practice. Explain the procedure to the
patient; obtain consent. Infection tracks 22 22 670 Dermatology rapidly along tissue planes, causing spreading erythema, swelling, pain and sometimes tissue crepitus. They are usually caused by a B-cell lymphoproliferative condition. Monoclonal gammopathies of clinical significance Apart from the entities outlined above, in which the plasma cell
disorder is acting in a malignant or pre-malignant manner, there are a number of other conditions in which the clonal population is relatively small but secondary clinical effects occur. Further reading Li R, Hadi S, Guttman-Yassky E. Supportive measures to combat shock, hypocalcaemia and metabolic acidosis should be instituted. Household
products The agents most commonly involved are bleach, cosmetics, toilet ries, detergents, disinfectants, and petroleum distillates such as paraffin and white spirit. Hereditary angioedema. 21.31. Lower doses (0.4-0.8 mg) may suffice in less severe cases and if precipitating opioid withdrawal is a concern. Defronzo RA. Painful restriction of the wrist
limits the person's ability to move the elbows out with the hands held together. The pace at which medical science continues to develop is astounding. 21.34 Range of serum prolactin seen in common causes of hyperprolactinaemia. In RA, the wrists, proximal interphalangeal (PIP) joints and metacarpophalangeal (MCP) joints are affected
symmetrically. This is often high. The severity of regurgitation can be assessed with the use of colour Doppler, looking at the narrowest jet width (vena contracta) and area, and calculating the regurgitant fraction, volume or orifice area. It acts by bypassing the blocked beta- receptor, thus activating adenyl Clinical features These include nausea
vomiting, dizziness, anorexia and drowsiness. 633) • excess ACTH secretion (Cushing's disease and Nelson's syndrome): corticotroph adenomas, usually 'basophil'. However, this should be done only under the expert guidance of a dietician, to ensure adequate intake of nutrients such as calcium. These produce a speckled ANA fluorescent pattern, and
can be identified by ELISA. This is followed by a phase of asymptomatic loss of β cell secretory capacity; histologically, this is characterized by a chronic inflammatory mononuclear cell infiltrate of T lymphocytes and macrophages in the islets, known as insulitis (Fig. Glucose production More than 90% of the approximately 200 g of glucose utilized
daily is derived from liver glycogen and hepatic gluconeogenesis, with the remainder coming from renal gluconeogenesis. Glucose utilization The major consumer of glucose is the brain, whose function depends on an uninterrupted supply of this substrate. • Doses should be reduced very gradually, with most being given in the morning at the time of
withdrawal; this minimizes adrenal suppression. Dermatophyte (tinea) fungi invade and grow in dead keratin. Lancet 2015; 386:74-84. Finasteride is well tolerated but may cause sexual adverse effects, such as loss of libido in about 1% of men; it should not be taken or handled by pregnant women, as it can cause feminization
                                                                                                                                                                             WK WK VW WK WK WK WK QG WK +HLJKWFP WK WK WW WK WK WK WK QG WK *+:HLJKWNJ &KLOG$ &KLOG% $JH\HDUV
of a male fetus. • General health. Other aspects that are staged from 1 to 5, with stage 1 Growth and puberty 635
                                                                                                                                                                                                                                                                                                                                                                                         WK &URVVVHFWLRQDO VWDQGDUGV WK WK
Fig. GC, germinal centre cell. Routine checks in people with diabetes should be screened regularly to assess for their level of glycaemic control and the emergence of any complications. (C) Restricted leaflet motion. C-peptide is only partially extracted by the liver (and hence provides a useful index of the rate of insulin
secretion) but is mainly degraded by the kidneys. Tandon N, Rajkumar SV, LaPlant B et al. Target centile range is two centile spaces (around 9 cm) more or less of the mid-parental height. A highly specific test will correctly identify a high
proportion of those who do not have the disease (true negatives). Excision is advisable and lesions should always be sent for histology to exclude amelanoma. Cherry angiomas are benign angiokeratomas that appear as tiny, pinpoint, red papules, especially on the trunk, and increase
with age. CAD gives rise to a wide variety of clinical presentations, ranging from relatively stable angina through to the acute coronary )LUVWSURFHVV 6XSHU¿FLDOHQGRWKHOLDOLQMXU\ (QGRWKHOLDOLQMXU\ (QGRWKHOLDOLQMXU\ 3ODTXH¿VVXULQJ (QGRWKHOLXP 7KURPEXV 3ODTXHFRUH 1) (QGRWKHOLDOLQMXU\ 1) (QGRWKHOLDOLQM\ 1) (QGRWKHOLDOLQM\ 1) (QGRWKHOLDOLQM\ 1) (Q
IDWGHSRVLW IRDPFHOOV O\PSKRF\WHV SKDJRF\WHV VPRRWKPXVFOH DQGFROODJHQ Fig. Allowing the patient freedom to tell their own story aids clinicians in achieving their primary objective of making a diagnosis, but ultimately forms and reinforces the therapeutic relationship and increases both
patient and clinician satisfaction. Individuals with haemodynamic compromise may need arterial lines for invasive blood pressure monitoring of central venous pressure) and pulmonary artery catheterisation (calculation of cardiac
output/index, peripheral vasoconstriction and pulmonary wedge pressure). Pigmentation recovers over several months as long as the underlying condition has been treated. Symptomatic cysts can be excised under local anaesthetic. Skin tumours—689 Fig. including Pseudomonas spp. The rotator cuff (particularly supraspinatus) prevents the humeral
head from blocking against the acromion during abduction; the deltoid pulls up and the supraspinatus pulls in to produce a turning movement. (E) Exudates and flame haemorrhages in grade 3 retinopathy. In the ACUITY trial, bivalirudin appeared as effective as heparin plus
GPIIb/IIIa inhibitors in reducing ischaemic events in patients pre-treated with a thienopyridine and undergoing diagnostic angiography or percutaneous intervention, but with less bleeding. The onset is usually 1-2 weeks after drug exposure. 1131) • Complex regional pain syndrome type I (see p. Bone age will be delayed in constitutional delay,
endocrinopathies and chronic disease • Karyotyping in females. This gives them time to describe their symptoms as they have experienced them, including information that might be missed if the clinician jumps in too soon with closed, focused questions. Have they done any reading about their symptoms or asked anyone they know? Effects of
testosterone treatment in older men. Marfan's syndrome 1113 $RUWD 9HVVHOFRQQHFWLQIDRUWD DQGSXOPRQDU\DUWHU\ 3XOPRQDU\DUWHU\ 3XOPRQDU\DUWHU\DUWHU\ 3XOPRQDU\DUWHU\ 3XOPRQDU\DUWHU\ 3XOPRQDU\DUWHU\DUWHU\ 3XOPRQDU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\DUWHU\
This prevents urinary glucose loss but is maladaptive in type 2 diabetes as this process is upregulated and serves to maintain hyperglycaemia. Monogenic diabetes mellitus Approximately 1-3% of people with diabetes diagnosed under the age of 30 years have monogenic diabetes, previously called 'maturity-onset diabetes of the young' (MODY) (Box
23.6). Though not strictly a component of the joint itself, muscles are so closely related to joints that strain and tension in muscles are commonly interpreted by patients as joint pain. The red-brown pigmentation grows out with the nail over several months with clear proximal growth. It is associated with other organ-specific autoimmune diseases and
runs an unpredictable course ranging in severity from a temporary small, solitary patch of scalp hair (alopecia universalis). • Anti-extractable nuclear antigen (ENA) antibodies (see Box 18.38). Discussion with the patient is crucial. When not to investigate an universalis.
Decisions about whether and how to pursue a formal diagnosis are often complex and should be made in conjunction with the patient. 30.97. Further reading Allen DB, Cuttler L. 1387) • Disproportionate rise in serum urea compared with serum creatinine • Rise in serum sodium and osmolality • Concentrated urine: specific gravity (measured on
dipstick) >1.025 Clues to volume status on clinical examination 6LJQVRILQFUHDVHGH[WUDFHOOXODUYROXPH 6LJQVRICHFUHDVHGH[WUDFHOOXODUYROXPH 6LJQVRICHFUHDVHGH[WUDFHOOXODUYROXPH 6LJQVRICHFUHDVHGH] metabolized, with only about 20% of the
active component excreted in the urine, which makes it unsuitable for complicated UTI or pyelonephritis. They are not seen immediately on X-ray; if there is clinical suspicion, a cast is necessary. Photosensitivity occurs in approximately 1 in 20 patients. Synthetic cathinones may be taken by mouth, nasal insufflation or injection. Box 12.23 Clinical
features of ethanol poisoning Blood (ethanol) Clinical features mg/L mmol/L 500-1500 11.0-32.5 Emotional lability Mild impairment of coordination Slowed reaction time Slurred or double vision Stupor Occasionally, hypoglycaemia,
hypothermia and convulsions >5000 >108.5 Depressed reflexes Respiratory depression Hypothermia Death (from respiratory or circulatory failure, or from aspiratory depression Hypothermia Death (from respiratory or circulatory failure, or from aspiratory failure, or from aspiratory depression Hypothermia Death (from respiratory failure, or from aspiratory failure, or
the ingestion of a cyanide salt may not produce features for 1 hour. difficile infections in hospitals have been linked to high prescribing rates of quinolones, particularly when the O27 hypervirulent strain of C. • Uncommon tumours include meningiomas (Fig. E12.6 Fig. Haemorrhage due to incoagulable blood can be fatal. Facial lesions respond best
but lesions can darken after several years and require retreatment. Congenital melanocytic naevi See page 688. Mongolian blue spot This appears in infants as a deep blue-grey, bruise-like area, usually over the sacrum or back (Fig. Drug causes include oestrogens (e.g. contraceptive pill), dopamine antagonists (e.g. antipsychotics such as
phenothiazines), antidepressants (e.g. tricyclics, selective serotonin reuptake inhibitors (SSRIs)), antiemetics (e.g. metoclopramide, domperidone) and others (e.g. tricyclics, selective serotonin reuptake inhibitors (SSRIs)), antiemetics (e.g. tricyclics), anti
visual loss. Recent advances in pharmacogenetics have identified human leucocyte antigen (HLA) associations, and cytochrome P450 polymorphisms that are associated with an increased risk of reaction to certain drugs. 229) has been shown to provide earlier improvement in dyspnoea and respiratory distress than standard oxygen via mask;
mortality is, however, unaffected. The increasing incidence in recent years is thought to be due to more extensive recreational sun exposure (sunbathing in particular) and sunburn in childhood. • Psychosocial stress and depression: physical, psychological and social factors interact to contribute to symptoms
The legs are most commonly affected and lesions can blister in hot weather. Close liaison with the microbiology department is recommended and a cardiothoracic surgical opinion should be made after joint consultation between the cardiologist and
cardiothoracic surgeon, taking into account patient-specific features (infective organism, vegetation size, presence of perivalvular infection, systemic embolization). Prevention In 2015 the ESC produced guidelines for the management
of infective endocarditis. These later chapters, based around individual subspecialties, begin by offering a tailored approach to basic clinical skills such as history-taking and examination. It is important to measure BP in the correct manner. It presents most commonly in childhood as multiple pigmented macules that become red, itchy and urticated if
they are rubbed (Darier's sign), and occasionally blister. 22.24 Herpes zoster in an African male. It remains unclear to what extent general symptoms of lack of energy, drive, muscle strength and general symptoms although
there was an improvement in sexual function. coli of the CTX-M-15 type suddenly emerged in 2004 and approximately 15% of all E. 17.19 for the impact of these categories on survival. 22.25). 22.10), medial eyebrows, hairline and ear canals. 30.80) shows a dilated left atrium and left ventricle. • GH status. 30.78 Carpentier classification of mitral
regurgitation and its causes. (A) Normal leaflet motion. Treatment depends on whether the cause is gonadotrophin-dependent or independent or 
plaque stabilization, improve vascular and myocardial remodelling, and reduce future cardiovascular events. Congenital melanocytic naevi are present at birth in 1-2% of newborns. It does not lower GH levels or reduce tumour size but has been shown to normalize IGF-1 levels in 90% of patients. 30.96 Patent ductus arteriosus. Pathophysiology and
auscultatory findings. A higher demand for oxygen may occur owing to an increase in cardiac output (e.g. thyrotoxicosis) or myocardial hypertrophy (e.g. from aortic stenosis or hypertension). The duration of action of naloxone is often less than the drug taken in overdose; for example, methadone, which has a very long half-life. Mercurous (Hg22+)
compounds are less corrosive and less toxic than mercuric (Hg2+) salts. bacterial toxins and, interestingly, crystallized endogenous molecules, including urate. Short-term courses of potent or superpotent topical corticoster oids improve the signs and symptoms of LS. 656) and systemic immunosuppressants (ciclosporin, azathioprine and
methotrexate) can be helpful. Scabies is spread by close or prolonged contact, such as within households or care homes, and by sexual contact. About 75% of cutaneous melanomas arise de novo from normal skin, the remainder arising from a pre-existing naevus. If intoxication is life-threatening, give intravenous pralidoxime chloride 30 mg/kg body.
weight over 5-10 minutes, followed by an infusion of 8-10 mg/kg per hour. Carbon monoxide is an improperly maintained and poorly ventilated heating system. absolute confirmation of normal female or male reproductive endocrinology, but these tests are not always essential. Visual and auditory
hallucinations and acute psychosis are particularly likely to occur after substantial ingestion in naive users. An increase in these reflects inflammation. They react with moisture in the air (and the gastrointestinal tract) to produce phosphine, the active pesticide. 1031) &KHVW Fine inspiratory bi-basal crackles Signs of pleural effusions +HDUW
Gallop rhythm with third heart sound Thrusting apex beat $EGRPHQ Ascites Upper leg/buttock/sacral oedema (particularly in patients in bed) Peripheral 'pitting' oedema 1HFN Reduced JVP $[LOODH No axillary sweating +DQGV Cool peripheral cyanosis 8ULQHRXWSXW Oliguria.
(200 \, \mu \text{g/L} \, \text{Pre-dose Digoxin} \, 1.3-2.6 \, \text{nmol/L} > 2.6 \, \text{nmol/L} > 8 \, \text{Gentamicin Trough} \, 2 \, \text{mg/L} \, \text{Pre-dose Peak} \, 5-10 \, \text{mg/L} > 1.5 \, \text{mmol/L} > 1.0 \, \text{mmol/L}
window). ATP closes potassium channels in the cell membrane (a). Yersinia enterocolitica, Escherichia coli and other Gram- negative organisms contain TSH- binding sites. Cardiovascular risk scores, such as QRISK2®, are useful for integrating all of these risk factors, to judge when there is benefit in treating hypertensive patients. Local effects • O
edema at the site of the bite, which may spread to involve the whole limb. • Ostium primum (atrioventricular septal) defects (15%): located in the lower part of atrial septum at the level of, and often involving, the atrioventricular valves. In the cause is an osmotic diuresis secondary to glycosuria, which leads to
dehydration and an increased perception of thirst owing to hypertonicity of the extracellular fluid. Echocardiography may show a dilated left atrium and left ventricle if there is a significant left-to-right shunt. The surface is rough and warty, and may contain tiny keratin cysts. The rash typically flares when steroids are stopped, which often prompts
further use of steroids and leads to widespread infection. In girls the development of breast buds signals the start of puberty (Tanner stage 2), and continue to develop until adult shape of breasts and nipples (stage 5). Caronia LM, Martin C, Welt CK et al. The internationalization of the food supply encourages widespread and distant transmission of
the resulting infections. Enteric fever, Helicobacter pylori, Whipple's disease and bacterial peritonitis Enteric fever: see page 554. It may be a solitary plasmacytoma outside the marrow cavity. Despite these advances, most cases of hypopituitarism do not have specific
identifiable genetic causes. The histology of eczema correlates with the clinical features: in acute eczema the keratinocytes are swollen with increased intercellular fluid ('spongiosis'), while in chronic disease there is little oedema but prominent thickening of the epidermis (acanthosis) and scaling (hyperkeratosis). • Tuberculosis verrucosa cutis arises
in people who are partially immune to the organism but suffer further skin inoculation. Single-dose dalbavancin may be an alternative to conventional antibiotics in the treatment of acute bacterial skin infections in adults, avoiding the need for hospitalization or repeat attendance. Severe chronic hand eczema often leads to sick leave and job loss.
Always observe patients, looking for disabilities, as they walk into the room and sit down. If a young person presents with a stimulant should be considered in the differential diagnosis. Clinical features Management Agitation is best controlled by intravenous diazepam 10-20 mg. Paste
bandages containing ichthammol can also be useful for resistant or lichenified eczema of the limbs. Port-wine stain ('capillary haemangioma') is not a true haemangioma') is not a true haemangioma but an abnormal dilation of dermal capillaries. Box 23.8 The 75 g oral glucose tolerance test: World Health Organization criteriaa Timing of test
Normal Impaired glucose tolerance Diabetes mellitus Fasting 100 pg/mL or NT-proBNP >300 pg/mL) is suggestive of heart failure. It usually starts a few days after drug exposure and resolves with peeling. Rotator cuff (supraspinatus) tendonosis This condition is a common cause of shoulder pain at all ages. They are often found on the leg and are
more common in females. Ryan's Retina, 6th edn. The resulting systemic venous congestion produces hepatomegaly, ascites and dependent oedema. Pulmonary valve 1101 Tricuspid regurgitation MDM S1 S2 OS PSM S1 S1 S2 S1 Tricuspid regurgitation Look: Jugular venous cv-wave Pulse: Sinus rhythm or atrial fibrillation Apex:
Right ventricular heave Murmurs: Blowing pan-systolic at left sternal edge louder with inspiration Fig. Levels above 5000 mU/L always imply a prolactin-
assessment of a suspected ADR can be difficult, particularly in patients on multiple drugs. If the recommended rate of administration is continued for several days, adverse effects, including pulmonary oedema and ARDS (see p. • Frequent measurement of plasma cells are difficult, particularly in patients on multiple drugs. If the recommended rate of administration is continued for several days, adverse effects, including pulmonary oedema and ARDS (see p. • Frequent measurement of plasma cells are difficult, particularly in patients on multiple drugs.
present in the aggressive plasma cell leukaemia variant of myeloma. Babies with transposition are born cyanosed and rely on an ASD, VSD or PDA allowing oxygenated blood to be mixed. Evidence of systemic involvement (envenomation) occurs within 30 minutes, including vomiting, shock and hypotension. 175). Specific poisons
276.e1 POISONS IN THE NATURAL WORLD: ADDITIONAL ONLINE CONTENT This online-only content supplements the more limited information on snake envenomation alongside a range of other toxins present in the natural world. However, the main
problem is not at this stage. Non- cardiogenic pulmonary oedema should be treated with mechanical ventilation. Antidepressants: tricyclics and selective serotonin reuptake inhibitors Tricyclic antidepressants block the reuptake of monoamines (e.g. norepinephrine (noradrenaline) and serotonin) into peripheral and intracerebral neurones, thereby
increasing the concentration of these neurotransmitters in these areas. • Longstanding panhypopituitarism gives the classic picture of pallor with hairlessness ('alabaster skin'). Intravenous atropine 2 mg should be given every 3-5 minutes if necessary, to reduce increased secretions, rhinorrhoea and bronchorrhoea. More common sites of infection
include the urinary and biliary tracts. GH excess secondary to a GH-secreting pituitary adenoma causing gigantism is a very rare cause of hypogonadism as part of hypogonadism
represent constitutional delay, particularly in boys. Conversely, acute massive overdose may produce high plasma concentration must always be interpreted in association with the clinical features present. 22.55). Some surgeons believe that long-term bromocriptine increases
the hardness of the adenoma and makes resection more difficult, but others dissent from this view. Radiotherapy also rarely needed, radiotherapy usually controls adenoma growth and is slowly effective in lowering prolactin, but causes progressive hypopituitarism. affected, especially in Western countries, have type 1A disease. Both complaints
present with tender confluent areas of inflamed skin and are often associated with fever and malaise. Some patients with late diagnosis may have atrial arrhythmia. Watching and waiting can be a valid approach only if, firstly, the patient's clinical condition allows it; and secondly, it does not involve withholding treatment that would otherwise be offen associated with fever and malaise.
benefit (Box 1.9). Lesions can fuse into plaques, especially on the lower legs, where they turn warty and hyperkeratotic. verna, and in some Galerina and Lepiota spp. In most cases, a dopamine agonist will be the first and only therapy, and can be used in the long term, although a trial of discontinuation can be considered in microprolactinomas after
2-3 years, as a significant percentage may not recur, or in females at the onset of the menopause who are not on oestrogen replacement therapy. The clinical appearance depends on the infecting organism, the site affected and the host reaction. Sézary's syndrome (see p. Patients may also develop ocular features, including blindness, which can be
permanent. Primaquine The main concern is primaquine's propensity to cause methaemoglobinaemia and haemolytic anaemia. Management Multiple-dose oral activated charcoal increases quinine and probably chloroquine clearance. Small, red papules, vesicles and occasionally pustules occur anywhere on the body but rarely on the face, except in
neonates. As a result, cortisol secretion is reduced and feedback leads to increased ACTH secretion, causing adrenal hyperplasia. Alopecia areata usually presents in children or young adults with patches of baldness (Fig. • Gonadal sex. These drugs act by inhibiting protein synthesis, Antibiotic therapies 165 binding to the bacterial 23S ribosomal
RNA of the 59S subunit, thereby preventing the formation of a functional 70S complex that is essential to bacterial translation. The first-generation neur oleptics include the phenothiazines (chlorpromazine), the butyrophenones (benperidol) and the substituted benzamides (sulpiride). The onset of supraventricular tachycardia and
ventricular tachycardia should be treated with intravenous sodium bicarbonate (8.4%) 50 mmol, even if there is no acidosis present; a second bolus may be required. Benzodiazepines Benzodiazepines are commonly taken in overdose but rarely produce severe poisoning, except in the elderly or those with chronic respiratory disease. Clinical features
Benzodiazepines produce drowsiness, ataxia, dysarthria and nystagmus. Short, tapering courses of oral prednisolone usually provide rapid disease control but relapse is common on withdrawal. 30.80) and intraoperative TOE can aid assessment of the efficacy of valve repair. Cardiac catheterization Left and right heart catheterization is appropriate
for patients referred for surgical repair or replacement. 30 30 1096 Cardiology I AVR V1 V4 II AVL V2 V5 V6 V3 AVF V4 III AV II AVL V2 V5 V6 VI II AV 
light). This will lead to shared understanding, where clinician and patient jointly grasp what is wrong, what impact it is having on the patient's life, what the patient expects from medical intervention, and which options would be best for investigating and treating the problem (see Fig. Turner's syndrome (see p. • Muscular neck pain (also known as
shoulder girdle pain) does not radiate to the upper arm. N Engl J Med 2008; 358:2366-2377. 30.85) and CW Doppler (diastolic flow reversal in the descending thoracic aorta, pressure half-time). Other antibiotics should be discontinued if possible. Cryptorchidism (or undescended testes) is usually treated by surgical exploration and orchidopexy in
early childhood. Renal function may recover only partially; chronic kidney disease is reported in about 10-40% of cases. MRI may show an absent or poorly developed posterior pituitary. Biochemistry • H igh or high-normal plasma osmolality with low urine osmolality (in primary polydipsia, plasma osmolality tends to be low). This induces an
intracellular phosphorylation cascade involving the Janus kinase/ signal transducing activators of transcription (JAK/STAT) pathway (see p. Further reading Androgenic alopecia Ezzedine K, Eleftheriadou V, Whitton M et al. When triggered, complement molecules become enzymatically active and trigger several molecules of the next stage in a series.
If symptoms are suggestive of cerebral tumour or there is evidence of GH insufficiency this will be required to investigate for hypothalamic pituitary tumour. Management of short stature Systemic illness should be treated and primary hypothalamic pituitary tumour.
colour Doppler (extent of the regurgitant jet, width of the vena contracta; Fig. It is recommended that clomifene and letrozole should not normally be used for more than six cycles (owing to a possible increased risk of ovarian cancer in patients treated for longer than recommended). Crack cocaine is more suitable for smoking in a pipe or mixed with
tobacco; it can also be heated on foil and the vapour inhaled (approximately 35 mg of drug per 'line' or a 'rail'). The FBN1 gene encodes for % Fig. 1065) or cardiac pacing (p. This therapy may become the standard for refractory C. Establishing the pattern in which symptoms have developed is often one of the most helpful parts of the history in
helping to form a diagnosis (Box 1.5). History • Pregnancy records • Rate of growth (home/school records, e.g. heights on kitchen door) • Comparison with peers at school and siblings • Change in appearance (old photographs) • Change in shoe/glove/hat size or frequency of 'growing out' of these • Age of appearance of public hair, breasts, menarche
• History of headaches or visual problems Physical signs • Evidence of systemic disease • Body habitus, size, relative weight, proportions (span versus height) • Skin thickness, interdental separation • Facial features • Spade hands/feet • Grading of secondary sexual characteristics • Evidence of visual field defect and/or papilloedema or optic atrophy
on fundoscopy Further investigations are required if: • h eight is below the 0.4th centile, unless already fully investigated at an earlier age • height centile spaces, as long as measurement error has been excluded • smaller
centile falls or discrepancies between child's and mid- parental centile, if seen in combination, or if associated with possible underlying disease. Puberty A knowledge of the timing and tempo of normal puberty are essential. Depending on its severity, oral or intravenous calcium should be given temporarily, as only a few
patients (6 months) of oral antibiotics • Do not use topical antibiotic monotherapy (co-prescribe with retinoid or benzoyl peroxide) • Avoid prescribing dissimilar oral and topical antibiotics Fig. The immediate result of a sting is intense local pain, swelling, bruising, blistering, necrosis and, if the poisoned spine is not removed, chronic sepsis (although
this is uncommon). 21.36). 569) is caused by a protozoon, Leish mania, and is acquired from the bite of a sandfly vector. Sweating, headaches and wish them every success in their future ventures. 536). It usually disappears by the age of
7 years. Toxic erythema of the newborn (erythema of the newborn describes a common transient, blotchy, maculopapular rash in newborns. At this point, the smaller distal intramyocardial arteries and arterioles are maximally dilated (coronary flow reserve is near zero), and any increase in myocardial oxygen demand
provokes ischaemia. Other body sites that are often affected by allergic contact dermatitis include the lower leg, ear canal and anogenital area (due to medicaments) and the feet (from footwear). This tests for painful restriction of the hip or knee. After that age, the germinal epithelium is increasingly at risk, and lack of descent by puberty is
associated with subfertility. In many parts of the world, polyspecific antivenoms covering locally occurring snake species are employed. Cardiac pacing has a role if there is evidence of atrioventricular conduction delay but failure to capture occurs. Many believe that 'alternate-day therapy' produces less suppression. The distribution of hand pain often
indicates the diagnosis. Aortic valve 1097 Management Mild to moderate mitral regurgitation can be managed conservatively by following snake bite. The cause is unknown; several systemic associations have been proposed but not proven, including diabetes mellitus
and thyroid disease. Paradoxically, a lack of infection (in infancy) may skew the immune system towards a Th2 axis, favouring development of eczema ('hygiene hypothesis'). People who handle the infected animal may become infected themselves. Any suggestions you may wish to make are warmly welcomed and will help us to ensure that this book
continues to meet the needs of its readers. • Cathepsins, proteinase-3 and elastase are deadly to Gram-positive and Gram-negative organisms, as well as some Candida species. There may be evidence of kidney injury (see earlier). National Institute for Health and Care Excellence. Snake bite is common in some tropical countries; rural areas of West
Africa, South- east Asia, the Indian subcontinent, New Guinea and the Amazon region are particularly affected. A recent increased virulence of community-onset MRSA, which secretes a cytotoxin called Panton-Valentine leukocidin (PVL) (see p. However,
aromatase activity (see p. Mast cell degranulation may be triggered by various stimuli, including drugs (opiates, aspirin), physical triggers (friction, pressure, sweating), allergens and autoantibodies. • The 'endemic' form occurs in males from Central Africa and has more widespread skin and lymph node involvement. • More than 1.9 billion adults,
million children below 5 years of age and 340 million children and adolescents (aged 5-19 years) were obese or overweight in 2016. In some diseases where a particular formulation of a drug is required, the proprietary name is used. Chronic plaque psoriasis may also respond to phototherapy with UVB or PUVA. The large number of readings that this proprietary name is used.
provides gives an accurate estimate of true BP. Anatomy and Human Movement, 6th edn, with permission.) Feet • Feel for peripheral pulses • Skin - colour, ulcers, gangrene • Look between toes for infection • Sensory loss - Neuropathic foot ulcer - Charcot neuroarthropathy Abdomen Hepatomegaly (fatty liver) Skin Vitiligo (autoimmune)
Pigmentation (e.g. axillary acanthosis nigricans in insulin resistance) Granuloma annulare Bullosis Neuropathic ulcer Vitiligo Charcot joints Aims of physical examination in diabetic patients: * Assessing for diabetic ketoacidosis, hypoglycaemia. Tachycardia and agitation are the most consistent effects but psychosis, seizures,
respiratory failure, coma, acute kidney injury, stroke and myocardial infarction have all been reported and fatalities have occurred. Management Reassurance is usually the only treatment required, although sedation with intravenous diazepam (10-20 mg in an adult) or intramuscular or oral haloperidol (2-5 mg in an adult) is sometimes required if
agitation is severe. 31.3 The correct way to measure blood pressure. AF, atrial fibrillation. Diuretics may precipitate gout in men and older women. Respiratory alkalosis and metabolic acidosis supervene and a mixed acid-base disturbance is typical. 1246). Although scabies is considered a trivial complaint, infectious complications include neonatal
septicaemia, post- streptococcal nephritis and rheumatic fever. 30.68). The most common finding is a hypothalamic hamartoma, a benign tumour that can be associated with seizures. Gonadotrophin-independent precocious puberty The most common finding is a hypothalamic hamartoma, a benign tumour that can be associated with seizures. Gonadotrophin-independent precocious puberty The most common finding is a hypothalamic hamartoma, a benign tumour that can be associated with seizures.
thoroughly using soap and water is essential, as alcohol disinfectants do not kill spores (see p. 72 hours later excludes anorchia. be used only on expert advice. Management of HAE used to be limited to prophylaxis with fresh frozen
plasma. It can occasionally cause the ovarian hypovolaemia, acute kidney injury and possibly shock; specialist supervision is essential. Hair loss can have a major impact on body image and quality of life, with associated
depression and social isolation. For heart sounds and murmurs in coarctation of aorta, see Fig. The in-hospital mortality rate is between 6% and 14%. Patients whose plasma salicylate concentrations are in excess of 500 mg/L (3.6 mmol/L) should receive urine alkalinization (see p. 1.1 A Box 1.1 T he 'Hello, my name is ...' campaign In 2011,
geriatrician Dr Kate Granger was diagnosed with metastatic sarcoma, from which she eventually died in 2016. The age of onset varies widely. While morbidity is significant, fatalities are rare and are the consequence of hyperthermia, seizures and/ or arrhythmias. Digitalis purpurea, Nerium oleander, Thevetia peruviana (yellow oleander) Ingestion of
Digitalis purpurea or the common (Nerium oleander) or yellow (Thevetia peruviana) oleander can produce a syndrome similar to digoxin poisoning (see p. Specific antivenom, if available, should be administered as soon as possible. Spiders The black widow spider (Latrodectus mactans) is found in North America, Australia, the tropics and,
occasionally, in Mediterranean countries. Fig. The latest NICE guidelines recommend that SLNB should be offered to patients with stage 1B-2C melanoma with a Breslow thickness of more than 1 mm. • Assessment of bone age. Immediate/type 1 hypersensitivity to food allergens (cow's milk, egg, soya, wheat, fish and nuts) is common in young
children with severe atopic eczema. • Antiphospholipid antibodies These are detected in the anti phospholipid syndrome (see p. Its surface is smooth, non-adherent, and is permeable to proteins and crystalloids. Some of the blood flows from the across the placenta, where carbon
dioxide and other waste products from the fetus are taken up and enter the woman's circulation. Causes are shown in Box 21.41. It is particularly dangerous because of its unique ability among acids to penetrate tissue. Clinical features Dermal exposure to hydrofluoric acid results in rapid liquefactive necrosis and erosion of bone. Rarely,
arthroscopic removal is necessary. Drug effects are common (especially digoxin and spironolactone), and once these and significant liver disease are excluded, most cases have no definable cause. • Features such as rash, breathlessness, neurological symptoms or blood disorders suggests that the locomotor problems may be one facet of a more
systemic disorder, such as RA, psoriatic arthritis or SLE. JP Hill, JM Batchelor. Clinicians can guide patients in making complex decisions; often, offering 'best-and worst-case scenarios' for different potential courses of action is helpful. Diabetes Care 4;37(Suppl. (From
Forbes CD, Jackson WF. Box 18.7 Joint aspiration This is a sterile procedure that should be carried out in a clean environment. Grapefruit-medication, usually of the ring and little fingers. 363) phagocytose and kill microorganisms by
releasing antimicrobial compounds (e.g. defensins). Autoimmune rheumatic diseases and inflammatory arthritis frequently present in people under 50. Examine for anterior thigh pain during a femoral stretch test (flexing knee while prone), which indicates a high lumbar disc problem. Functional assessment: • Note any difficulty the patient may have
with: 1. It follows trauma in 30% of cases and is bilateral in under 5%. Eczema herpeticum, neonatal infection and infection in immunocompromised patients require parenteral antiviral therapy. Box 1.4 A structured approach to information-gathering in the medical history • P resenting complaint: why has the patient sought medical advice? Synovial
fluid is a highly viscous fluid secreted by the synovial cells and has a similar consistency to plasma. • AL amyloidosis involves organized fibrillary deposits in the kidneys, heart, gastrointestinal tract, skin and nerves. In constitutional delay, pubertal development, bone age and stature are in parallel. (C) Pituitary macroadenoma with massive
suprasellar extension (arrowed) (sagittal MRI). De Quervain's tenosynovitis causes pain and swelling around the radial styloid, where the abductor pollicis longus tendon is held in place by a retaining band. Oestradiol is usually normal in PCOS, but oestrone levels (which are rarely measured) are elevated because of peripheral conversion. Intravenous
diazepam 10-20 mg, repeated as required, is useful in controlling apprehension, agitation, fasciculation and convulsions. Organophosphorus insecticides are used widely throughout the world and are a common cause of poisoning, leading to thousands of deaths annually in the developing world. The calcification
may persist or resolve. Eventually, when the remaining β cells are no longer able to produce enough insulin to meet the body's needs, diabetes symptoms start to develop until the myocardium fails and because
the myocardium does not recover fully after surgery, operative valve replacement may be performed before significant symptoms occur. Acromegaly, the AIP gene in familial isolated pituitary adenoma. Cardiac and non-cardiac pulmonary oedema
may ensue in severely poisoned patients. This pre-systolic pulsation may also be felt over the liver. Adhesive tape may be used to remove any tentacles still adherent to the bather. 22.12 Pompholyx eczema. (B) Left ventricular hypertrophy in a patient with hypertrophy in a pa
in leads V3-V6 and leads I, II, III and AVF. Patients may complain of increased hair shedding and/ or thinning. If coarctation is present in the arch itself is hypoplastic and the blood pressure in the right arm is higher than in the
left. GALS has been modified for examination of children. Fat uses glucose as a substrate for triglyceride synthesis; lipolysis releases fatty acids from triglyceride together with glycerol, a substrate for hepatic gluconeogenesis. This is because the biting species is only rarely identified. The key components are moisturizers/emollients and topical
corticosteroids. Failure of these factors to occur needs to be taken very seriously. Drawing on the information gathered, clinicians may typically assign a widely understood umbrella term to categorize a collection of signs and symptoms into a clinical entity: for example, 'acute coronary syndrome', 'delirium', 'upper respiratory tract infection' or
'sepsis'. Common causes include food (nuts, egg, milk), drugs (penicillin) and natural rubber latex. Spotty erythema may extend beyond the affected border (satellite lesions). These cardiac imaging modalities can estimate the actual mass of the left ventricle; this is indexed to height and weight, and has sex-specific normal values. Kidney Kidney
disease is both a cause and a consequence of hypertension. This describes the normal physical appearance and characteristics of male and female body shape. 30.62 Mechanisms underlying the development of thrombosis on plaques in various clinical syndromes. Relationship between the state of the coronary artery vessel wall and the various
syndromes. Decisions about pituitary tumour management are made in an MDT setting, which typically comprises an endocrinologist, pituitary mass. Daytime ambulatory BP is 5-10/5 mmHg lower than office BP in the same patient. Patients
need monitoring, although studies suggest that adverse effects appear to be very rare in those on lower, 'endocrine' doses. Cochrane Database Syst Rev 2013; 12:CD009688. Venomous animals Insect stings and bites from ants, produce pain and swelling at the puncture site. - What is their cardiovascular from ants, produce pain and swelling at the puncture site.
risk, and is this being appropriately managed? Arsenic Arsenic poisoning worldwide is commonly caused by contamination of the ground water by inorganic arsenates, particularly in Asia. A small minority (2 cm Immunosuppression Recurrent SCC SCC on ear (lips, eyelid and scalp may also carry increased risk) Histological features: tumour >4 mm
thick, poor differentiation, extending into fat, perineural invasion over several years and has an asymmetrical border and irregular pigmentation. Objective measuring blood pressure, or cytotoxic therapy with serial white blood cell counts) are most helpful, but subjective ones are necessary in
many instances (as with antipsychotic therapy in people with schizophrenia). 23.5 Glucose and insulin profiles in people without diabetes. N Engl J Med 2011; 364:215-225. 662) • Pityrosporum (Malassezia) folliculitis. Seizures are relatively uncommon, since carbamate penetration into the CNS is limited. Management Mild cases require no specific
treatment other than the removal of soiled clothing. It is vital to listen closely to how the symptoms are described and not to miss any clues that can be followed up with direct questioning. Specialist assessment is needed. If 170HP levels at baseline or after synacthen are above 30 nmol/L 21 hydroxylase deficiency is confirmed. Patients can be risk-removal of soiled clothing.
stratified using the International Staging System (ISS), based on the levels of albumin and B2M: • ISS Stage I: B2M 30 g/L, or urinary light chain excretion > 0.5 g/day) and/or a marrow plasma cell infiltration of more than 10% but no end-organ damage or biomarkers of symptomatic myeloma. 'Hello, my name is ...' Campaign. Topical corticosteroids
remain the bedrock of eczema treatment and for most patients they provide reasonable disease control. Sleep off the ground and ideally under a mosquito net to prevent nocturnal bites (kraits). Mild symptoms usually occur with plasma sodium levels below 125 mmol/L and serious manifestations are likely below 115 mmol/L. Common warts are
papules with a keratotic rough surface, often seen on the hands and feet but also at other sites. Although they may be related, other non-CRAB manifestations of end-organ damage (e.g. hyperviscosity, recurrent bacterial infections, AL amyloidosis, peripheral neuropathy) are non-specific and not diagnostic of myeloma. Platelet activation stimulates
the expression of glycoprotein (GP) IIb/IIIa receptors on the platelet surface. The core with lamellar lipid surfaces, tissue factor (which triggers platelet adhesion and activation) produced by macrophages and exposed collagen is highly thrombogenic. 'R- CHOP' (rituximab with cyclophosphamide, doxorubicin, vincristine and prednisolone) and R-
bendamustine are used in patients with FLIPI scores of 0-1; O-CHOP (obinutuzimab) and O-bendamustine is used in those with FLIPI scores of 2 or more. In more severe cases, hypotension, cranial nerve palsies and respiratory paralysis have been reported. Ethylene glycol (Fig. Lice spread by close contact and cause
pruritus, leading to excoriations and papules around the hairline of the neck and ears. Pityriasis alba is a common hypopigmented variant of atopic eczema seen on the cheeks and arms of dark-skinned children, where there is little inflammation but prominent pallor. • E mpathize: try to show the patient that you care about what they are going
through. Lymphoedema, obesity, venous stasis and toe-web fungal infection are risk factors for lower limb cellulitis. They present shortly after birth as a single red, lumpy nodule that grows rapidly for the first few months. Br J Dermatol 2018; 179:1033-1048. BIRTH MARKS AND NEONATAL RASHES Infantile haemangiomas (strawberry naevus
                                                           mas are the most common benign tumour of infancy with a prevalence of 4.5% (Fig. As insulin resistance develops, the body's response is to increase insulin secretion. By contrast, certain HLA alleles confer protective effects, for
example DQB1*0602. Other genes or gene regions Genome-wide association studies have greatly broadened our understanding of the genetic background to type 1 diabetes and have identified more than 50 non-HLA genes or gene regions that influence risk to a minor extent. High levels of vascular endothelial growth factor (VEGF) are common and
may be the mediating mechanism. A routine check reveals a heart rate of 66 bpm and a blood pressure of 168/96 mmHg. A diagnosis of hypertension is necessary. Nausea, vomiting, inebriation, euphoria, confusion, anxiety, visual disturbances and
hallucinations occur often within 30 minutes. Intravenous sodium bicarbonate 50-100 mmol is given if the ECG shows QRS prolongation but it will exacerbate hypokalaemia, which should be corrected first. Most deaths occur from heart failure, coronary artery disease and hypertension-related causes. • Cardiovascular diseases are the leading cause
of death globally. The elderly may show symptoms with milder abnormalities. Tetracycline is safer than others in this group. They are very rare but may respond to therapy with synthetic IGF-1 (mecasermin). Tall stature The most common
causes are hereditary (two tall parents), idiopathic (constitutional) or early developmental factors (eventually resulting in short stature). 21.11). 'Empty sella' syndrome An 'empty sella' is sometimes reported on pituitary imaging. Pauline in particular has worked on a number of previous editions of this book and the recent success of Clinical Medicine
owes much to her oversight. 466). Oral antiandrogen therapy (e.g. cyproterone acetate or spironolactone) may help some women. NAIL DISORDERS • P soriasis (see p. Acute pulmonary oedema, hypertension, cardiac arrhythmias, convulsions and jaundice have been described in severe cases. Management Treatment is symptomatic and supportive.
In other cases, it is wise to defer risky or burdensome investigations until the clinical course of the disease makes it clear that such investigations are justified. Serum complement C4 can be measured as a screening test. Renal transplantation may be required. 12 13 Global health Babulal Sethia and Parveen Kumar Introduction277 Millennium and
Sustainable Development Goals 278 Global burden of disease 278 Poverty 278 Water and sanitation 279 Organizations and the global health agenda 279 Education 280 Maternal and child health 281 CORE SKILLS AND KNOWLEDGE Global health can be defined as 'an area of study, research and practice that places a priority on
improving health and achieving equity in health for all people worldwide'. The mechanism of bacterial killing of polymyxins is thought to be disruption of the bacterial cell membrane following binding to the lipopolysaccharide (LPS) component. All people who meet the criteria for diabetes are liable to develop disabling long-term complications.
Competitive athletes are advised to avoid exercise for at least 3 months. Incessant or chronic pericarditis, which may be incessant (recurring within 6 weeks) or chronic (lasting > 3 months). • Decreased potency in men. Luke JJ, Flaherty KT, Ribas A et al. It is
essential to confirm the nature of a patient's allergy to ensure that the appropriate treatment is not withheld needlessly. These can halt progression and may induce modest regrowth, if used early in disease and continued indefinitely. Type 2 diabetes across generations: from pathophysiology to prevention and management. These imbalances may be
acute or chronic, may occur with varying degrees of severity, and may or may not be partially compensated by the body's regulatory mechanisms. Normal fluid is clear and straw-coloured, and contains fewer than 3000 white blood cells (WCC)/mm3. The ECG may progress from sinus bradycardia through first, then higher, degrees of block, to
asystole. The history In the construction of an accurate diagnosis, nothing is more important than taking a full history from the global burden of disease. Several risk factors can be identified that predict death rate at 30 days (TIMI
STEMI score, Box 30.39). Clinical features Any patient presenting with severe chest pain lasting more than 20 minutes may be suffering from MI. • Renal failure occurs due to envenoming by several species, such as Russell's vipers. 21 21 636 Endocrinology Around the time of puberty, if constitutional delay is clearly shown and symptoms require
intervention, then very-low-dose sex steroids in 3-to 6-month courses will usually induce acceleration of growth. Investigations • T hyroid function tests. Improving Diagnosis in Health Care. TOE may provide additional information about the valves and aortic root. Cardiac catheterization Cardiac catheterization is appropriate for patients requiring
valvular intervention, although CTCA or CT angiography may be an alternative in younger patients. CMR and cardiac CT These techniques may be indicated for assessing the thoracic aorta in cases of aortic dilation or dissection. Many tumours are able to synthesize several pituitary hormones, and occasionally more than one hormone is secreted in
clinically significant excess (e.g. both GH and prolactin). Basal levels of GH are of little value, therefore dynamic tests include the GH response to insulin (the 'gold standard'; see Box 21.11), arginine + GHRH and glucagon are used. In this procedure, systemic venous blood was baffled across into the left atrium and then pumped via the left ventricle
into the pulmonary artery; the pulmonary venous (oxygenated blood) returning to the left atrium was redirected via a baffle into the right atrium and right ventricle, and into the aorta. • How much certainty is needed? • Diagnostic criteria and guidelines, where robust standards are outlined to ensure that potential diagnoses are correctly assigned
and similar conditions are differentiated from each other. 22.9) that are associated with malaise and pyrexia. There are three main types of ASD (Fig. In musculoskeletal disorders, pain may cause distress and poor sleep, which in turn build up muscle tension and worsen the pain (see p. Eczema is classified as constitutional or endogenous, and contact
or exogenous (Box 22.11), 22 22 692 Dermatology Box 22.29 Visible and ultraviolet A (UVA) 400-315 nm Long wave, black light, not absorbed by the ozone layer Ultraviolet B (UVB) 315-280 nm Medium wave, mostly absorbed by the ozone layer
Ultraviolet C (UVC) 280-100 nm Short wave, germicidal, completely absorbed by the ozone layer and atmosphere UV exposure and photoprotection The solar spectrum at the earth's surface includes visible light and medium-and long-wave ultraviolet (UV): that is, UVB and UVA. Large quantities of antivenom may be required; as antivenoms cannot
reverse the effects of the venom, they must be given early to minimize some of the local effects and may prevent necrosis at the site of the bite. necessary, as the diagnostic criteria for some diseases stipulate that symptoms must have been present for a certain length of time before a diagnostic label can be assigned. Aldosterone synthesis may be
impaired with resultant salt wasting. Lesions appear as 1-2 cm red papules on the hands with an inflamed border that blisters; alternatively, they turn into pustules and resolve spontaneously after 4-6 weeks, conferring life-long immunity. The temporal relationship between drug exposure and suspected adverse events should be Information sources
259 appropriate, and other causes of the suspected adverse events should be excluded. An initial bolus of 50-150 µg/kg can be repeated as necessary or an infusion of 5-10 mg/h can be commenced. In all patients, fluid, electrolyte and acid-base disturbances should be corrected and renal and hepatic function supported. Even though circulating
insulin concentrations are higher than in people without diabetes, they are still inadequate to restore glucose homeostasis. Autophagy is also a means of enhancing antigen presentation pathways. In the UK, the most common CRE types are OXA-48, NDM and 8 8 168 Sepsis and the treatment of bacterial infection KPC. The procedure is often
undertaken in combination with injection of a corticosteroid. Urticaria and angio- oedema may occur together or separately, and have a range of causes. pantherina, and act as GABA agonists. Clinical features and management Intense watery diarrhoea starts 8-24 hours after ingestion and persists for 24 hours or
longer. All medication has potential adverse effects and toxicities and patients should be provided with user-friendly information, such as the British Association of Dermatologists patient leaflets. These are discussed in more detail in the relevant organ-based chapters. 1365). 1065). It has been observed that some PAMPs induce the cytoplasmic
assembly of large oligomeric structures of PRRs termed inflammasomes. TSH and ACTH are usually last to be affected. Useful blood count: • Haemoglobin. This latter presentation is more common in males. A small (50 proteins Lyse bacteria; promote inflammation; recruit and activate immune cells and activate immune cells.
Bacteria, viruses Mannose- binding lectin Bind bacteria Enzymes Lysozyme Present in secretions; cleave Bacteria Enzyme Present in secretions; 
%DFWHULDO FHOOZDOO &VSURWHLQVXEXQLW FOHDYHV&DQG& is a molecular structure (protein, peptide, lipid, carbohydrate) that generates an immune response. Closure of potassium channels in the cell membrane (b). Subsequently
there is usually a gradual improvement in function over weeks to months. • Ouinagolide (75-150 ug once daily) is an alternative. • Hyperprolactinaemia may cause galactorrhoea and hypo gonadism, including amenorrhoea. ISBN: 978-0-7020-7868-2 International ISBN: 978-0-7020-7869-9 For Elsevier: Content Strategists: Pauline Graham, Alex
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United Kingdom Last digit is the print number: 9 8 7 6 5 4 3 2 1 Foreword to the Tenth Edition After 35 years and nine editions of Kumar and Clark's Clinical Medicine, we felt it was time for the younger generation to continue with this 10th edition. Amikacin has a similar spectrum but is more resistant to the aminoglycoside-modifying
enzymes (phosphorylating, adenylating or acetylating) produced by some bacteria, in particular ESBL-producing Enterobacteriales. • Social sex (gender). Prolonged primary polydipsia may lead to the phenomenon of 'renal medullary washout', with a fall in the concentrating ability of the kidney. Determine in position 30 of the B
chain and adds a fatty acyl chain to lysine in position B29. It is hard to believe that, 35 years ago, a few of us sat down to think and design a new textbook of medicine. Thus, great care should be taken in clearing up a spillage. 18.5). Revised International Staging System for multiple myeloma: a report from International Myeloma Working Group.
Certain living habits promote atherogenic traits in genetically susceptible persons. Onset in later childhood or adulthood is often associated with a more chronic relapsing course. Aetiology Atopic eczema is a highly prevalent chronic inflammatory skin disease that arises from a combination of genetic, immunological and environmental factors that
lead to skin barrier dysfunction and an altered skin microbiome. The incidence of type 1 diabetes varies dramatically throughout the world, with the highest rates being in northern Europe and the Middle East. Cocaine hydrochloride ('street' cocaine, 'coke') is a water- soluble powder or granule that can be taken orally, intravenously or intranasally
('snorting'). High-dose regimens should be avoided in pregnancy and during breast-feeding, unless the benefit is deemed to outweigh the risk. Other antibiotics Clindamycin This is not widely used because of its strong association with C. 198) is present, which has not been corrected by fluids and intravenous bicarbonate. Neuroleptics and atypical
neuroleptics Neuroleptic (antipsychotic) drugs are thought to act predominantly by blockade of dopamine D2 receptors. In dark skin types the distribution may be different, with an 'inverse pattern' predominantly affecting the extensor surfaces, and follicles can be prominent. 30.86. Revised 2003 consensus on diagnostic criteria and long-term health
risks related to polycystic ovary syndrome. (From Nieminen MS, Böhm M, Cowie MR et al. Multiple sites may be affected and skin, hair and nails should be examined. In the UK, ESBL-producing E. • If there are no signs of puberty by 14 years, then puberty is delayed and further assessment is indicated. In a small proportion, there is a primary
mediastinal presentation, with symptoms and signs akin to those of HL. In TEN there is widespread flaccid blistering with skin that wrinkles like wet wallpaper on gentle pressure (Nikolsky's sign). However, cardiac imaging, using transthoracic echocardiography and cardiac MRI, is more sensitive and specific than ECG (when compared to autopsy
data), though access, cost and need for additional trained staff to conduct and report these tests limit their wide utility and acceptance in all hypertensive patients. Occupations with increased risk include hairdressing, catering and healthcare. Lichen simplex This is a chronic form of eczema in which the skin is thickened and lined (lichenified) in
response to repeated rubbing and scratching (Fig. The presence of new ST elevation (due to opening of the K+ channels) of 0.2 mV or more at the J-point in leads V1-V3 and 0.1 mV or more in other leads suggests anterior MI (Fig. All forms of diabetes result from inadequate insulin secretion relative to the body's needs, and progressive insulin
secretory failure is characteristic of both common forms of diabetes. European Committee on Antimicrobial Susceptibility Testing. It is usually caused by a lambda-light chain isotype. 430)

Older patients • Nodal OA: - DIPs (Heberden's nodes) - First carpometacarpal joint • Trauma - scaphoid fracture • Pseudogout • DIPs (Heberden's nodes) - PIPs (Heberde
Gout: - Acute - Tophaceous DIPs/PIPs, distal/proximal interphalangeal joints. All oral retinoids are potent teratogens. However, in most cases there is no identifiable cause. 31.5 Hypertensive retinopathy. (A-B) Examples of mild hypertensive retinopathy.
Apart from the toxicosis, there is usually fever, malaise and pain in the neck with tachycardia and local thyroid tenderness. The cluster of severe systemic symptoms that constitute the Irukandji syndrome occur some 30 minutes after the jellyfish sting. Since D-dimer measurement is cheap, it is a useful screening test (because a negative test
effectively rules out VTE); a positive test is followed up by a high- sensitivity test, such as venous Doppler ultrasound or computed tomography pulmonary angiography (CTPA). Box 22.12 Management of atopic eczema • Education and explanation • Avoidance of irritants/allergens • Emollients • Bath oils/soap substitutes • Topical therapies: • Steroids and explanation • Avoidance of irritants/allergens • Emollients • Emoll
• Immunomodulators • Adjunct therapies: • Oral antibiotics • Sedating antihistamines • Bandaging • Phototherapy • Systemic therapy, e.g. oral prednisolone, ciclosporin Box 22.13 Classification of topical corticosteroids by potency Very potent • 0.05% clobetasol propionate • 0.3% diffusortolone valerate Potent • 0.1% betamethasone valerate •
0.025% fluocinolone acetonide Moderately potent • 0.05% clobetasone butyrate • 0.05% clobetasone butyrate • 0.05% clobetasone butyrate • 0.05% clobetasone deficiency.
Are they undergoing regular retinal screening? Bibliography Griffiths C, Barker J, Bleiker T et al (eds). Common rashes 665 $ % & Fig. 1.0 Very good .9 Percentage survival 17 Good .8 .7 .6 .5 Poor .4 .3 .0 P 2.75 mmol/L • renal impairment: creatinine clearance 177 µmol/L • rena
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more osteolytic lesions of ≥5 mm on X-ray, CT scan or PET scan. 928) • Evidence of volume overload or cardiac dysfunction on transthoracic echocardiogram Evidence for decreased extracellular volume • 'Haemoconcentration': rise in blood haemoglobin and packed cell volume (haematocrit) • Acute kidney injury (see p. This has proven to be a

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valuable concept for young students, doctors and practising health professionals. Some forms of neurotoxicity, such as those induced by the death adder, respond to anticholinesterase therapy with neostigmine and atropine. They start as flat brown macules with proliferation of melanocytes at the dermo-epidermal junction (junctional naevi). It
presents as slow- growing macules, plaques or nodules on the foot and lower limb. Localized forms can occur. Typically, features appear between 1 and 6 hours, and include abdominal cramps, nausea, vomiting and watery diarrhoea. They are measured by an ELISA technique and are present in up to 80% of people with RA. Melanoma staging:
American Joint Committee on Cancer (AJCC) 8th Edition and beyond. PTH measurements use two-site immunometric assays that measurement in order to differentiate most causes of hyper-and hypocalcaemia. Hypercalcaemia Pathophysiology and aetiology The
major causes of hypercalcaemia are listed in Box 21.55; primary hyperparathyroidism and malignancies are by far the most common (>90% of cases). Similar to home BP, ambulatory BP allows in a single measurement: • improved diagnostic accuracy over office BP • identification of different BP phenotypes. Effective delivery of global health (GH)
requires multiprofessional collaboration between healthcare workers, politicians, economists and scientists in pursuit of both individual wellbeing and population-based prevention and care. Blood level rises 10-100-fold within hours of the start of an infective or inflammatory process, making it extremely useful in monitoring infective or inflammatory
diseases and their response to treatment. Intravenous atropine 2 mg should be given every 3-5 minutes, if necessary, to reduce increased secretions, rhinorrhoea and bronchorrhoea. • Delayed or arrested puberty in the peripubertal patient. Tricuspid valvetomy is occasionally possible but tricuspid valve replacement is often necessary. Antidiabetic
drugs Insulin (if injected but not if injected but not inject
clinical effects of snake-bite envenoming will vary with the species of snake, its age, size and previous health of the victim, and past exposure to venom injected, the route of injection, the age, size and previous health of the victim, and past exposure to venom injected, the route of injection, the age, size and previous health of the victim, and past exposure to venom injected, the route of injection, the age, size and previous health of the victim, and past exposure to venom injected, the route of injection, the age, size and previous health of the victim, and past exposure to venom injected, the route of injection injected, the route of injection injected injection injected.
clearance. It may be complicated by allergic contact dermatitis to medicated creams or bandages, and patch tests should be done if there is an initial response to calcium, a continuous
infusion is warranted as 10% calcium chloride, 1-10 mL/h. Selective serotonin reuptake inhibitors (SSRIs) (e.g. citalopram, escitalopram, fluoxetine, 
lead to abnormal sensitivity to UV and phototoxic or photoallergic rashes. Little movement occurs at such joints. Box 18.3 Rapid examinations of the limbs and spine Upper limbs • Raise the arms sideways to the ears (abduction). 21.32 A height chart for boys. Child A (red) illustrates the course of a child with hypopituitarism, initially treated with
cortisol and thyroxine, but showing growth only after growth hormone (GH) treatment. Intensive parenteral antibiotic therapy is imperative to reduce the associated high mortality. Erythrasma is a superficial skin infection caused by Corynebac terium minutissimum. (C) Guttate psoriasis in an African patient. 30.97
Coarctation of the aorta. Pathophysiology and auscultatory findings. 13). Social history The social history that may be causative or exacerbating the patient's symptoms. ANA is used as a screening test for SLE and systemic sclerosis - a negative ANA makes either
condition highly unlikely - but low titres occur in RA and chronic infections and in normal individuals, especially the elderly (Box 18.6). 22.48 Solar keratoses with background actinic damage. B. These TSH receptor antibodies (TSHR-Ab) are specific for Graves' disease. 561) are a rare group of localized infections of the skin and subcutaneous tissues
that follow traumatic implantation of the fungal agent, a soil saprophyte. Medical causes of pruritus should be excluded (see Box 22.20). Chronic actinic dermatitis Fig. aureus. The technique for joint aspiration is presented later in Fig. A 50% reduction in luminal diameter (producing a reduction in luminal cross-sectional area of approximately 70%)
causes a haem odynamically significant stenosis. The continuum of growth hormone-IGF-I axis defects causing short stature: diagnostic and therapeutic challenges. Repeated application of a contact immunotherapy) such as diphencyprone can be helpful in more extensive disease. • POEMS syndrome is a rare disease characterized
by polyneuropathy, organomegaly, endocrinopathy, monoclonal plasma cell disorder and skin changes (see p. Diagnosis is confirmed by measuring the erythrocyte cholinesterase activity. Management The administration of intravenous atropine 2 mg repeated every 3-5 min as necessary to patients presenting with rhinorrhoea and bronchorrhoea may
be lifesaving. It is thought that this is due to a defect in the short stature homeobox (SHOX) gene, which has a role in non-GH-mediated growth. Hypogonadism may also be an incidental finding, such as one that emerges during investigation for subfertility. According to the insights of the Nobel Prize-winning psychologist and economist Daniel
 Kahneman, this is 'type 2 thinking', and the kind of thinking we like to imagine that we carry out all the time: logical, deductive and rational. Dopamine agonists, which are traditionally stopped after conception, particularly when used in the treatment of microprolactinomas, can be restarted if there are any signs of tumour growth during pregnancy
Trans-sphenoidal surgery Surgery may rarely be needed in patients who are intolerant of or unresponsive to dopamine agonists. • E mphasize your active listening: maintain eye contact, nod, acknowledge key points, and respond to comments the patient might make that are humorous or sad. 22 22 668 Dermatology The diagnosis is usually made by
the clinical appearance. Other risk factors include fair skin, multiple melanocytic naevi, a family history of melanoma and immunosuppression. A severe metabolic acidosis may develop and be accompanied by hyperglycaemia and a raised serum amylase activity. Advances in highly active anti-retroviral therapy (ART, see p. If suspected, this can be
excluded by serial dilutions of the serum sample. Management In all patients with a macroprolactinoma treatment is recommended to reduce the size of the tumour. We hope readers will learn not just to take generic histories and perform routine physical examinations, but to tailor their approach according to the presentation of the individual patient
in front of them. Serum IgG antibodies bind to TSH receptors in the thyroid, stimulating thyroid hormone production; that is, they behave like TSH. (C) A combined approach. should be warned of this. coli, but many other Gram- negative bacteria have been slow to produce an enzyme (FosA) that is able to destroy the drug. Synthetic cannabinoids
emerged onto the drug scene around 2009, initially sold as herbal incense or 'spice'. Secondary bacterial infection may occur and cause crusts, papules and patients who have had appropriate and timely closure of a PDA. It usually resolves spontaneously within 6-
18 months, but after this duration may require surgical removal, as fibrous tissue will have been laid down. Cardiac and respiratory paralysis may occur. Management Following a snake bite, all efforts should be made to transport the patient quickly to a hospital or dispensary. When a sustained-release prep aration has been ingested, the onset of
 severe features is delayed, sometimes for more than 12 hours. Early endoscopy (or CT scan with contrast if endoscopy is not possible) is recommended if corrosive damage is suspected. However, awareness must be maintained, as they may be a presenting feature of undiagnosed HIV infection. Topical steroids may trigger the complaint in susceptible
individuals and are often continued inadvertently as the rash flares when they are discontinued. Adults and the elderly are rarely affected. Necrotizing fasciitis is characterized by severe pain that is out of proportion to the apparent signs of skin inflammation. Describing why an initial introduction is so important, she said, 'I firmly believe it is not just
about common courtesy, but it runs much deeper. At least 5 days' treatment is usually required. Haemodialysis is the treatment of choice for severely poisoned patients (plasma salicylate concentration >700 mg/L; >5.1 mmol/L), particularly those with coma and metabolic acidosis. 12 12 272 Prescribing, therapeutics and toxicology Poisoning with
chemicals Included in this section, in alphabetical order, are arsenic, carbamate insecticides, carbamate insectides, carbamate insecticides, carbamate insecticides, carbama
biologics licensed for use in psoriasis. 292). • Severity, site, radiation and character of any pain: How would the patient rate it on a scale from 1 to 10? The main differential diagnosis is pseudofolliculitis barbae, which is caused by ingrowth of curly hairs. Medicine 2016; 44:120-124. • Between 9 and 14 years most boys will be either 'pre-puberty' or
 'in puberty'. We are now in a better position than many to appreciate the sheer amount of hard work this involved, and on behalf of the medical profession - our thanks. 21.35. However, artificial structures are more thrombogenic. Pilar cysts are similar lesions that occur on the scalp. The CNS effects of cicutoxin are similar to those of picrotoxin, a
known inhibitor of GABA. Early reperfusion may salvage regions of the myocardium, reducing future mortality and morbidity. Is there a deficiency of any hormone? (C) Modification of human insulin produces long-acting insulin analogues. Dual-energy X-ray absorptiometry (DXA) scanning uses very low doses of X-irradiation to measure bone density
and is used in the screening and monitoring of osteoporosis. A therapeutic trial of testosterone replacement is often justified and forms part of the 21 21 626 Endocrinology Box 21.39 Causes of male hypogonadism • R educed gonadotrophins (hypothalamic-pituitary disease): - Hypopituitarism - Selective gonadotrophic deficiency, Kallmann's
syndrome, normosmic idiopathic hypogonadotropic hypogona
• Primary gonadal disease (acquired): - Testicular torsion - Orchidectomy - Local testicular disease - Chemotherapy/radiation toxicity - Orchitis (e.g. mumps) - Chronic kidney disease - Cirrhosis/alcohol - Sickle cell disease - Chemotherapy/radiation toxicity - Orchitis (e.g. mumps) - Chronic kidney disease - Cirrhosis/alcohol - Sickle cell disease - Cirrhosis/alc
Dermal Testosterone gel Testosterone gel Testosterone patch 50-100 mg 300 µg/24 h Rubs on shoulders Self-adhesive Intra muscular Testosterone enanthate Testosterone enanthate Testosterone propionate 250 mg every 3 weeks 1 g every 3 months 50-100 mg every 3 months 50-100 
life Oral Testosterone undecanoate 120-160 mg daily, in divided doses Variable dose, irregular absorption Testosterone implant foo mg every 4-5 months Requires implant procedure Scarring, infection Implant investigation in some patients; full pituitary evaluation may be required in such cases to exclude other pituitary disease. Management The
cause of hypogonadism can rarely be reversed and testosterone replacement therapy should be commenced to control current symptoms and prevent osteoporosis in the long term. While the process of diagnosis will be increasingly augmented by artificial intelligence, it is unlikely ever to be replaced DIAGNOSIS IN THE CLINICAL CONSULTATION
In many patient interactions, the forming of a diagnosis stands as a turning point in the therapeutic journey: the focus shifts from the gathering of information and the performance of tests to planning of treatment and discussion of outcomes. They are derived from the calculation of the years of life lost due to early death (YLL) and years lived with
disability (YLD). Ptosis (Fig. UV radiation has immunosuppressive effects that enhance skin cancer development. These interactions, in general, can be either pharmacodynamic (synergistic or antagonistic) or mixed. Li L, McGee RG, Isbister G et al. New
plaques of psoriasis occur at sites of skin trauma (Köbner phenomenon). Kisspeptin is the endogenous ligand for kisspeptin receptor KISS1R, formerly known as GPR54 (a G-protein-coupled receptor gene), and this Box 21.46 Hormones and receptor soft the hypothalamic-pituitary-GH axis Hormone Source Site of action Hormone structure Receptor
 Post-receptor activity Growth hormone- releasing hormone (GHRH) Hypothalamus Pituitary Peptide - 44 AA Membrane - 7TM G-proteins cAMP Growth hormone Pituitary Liver and other tissues Peptide - 191
AA Transmembrane Dimerized GHR JAK2 STAT Insulin-like growth factor 1 (IGF-1) Liver and locally elsewhere Many tissues Peptide – 70 AA 3 S=S bridges Transmembrane – IGFR 2\alpha + 2\beta subunits Receptor tyrosine kinase 7TM, 7 transmembrane (G-protein coupled receptor); AA, amino acids; cAMP, adenylate cyclase \rightarrow cyclic adenosine
monophosphate; GHRIH, growth hormone; JAK, Janus kinase; STAT, signal transducers and activators of transcriptions; SST, somatostatin receptor subtypes. The 'Clinical skills' sections at the beginning of many of the chapters in this book offer tailored versions of this basic routine relevant to patients with specific types
of complaint. Discussion and negotiation around investigations In the modern era, there are a huge number of investigations available to the clinician, ranging from simple bedside tests such as spirometry or urine dipstick analysis, through to complex radiological 1 1 6 Diagnosis: the art of being a doctor imaging and invasive procedures such as
endoscopy or angiography. for primary melanoma and early wide excision of thin tumours is usually curative. The causative organisms vary geographically and disease examples include sporotrichosis (worldwide), chromoblastomycosis and mycotic mycetoma (tropical and subtropical). Traditional methods should be discouraged, as they are often
ineffective and may harm the patient. - In the legs, can the patient walk properly? Symptomatic patients should also be given an oxime (pralidoxime chloride 8-10 mg/kg per hour.
The prevalence of type 2 diabetes is rising rapidly because of a combination of population and longer survival with type 2 diabetes, earlier age at onset and better diagnosis. There are six major types; most common is 21-hydroxylase deficiency (CYP21A2), which occurs in about 1 in 15 000 births and is due to defects on
chromosome 6 near the HLA region, affecting one of the cytochrome p450 enzymes (p450C21). • Try to develop an understanding of who the patient is as a person. Bleeding may occasionally be life-threatening. Treatment of the acute phase is with aspirin, using short-term prednisolone in severely symptomatic cases. • T ype II AIT is not associated
 with previous thyroid disease and is thought to be due to a direct effect of the drug on thyroid follicular cells, leading to a destructive thyroiditis with release of T4 and T3. 8.5). They are spread by direct contact or by sharing of infested clothing. It occurs when a larger percentage of scalp hairs enters the telogen phase of hair shedding at the same
time. • CNS arousal is enhanced by potentiating the effects of excitatory amino acids. The insulin-receptor complex is then internalized by the cell, insulin is degraded, and the receptor is recycled to the cell surface. Glucose metabolism Blood glucose levels are tightly regulated in health and rarely stray outside the range of 3.5-8.0 mmol/L (63-144).
mg/dL), 12% Fig. Most have multisystem effects. If primary gonadal failure is identified, chromosomal analysis (e.g. to exclude Klinefelter's syndrome) is required. Gatzoulis M, Webb G, Daubney P, eds. Severe intoxication leads to coma, convulsions and, occasionally, divergent strabismus. Management is that of secondary hypogonadism (see p. Habib
of Cardiology (ESC). • ECG may demonstrate left atrial abnormality (broad p waves) and high-voltage QRS complexes related to left heart overload. The approximate target centile range for height of a child can be predicted by calculating 'mid-parental height' from parental heights: 1. When aminoglycosides are used for endocarditis, low doses are
prescribed every 12 hours with different target pre-and post- dose level ranges than for once- daily dosing. Communicate this: 'Thanks for sharing this - it must be difficult not knowing what is going on.' • Summarize: run through what the patient has told you, to make sure nothing has been missed out. • From 14 to 17 years most boys will be either
 'in puberty' or 'completing puberty' • After 17 years boys will usually be 'completing puberty'. • Perform observations (temperature, heart rate, blood pressure, respiratory rate, oxygen saturations, Glasgow Coma Scale (GCS) or ACVPU score - combined into the National Early Warning Score (NEWS-2, see p. • • • • R adiological changes are
common in older people and may not indicate symptomatic OA or spondylosis, a term that implies OA within the mite Sarcoptes sca biei. 64). • Hyperprolactinaemia can be confirmed or excluded by direct measurement. 56) and secrete a
range of cytokines, notably TNF-α, IL-1 and IFN-γ. 22.30). Tendons are inelastic and transmit muscle power to bones. There is some evidence of associated left ventricular hypertrophy. Muscarine stimulates cholinergic receptors in the autonomic nervous system. Gyromitrin is found in Gyromitra spp., including in particular the false morel (Gyromitra
esculenta) and Cudonia circinans. Candida may also affect the moist interdigital clefts of the toes and mimic tinea pedis. It is characterized by small inflammatory papules and pustules with overlying scaling. Intravenous atropine 0.6-1.2 mg can be used to treat bradycardia but is usually less effective. Other blood and urine tests • P rotein
electrophoresis (and/or immunofixation), serum free light chain testing and urinary Bence Jones protein - to exclude myeloma as a cause of a raised ESR. ACS patients should be treated with dual antiplatelet agents: • aspirin 300 mg loading then 75 mg loading then 75 mg loading dose then 75-100 mg loading then 75 mg loading then 75 mg loading then 75 mg loading dose then 75-100 mg loading then 75 mg loading th
daily or • prasugrel 60 mg loading then 10 mg daily or • ticagrelor 180 mg loading then 90 mg twice daily. Antithrombin drugs An antithrombin drugs An antithrombin should be added to dual antiplatelets in patients with ACS. The main problem is avoiding water overload and consequent hypo natraemia (see p. Features of the more common causes of growth failure are
given in Box 21.48. • Secondary hypothyroidism, hypogonadism and GH deficiency lead to tiredness and general malaise and reduced quality of life. • Painful shoulders produce secondary muscular neck pain. Acne vulgaris. Uncomplicated infections are typically associated with intravascular catheters or devices; in these cases, linear typically associated with intravascular neck pain.
removal (source control) should form part of management. The effect is mediated by two hormones, glucagon like peptide-1 (GLP-1) and glucose-dependent insulinotrophic polypeptide (GIP), which are released by the gastrointestinal tract following eating. • Symptoms or signs of oestrogen or androgen deficiency – in the long term osteoporosis may
result, especially in women. With no apparent cause for premature breast or pubic hair development, and an early growth spurt, it may be normal and may run in families. • Acral lentiginous malignant melanomas arise as pigmented lesions on the palm or sole or under the nail, and usually present late. Irritant contact eczema is a common complaint
and mainly affects the hands. Haemorrhagic pulmonary oedema with increasing breathlessness, wheeze, hypoxia and cyanosis may take up to 36 hours to develop. Management • D ermal exposure. All cases require assessment by a paediatric endocrinologist. ACTH deficiency can give a very similar biochemical picture to SIADH; therefore it is
necessary to ensure that the hypothalamic-pituitary-adrenal axis is intact, particularly in neurosurgical patients, in whom ACTH deficiency may be relatively common. Management The underlying cause should be corrected where possible. (B) Modification of human insulin produces rapid-acting insulin analogues. Sunscreens protect against UVA and
UVB irradiation but are no substitute for protective clothing and restriction of exposure, especially in young children. Draw up local anaesthetic (and corticosteroid if it is being used). Cleavage of C3 has a number of biological consequences; breakdown of C5 achieves the same and, in addition, provides the triggering stimulus to the final common
('membrane attack') pathway, which provides most of the biological activity (see Fig. It is usually apparent as a new nodule. Clinical examination may give clues; thus, short stature in a child with a hypothalamic pituitary mass is likely to be due to GH deficiency. In the fetus there is a connection between the pulmonary artery and the aorta, the ductus
arteriosus, which directs most of this blood away from the lungs. Treatment is not essential, as many resolve or cause little trouble; otherwise, surgical excision is the best option. Dupuytren's contracture This condition is a painless, palpable fibrosis of the palmar aponeurosis, with fibroblasts invading the dermis. • Koilonychia (thin, spoon-shaped
nails) can be caused by iron deficiency anaemia. Approximately one-third of patients will not respond to either therapy. It decreases GnRH pulsatility at the hypothalamic level and, to a lesser extent, blocks the action of LH on the ovary or testis, producing hypogonadism even when the pituitary-gonadal axis itself is intact. Side-effects, which prevent
effective therapy in a minority of cases, include nausea and vomiting, dizziness and syncope, constipation and cold peripheries. Misdiagnosis or delayed diagnosis or delayed diagnosis can be the cause of significant patient harm, including adverse effects from unnecessary treatment or failure to receive an appropriate timely intervention. 30.85) demonstrates vigorous
cardiac contraction and a dilated left ventricle. History of the presenting complaint The aim is to provide a thorough account of the symptoms that led the patient to seek medical attention. The clinical features depend on the host's immune response to the infecting organism, Mycobacterium leprae. W If they inject insulin, do they rotate injection
 sites? Oral JAK inhibitors have recently been shown to reverse hair loss in moderate to severe alopecia areata. • Palpate the spine and buttocks for tender areas. These include acute metabolic disturbance, macrovascular disease and stroke), and microvascular
damage causing retinopathy, nephropathy, nephropathy and neuropathy. Heart disease is the most common cause of death and accounts for two-thirds of all deaths in people with diabetes aged 65 years or older. PHYSIOLOGY OF INSULIN STRUCTURE, SECRETION AND ACTION Insulin is the key hormone involved in the regulation of cellular energy supply and
macronutrient balance derived from food. Although uncommon, it is important to recognize because the treatments and implications are different from type 1 diabetes or type 2 diabetes. Cysts may enlarge and can become secondarily infected and inflamed. Colonization is prominent at areas rich in sebaceous glands: the scalp, large flexures and
upper trunk. • Flexural and genital psoriasis requires special consideration, as the skin is easily irritated and prone to secondary infection and steroid atrophy. 407) is a rare erythrodermic variant of cutaneous T- cell lymphoma with peripheral lymphoma with peripheral
once or twice a week, judged on clinical response and prolactin levels) is the best-tolerated and longest- acting drug, and is the epidermis. coli and is therefore the subject of renewed interest. In such cases, samples for culture should be taken
from all possible sites and evidence sought of the above causes. If net cardiac output is to be maintained, the total volume of blood pumped into the aorta must increase and, consequently, left ventricular size must enlarge. Sonja Stände M, Yosipovitch G, Legat FJ et al. Box 21.18 Management of acute hypoadrenalism Clinical context Hypotension,
hyponatraemia, hyperkalaemia, hyperkalaemia, hyperkalaemia, hypoglycaemia, dehydration, pigmentation often with precipitating infection, and may take the form of creams, pessaries, This lipophilic yeast family (formerly called Pityrosporum, see p. Raised platelets
occur with any chronic inflammation. DALY = YLL + YLD Further reading HM Government. It usually affects older children or young adults and there is an increased incidence in spring and autumn. British Association of Dermatologists Sunscreen fact sheet. For GH insufficiency, recombinant GH (somatropin) is given as nightly injections in doses of
beat from left heart dilation and volume overload. More detailed tests are indicated in Box 21.37. Disorders in the male Hypogonadism History and examination How a male presents depends on age. It is also used prophylactically in colonic surgery. Patients with peripheral vascular disease (intermittent claudication) have a two-to fourfold increased
risk of CAD, stroke or heart failure. Antivenoms can rapidly neutralize venom, but only if an amount in excess of the amount of venom is given. However, it often causes photosensitive rashes. The findings of aortic root aneurysm (ectopia lentis) lens dislocation or a family history of MFS are major criteria in the diagnosis of MFS in these guidelines.
Management The management of patients with MFS requires multidisciplinary input from geneticists, cardiologists, cardiologists
Repellents and appropriate clothing help reduce bites from flying insects. The shunt size is dependent on the size of the duct and the pressure difference between the pulmonary arteries and aorta. This must be distinguished from secondary hyperaldosteronism, which arises when there is excess renin (and hence angiotensin II) stimulation of the zona
glomerulosa. Oral terbinafine for 3-6 months can clear up to 80% of cases but relapses are common. • The immunosuppression- related form is more severe and is most common in HIV-positive men who have sex with men. 22.29). Skin swabs should be taken from all patients with severe or recurrent folliculitis to determine antibiotic sensitivities and
 screen specifically for PVL toxin-producing strains of staphylococci. Management Isolated boils can be treated with hot bathing alone. Type 2 diabetes. Further reading proline at position 28 of the B chain with an aspartic acid residue. If
the aortic valve is bicuspid, it is also important to obtain images of the ascending aorta for associated aortopathy. The serum iron concentration exceeds the predicted normal iron- binding capacity (usually >5 mg/L; 90 µmol/L), free iron is circulating and treatment with
desferrioxamine should be considered. Management The majority of patients ingesting iron do not require desferrioxamine therapy. Very occasionally, tricuspid valve replacement may be necessary. The good and the bad - What is the BEST and WORST your condition has ever been? Long-term corticosteroid medication for non-endocrine disease is
the most common cause of secondary hypoadrenalism. Persistent symptoms or nerve damage produce prolonged latency across the carpal tunnel on nerve conduction studies and require surgical decompression. Other conditions causing pain Inflammatory arthritis This may present with pain, swelling and stiffness of the hands. 222) and high doses of
diazepam (1 mg/kg as a loading dose and 0.25-0.4 mg/kg per hour maintenance) may reduce the mortality in severe chloroquine poisoning. Hirsutism developing before puberty is suggestive of CAH. Investigations In many developed countries neonatal screening for CAH takes place by assessing 170HP in dried blood spots soon after birth. These
include the weaver fish, short-spine cottus, spiny dogfish and stingray. This is a medical emergency with the need for immediate assessment for surgery after endoscopy or CT. They may follow minor trauma and often occur on the face or fingers. (Reproduced with permission from Alizadeh AA. Speech and language; swallowing problems 2.
Prophylaxis for infective endocarditis: let's end the debate. $ Medical treatment Hyperprolactinaemia is controlled with a dopamine agonist. For example, mutations in PROP1 and POU1F1 (previously PIT-1) prevent the differentiation of anterior pituitary cells (precursors to somatotroph, thyrotroph and gonadotroph cells), leading to
deficiencies of GH, prolactin, TSH and gonadotrophin-releasing hormone (GnRH). 30.95 Angiographic appearance of a fully deployed atrial septal defect (ASD) closure device. The device bridges the ASD and wedges against the surfaces of the right and left atrial septa, occluding flow. 30.87 Features of pulmonary stenosis and pulmonary
regurgitation. EC, ejection click; EDM, early diastolic murmur; ESM, end-systolic murmur; ESM, e
of the patient's family in detail, Musculoskeletal Bone pains, back pain and stiffness, joint stiffness, swelling, pain, erythema, patterns of joints involved, muscular pain, weakness, acute pain suggesting pathological or fragility fractures Dermatological Rashes, blisters, ulcers Endocrine Diabetic symptoms and complications, sexual function,
menstruation, symptoms of thyroid dysfunction Neurological Seizures, muscle weakness, involuntary movements, loss of sensation, altered gait, speech and swallowing dysfunction Ophthalmic Eye pain, redness, dryness or grittiness, changes in vision, flashing lights Ear, nose and throat Changes in smell, taste or hearing, pain in ears, nose, throat or
sinuses, nasal discharge or crusting Haematological Easy bleeding or bruising, tiredness, lymph node swelling, abdominal fullness (splenomegaly) Mental health Mood (suicidality when relevant), anxiety, altered perceptions (hallucinations), abnormal beliefs (delusions) Genitourinary Urethral or vaginal discharge, pain or itching, pain during sexual
intercourse, sexual function, in women - menstrual cycle, use of contraception, history of pregnancies and childbirth including the patient's parents), and where relevant, a history of consanguinity. 890). In intravenous drug users with infective endocarditis of the
tricuspid valve, surgical removal of the valve is recommended to eradicate the infection. Valve implantation has been shown to be successful (86%) with a procedural mortality of 2% and 30- day mortality of 12%. Symptoms depend on the degree of pulmonary stenosis but the majority of patients with tetralogy present in childhood. Most mild cases
improve with time but severe cases can be left with an upper motor neurone syndrome and permanent disability. Management Mild cases require no specific treatment other than the removal of soiled clothing. Trigger finger or thumb is more common in diabetic patients. Most people with chronic plaque psoriasis will have the condition for life,
though it may fluctuate in severity. This gives an accurate understanding of health trends and future health priorities for the global community and for individual countries. When present, hypopituitarism should be corrected and concurrent diabetes and/or hypertension should be treated conventionally; both usually improve with treatment of the
acromegaly. Fibrillin-1 is a component of structures called microfibrils, which are part of the extracellular matrix. In a parent with CAH, genetic testing of the mechanisms of CRE production is therefore helpful when
choosing different treatment options. The illness is characterized by paraesthesiae of the mouth, lips, face and extremities, and is often accompanied by nausea, vomiting and diarrhoea. Tumours that are approximately 10 mm are termed mesoadenomas. However, an increase in DALYs is seen when an ageing population requires treatment for chronic
ill health, despite a reduction in mortality. 30.94 Ostium secundum atrial septal defect (ASD, arrowed) in a young girl. (A) The defect is shown in a two-dimensional echocardiogram subcostal four-chamber view. Chronic spontaneous urticaria (CSU) is thought to have an underlying autoimmune basis, and in some individuals functional autoantibodies
against the high-affinity IgE receptor on mast cells and basophils or against IgE antibodies can be identified. (A) Sagittal MRI. The thickened sheaths are often palpable. They cause sunburn (predominantly UVA). If both parents have atopic eczema, the risk is more than 50%. Clinical practice
Hyperkalaemia occurs due to inhibition of the sodium-potassium activated ATPase pump. Specific poisons 271 Management • I ntravenous atropine 1.2-2.4 mg is given to reduce sinus bradycardia, atrioventricular block and sinoatrial standstill. • Guidance produced by national health technology agencies such as the UK's National Institute for
Health and Care Excellence (NICE). Individuals with familial atypical mole syndrome (FAMM) have a large number of atypical maevi and a high lifetime risk of melanoma. Box 23.1 Taking a history in diabetes mellitus (see also Box 1.7) Presenting complaint • Why has the patient attended? Extensive, itchy folliculitis may be a manifestation of human
 immunodeficiency virus (HIV) infection (see p. The hypothalamic-pituitary axis and the adrenal may both be suppressed and the patient may have vague symptoms of feeling unwell. Pruritus may be mild or absent. 12.5). Anxiety and agitation should be treated with diazepam, 10-20 mg i.v., repeated as necessary. Isoxazole poisoning Isoxazoles (e.g.
ibotenic acid, muscimol, muscazone) occur in Amanita muscaria and A. Height velocity is more helpful than current height. For example, bleeding with anticoagulants is a medical emergency, such that patients are given their own supply
of adrenaline (epinephrine) to self-inject in such cases). Occasionally, systemic symptoms, including vomiting, diarrhoea, hypotension and tachycardia, occur. The GRACE score is based on age, heart rate, systolic blood pressure, serum creatinine and the Killip score (Boxes 30.36 and 30.37). Investigations and management All patients require
immediate management of their chest pain, as outlined on page 1088 and in Box 30.38. • The tuberculides are a group of rashes caused by a hypersensitivity response to underlying Mycobacterium tuberculosis infection. 477). It can cause haemolysis in patients with glucose- 6-phosphate dehydrogenase deficiency and should be avoided in this group
Nitroimidazoles Mupirocin These agents are active against anaerobic bacteria and some pathogenic protozoa. PET scans are combined with CT to improve anatomical details. Other tests to investigate rheumatological disease • A rthroscopy is a direct means of visualizing a joint, particularly the knee or shoulder. NICE pathway for management of
psoriasis. The V agents, for example VX, were introduced later. Mild irritant hand eczema typically causes dry, sore, chapped skin on the dorsal hands and the finger webs. • Longitudinal melanonychia (brown streaks) of multiple nails is a common finding in dark-skinned people. Vitiligo Society. • Identifying unexpected findings that patients
 themselves have not noticed. Some patient presentations do not fall neatly into boxes, and so sticking with a narrative description of the patient's problems is appropriate in some cases. Box 21.54 Common causes of the syndrome of inappropriate antidiuretic hormone secretion (SIADH) Tumours • Small-cell carcinoma of lung • Prostate • Thymus
Pancreas • Lymphomas Pulmonary lesions • Pneumonia • Tuberculosis • Carbamazepine • Carbamazep
Cyclophosphamide • Vincristine • Phenothiazines 21 21 644 Endocrinology • V asopressin V2 antagonists, e.g. tolvaptan 15 mg daily, are being used with good results. Issues with this approach include: • a requirement for healthcare professionals and setting (expense, time) • a requirement for multiple visits to obtain sufficient data for decision-
making (expense, time) • a 'white coat effect': for most people, BP measured by healthcare professionals is approximately 5/5 mmHg higher than at home, though there is inter-individual variation in the magnitude • the fact that home and ambulatory BP measurements are more predictive of cardiovascular events, as patients do not live in healthcare professionals is approximately 5/5 mmHg higher than at home, though there is inter-individual variation in the magnitude • the fact that home and ambulatory BP measurements are more predictive of cardiovascular events, as patients do not live in healthcare professionals is approximately 5/5 mmHg higher than at home, though there is inter-individual variation in the magnitude • the fact that home and ambulatory BP measurements are more predictive of cardiovascular events, as patients do not live in healthcare professionals is approximately 5/5 mmHg higher than at home, though there is inter-individual variation in the magnitude • the fact that home and ambulatory BP measurements are more predictive of cardiovascular events.
settings. Box 1.3 summarizes some techniques that can be used to help patients share information in a way that is accurate and comprehensive. 222) with dobutamine, phosphodiesterase inhibitors or levosimendan can be added in patients who do not respond to initial therapy. This BP is highly predictive of cardiovascular events and tends to be
approximately 5/5 mmHg lower than that measured in the clinic. Granule release is initiated by the products of bacterial cell walls, certain complement proteins, leukotrienes (LTB4) and chemo kines (e.g. CXCL8), and cytokines such as tumour necrosis factor- alpha (TNF-α). Progress can be assessed by monitoring GH and IGF-1 levels. Skin biopsy
shows invasion of the epidermis by atypical T lymphocytes (exocytosis), and T-cell receptor gene rearrangement studies show that the infiltrate is clonal. • Proteinases act as cytotoxins, causing severe local swelling and tissue damage in the region of the bite. • Serum prolactin. Spondylosis can, however, cause stiffness and increases the risk of
mechanical or muscular neck pain. Inhalation of hydrogen fluoride causes irritation of the eyes and nose, with sore throat, cough, chest tightness, headache, ataxia and confusion. Also advocated for replacement therapy in adults, where GH has effects on muscular neck pain. Inhalation of hydrogen fluoride causes irritation of the eyes and nose, with sore throat, cough, chest tightness, headache, ataxia and confusion. Also advocated for replacement therapy in adults, where GH has effects on muscular neck pain.
100-200 µg 3 times daily Carbamazepine, thiazides and chlorpropamide are very occasionally used in mild diabetes insipidus Breast (prolactin inhibition) Dopamine agonist (e.g. cabergoline 500 µg weekly) FSH, follicle-stimulating hormone; HCG, human chorionic gonadotrophin. A key role of tissue macrophages is the
maintenance of tissue homeostasis through clearance of cellular debris, especially following infection or inflammation. 30.88 Prosthetic valves. (A) Björk-Shiley mechanical prosthetic valves. Shiley mechanical prosthetic valves.
glycopeptides are active against Gram-positive bacteria and act by inhibiting cell-wall synthesis. Lifestyle changes These are recommended for all hypertensive patients, irrespective of grade or duration of disease. These include: • maternal factors, such as gestational infection and older age • viral infections, including enteroviruses such as Coxsackie
B4 • exposures to dietary constituents, such as early introduction of cow's milk and relative deficiency of vitamin D • environmental toxins, e.g. alloxan, Vacor • childhood obesity • psychological stress. Topical azelaic acid, retinoic acid or 2-5% hydroquinone may help reduce pigmentation. Thinking, Fast and Slow. It is employed particularly in cases
of chronic toxicity. Salicylates Aspirin is metabolized to salicylates acid (salicylate) by esterases present in many tissues, especially the liver, and subsequently to salicylates acid and salicylates to the upper arm and is made
worse by arm abduction and elevation, which are often limited. An inferior wall MI is diagnosed when ST elevation is seen in leads II, III and AVF (Fig. 661), chronic severe anogenital ulceration in HIV infection, and erythema multiforme. Management Oral antiviral therapy (aciclovir, valaciclovir) may be given for severe primary HSV and painful
genital HSV. comparison of burden across diseases, both treated and untreated, mortality, disability, injuries and risk factors. • Try to convey empathy and concern, reinforcing to the patient that you are their advocate and will do your best to help them. These are predominantly IgG autoantibodies directed against the primary granules of
neutrophil and macrophage lysosomes. Supervision of steroid therapy All patients receiving steroids should carry a 'steroid card'. The wrist is a common site. • Primary granules (5%) synthesize and release leukotrienes C4 and D4 and platelet-activating factor (PAF), which alter airway smooth muscle and vasculature). Management involves careful
monitoring and haemodialysis/haemofiltration if renal failure supervenes. Its secretion is stimulated by GHRH, released into the portal system from the hypothalamus; it is also under inhibitory control exerted by somatostatin (Fig. Under these circumstances, a trial infusion of 1-2 L 0.9% saline is given. In addition, some members of the family
Colubridae are mildly venomous (mongoose snake). Clinical features The main effects of envenoming are: • local swelling, bruising, blistering, regional lymph node enlargement and necrosis • anti-haemostatic defects: consumption coagulopathy and spontaneous systemic bleeding from gums, nose, skin, gut, genitourinary tract and intracranial
haemorrhage • shock (hypotension) and myocardial damage • descending paralysis: progressing from ptosis and external ophthalmoplegia to bulbar, respiratory muscle and total flaccid paralysis • generalized rhabdomyolysis with myoglobinuria • intravascular haemolysis • generalized rhabdomyolysis • gen
 idea because of significant prior investment. Patients with acute aortic regurgitation may need treatment with vasodilators and inotropes. However, it can cause reversible myelosuppression, in particular thrombocytopenia, and so weekly full blood count monitoring is required. Vesicular hand eczema or 'pompholyx' is characterized by multiple
intensely itchy blisters, especially on the sides of the fingers and palms (Fig. In boys, tumours must be rigorously excluded and MRI scan is almost always indicated to exclude this diagnosis. Blurred vision and diminished visual acuity occur due to formate accumulation. Toxin-producing strains of staphylococcus can also cause blisters (bullousset)
impetigo; see later). CT or CMR may be helpful in demonstrating thickened (>4 mm) or inflamed pericarditis This is uncommon (10 mmHg), then the arm with the higher BP is used for subsequent measurements. • The biting snake is valuable evidence but should not be pursued or handled carelessly. Hospital treatment
Hospital treatment involves rapid clinical assessment, resuscitation and administration of antivenom, the only specific treatment for envenoming. Test doses of antivenom do not reliably predict these reactions and have no role in management. Prolactin is a large peptide secreted in the pituitary and acts via a transmembrane receptor stimulating
JAK2 and other pathways (Box 21.49). Distinct types of diffuse large B- cell lymphoma identified by gene expression profiling. It results from dilation of the pulmonary valve ring, which occurs with pulmonary hypertension (Graham Steell murmur). 1 1 4 Diagnosis: the art of being a doctor Box 1.6 R eview of systems Conducting a brief but
 comprehensive 'review of systems' may be a particularly useful schema when the patient has non-specific symptoms, e.g. weight loss, tiredness and weakness, or when someone reports 'I just don't feel right, doctor'. • Metformin alone may improve ovulation and achieve conception. Further reading Fermand JP, Bridoux F, Dispenzieri A et al. Primary
hyperaldosteronism is characterized by excess aldosterone production leading to sodium retention, potassium loss and the next option is usually narrow- band UVB phototherapy. Continuous Doppler of the descending aorta in
 significant coarctation will show high-velocity flow and slow diastolic runoff (diastolic runoff (diastolic tail) due to the obstruction. By the time of diagnosis, at least 50% of \beta-cell mass and function has been lost. More than 90% of people with type 1 diabetes carry HLA-DR3-DQ2, HLA-DR4-DQ8 or both, as compared with some 35-40% of the background population.
AV, aortic valve; IVS, interventricular septum; LA, left atrium; LV, left ventricle; MV, mitral valve; PVW, posterior ventricular wall. Topical antiseptics are often used as emollient washes or bath additives, or in the form of 'bleach baths'. Those who have had surgery to correct coarctation may have a thoracotomy scar. Investigations and treatment • C
hest X-ray may reveal a dilated aorta indented at the site of the coarctation. • Between 8 and 13 years most girls will be either 'prepuberty' or 'in puberty'. The insulin receptor Insulin Rece
regurgitation, e.g. endocarditis • symptomatic patients (dyspnoea, NYHA class II-IV, angina) with an LVEF of >50% but wit
CABG or surgery of the ascending aorta or other cardiac valve. Lepromatous leprosy presents with multiple inflammatory papules, plaques and nodules. (B) Coronal MRI. The entire limb is bandaged 'as tightly as for a sprained ankle', starting around the fingers or toes and finishing at the axilla or groin using stretch bandages, crepe and a splint. This
risk rises to about 20% in siblings with the same human leucocyte antigen (HLA) genotype as the proband. Pityrosporum folliculitis is also common in young men and causes small, itchy, monomorphic papules and pustules on the upper back, shoulders and face. If no endocrine activity is found, then most authorities recommend removal only of large
adrenal tumours (>4-5 cm) because of the risk of malignancy. 665) and can affect any body site. • The second process is deep endothelial fissuring, which involves an advanced plaque with a lipid core. Long-term therapy with synthetic or natural steroids will, in most respects, mimic endogenous Cushing's syndrome. They may occur together and may
be preceded by unstable widespread chronic plaque disease. They are often itchy and tend to affect young, dark-skinned adults. Healthcare is provided by teams, not individuals, and other healthcare professionals now perform tasks in assessing and managing patients that were previously carried out exclusively by doctors. In 2017, the International
Diabetes Federation estimated that 425 million people (1 in 11 of the global population) had diabetes, and estimates an increase to 693 million by 2045 (Fig. Tinea cruris is more common in men than women and presents with an intensely itchy rash in the groin, with a scaly border that extends on to the thighs (Fig. 22.19 Urticaria. • Place the hands
in the 'prayer' position with the elbows apart. Box 23.2 Annual screening checks in people with diabetes General health • Level of knowledge about diabetes General health • Level of knowledge about diabetes of the elbows apart. Box 23.2 Annual screening checks in people with diabetes General health • Level of knowledge about diabetes of the elbows apart. Box 23.2 Annual screening checks in people with diabetes of the elbows apart. Box 23.2 Annual screening checks in people with diabetes of the elbows apart. Box 23.2 Annual screening checks in people with diabetes of the elbows apart. Box 23.2 Annual screening checks in people with diabetes of the elbows apart. Box 23.2 Annual screening checks in people with diabetes of the elbows apart. Box 23.2 Annual screening checks in people with diabetes of the elbows apart. Box 23.2 Annual screening checks in people with diabetes of the elbows apart. Box 23.2 Annual screening checks in people with diabetes of the elbows apart. Box 23.2 Annual screening checks in people with diabetes of the elbows apart. Box 23.2 Annual screening checks in people with diabetes of the elbows apart. Box 23.2 Annual screening checks in people with diabetes of the elbows apart. Box 23.2 Annual screening checks in people with diabetes of the elbows apart. Box 23.2 Annual screening checks in people with diabetes of the elbows apart. Box 23.2 Annual screening checks in people with diabetes of the elbows apart. Box 23.2 Annual screening checks in people with diabetes of the elbows apart. Box 23.2 Annual screening checks in people with diabetes of the elbows apart. Box 23.2 Annual screening checks in people with diabetes of the elbows apart. Box 23.2 Annual screening checks in people with diabetes of the elbows apart. Box 23.2 Annual screening checks in people with diabetes of the elbows apart. Box 23.2 Annual screening checks in people with diabetes of the elbows apart. Box 23.2 Annual screening checks in people with diabetes of the elbows apart. Box 23.2 Annual screening checks in people with dia
complications • Retinal screening, ideally by retinal photography • Visual acuity • Urine albumin: creatinine ratio (ACR) • Serum urea and electrolytes; estimated glomerular filtration rate (eGFR) • Examination of feet for vascular disease and neuropathy • Full blood count • Thyroid function • Liver function Cardiovascular risk • Smoking status •
 Blood pressure • Lipid profile • Overall cardiovascular risk using validated risk model, e.g. QRISK Box 23.3 Examination of feet Features of vascular disease • Pale discoloration • Loss of hair • Cool temperature • Absent pulses (begin in foot and proceed up legs) • Reduced capillary refill time • Evidence of gangrene or infection Features of
neuropathy • Clawing of toes, loss of plantar arch • Neuropathic ulcers • Joint deformity (Charcot's joint) • Glove and stocking sensory loss (check with monofilament) • Loss of vibration sense, proprioception and pain • Loss of vibration sense, proprioception sense, proprioception and pain • Loss of vibration sense, proprioception sense, pr
involve dose titration against a therapeutic end- point or a toxic effect. Relative insulin lack is associated with increased glucose uptake by peripheral tissues. (Courtesy of Dr D Ward, St George's, University of London.) $RUWD
three and a half fingers. Trial of nemolizumab in moderate-to-severe prurigo nodularis. Classification Two types of ADR are recognized: type A (augmented) reactions and type B (idiosyncratic) reactions (Box 12.9). Diagnosis All ADRs mimic some naturally occurring disease, and drawing a distinction between an iatrogenic aetiology and an event
unrelated to the drug is often difficult. The load is distributed across the surface, thus preventing damage by overloading or disuse. 433). These may provide evidence of GH undersecretion. Localized granuloma annulare is usually self- limiting and resolves after a few years. The cause is unknown but may be autoimmune, and preceding infection or
trauma and an occluded, moist environment may act as triggers. The licensed indications are complicated skin and soft tissue infections are common and range from mild, and predictable, dose-related effects such as phototoxicity from
doxycycline or mucocutaneous dryness from oral isotretinoin, to idiosyncratic, severe and life- threatening eruptions (severe cutaneous adverse drug reactions, SCAR). In females: • Puberty before 8 years in girls is likely to be precocious and further assessment is necessary. The team at Elsevier have worked extremely hard in bringing this project to
              in otherwise structurally normal heart, left ventricular pressure is higher than right and blood will shunt from left to right through a VSD (Fig. 22.47 Keloid scar of the lobe of the ear. Much of this staining reaction is due to antibodies specific for glutamic acid decarboxylase (GAD) and protein tyrosine phosphatase (IA-2, also known as
ICA512). The diagnosis is currently made using the Modified Ghent Criteria (Box 30.49). peptide is believed to play a crucial role in the regulation of GnRH production and the timing of puberty. This self-cannibalization is a critical property of many cell types under starvation conditions, but is used by the immune system to destroy intracellular
pathogens such as Mycobacterium tuberculosis, which otherwise persist within cells and block normal antibacterial processes. Impaired growth can result from inadequate dietary intake or small bowel disease (e.g. coeliac disease). Serological tests can confirm a streptococcal infection (antistreptolysin O titre (ASOT) and anti-DNAse B titre).
Management Systemic antibiotics (flucloxacillin or erythromycin) are indicated; they may be given as high-dose oral therapy, or intravenously via ambulatory care or as an inpatient, depending on the patient's age, disease severity and co-morbidities. Flumazenil use often avoids the need for assisted ventilation. Anti-interleukin-31 receptor A antibody
for atopic dermatitis. The mortality is high, despite supportive care. 12 12 276 Prescribing, therapeutics and toxicology Poisons in the natural world Numerous biological organisms produce or contain substances that are toxic to humans, including animals (snakes, insects, spiders and marine creatures), and some species of plants and fungi.
Common regional musculoskeletal problems 421 Box 18.11 Causes of pain in the hand and wrist All ages • Trauma/fractures • Tenosynovitis: - Flexor (with/without triggering) - Dorsal - De Quervain's • Carpal tunnel syndrome • Ganglion • Inflammatory arthritis • Raynaud's syndrome (see p. (B) After 2 years' treatment with the dopamine agonist
cabergoline, showing marked adenoma shrinkage. - Do they keep a diary of the results? Introduce yourself (and any other health professionally, patches evolve into nodules or tumours, which may metastasize to lymph nodes and internal organs. 22.58). aureus, including
MRSA, but can also be employed for minor skin infections and Antibiotic therapies are shown in Box 21.51. Flexor tenosynovitis causes finger pain when gripping and stiffness of the fingers in the morning. Renal failure may require extracorporeal
support. Corrosive agents Strong acids and alkalis cause chemical burns. The risk is highest for those with an elevated SFLC ratio, high bone marrow plasma cell infiltration and paraprotein over 30 g/L. Involvement of multiple parathyroid glands may be part of a familial syndrome (e.g. MEN type 1 or 2a). 30.92). This syndrome can affect the eyes,
lungs, skeletal system and cardiovascular system (Figs 30.101 and 30.102). The insertion of a prosthetic valve for this condition is sometimes necessary. PULMONARY VALVE Pulmonary stenosis This is usually a congenital lesion but may rarely result from rheumatic fever or from the carcinoid syndrome. • Anti-neutrophil cytoplasmic antibodies
(ANCAs) (see p. Box 22.17 Treatment of scabies • Treat all skin below the neck, including the genitalia, palms and soles, and under the nails. In some atopic individuals the skin of the upper arms and thighs feel rough due to follicular hyperkeratosis ('keratosis pilaris'). Venomous animals. The diagnosis is usually made clinically but can be confirmed
by microscopy of skin scrapings, which shows spherical yeast and short pseudohyphae ('meatballs and spagnetti'). with colchicine for up to 6 months. SCORTEN: a severity-of-illness score for toxic epidermal necrolysis. Extreme poverty (defined as 60 years

• S tage III or IV disease • Elevated serum lactate dehydrogenase FLIPI, Follicular
Lymphoma International Prognostic Index. It is also active against anaerobes, especially Bacteroides. A hyperkeratotic form of eczema is characterized by dry, scaly plaques and cracks on the palms and soles, and shares similarities with psoriasis at these sites. Normochromic, normocytic anaemia suggests chronic inflammatory and autoimmune
diseases. Issues with this approach include dislike of repeated BP measurement, especially at night. PHENOTYPES OF HYPERTENSION The measurement techniques described can describe different phenotypes of hypertension (Box 31.1). Multiple lesions can also occur. Gram- negative or anaerobic bacteria may cause infection in
immunocompromised people and those with diabetes. The role of prolactin outside pregnancy and lactation is not well defined, although there is some epidemiological evidence of a link between high prolactin receptor antagonists. Hypovolaemic shock and acute
tubular necrosis occur in severe cases. Most have an abnormality of imprinting of the ZAC and HYMAI genes on chromosome 6g. Small solitary lesions are common and harmless, but larger lesions, including epilepsy and an increased risk of melanoma.
Atropa belladonna Atropa belladonna (deadly nightshade) contains hyoscyamine and atropine. For any test that is being considered, a number of questions are relevant: • What question will this test help to answer? Occasionally, there can be discordance between GH and IGF-1 levels, which can create management dilemmas. 12.8 Bleeding following
snake bite. Initial concerns that the immunosuppressant effects of TCIs would increase the risk of skin cancer have not proved to be founded, but patients are advised to avoid sun exposure and vaccinations. Further reading Ahmeen M, Lear JT, Madan V et al. E12.2 Sri Lankan cobra: Naja naja. Erythromycin is an alternative for those with penicillin
allergy. HSV infection can also affect other sites, such as the neck in people who play contact sports or the fingers of healthcare workers ('herpetic whitlow'). In addition, carbon monoxide also inhibits cytochrome oxidase a3. Clinical features Symptoms of mild to moderate exposure to carbon monoxide may be mistaken for a viral illness. Only the
most basic of tests should be performed routinely. Treatment is with combination oral antibiotics (e.g., clarithromycin and ciprofloxacin) for 8-12 weeks, according to microbiological quidance. Fig. Signs of systemic involvement, which may be delayed for 24 hours, include vomiting, sweating, piloerection, abdominal colic and diarrhoea. Imaging is
sometimes helpful (e.g. by revealing gas in deep tissues) but should not delay urgent surgical intervention. Sudden cardiac death is a prominent feature of CAD, 1 in every 6 coronary attacks presenting with sudden death as the first, last and only symptom. Corticosteroid injections can be guided by ultrasound. Management Analgesics, NSAIDs and/or
physiotherapy may suffice, but severe pain responds to an injection of corticosteroid into the subacromial bursa (see Fig. Peripheral nerve damage has also been observed, as has renal tubular damage. Management Unithiol (DMPS) is the antidote of choice and is given in an intravenous dose of 30 mg/kg per day. A normal IGF-1 is also a goal of
therapy. Pituitary and hypothalamic tumours, and surgical or radiotherapy treatment, are the most common. Clinical features Symptoms and signs depend upon the extent of hypothalamic tumours, and surgical or radiotherapy treatment, are the most common. Clinical features Symptoms and signs depend upon the extent of hypothalamic tumours, and surgical or radiotherapy treatment, are the most common. Clinical features Symptoms and signs depend upon the extent of hypothalamic tumours, and surgical or radiotherapy treatment, are the most common. Clinical features Symptoms and signs depend upon the extent of hypothalamic tumours, and surgical or radiotherapy treatment, are the most common.
necrosis and thrombophlebitis. Children are not affected until puberty. A positive family history of atopic disease is often present: there is 90% concordance in monozygotic twins. Blood Cancer J 2017; 7:e528. Itraconazole may be given as a
continuous or pulsed regimen. There may also be involvement of the feet. Blood 2018; 131:163-173. Gonadotrophin-dependent precocious puberty • Idiopathic prec
also Congenital heart disease 1109 3XOPRQDU\DUWHU\ $RUWD $WULDOVHSWDOGHIHFW $ULPDU\$6' 6HFRQGDU\$6' QIHULRUYHQDFDYD 5LJKWDWULXP 3XOPRQDU\DUWHU\ $RUWD $ULPDU\$6' 6HFRQGDU\$6' QIHULRUYHQDFDYD 5LJKWDWULXP 3XOPRQDU\DUWHU\
HMHFWLRQLQ SXOPRQDU\ DUHD $3 /RXG3:LGH IL[HG VSOLWWLQ] RI6 6 6RPHWLPHV GLDVWROLF WULFXVSLG IORZ PXUPXU Fig. 22.18 Lichen planus. Fluid from septic arthritis is often excessively turbid. 22.46). Allergic urticaria may be localized to an area of skin (contact urticaria) - for example, due to latex gloves, or take the form of
a more widespread reaction that can evolve to anaphylaxis (see p. Macroprolactinomas may not recur after several years of dopamine agonist therapy in a minority of cases, but in the majority, hyperprolactinaemia will return if treatment is stopped. Inotropic support (see p. A minority of people with polymorphic light eruption (PLE) are severely
affected and develop the rash in temperate zones, starting in spring or early summer. • Tissue necrosis at the site of the bite (Fig. Many people with monogenic diabetes are misdiagnosed with early-onset diabetes in association with an affected
parent, and early-onset diabetes in approximately 50% of relatives. Contents: Marine animals Shellfish poisonous mushrooms Marine animals Amnesic shellfish (domoic acid) poisoning The syndrome should be known more accurately as domoic acid
poisoning because amnesia is not always present. Similar mechanisms produce hormone-granule secretion in many other endocrine cells. If a sulphonylurea binds to its receptor, this also closes potassium channels. This is determined predominantly by chromosomal sex but requires normal embryological development. It is more common in males,
Caucasians, individuals with diabetes mellitus, and those who overuse alcohol. The result has been the production of a textbook designed for a 'doctor of the world'. considerable morbidity. 629) refers to a male pattern of hair growth in females. British Association of Dermatologists' guidelines for the management of lichen sclerosus 2018. - If not,
which do you think is abnormal? Feel • Swelling: • Fluid swelling (effusion) usually represents increased synovial fluid in inflammatory arthritis, but can be due to blood or pus - Synovial swelling, such as Heberden's nodes in the fingers, is usually seen in osteoarthritis -
Warmth - a warm joint may be inflamed or infected - Tenderness - may represent joint inflammation, but many people have chronic tenderness all over the body (e.g. in fibromyalgia) Move • Active movement: - Is the range full and pain-free? A randomized trial of genotype- guided dosing of warfarin. Drug therapy is advocated, however, if BP fails to
normalize after a 3-12-month period of best- tolerated lifestyle changes. While diabetes insipidus is uncommon, they need to be distinguished from the occasional patient with 'primary polydipsia', and those whose renal tubular function has been impaired by electrolyte abnormalities, such as hypokalaemia or hypercalcaemia. Normally, the ductus
arteriosus closes within a few hours of birth in response to decreased pulmonary resistance; however, in some cases (particularly in premature babies and in cases with maternal rubella) the ductus persists. Cellulitis typically affects the lower leg or arm and may spread proximally. Women may be similarly affected, but usually later in life, with milder
loss and preservation of the frontal hair margin (female-pattern alopecia). In adults, clinical features and biochemistry (plasma renin, androstenedione and 17-hydroxyprogesterone) are used to modify treatment. There are now legal limits on the domoic acid concentrations allowed in mussels. Clinical features and management The most common
symptoms are nausea, vomiting, abdominal cramps, headache, diarrhoea and short-term memory loss. Patients with Eisenmenger's PDA may have more pronounced clubbing and lower saturations in their fingers. Investigations and treatment • C hest X-ray in an adult with a significant left-to-right shunt will show enlarged
pulmonary arteries and an increased cardiothoracic ratio (left heart dilation). The oral retinoid alitretinoin is an effective treatment for topical steroid-refractory severe chronic hand eczema. Diabetes is associated with a number of short-and long-term complications that reduce guality of life and life expectancy, and are associated with major health
costs. 657). Lesions usually appear in crops over 6-12 months before resolving spontaneously. Pruritus takes a few weeks to settle and can be managed with antihistamines and cooling creams such as 2% menthol. 421), X-rays are indicated only if the pain is persistent, recurrent, associated with neurological symptoms or signs, worse at night or
associated with symptoms such as fever or weight loss. 16.32). The use of the aldost erone: renin ratio in the routine investigation of hypertension now suggests that hyperaldosteronism due to bilateral adrenal hyperaldosteronism of hypertension now suggests that hyperaldosteronism due to bilateral adrenal hyperaldosteronism due to bilateral adrenal hyperaldosteronism of hyperaldosteronism due to bilateral adrenal hyperaldosteronism due to bilateral due 
presentation is simply hypertension; hypokalaemia (99%) are caused by intrinsic thyroid disease; a pituitary cause is extremely rare (Box 21.28). Fingernail infection is less common. QTc prolongation is a recognized cardiac effect of the macrolides and may lead to the potentially life-threatening syndrome of 'torsades de pointes' (see p. Topical azole
antifungal creams, with short-term use of mild-to moderate-potency steroids according to body site, are usually helpful. Early use of a benzodiazepine is often effective in relieving stimulant- associated non-cardiac chest pain. Hypogonadism in an adolescent would present with delayed puberty and/or growth, whereas an adult may present with poor
libido, erectile dysfunction and loss of secondary sexual hair (Box 21.38). G agents include tabun, sarin, soman and cyclosarin. Bradycardia, tachycardia and hypotension occur, depending on whether muscarinic or nicotinic effects predominate.
platelets, causing platelet aggregates (see Fig. They reduce GH and IGF levels in most patients but do not all achieve treatment targets. It is associated with decreased or absent sense of smell (anosmia), and sometimes with other bony (cleft palate), renal and cerebral abnormalities (e.g. colour blindness). Pro insulin is parceled into secretory
granules in the Golgi apparatus. Metabolism of glucose within the β cell generates adenosine triphosphate (ATP). All potential causative drugs should be stopped. Wholegrains, increased fruit and vegetable intake, fermented dairy products, oily fish and a Mediterranean dietary pattern are associated with lower rates of type 2 diabetes. Type 2
diabetes is the most common form of diabetes, accounting for around 90% of all cases; it is also one of the most common non- communicable diseases. The highest chances of detecting such causes are in patients: • under 35 years, especially those without a family history of hypertension • with accelerated (malignant) hypertension • with
hypokalaemia • resistant to conventional antihypertensive therapy (e.g. more than three drugs) or • with unusual symptoms (e.g. sweating attacks or weakness). Incidental adrenal tumours ('incidental adrenal tumours ('in
discovered in 3-10% of scans (increasing with age). However, both defects are necessary to develop diabetes. It leads to clearance or significant improvement in over half of all patients over a 6-month course. Mild hyperprolactinaemia is common in PCOS but rarely exceeds 1500 mU/L. This would not have been possible without your patience and
support, and we are most grateful. As glucose concentration falls below the normal range, glucagon is secreted from the pancreatic α-cells. It is active against Gram- positive cocci, including some penicillin-resistant staphylococci, and is a useful agent for severe streptococcal or staphylococcal cellulitis. Tight control of glucose is necessary because
some tissues, particularly the brain, are highly dependent on glucose as an energy source while high glucose concentration irreversibly damages cellular proteins. Unwanted effects of drugs administered. Has something
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happened to the patient? New, or presumed new, left bundle branch block is compatible with coronary artery occlusion requiring urgent reperfusion therapy. • Monoclonal gammopathies of renal significance constitutes a group of renal pathologies caused by immunoglobulin deposition (see p. 1049). Box 12.24 Clinical features of poisoning with
anticonvulsant drugs Anticonvulsant drug Clinical features of poisoning Carbamazepine (a prodrug of carbamazepine) Dry mouth, coma, convulsions, ataxia, incoordination, hallucinations (particularly in the recovery phase) Ocular: nystagmus, dilated pupils (common), divergent strabismus, complete external ophthalmoplegia (rare)
Phenytoin Nausea, vomiting, headache, tremor, cerebellar ataxia, nystagmus, loss of consciousness (rare) Sodium valproate Most frequent: drowsiness, impairment of consciousness, respiratory depression Uncommon complications: liver damage, hyper-ammonaemia, metabolic acidosis Very severe poisoning: myoclonic jerks, seizures, cerebral
 oedema Gabapentin and pregabalin Lethargy, ataxia, slurred speech, gastrointestinal symptoms Lamotrigine Lethargy, coma, ataxia, nystagmus, seizures, cardiac conduction abnormalities Levetiracetam Lethargy, coma, respiratory depression Tiagabine Lethargy, facial grimacing, nystagmus, posturing, agitation, coma, hallucinations, seizures
Topiramate Lethargy, ataxia, nystagmus, myoclonus, coma, seizures, metabolic acidosis (secondary to carbonic anhydrase inhibition) Cannabis (marijuana) and synthetic cannabinoids Cannabis (secondary to carbonic anhydrase inhibition) Cannabis (marijuana) and synthetic cannabinoids Cannabis (secondary to carbonic anhydrase inhibition) Cannabis (marijuana) and synthetic cannabinoids Cannabis (secondary to carbonic anhydrase inhibition) Cannabis (marijuana) and synthetic cannabinoids Cannabis (secondary to carbonic anhydrase inhibition) Cannabis (marijuana) and synthetic cannabinoids Cannabis (secondary to carbonic anhydrase inhibition) Cannabis (marijuana) and synthetic cannabinoids Cannabis (secondary to carbonic anhydrase inhibition) Cannabis (marijuana) and synthetic cannabinoids Cannabis (secondary to carbonic anhydrase inhibition) Cannabis (sec
linezolid. Cutaneous viral infections (e.g. viral warts and molluscum) may be more widespread in atopic eczema. Assessment of mineralocorticoid activity if deficient. This would not have been possible without the dedication of our expert authors
and specialists, who have written many chapters over the years. There is no role for short-acting drugs, such as sublingual glyceryl trinitrate (GTN) or nifedipine, and titration of standard chronic therapies with on-going monitoring is preferred. Hypertensive emergencies Only a small subset of patients with significantly elevated BP (usually >180/120
mmHg) have signs or symptoms of acute target-organ damage, termed hypertensive emergencies. Abdomen: • Inspect for obvious masses, distension or asymmetry, and for signs of medical intervention such as operative scars or a stoma bag • Palpate gently for tenderness and masses • Assess for organomegaly; assess other features (e.g. pulses,
bruits, ascites) as necessary 8. An adult complaining of lethargy with pale skin is likely to be deficient in TSH and/or ACTH. The rise in intracellular calcium triggers activation of calcium-dependent phospholipid protein kinase which, via intermediary phosphoryl ation steps, leads to fusion of the insulin-containing granules with the cell membrane and
exocytosis of the insulin-rich granule contents. Tinea of the body usually presents with asymmetrical, scaly, inflamed patches with clearer centres and a scaly, raised border. In Europe, approximately 1.8 million people die annually from ischaemic heart disease. Pathophysiology Rupture or erosion of a vulnerable coronary artery plaque can produce
prolonged occlusion of a coronary artery, leading to myocardial necrosis within 15-30 minutes. Bathers and fishermen may be stung if they tread on or handle these 12 12 276.e2 Prescribing, therapeutics and toxicology species. Sit to stand, transfers and mobility - note any mobility aids or assistance required Fig. Box 22.32 Severe cutaneous
adverse drug reactions • • • • • S tevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) Drug reaction with eosinophilia and systemic symptoms (DRESS) Acute generalized exanthematous pustulosis (AGEP) Erythroderma/exfoliative dermatitis Serum sickness-like reactions • • • • • S tevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) Drug reaction with eosinophilia and systemic symptoms (DRESS) Acute generalized exanthematous pustulosis (AGEP) Erythroderma/exfoliative dermatitis Serum sickness-like reactions • • • • • • S tevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) Drug reaction with eosinophilia and systemic symptoms (DRESS) and toxic epidermal necrolysis (TEN) Drug reaction with eosinophilia and systemic symptoms (DRESS) and toxic epidermal necrolysis (TEN) Drug reaction with eosinophilia and systemic symptoms (DRESS) and toxic epidermal necrolysis (TEN) Drug reaction with eosinophilia and systemic symptoms (DRESS) and toxic epidermal necrolysis (TEN) Drug reaction with eosinophilia and systemic symptoms (DRESS) and toxic epidermal necrolysis (TEN) Drug reaction with eosinophilia and systemic symptoms (DRESS) and toxic epidermal necrolysis (TEN) Drug reaction with eosinophilia and systemic symptoms (DRESS) and toxic epidermal necrolysis 
most cases. London: Department of Health; 2011. MILLENNIUM AND SUSTAINABLE DEVELOPMENT GOALS In 2000, world leaders from 189 countries adopted a series of goals, the Millennium Development Goals (MDGs), to be achieved by 2015. A large number of putative environmental factors have been identified but none of these is either
necessary or sufficient to cause type 1 diabetes. The plaque cap tears (ulcerates, fissures or ruptures), allowing blood from the lumen to enter the inside of the plaque itself. THC possesses activity at the benzodiazepine, opioid and cannabinoid receptors. What are the symptoms? The overall survival of those who have had operative repair is excellent
All forms of HAE are caused by increased levels of bradykinin. Affected individuals should avoid school or work until the lesions are dry or for 48 hours after starting antibiotics. Toxin-mediated skin disease Staphylococcal scalded skin syndrome (SSS) and toxic shock syndrome (TSS) are diseases caused by bacterial secretion of toxins, the latter
representing a life-threatening illness requiring urgent medical treatment. Other causes include testicular or ovarian disorders, such as testotoxi cosis or McCune-Albright's syndrome (MAS; see also p. This is incompatible with life, as blood circulates in two parallel circuits: that is, deoxygenated blood from the systemic venous return passes into the
right heart and then, via the aorta, back to the systemic circulation. The regurgitant jet can impinge on the anterior mitral valve cusp, causing a mid-diastolic murmur (Austin Flint rumble). Investigations Chest X-ray The chest X-ray The
of Box 22.11 Classification of eczema • Asteatotic eczema • Asteatotic eczema • Asteatotic eczema • Chronic hand/foot eczema • Ch
 improve and 'clear' before the teenage years, 50% being free of the condition by the age of 6. We would like to thank Dr Robert Stephenson and Dr Joseph Davies for their radiological input and figures. Further reading Department of Health. Drugs can also cause angio- oedema, especially angiotensin- converting enzyme (ACE) inhibitors and
angiotensin II receptor antagonists. A cervical root block, administered under direct vision by an experienced pain specialist, may relieve pain while the disc recovers. The rash resolves spontaneously in 7-10 days. Slapped cheek syndrome (erythema infectiosum, fifth disease) See page 519. Herpes simplex virus Most people are infected with herpes
simplex virus (HSV) type 1 in childhood, and infection is often subclinical. While facts may be recorded in this very stylized manner, the patient will rarely, if ever, present them in this structure. This may involve wearing protective gloves and sometimes a change of occupation. 1.2 outlines a typical general and systematic examination routine suitable.
for use in patients presenting with a wide range of medical conditions. Graves' disease is also associated with other autoimmune disorders such as pernicious anaemia, vitiligo and myasthenia gravis. Use should be avoided in pregnancy and childhood, and in patients taking corticosteroids, unless the benefit outweighs the risk. E12.7 Severe local
effects of envenomation. Fig. Organic tricuspid regurgitation may occur with rheumatic heart disease, infective endocarditis, carcinoid syndrome, Ebstein's anomaly (a congenitally malpositioned tricuspid valve) and other congenital abnormalities of the AV valves. Clinical features The valvular regurgitation gives rise to high right atrial and systemic
venous pressures. Oxazolidinones are active against a variety of Gram- positive pathogens, including vancomycin-resistant S. 30 30 1126 Cardiology $ % Fig. Aromatase is an enzyme of the cytochrome P450 family and converts androgens to
produce oestrogens. 0-15% Campylobacter spp. Type 1 diabetes is subdivided into type 1A (immune-mediated) and type 1B (non-immune-mediated). The use and formulation of dendritic cells is activation of haive T lymphocytes to initiate adaptive immune responses (see p
Skin swabs are usually negative unless taken from broken skin. Many countries have their own formularies: e.g. the UK has the British National Formulary (BNF). 30.119 Electrocardiogram associated with acute pericarditis. Note the diffuse, concave, raised ST segments seen in most leads. • Mental health disorders, e.g. depression, are among the
20 leading causes of disability worldwide. National Institute for Health and Care Excellence (NICE): clinical guidelines, systematic reviews, evidence-based synopses, image database. • Rehydrate using at least 4-6 L of 0.9% saline on day 1, and 3-4 L for several days thereafter. Several of these goals aimed to reduce poverty, improve the health of
women and children, and combat HIV/ AIDS, malaria and other diseases. 22.21 Impetigo. Crusted, blistering lesions on the chin. The circulation is supported by a morphological right ventricle. Teething, dribbling and lip licking may trigger facial
eczema in infancy and childhood. Sunblocks should be used to prevent burning. Clinical information Differential diagnosis Practical procedures 'Emergency' boxes are in red. Also in the Kumar & Clark's Clinical Medicine, 3e • Clinical Surgery, 3e •
Essentials of Paediatrics, 2E Online Clinical Overviews Acid-base disorders Leukaemia: investigations Lung cancer Arrhythmias: bradycardia and heart block Asthma Blood transfusion Breast cancer Central nervous system infections Chronic
obstructive pulmonary disease (COPD) Malaria Malnutrition Movement disorders Myeloproliferative neoplasms Cirrhosis Nephrotic syndrome, nephritic syndrome and glomerulonephritis Colorectal carcinoma Obesity Dementia Osteoarthritis Diabetes: complications Pituitary disease
Diabetes: emergencies Pneumonia Diabetes: management Potassium concentration: disorders Eczema/dermatitis Prostate cancer Epilepsy Renal disease: chronic kidney disease: chronic kidney injury (AKI) Extracellular fluid volume: disorders Renal disease: acute kidney injury (AKI) Extracellular fluid volume: disorders Renal disease: acute kidney injury (AKI) Extracellular fluid volume: disorders Renal disease: acute kidney injury (AKI) Extracellular fluid volume: disorders Renal disease: acute kidney injury (AKI) Extracellular fluid volume: disorders Renal disease: acute kidney injury (AKI) Extracellular fluid volume: disorders Renal disease: acute kidney injury (AKI) Extracellular fluid volume: disorders Renal disease: acute kidney injury (AKI) Extracellular fluid volume: disorders Renal disease: acute kidney injury (AKI) Extracellular fluid volume: disorders Renal disease: acute kidney injury (AKI) Extracellular fluid volume: disorders Renal disease: acute kidney injury (AKI) Extracellular fluid volume: disorders Renal disease: acute kidney injury (AKI) Extracellular fluid volume: disorders Renal disease: acute kidney injury (AKI) Extracellular fluid volume: disorders Renal disease: acute kidney injury (AKI) Extracellular fluid volume: disorders Renal disease: acute kidney injury (AKI) Extracellular fluid volume: disorders Renal disease: acute kidney injury (AKI) Extracellular fluid volume: disorders Renal disease: acute kidney injury (AKI) Extracellular fluid volume: disorders Renal disease: acute kidney injury (AKI) Extracellular fluid volume: disorders Renal disease: acute kidney injury (AKI) Extracellular fluid volume: disorders Renal disease: acute kidney injury (AKI) Extracellular fluid volume: disorders Renal disease: acute kidney injury (AKI) Extracellular fluid volume: disorders Renal disease: acute kidney injury (AKI) Extracellular fluid volume: disorders Renal disease: acute kidney injury (AKI) Extracellular fluid volume: disorders Renal disease: acute kidney injury (AKI) Extracellular fluid volume: dis
 ageing Rheumatoid arthritis Gastrointestinal bleeding Sepsis Heart disease: acute coronary syndrome (ACS) Sickle syndromes Heart failure Skin: malignant disease Hepatitis: B and C Sodium concentration: disorders HIV: clinical approach to the patient Stroke Hypertension Systemic lupus erythematosus (SLE) Inflammatory bowel disease (IBD)
Thyroid disorders: hypo-and hyperthyroidism Leukaemias: acute Venous thromboembolic disease x Online Special Topics From the International Advisory Board Editors: Professor H Janaka de Silva and Professor H Janaka de Silva and Professor H Janaka de Silva and Professor Senaka Rajapakse Arsenic poisoning Arup Kumar Kundu Neurological manifestations of systemic disease un disease Udaya K Ranawaka Brucellosis From the International Advisory Board Editors: Professor H Janaka de Silva and Professor H Janaka de Silva and Professor H Janaka de Silva and Professor Senaka Rajapakse Arsenic poisoning Arup Kumar Kundu Neurological manifestations of systemic disease un diseas
Suliman S Fedail Neurology of toxins and envenoming Udaya K Ranawaka Cholera K Neelakanthan Viswanathan Non-communicable diseases in sub-Saharan Africa Ntobeko A B Ntusi Crimean-Congo haemorrhagic fever Somia Iqtadar Pesticide and plant poisoning H Janaka de Silva Dengue Somia Iqtadar Pyogenic meningitis Saad Shafqat, Anita
Zaidi Diarrhoeas, including amoebiasis Samy A Azer Rabies K Neelakanthan Viswanathan Fluorosis F S Hough (deceased), Karen Barnard Rift Valley fever Suliman S Fedail Heat stress and heat stroke Samy A Azer Rabies K Neelakanthan Viswanathan Fluorosis F S Hough (deceased), Karen Barnard Rift Valley fever Suliman S Fedail Heat stress and heat stroke Samy A Azer Rabies K Neelakanthan Viswanathan Fluorosis F S Hough (deceased), Karen Barnard Rift Valley fever Suliman S Fedail Heat stroke Samy A Azer Rabies K Neelakanthan Viswanathan Fluorosis F S Hough (deceased), Karen Barnard Rift Valley fever Suliman S Fedail Heat stroke Samy A Azer Rabies K Neelakanthan Viswanathan Fluorosis F S Hough (deceased), Karen Barnard Rift Valley fever Suliman S Fedail Heat stroke Samy A Azer Rabies K Neelakanthan Viswanathan Fluorosis F S Hough (deceased), Karen Barnard Rift Valley fever Suliman S Fedail Heat stroke Samy A Azer Rabies K Neelakanthan Viswanathan Fluorosis F S Hough (deceased), Karen Barnard Rift Valley fever Suliman S Fedail Heat stroke Samy A Azer Rabies K Neelakanthan Viswanathan Fluorosis F S Hough (deceased), Karen Barnard Rift Valley fever Suliman S Fedail Heat S 
Land, Ntobeko A B Ntusi HIV-associated immune reconstitution inflammatory syndrome (IRIS) Graeme Meintjes Severe acute respiratory syndrome (SARS) Kar Neng Lai HIV in resource-limited settings Marc Mendelson, Gary Maartens Snake bite Christeine Ariaranee Gnanathasan, Rezvi Sheriff, Praveen Aggarwal HIV nephropathy Nicola Wearnee (IRIS) Graeme Meintjes Severe acute respiratory syndrome (IRIS) Graeme Meintjes Graeme Me
Soil-transmitted helminths Nilanthi R de Silva IgA nephropathy Kar Neng Lai Thrombotic thrombocytopenic purpura (TTP) associated with HIV Vernon J Louw Immunology of leprosy Sandhya Kamath Infections Caused by Rickettsiae, Orientiae, Anaplasma and Coxiella Ranjan Premaratna Tropical neurological infections Udaya K Ranawaka Tropical
sprue Samy A Azer Leptospirosis K Neelakanthan Viswanathan Viswana
Viswanathan, Han Ni, Anita Devi K Ravindran xi Online Clinical Cases Catatonia Nazish Imran Gout Arup Kumar Kundu Common child psychiatric disorders Nazish Imran Infectious diseases Abdulla Saadeh Congo-Crimean haemorrhagic fever Somia Iqtadar Myocarditis
Ntobeko AB Ntusi Diabetic ketoacidosis N A Abdella Neurological disease Abdullah Saadeh Ebola virus disease Somia Iqtadar Tropical sprue Samy A Azer xii List of Contributors, without whom this new edition would not have been
possible. 23.8 Islet autoantibodies. Islet cell antibodies (ICA) are detected by a fluorescent antibody technique that detects binding of autoantibodies to islet cells. • Type 2 diabetes, which results from a combination of insulin resistance and less severe insulin deficiency. An alternative but expensive antibodies (ICA) are detected by a fluorescent antibody technique that detects binding of autoantibodies.
 which enhances endogenous cyanide detoxification; a second dose may be required in severe cases. The proliferation of smooth muscle thickening in the endothelium. It inhibits bacterial peptidoglycan biosynthesis. Predisposing factors
include friction, occlusion, sweating, obesity and diabetes. It is probably caused by deposition of immune complexes of antibody and viral antigen within dermal blood vessels. Pulmonary stenosis may be valvular, subvalvular or supravalvular. Clinical features The obstruction to right ventricular emptying results in right ventricular hypertrophy, which,
in turn, leads to right atrial hypertrophy. Inflammatory cells are present around the upper dermal vessels in all patterns. Arthritis Care Res 2011; 63:1503-1510. xix 1 Diagnosis: the art of being a doctor David Randall, Adam Feather and Mona Waterhouse Diagnosis: the art of being a doctor David Randall, Adam Feather and Mona Waterhouse Diagnosis: the art of being a doctor David Randall, Adam Feather and Mona Waterhouse Diagnosis: the art of being a doctor David Randall, Adam Feather and Mona Waterhouse Diagnosis: the art of being a doctor David Randall, Adam Feather and Mona Waterhouse Diagnosis: the art of being a doctor David Randall, Adam Feather and Mona Waterhouse Diagnosis: the art of being a doctor David Randall, Adam Feather and Mona Waterhouse Diagnosis: the art of being a doctor David Randall, Adam Feather and Mona Waterhouse Diagnosis: the art of being a doctor David Randall, Adam Feather and Mona Waterhouse Diagnosis: the art of being a doctor David Randall, Adam Feather and Mona Waterhouse Diagnosis: the art of being a doctor David Randall, Adam Feather and Mona Waterhouse Diagnosis: the art of being a doctor David Randall, Adam Feather and Mona Waterhouse Diagnosis: the art of being a doctor David Randall, Adam Feather and Mona Waterhouse Diagnosis: the art of being a doctor David Randall, Adam Feather and Mona Waterhouse Diagnosis: the art of being a doctor David Randall Rand
a rapport Information-gathering Discussion and negotiation around investigations Clinical diagnostic reasoning Models of diagnostic depth The role of watchful waiting 1 1 1 2 5 6 6 6 6 7 7 CORE SKILLS AND KNOWLEDGE Being a doctor is a privilege; our patients
allow us to share in their troubles and triumphs, and place their faith in our judgement and skill. Venomous snakes Approximately 15% of the 3000 species of snake found worldwide are considered to be dangerous to humans. 18 Rheumatology Anisur Rahman and Ian Giles Clinical skills for rheumatology 412 Approach to the patient 414 Anatomy and
physiology of the normal joint 414 Investigation of rheumatic disease 415 Clinical conditions in the elbow 420 Pain in the hand and wrist 420 Pain in the lower back 421 Pain in the hip 424 Pain in the knee 425 Pain in
the shin, calf and ankle 427 Pain in the foot 428 Pain under the heel 428 Pain in the chest 429 Pain associated with sport and the performing arts 429 Chronic regional pain 430 Analgesic and anti-inflammatory drugs for musculoskeletal problems 431 Simple and compound analgesic agents
431 Non-steroidal anti-inflammatory drugs 431 Disorders of collagen 432 CORE SKILLS AND KNOWLEDGE Musculoskeletal complaints are very common, comprising 25-30% of consultations in primary care. - In a muscle or nerve problem, passive movement may remain full. Pigmentary changes - hyper-and hypopigmentation - may follow the
inflammatory phase of eczema and are often slow to resolve. Occasionally, a tendon causes a trigger finger, when the finger remains flexed in one vascular bed is often advanced in other territories. Antihistamines may alleviate the symptoms. Stings from
marine animals Several species of fish have venomous spines in their fins. 22.30 Crusted scabies in a patient with chronic myeloid leukaemia. Wherever possible, the cause should be reversed (see Box 21.52). This book and the individual contributions contained in it are protected under copyright by the publisher (other than as may be noted herein).
21.30 The control of growth hormone (GH) and insulin-like growth factor-1 (IGF-1). Pituitary GH is secreted under dual control of growth hormone-releasing hormone (GHRH) and somatostatin, and stimulates release of IGF-1 in the liver and elsewhere. Resistance is also an emerging problem among Salmonella, Vibrio cholerae, S. Regular use of a
topical keratolytic agent (e.g. 10-26% salicylic acid) after removal of hyperkeratotic skin may hasten resolution and is the mainstay of treatment. Sodium fusidate commonly causes gastrointestinal adverse effects and may occasionally be hepatotoxic; however, it is generally a safe drug and can be given during pregnancy if necessary. It is extremely
common in cold, dry weather and in people who wash their hands Fig. Precocious puberty. Some household products, such as water- sterilizing tablets, are strong alkalis. Type 1 diabetes does not present in children before 6 months of age and so infants who develop diabetes at this age are likely to have a monogenic defect. Physiotherapists can help
to relieve spasm and pain, teach exercises and relaxation techniques, and improve posture. Mechanical prostheses rely on artificial occluders: a ball and cage (Starr-Edwards), tilting disc (Björk-Shiley) or double tilting disc (St Jude). Zoledronic acid is an alternative. Aspiration alone is therapeutic in crystal arthritis (Fig. The effects start to resolve in
about 20 minutes but may last up 12 12 268 Prescribing, therapeutics and toxicology to 90 minutes. pneumoniae, can also be ESBL producers. Aetiology Type 1 diabetes belongs to a family of immune-mediated organ- specific disease, which include autoimmune thyroid disease, coeliac disease, Addison's disease and pernicious anaemia. They
should be made aware of the following points: • Long-term steroid therapy must never be stopped suddenly. Lesions range from flesh-coloured to very dark brown, and have a greasy, 'stuck-on' appearance (Fig. If acetylcysteine has been started it may then be discontinued • At end of acetylcysteine course take venous blood for serum creatinine and
electrolytes, bicarbonate, liver function and INR • Consider need for further acetylcysteine if post treatment bloods are abnormal ALT, alanine transferase; FBC, full blood count; LFTs, liver function tests; INR, international normalized ratio; NAC, N-acetyl cysteine. MRI scan of the pituitary is carried out if the above tests are abnormal. It presents as
chronic, well- demarcated, deep ulcers with a necrotic crust and exudate. • 17α-Hydroxyprogesterone. In patients with a posterior MI, there may be ST depression in leads V1-V3 with a dominant R wave, and ST elevation in lead V5/V6. The most widely used drug is metronidazole (Fig. MRI is preferable for surveillance, as it does not use radiation.
This is sometimes due to a defect in the diaphragma and extension of the subarachnoid space (cisternal herniation), or may follow The pituitary gland and hypothalamus 597 Box 21.11 Insulin tolerance test $ % Fig. Myocardial ischaemia most commonly arises as a result of obstructive coronary artery disease (CAD) in the form of coronary
 atherosclerosis. The clinical features of acromegaly, Cushing's disease or hyperprolactinaemia are usually (but not always) obvious (see pp. Look for symmetry or asymmetry, and/or a peripheral or proximal pattern. For both organisms, these isolates are often multidrug-resistant, and may express resistance to antibiotics such as ciprofloxacin, co-
trimoxazole and gentamicin. In infants, eczema often starts on the cheeks before spreading to the hands. Areas of depigmentation. 429). Management Patients are given short courses of analgesic therapy, along with reassurance and
explanation. 439). Nitroimidazoles can produce a disulfiram- like reaction with ethanol and enhance the anticoagulant effect of warfarin; patients should be warned not to drink alcohol while taking them. Have they sought medical advice or used medication that they have at home? Leishmaniasis (see p. The emergence of multidrug-resistant Gram-
negative bacteria, in particular carbapenemase- producing Enterobacterales, has resulted in the increased use of drugs in this class as an agent of last resort, often in combination with other antibiotics. In these circumstances, colistin is the mainstay of treatment, with tigecycline and sometimes fosfomycin used as adjuvant therapy, depending on
susceptibility data. A live-attenuated shingles vaccine is available to boost immunity against VZV in the elderly and reduce the risk of developing herpes zoster. Human papillomavirus (HPV) infection causes skin and anogenital 'viral' warts. Rarer causes include renal failure, liver failure, post- ictal state and chest wall injury
(e.g. following herpes zoster). Pressure immobilization should be used in all cases unless the snake has not been identified or it is clear that the patient was bitten by a large viper, as development of severe local swelling may compromise the circulation. Carel JC, Léger J. In addition, the pulse may be thready with significant hypotension, bradycardia
or tachycardia. Investigations Electrocardiography An ECG in patients with chest pain should be performed within 10 minutes of first contact with the emergency medical team (ambulance or emergency
diabetes specialists focus solely on diabetes. Lotions containing traditional topical insecticides, such as malathion, carbaryl and phenothrin, are used less widely because of resistance and are being replaced by physical treatments such as dimeticone and isopropyl myristate. Typically, though very rarely, lead poisoning results in foot drop attributable
to peripheral motor neuropathy. Local application of 5% acetic acid is said to prevent stinging cells adherent to the skin discharging. This is a useful investigation (see Fig. The Global Burden of Disease Study 2017. N Engl J Med 2013; 368:1220-1228. Ecthyma gangrenosum presents with distinctive necrotic skin ulcers with a central thick, dark
brown or black eschar. Hand eczema is a common finding in people with atopic eczema and the hand may be the only site involved in adulthood. 429). Vitiligo presents with asymptomatic, symmetrical, well-demarcated macules of complete pigment loss and typically affects the face, genitalia and bony prominences (Fig. (A-D From Schachat AP, Saddae and typically affects the face, genitalia and bony prominences (Fig. (A-D From Schachat AP, Saddae and typically affects the face, genitalia and bony prominences (Fig. (A-D From Schachat AP, Saddae and typically affects the face, genitalia and bony prominences (Fig. (A-D From Schachat AP, Saddae and typically affects the face, genitalia and bony prominences (Fig. (A-D From Schachat AP, Saddae and typically affects the face, genitalia and typically affects the face and typically affects the fa
SVR, Hinton DR et al. 30.86) include a large jugular venous 'cv'-wave and a palpable liver that pulsates in systole. Diazepam 10-20 mg i.v., repeated as required, should be administered for anxiety, agitation and seizures. Gyromitrin poisoning Muscarine is found in, for example, Inocybe spp., Clitocybe spp., Therefore, the decision to offer testosterone
replacement to an ageing male is currently based on full clinical and biochemical assessment and full discussion of potential risks (including prostate disease) as well as benefits. Delayed recovery depends, in part, on the severity of the initial injury. Weaning off steroids is often a long and difficult process. Congenital adrenal hyperplasia
Pathophysiology Congenital adrenal hyperplasia (CAH) is an autosomal recessive disorder resulting in deficiency of an enzyme in the cortisol synthetic pathways. 22.13 Contact eczema secondary to perfume allergy. Clin Med 2016; 16:481-485. DRUG INTERACTIONS Management Type of drug (or drug class) drugs used outside their licence should
be reported, while only the serious ADRs to established drugs (i.e. those that have been on the market for usually more than 2 years) should be reported. It may be confused with acne. Hump-nosed viper: Hypnale hypnale hypnale. Haemodialysis increases the elimination of valproate and should be instituted if severe hyper-ammonaemia and electrolyte and
 acid-base disturbances occur. Other drugs of importance in poisoning For ease of reference these are arranged in alphabetical order and include antidiabetic drugs, antimalarial drugs, beta-blockers, calcium- channel blockers, digoxin, iron salts, lithium salts and salicylates. The 2010 GBD study introduced a new metric that gave a single measure to
quantify the burden of diseases, injuries and risk factors. Its prevalence is also increased in Parkinson's disease. Sedating antihistamines Management These may be useful at bedtime, but as histamine is not a key mediator in the itch of eczema they are often of limited benefit. Seborrhoeic dermatitis usually runs a chronic relapsing course and
treatment is suppressive rather than curative. In females, the usual age of onset is before puberty or after the menopause. Anti-staphylococcal oral antibiotics for 10-14 days are required for widespread infection or facial involvement. The main functions of complement activation are to: • promote inflammation (e.g. through the actions of the
anaphylatoxins C3a, C4a and C5a) • recruit cells (e.g. through chemoattractants) • kill targeted cells, such as bacteria • solubilize antigen-antibody ('immune') complexes and remove them from the circulation. Executive summary of the guidelines on the diagnosis and treatment of acute heart failure: the Task Force on Acute Heart Failure of the
European Society of Cardiology. If one parent has atopic disease, the risk of a child developing eczema is about 20-30%. Box 23.3 lists features to look for when examining the feet of a person with diabetes. The most commonly measured ENAs are: • anti-Ro and anti-La, which occur in Sjögren's syndrome and SLE • anti-Sm, which is highly specific
pharmacological effects similar to those of LSD and is found in Psilocybe and Panaeolus spp. Clinical features and management Symptoms occur within 20-60 minutes. They begin therapeutic relationships and can instantly build trust in difficult circumstances.' 3DXOLQH The campaign encourages healthcare staff to greet and introduce themselves to
 patients and encourages the wearing of easy-to-read name badges like this one. Weight loss (at least 5%) should also be encouraged, as many patients have improvement in symptoms. Occasionally, vesicles or pustules may be seen. Box 21.42 Effects of oestrogens and consequences of oestrogen deficiency Physiological effect Consequences of
deficiency Breast Development of connective and duct tissue Small, atrophic breast Nipple enlargement and areolar pigmentation Pubic hair Walval growth Atrophic vulva and vagina Vulval growth Atrophic valval growth Atrophic valva
dyspareunia Uterus and tubes Myometrial and tubes Endometrial proliferation Amenorrhoea Skeletal Epiphyseal fusion Eunuchoidism (if prepubertal) Maintenance of bone mass Osteoporosis Pubertal gynaecomastia This occurs in perhaps 50% of normal boys, often asymmetrically. 485) • Metastases •
Multiple myeloma • Primary tumours of bone Referred pain 18 18 422 Rheumatology Box 18.13 Management of back pain presenting to a primary care physician needs no investigation • Pain between the ages of 20 and 55 years is likely to be mechanical and is managed with analgesia, brief rest if necessary and physiotherapy
 Patients should stay active within the limits of their pain • Early treatment of the acute episode, advice and exercise programmes reduce long-term problems and prevent chronic pain syndromes • Physical manipulation of uncomplicated back pain produces short-term relief and enjoys high patient satisfaction ratings • Psychological and social factors
may influence the time of presentation • Appropriate early management reduces long-term disability 639°C), rash, lymphadenopathy, hepatosplenomegaly and/or serositis. • Other physicians, anaesthetists and dentists must be told about steroid therapy. 21 21 642 Endocrinology in thirst (polydipsia). Dehydroepiandrosterone (DHEA) replacement
can be given if found unconscious • keep an (up-to-date) ampoule of hydrocortisone at home in case oral therapy is impossible, for administration by self, family, ambulance or doctor. Secondary hypoadrenalism This may arise from: • hypothalamic-pituitary disease (inadequate ACTH production) or • long-term steroid therapy leading to ACTH
suppression. 30.97). Pyogenic granuloma Pyogenic granulomas are benign vascular proliferations that present as rapidly growing, friable, red nodules that bleed easily. vii Preface to the Tenth Edition 'There must be a good reason to write a new textbook of medicine when there are already a good number on the market.' So began the preface to the Tenth Edition 'There must be a good reason to write a new textbook of medicine when there are already a good number on the market.'
hospital re-admissions • reduction in mortality from heart failure. They test only the 'readily releasable pool' of pituitary hormones, and normal responses may be seen in hypopituitarism. This time course varies widely between individuals. These can improve efficacy but are time-consuming to apply. Prominent skin creases on the palms ('hyperlinear
 palms') and dry, 'fish- like' scaling of the skin of the lower legs (ichthyosis vulgaris) point to underlying deficiencies in filaggrin. Key learning outcomes in musculoskeletal disease include: • learning to distinguish mechanical from inflammatory problems, and then identifing the number and pattern of joint involvement as well any extra-articular
situ, where malignant cells grow radially without dermal invasion. For example, a junior doctor may fail to call for senior help with a clearly deteriorating patient because of an unrealistically positive expectation that the interventions they have instituted will improve the situation. Tissue prostheses are derived from human (homograft) or porcine or
bovine (xenograft) sources. After stroke, the risk of heart failure and MI is increased twofold. The clinician should always ask, 'How would I wish my own doctor to behave?' The physical environment can also be improved to help the interaction go well: always ensure patients' privacy, dignity and comfort, treating them and their carers with respect.
Causes of male hypogonadism are shown in Box 21.39. Investigations Hypogonadism may be immediately apparent but basal levels of testosterone, LH and FSH should be measured. Like ESBL-producing Enterobacteriaceae, carbapenem-resistant Enterobacteriaceae (CRE) most frequently cause UTIs. Worldwide, the five most common types of
carbapenemase are K. Treatment needs to be repeated meticulously until all eggs have hatched. Is there any variation in the symptoms during the day or night? • Yellow-nail syndrome is a rare disorder based on the triad of thickened, slow- growing, yellow nails, pulmonary manifestations (cough, bronchiectasis, pleural effusion) and lower limb
lymphoedema. • Subungual hyperkeratosis is thickening of the axilla. 21.33 Acromegaly: symptoms and signs. Bold italic type indicates signs of greater discriminant value. Any serious systemic disease in childhood is likely to reduce growth and/or delay
puberty (e.g. chronic kidney disease or chronic infection). People who are troubled by severe PLE can be 'desensitized' with a short course of UVB phototherapy in early spring, which enables them to tolerate subsequent sun exposure. Lichen planus (LP) is a chronic inflammatory skin disease affecting the skin and mucosal membranes
A left ventricular assist device (LVAD) receives blood from the left ventricle and delivers it to the pulmonary artery. It withstands pressure poorly if the normal intra-articular covering of hyaline cartilage is worn away, as in osteoarthritis (OA;
see p. In 1991 it was established that MFS is caused by a mutation in the FBN1 gene on chromosome 15q21. Macroscopically, these lesions are seen as flat yellow dots or lines on the endothelium of the artery and are known as 'fatty streaks'. Flexion deformities of the fingers may be due to arthritis, flexor tenosynovitis or skin disease. Acromegalics
fail to suppress GH below 0.3 µg/L and 21 21 638 Endocrinology The general advantages of surgery, radiotherapy and medical treatment are discussed on page 597. Doppler ultrasound measures blood flow and hence inflammation. This is essential, as with the swiftness of travel, diseases spread with ease and rapidity, as seen
with the recent epidemics. Good results have been reported in follow-up studies, and this technique may replace the need for surgery. Aortic regurgitation Aortic regurgitation can occur in diseases affecting the aortic valve, such as endocarditis, and diseases affecting the aortic root, such as Marfan's syndrome (Box 30.44). Pathophysiology Aortic
regurgitation is reflux of blood from the aortic valve into the left ventricle during diastole. Anogenital involvement is common and day considerable psychosexual upset. A skin biopsy shows granulomatous inflammation, and Mycobacterium marinum may be identified by prolonged culture at low temperature or polymerase
chain reaction (PCR) of skin lesions. • Onycholysis (distal nail plate separation) is caused by psoriasis, thyrotoxicosis, trauma and, rarely, a phototoxic drug reaction (e.g. with tetracyclines). aThere is no such thing as mild diabetes. Multiple lesions are also a feature of neurofibromatosis types 1 and 2, tuberous sclerosis, ataxia telangiectasia
multiple endocrine neoplasia type 1 and McCune-Albright syndrome. Post-inflammatory hypopigmentation Metabolic/endocrine effects Pale patches may be left after resolution of an inflammatory complaint, especially eczema and psoriasis. More than 90% of the dry weight is protein, comprising a variety of enzymes, non-enzymatic polypeptide toxins
and non- toxic proteins. If virilizing African-Caribbean male. Such cases always require extensive, multidisciplinary clinical management. Each structural component of a synovial joint plays a key functional role, and different components are affected in different disease processes. Juxta-articular bone Bone structure and physiology are discussed on
page 473. However, naming a clinical impression in a few simple words is often vital in moving towards a final diagnosis. • Did they present as an emergency, or with symptomatic hyperglycaemia, or was diabetes picked up without symptomatic hyperglycaemia, and without symptomatic hyperglycaemia, and without symptomatic hyperglycaemia, and without hyperglycaemia, and without hyperglycaemia, and without hyperglycaemia, and without hy
This causes platelet activation, with thrombin as an especially potent stimulant of such activity. There is also painful spasm of the trapezius. Central venous pressure (CVP) may need to be monitored to control the hydration rate. Insulin glargine is created by replacing asparagine in position 21 of the A chain with a glycine residue and adding two
arginines to the end of the B chain. E12.6) and rattlesnakes. In those with sex steroid deficiency lowering prolactin levels should reverse hypogonadism and avoid the long-term effects, although for those intolerant of the medication sex steroid deficiency lowering prolactin levels should reverse hypogonadism and avoid the long-term effects, although for those intolerant of the medication sex steroid deficiency lowering prolactin levels should reverse hypogonadism and avoid the long-term effects, although for those intolerant of the medication sex steroid deficiency lowering prolactin levels should reverse hypogonadism and avoid the long-term effects, although for those intolerant of the medication sex steroid deficiency lowering prolactin levels should reverse hypogonadism and avoid the long-term effects, although for those intolerant of the medication sex steroid deficiency lowering prolactin levels should reverse hypogonadism and avoid the long-term effects, although for those intolerant of the medication sex steroid deficiency lowering prolactin levels should reverse hypogonadism and avoid the long-term effects, although for those intolerant of the medication sex steroid deficiency lowering prolactin levels should reverse hypogonadism and avoid the long-term effects, although for those intolerant of the medication sex steroid deficiency levels and the long-term effects are should reverse hypogonadism.
of these relatives have been affected by a given condition or by premature death (see p. The other forms affect 11β-hydroxylase, 17α-hydroxylase, 3β- hydroxysteroid dehydrogenase and a cholesterol side-chain cleavage enzyme (p450scc) (see Fig. As the name implies, it affects greasy areas. add 7 cm for a boy or subtract 7 cm for a girl. Usually, a
right ventricular impulse may be felt at the left sternal edge, and there is a blowing pansystolic murmur, best heard on inspiration at the lower left sternal edge. Diarrhoea, vomiting and abdominal pain are the main side-effects of erythromycin (less so with clarithromycin and azithromycin) as a consequence of the intestinal prokinetic properties of
the macrolides. 981, with permission of Elsevier.) Pathophysiology of coronary atherosclerosis /HIWVLGHEDWWHU\ RPLWWHGIRUFODULW\ transient myocardial infarction treated with coronary angioplasty) or as a bridge to cardiac surgery, including transplantation. Ventricular
assist devices Ventricular assist devices (VADs; Fig. ,VWKHSDWLHQW VLJQLILFDQWO\ GHK\GUDWHG" 12 10 mm Post-adrenalectomy, pigmentation, sometimes local symptoms Non- functioning tumours Usually large: >10 mm Visual field defects; hypopituitarism (microadenomas may be incidental finding) Craniopharyngioma Often very large and
cystic (skull X-ray abnormal in >50%; calcification common) Headaches, visual field defects, growth failure (50% occur below age 20; about 15% arise from within sella) 5 $ / 5 % • t he ventricles, causing interruption of cerebrospinal fluid (CSF) flow and hydrocephalus • the sphenoid sinus, causing CSF rhinorrhoea. Investigations • M RI of the
pituitary. Today/recently - How have you been? Hoen B, Duval X. 22 22 660 Dermatology Perioral dermatitis is a distinctive rosacea-like rash that typically affects the nasolabial fold and area around the mouth in young women in a 'diamond' distribution. The disease is usually benign and self-limiting; treatment with quinolone.
antibiotics may hasten recovery but is not normally necessary. Like all oral retinoids, it is a teratogen, and a pregnancy prevention programme must be followed. 22 22 664 Dermatology Nodular prurigo This is a chronic, widespread, intensely itchy, nodular eruption that is perpetuated by picking and scratching. The identical twin of a person with
type 1 diabetes has a 30-50% chance of developing the disease, which implies that non-genetic factors must also be involved. Treatment is with systemic steroids tapered over at least 3 months. An ECG will often show a wide QRS interval and there is a reasonable correlation between the width of the QRS complex and the severity of poisoning. This
with the obesity epidemic, poor quality diet and reduced physical activity. 23.3 Part of a β cell. The ribosomes manufacture pre- proinsulin from insulin messenger RNA (mRNA). The dendritic cell is especially involved in this process, and forms a bridge between innate and adaptive systems. • Erythrocyte sedimentation rate (ESR) and C-reactive
protein (CRP). Screening of family contacts, nasal decolonization and use of antiseptic washes (e.g. chlorhexidine) are recommended. Ecthyma Ecthyma is also caused by streptococci (group A β-haemolytic), Staph. The short-lived nature of individual swellings and lack of skin surface changes help distinguish urticaria from other inflammatory rashes
especially eczema. 277 13 278 Global health • A pproximately 1.6 million deaths were due to diabetes mellitus in 2016. Concern has been raised about the use of azithromycin in bloodstream infections (bacteraemia) because of low serum bioavailability. We would like to thank all those with whom we have had the pleasure to work over the years,
particularly the many dedicated staff at Elsevier, who have worked tirelessly with us to come up with the final products. Indications for intervention (usually with percutaneous devices) include left ventricular dilation with significant shunt and no significant pulmonary vascular disease (assessed by pulmonary vascular resistance at right heart
catheter). The clinical features observed following intoxication with synthetic cannabinoids are variable, reflecting the numerous derivatives available. Rarely, in adult and neonatal disease, mast cell infiltration may involve internal organs (bone, gastrointestinal tract, liver, spleen - systemic mastocytosis). While the hyperthyroidism will be controlled
by the anti-thyroid drugs, it does not usually remit after a course of anti-thyroid drugs. The thyroid drugs. The thyroid drugs axis 615 6\PSWRPV 6LJQV *HQHUDO :HLJKWORVV ,UULWDELOLW\EHKDYLRXUFKDQJH 5HVWOHVVQHVV 0DODLVH ,WFKLQJ 6ZHDWLQJ 7DOOVWDWXUHLQFKLOGUHQ %UHDWKOHVVQHVV 3DOSLWDWLRQV +HDWLQWROHUDQFH
 6WLIIQHVV 0XVFOHZHDNQHVV 7UHPRU +\SHUNLQHVLV 3V\FKRVLV 7DFK\FDUGLDRUDWULDO ILEULOODWLRQ )XOOSXOVH :DUPYDVRGLODWHG SHULSKHULHV 6\VWROLFK\SHUWHQVLRQ &DUGLDFIDLOXUH ([RSKWKDOPRV /LGOD]DQGμVWDUH¶ &RQMXQFWLYDORHGHPD 2SKWKDOPRSOHJLD 3HULRUELWDORHGHPD
2Q\FKRO\VLV *RLWUH 2QO\LQ*UDYHV¶GLVHDVH 2QO\LQ*UDYHV¶GLVHDVH Fig. The appearance of the fluid is an indicator of the level of inflammation. In other situations, confirming the diagnosis is far more complex and
may require a combination of symptoms, physical signs and investigation results. The most common cause of permanent neonatal diabetes mellitus is mutations in the KCNJ11 gene encoding the Kir6.2 subunit of the β-cell potassium-adenosine triphosphate (ATP) channel. Whereas most ligaments and tendons run outside the joints, some, like the
up, hindering penetration of topical drugs. Calcium ions chelate oxalate to form insoluble calcium oxalate, which is responsible for renal toxicity. Clinical features Initially, the features of ethylene glycol poisoning are similar to those of ethanol intoxication (though there is no ethanol on the breath). Acitretin is an oral retinoid used to treat psoriasis
and rarer inherited scaly skin diseases (Darier disease, congenital ichthyosis). Dosages have been given where appropriate but we recommend that all readers check with their national formularies for the exact dosages. 26.64), commonly at C5/C6 or C6/C7; it is seen on oblique radiographs of the neck. The decrease in right atrial pressure and relative
increase in left atrial pressure result in closure of the foramen ovale. 30.84 Cardiac echograms. (A) Two-dimensional echocardiogram (long-axis view) in a patient with calcific aortic stenosis. They resolve spontaneously over several years. Prolactin should therefore always be measured before surgery on any mass in the pituitary region. • Flutamide
another antiandrogen, is less commonly used owing to the high incidence of hepatic side-effects. Inflammation or trauma to these joints can cause severe joint symptoms. Blood vessels and nerves The ligaments, periosteum, synovial tissue and capsule of the joint are richly supplied by blood vessels and nerves. (WK\OHQHJO\FRO $'+
*O\FRDOGHK\GH $/' + $2 • F omepizole: 15 mg/kg body weight should be administered, followed by four 12-hourly doses of 10 mg/kg, then 15 mg/kg every 12 h until glycol concentrations are not detectable. 810). Azoospermia with normal testicular size and low FSH levels suggests a vas deferens block, which is sometimes reversible by surgical
Balloon dilation is preferred for re-coarctation. Tetralogy of Fallot (Fig. 21.8) and readily shows any significant pituitary mass. Treatment of cutaneous mastocytosis is aimed at controlling the symptoms of mast cell mediator release with antihistamines and cromoglicate, and minimizing the risk of anaphylaxis. If unwell, have you
ever been this unwell before? If there are no clinical features of hyperprolactinaemia, the 21 21 640 Endocrinology possibility of macroprolactinaemia should be considered. Aetiology and clinical features of hyperprolactinaemia should be considered. Aetiology and clinical features of hyperprolactinaemia should be considered.
(including histamine) that cause vasodilation and increased capillary permeability. Face: • Assess for signs of systemic conditions, including pallor and cyanosis • Inspect the mouth and standards of dental care • Consider the meed for examination of some or all cranial nerves 4. 23.2 Amino acid structure of insulin. (A) Human insulin. Semen volume
is usually maintained as sperm makes up for only a very small proportion of seminal fluid volume; most is prostatic fluid. We would like to acknowledge and offer grateful thanks for the input of all previous editions' contributors, without whom this new edition would not have been possible. Safety has not yet been shown in pregnancy but linezolid hash
cleaning tablets and industrial bleaches (which contain high concentrations of sodium hypochlorite) are corrosive to the mouth and pharynx if ingested. • Stiffness: • Is it generalized or localized? Medication error is a common cause of morbidity, and ignorance is no defence. Thanks to our copy-editors, Wendy Lee and Lynn Watt, who was a common cause of morbidity and ignorance is no defence.
checked thoroughly, detected error and redundancy, and acted pre-emptively to offer helpful suggestions. And it brings into play an ethical code developed to ensure that the great power of medical knowledge is used for the good of individual patients and of society as a whole. The m.1555A>G mutation has been associated with gentamicin ototoxicit
but appears to occur in less than 1% of the general population. Although this defect reduces insulin action with regards to glucose and lipid metabolism, insulin is still able to activate the mitogen- activated protein (MAP) kinase pathway, which regulates a number of intracellular pathways involved in inflammation, cellular proliferation and
atherosclerosis. Abnormalities of insulin resistance alone does explain the development of diabetes as only one-fifth of those with the degree of insulin resistance characteristic of diabetes develop the condition. A warm greeting is always worthwhile. 524). Other tumours • C raniopharyngioma (1-2%), a usually cystic hypothalamic
tumour that is often calcified and arises from Rathke's pouch. • Platelets. • Decreased libido in both sexes. Tests help to exclude another condition and to reassure the patient or their primary care physician. It is not known how these two systems interact but, because ghrelin is synthesized in the stomach, a nutritional role is suggested for GH. It
0XVFOH (SLSK\VHDO ERQH 6\QRYLDO FDYLW\ $UWLFXODU FDUWLODJH %XUVD -RLQWFDSVXOH DQGV\QRYLDOOLQLQJ /LJDPHQW 7HQGRQ (QWKHVLV Fig. If haemodialysis is employed, the rate of ethanol administration will need to be increased to 17-22 g/h, as ethanol is dialysable. There is local tenderness, and the pain at
the styloid is worsened by flexing the thumb into the palm. Management Resting, splinting and NSAIDs may help. Coarctation of the aorta can be asymptomatic for many years. The proinsulin molecule folds back on itself and is stabilized by disulphide bonds. Specimens are transported in folded paper to keep them dry and prevent bacterial
(including body fat changes and physical exercise) are involved in the timing of puberty, as well as the genetic factors required for pubertal maturation. The rash is usually asymptomatic or mildly itchy and resolves within 4-8 weeks. Treatment usually consists of intermittent mild to moderate steroids used alone or in combination with antimicrobial
 agents. Severe pain virtually immobilizes the joint, although some rotation is retained (compare adhesive capsulitis; see below). Isolates that produce NDMs tend to be pan-resistant, with the exception of colistin, fosfomycin and tigecycline. Other subtypes of amyloid (e.g. hereditary ATTR amyloid and reactive AA amyloid) are not caused by a plasmar
thrombin generation and clot formation. This is usually well tolerated in the short term. Typically, an itchy papular rash develops on sun-exposed areas, particularly the 'V' of the neck, shoulders and arms, several hours after sun exposure. Patients with MYC, BCL2 and/or BCL6 rearrangements represent a subtype of DLBCL that does considerably
 less well with conventional therapy. Larger boils and abscesses may need incision and drainage. The principal organ of glucose homeostasis is the liver, which absorbs and stores glucose (as glycogen) in the post-absorptive state and releases it into the circulation between meals to match the rate of glucose utilization by peripheral tissues
Meropenem, given as a bolus or an infusion, is also of benefit as targeted therapy when organisms demonstrate intermediate sensitivity, as evidenced by a MIC of 8-16 mg/L. Nast A, Dréno B, Bettoli V et al. Observe abnormal spinal curves, kyphosis (forward bending) or lordosis (backward bending). It is used not only by the
medical profession but also by all professions related to medicine. 3.2 The complement pathways and their effector functions. In general, there are three overlapping phases of growth: infantile (0-2 years), which is largely GH-dependent; and the
adolescent 'growth spurt', dependent on GH and adequate sex hormone production during puberty. This palliation allowed patients a good quality of life into their fourth decade, but the right ventricle remains the systemic ventricle and with time starts to fail. • Ask the patient to (a) bend forwards to touch the toes with straight knees, (b) extend
backwards, (c) flex sideways and (d) look over each shoulder, flexing and extending and side-flexing the neck. Headache is very common in acromegaly and may be severe, even with small tumours; it is often improved after surgical cure or with small tumours.
a detectable value is non-diagnostic taken alone. Any change in DALYs can be a useful indicator of health outcomes but must be interpreted with care. Rotterdam ESHRE/ASRM-Sponsored PCOS Consensus Workshop Group. Lin HS, Lin PT, Tsai YS et al. The nails may be pitted or roughened. Is it made worse by activity and eased by rest (mechanical)
 or worse after rest (inflammatory)? Lancet 2011; 378:169-181. Box 23.6\, Monogenic causes of diabetesa Features Glucokinase HNF-1a HNF-4a IPF-1 Chromosomal location 7p 12q 17q 20q 13q Proportion of all cases 15\% 70\% 2\% 5\% 7.0\, mmol/L (126\,mg/dL) • Random plasma glucose >11.1\, mmol/L (200\,mg/dL) • HbA1c >6.5\% (48\,min >6.5\% 100\,mg/dL) • Random plasma glucose >11.1\, mmol/L (126\,mg/dL) • Random plasma glucose >11.1\, mmol/L (126\,mg/dL)
One abnormal laboratory value is diagnostic in symptomatic individuals; two values are needed in asymptomatic people. Ketoconazole-containing shampoo is useful to treat scalp involvement and as maintenance therapy. Second-line therapy and new drugs These are used in severe, unresponsive eczema, especially if it is interfering with an
individual's life (e.g. growth, sleeping, schoolwork or job). Banting Lecture. MRI scans occasionally show severe soft tissue injury. Low birth weight also Obesity Obesity increases the risk of developing type 2 diabetes. Transfrontal surgery is rarely required except for
massive macroadenomas. Macrophages and related cells may also undergo a process termed autophagy. In reality, a combination of these two approaches generally occurs: an initial rapid impression is formed, chiefly by type 1 thinking, which is subsequently revised by the slower, more reason-based type 2 thinking where the initial diagnosis proves
inadequate. The mortality in severe cases may be as high as 12%. Scombroid fish poisoning This is due to the action of bacteria such as tuna, mackerel, mahi-mahi, bonito and skipjack stored at insufficiently low temperatures. Type 2 diabetes is thus a condition in
which insulin deficiency relative to increased demand leads to insulin hypersecretion by a depleted β-cell mass and progression towards absolute insulin deficiency, requiring insulin therapy. Other hormonal abnormalities Glucagon secretion is increased in type 2 diabetes, likely because of diminished intra-islet insulin, and leads to increased hepatic
glucose output. It is mainly used for penicillinase-producing S. With established Eisenmenger's syndrome, patients will be cyanosed and have evidence of clubbing. Investigations and treatment A small VSD produces no abnormal X-ray or ECG findings. The mechanism of immune damage is illustrated in Fig. Plantar warts (verrucae) affect the soles of
the feet. • Isolation of patients with symptomatic C. The humeral head is held in place by the rotator cuff, which is part of the joint capsule. 21.8 Investigation of the pituitary/brain. 22.47) can arise spontaneously or after minimal trauma, and proliferate
and enlarge beyond the wound margins. • Physical trauma: trauma to a particular region of the body may cause pain there and/or in related regions. * Assessment of cardiovascular risk factors — blood pressure, stigmata of hyperlipidaemia, weight and Body Mass Index * Revealing signs of auto-immune disease — vitiligo, thyroid disease * Assessment of cardiovascular risk factors — blood pressure, stigmata of hyperlipidaemia, weight and Body Mass Index * Revealing signs of auto-immune disease — vitiligo, thyroid disease * Assessment of cardiovascular risk factors — blood pressure, stigmata of hyperlipidaemia, weight and Body Mass Index * Revealing signs of auto-immune disease — vitiligo, thyroid disease * Assessment of cardiovascular risk factors — blood pressure, stigmata of hyperlipidaemia, weight and Body Mass Index * Revealing signs of auto-immune disease — vitiligo, thyroid disease * Assessment of cardiovascular risk factors — blood pressure, stigmata of hyperlipidaemia, weight and Body Mass Index * Revealing signs of auto-immune disease — vitiligo, thyroid disease * Assessment of cardiovascular risk factors — blood pressure, stigmata of hyperlipidaemia, weight and blood pressure in the stigmata of hyperlipidaemia, weight and blood pressure in the stigmata of hyperlipidaemia, weight and blood pressure in the stigmata of hyperlipidaemia, weight and blood pressure in the stigmata of hyperlipidaemia, weight and blood pressure in the stigmata of hyperlipidaemia, weight and blood pressure in the stigmata of hyperlipidaemia, weight and blood pressure in the stigmata of hyperlipidaemia, weight and blood pressure in the stigmata of hyperlipidaemia, weight and blood pressure in the stigmata of hyperlipidaemia, weight and blood pressure in the stigmata of hyperlipidaemia, weight and blood pressure in the stigmata of hyperlipidaemia, weight and blood pressure in the stigmata of hyperlipidaemia, weight and blood pressure in the stigmata of hyperlipidaemia, weight and blood pressure in the stigmata of hyperlipidaemia of hyp
of injection sites (From Miller MD. It is up to the interviewing clinician to assimilate and interpret the information fully and to form a considered diagnostic reasoning and conclusions. • Erythrocyte sedimentation rate. This has
enabled us to see different styles of education, along with different ways in which medicine is practised. Electronic Medicines Compendium. These damage (e.g. following ischaemic injury). Joint symptoms can
present before skin disease but most individuals have scalp or nail psoriasis. Surgery remains the definitive treatment Fig. 1435) significantly reduces the incidence of Kaposi's sarcoma in people with HIV infection. Adequate nutrients must be available. Measurement of allergen-specific IgE and/or skin prick tests and allergen challenge tests can be
done to confirm an allergic cause. Animals infested with fleas usually scratch vigorously, leading to scaly, thickened skin. Despite the names, both conditions are usually unrelated to either sport! There is local tenderness. Apart from general rheumatology clinics, specialist clinics often exist (sometimes in tertiary referral centres) for patients with
inflammatory conditions such as rheumatoid arthritis or systemic lupus erythematosus. Intra-abdominal disease presents with bowel symptoms due to compression or infiltration of the gastrointestinal tract. People with hirsutism and normal testosterone levels frequently have low levels of SHBG, leading to high free androgen levels. This is early
breast development alone and is usually transient, at age 2-4 years. Lithium has a narrow therapeutic index (target plasma range 0.8-1.2 mmol/L). Clinical features Features of intoxication include diarrhoea and vomiting, tremor, thirst, polyuria and, in more serious cases, impairment of consciousness, hypertonia and convulsions; irreversible
neurological damage may occur. Known mutations account for less than 15% of normosmic idiopathic hypogonadotropic hypogonadism (nIHH). Fasciotomy is seldom necessary, even when there is severe oedema, the only indication being raised intra-compartmental pressure. Rarely, there may be a delayed hypersensitivity to foods such as cow's milk
that manifests with an eczema flare after 12-24 hours. The pathological staging of the melanoma - that is, the depth of dermal invasion - and whether the tumour is ulcerated. • After 16 years girls will usually be 'completing puberty' when menarche will have occurred. 22.32). The major
advantage is that it can be taken orally and is not nephrotoxic. The term 'the golden minute' has been coined to encourage clinicians to allow patients to tell their story uninterrupted for at least 1 minute. Leaders of healthcare teams have a particular responsibility to 'flatten the authority gradient' and empower more junior members to contribute
knowledge and ideas to team discussions. difficile was endemic in most UK hospitals. 22.8), and around the neck. 30.63 shows a plaque rupture. In the most severe cases, muscle twitching, profound weakness, profuse sweating, incontinence, mental confusion and progressive cardiac and respiratory failure ensue. Calcitriol and 0.1% tacrolimus
ointment can also be effective. In the inherited form the rash presents when breast-feeding finishes, as breast milk usually has high levels of zinc that override the poor absorption. Parthritis/healthcare-professionals/ clinical-assessment-of-the-musculoskeletal-system/the-musculoskeletal-examination-gals/ Musculoskeletal screening examination:
GALS. ANATOMY AND PHYSIOLOGY OF THE NORMAL JOINT A joint can be defined as a place where two or more bones meet. Satellite lesions around the edge may indicate secondary infection with Candida. Pain at rest also occurs. Management Advise rest and arrange review by a physiotherapist. The pathogenesis of psoriasis is complex and
incompletely understood, but there have been considerable advances in recent years. It may develop on a background of atopic eczema. Erythromycin and ciclosporin, occasionally necessitating dose adjustment of these agents. In those with delayed puberty secondary to
hypogonadism, pubertal induction is required. Other indications for growth hormone are in conditions without GH insufficiency, such as Turner's syndrome and SHOX gene haploinsufficiency, such as Turner's syndrome are in conditions without GH insufficiency, such as Turner's syndrome are in conditions without GH insufficiency, such as Turner's syndrome and SHOX gene haploinsufficiency, such as Turner's syndrome are in conditions without GH insufficiency, such as Turner's syndrome are in conditions without GH insufficiency, such as Turner's syndrome and SHOX gene haploinsufficiency, such as Turner's syndrome are in conditions without GH insufficiency (skeletal dysplasia), chronic renal failure on dialysis (resistance to GH-dependent IGFs), Prader-Willi syndrome (partial GH insufficiency), small for gestational
age without catch-up. Breathing (air hunger, Kussmaul breathing) Eyes Fundoscopy - Cataracts, against red reflex - Retinopathy (p. Lancet 2018; 392:1683-2138, e14-e18. POVERTY In 2018, nearly half of the world population lived on less than US$ 5.50 per day (compared with US$ 2.50 in 2003). Agitation, acute psychosis, convulsions and coma
may occur. Box 1.8 lists a number of common cognitive biases, applied to the field of diagnostic reasoning, which together form a key avoidable source of medical harm, termed 'human error'. Strategies for avoiding bias Various strategies can be employed in order to reduce the chances of making an incorrect diagnosis: • Adopting an iterative
approach, in which all previous diagnoses are subjected to appropriate re-evaluation, especially if evidence appears that brings them into question. Note that many people with galactorrhoea do not have hyperprolactinaemia - 'normoprolactinaemia - 'norm
capsule, multiple 3-5 mm cysts and a hyperechogenic stroma. 1092). 23.3). The later chronic inflammatory phase is more complex and also involves Th1, Th17/IL-23, Th22 cells and the patient screened for other sexually
transmitted diseases. Arthropod-borne diseases ('insect bites' or papular urticaria) These stem from contact with an animal (e.g. dog, cat, bird) that is infested with fleas (Cheyletiella) or from bites from flying insects (e.g. midges, mosquitoes).
of hirsutism. Everyone is different and individuals differ in their willingness to tolerate uncertainty, with some wanting to seek a firm diagnosis at all costs, and others happy to accept a presumed diagnosis at all costs, and others happy to accept a presumed diagnosis and run the risk that this may be wrong. There is also an association with autoimmune thyroid disease. In refractory or relapsing cases, instilling
faeces from the bowel of a healthy donor (faecal transplant) can restore normal bowel flora and eradicate the C. This is most frequently an additional benefit of the treatment of hirsutism, but may also be used when menstrual disturbance is the only symptom. Skin thickening and severe disfigurement may follow. • Hypogonadism leads to loss of
libido, loss of secondary sexual hair, amenorrhoea and erectile dysfunction and, eventually, osteoporosis. Rather than address a computationally difficult question (why does this patient still have a headache?), a simpler question is solved (might they simply be seeking opiate analgesia?). The Gram-negative bacterium Pseudomonas aeruginosa may
cause outbreaks of folliculitis stemming from inadequately disinfected hot tubs and pools. A good response to a trial of oral or intramuscular corticosteroid suggests an inflammatory or autoimmune problem. Following a substantial ingestion, haemodiafiltration should be employed to remove the glycol and metabolites. Allergic
urticaria and angio-oedema may require emergency treatment with intramuscular adrenaline (epinephrine) and intravenous steroids (see Box 3.22). 22.24; see also Fig. For each symptom the patient presents with, additional questioning should be used to identify: • Time course: When did the problem begin? Intravenous glucose may be required to
treat hypoglycaemia. Signs of liver damage appear during the second day and hepatic failure may ensue. A local injection of corticosteroid at the point of maximum tenderness is helpful when the pain is severe (Fig. Box 30.37 Mortality in low-, intermediate-and high-risk categories according to the GRACE risk score Syndrome type/ timeframe Risk
category (tertiles) GRACE risk score Deaths (%) Low ≤108 140 > 3 Low ≤88 118 > 8 Low 49-125 5 Low 27-99 8 NSTEMI-ACS In hospital Post discharge to 6 months STEMI-ACS In hospital Post discharge to 6 months ACS, acute coronary syndrome; GRACE, Global Registry of Acute Coronary Events; NSTEMI, non-ST-elevation myocardial infarction;
STEMI, ST- elevation myocardial infarction. Antibiotics may Box 20.45 Commonly identified causes of travellers' diarrhoeaa Organism Frequency (varies from country to country) Enterotoxigenic Escherichia coli 30-70% Shigella spp. Immunotherapy-induced thyrotoxicosis This is described on page 612. Cancer immunotherapy drugs that block
negative regulators on T cell, called immune checkpoint inhibitors (ipilimumab, pembrolizumab, nivolumab) have been found to be effective in wide range cancers. This episode is often dismissed as 'flu' and the diagnosis missed. Histology of LP is usually diagnostic and shows a dense infiltrate of lymphocytes along the dermo-epidermal junction,
which becomes damaged with degenerate (apoptotic) basal keratinocytes. What happened when you were last this unwell? Bilateral root pain, with or without long track symptoms or signs, is a neurosurgical emergency because a central disc prolapse may compress the cervical spinal cord. 30.88) or tissue (bioprosthetic). Rheumatology is mainly an
outpatient specialty, with care being delivered by multidisciplinary teams including PCR, analysis are gaining in popularity as they can offer high sensitivity and rapid results. Some authorities pre-treat such patients with alfacalcidol 2
ug daily from 2 days preoperatively for 10-14 days, and routine vitamin D replacement (preferably without calcium) is always indicated if deficiency is diagnosed. They do not cause skin atrophy and are therefore useful for delicate areas such as the face and eyelids. E12.5 Russell's viper: Daboia russelli. Use is discouraged where an effective
alternative is available. GABA deficiency ensues since pyridoxine is an essential co-factor in GABA synthesis. 12.3 The metabolism of aspirin. Topical timolol may also be effective. If so, acknowledge this and look for ways to address it. Osteoarthritis is more common than inflammatory arthritis, especially in the elderly. Methanol is metabolized to
formaldehyde and formate (Fig. Box 18.4 Examination of the joint Look at the appearance of the joint - Swelling - could be bony, fluid or synovial • Deformity: - Valgus, where the distal bone is deviated medially (bow-legs or genu varum) - Fixed flexion or
hyperextension • Rash - especially psoriasis • Muscle wasting - easier to see in large muscles like the quadriceps • Scars - from surgery or trauma • Signs of inflammation • Symmetry: - Are the right and left joints (e.g. hips, knees, any other paired joint) the same? • Repeat the application after 1 week. Most people with diabetes will be seen in
outpatient clinics either in primary or secondary care, although approximately 15% of all inpatients have diabetes. Their desire to empower clinical students and doctors has been the driving ambition behind the book ever since - 'to strike a balance between exciting new developments in medical research and the vast quantity of established fact that
needs to be absorbed... so that the management of disease can be based on sound physiological concepts'. Pharmacodynamic tests can be used in clinical practice to target therapy or to avoid undue sensitivity. If fluid is obtained, change syringes and aspirate fully. 1006). Biopsy shows a granulomatous infiltrate around nerves but no organisms. As
chelation of zinc may occur with sodium calcium edetate, serum zinc concentrations should be checked. Treatment is similar to that of ethylene glycol poisoning (see p. Are there any obvious clinical signs?). For all others, it is helpful to have clear diagnostic questions in mind, and often specialists, such as diagnostic radiologists, can help with
choosing the most appropriate investigation to answer the relevant question in a particular patient context. • Blood levels of IGF-1 and IGF-BP3. In younger people, the tear is repaired surgically but this is rarely possible in the elderly or in RA. Cannabis smoke is probably carcinogenic. Further reading Chatterjee S, Khunti K, Davies MJ. Surgery
should not be performed until coagulopathy has been corrected. Prevention Avoid contact with snakes, even harmless or apparently dead ones. 550) typically involves the skin and peripheral nerves. Initial symptoms are non-specific (malaise, myalgia, fever and cough). This is not seen with metformin, since its mode of action is to increase glucose
utilization, but lactic acidosis is a potentially serious complication of metformin poisoning. Clinical features Features of severe hypoglycaemia include drowsiness, coma, convulsions, depressed limb reflexes, extensor plantar responses and cerebral oedema. The response to atropine is sometimes improved following intravenous 10% calcium chloride,
5-10 mL (at 1-2 mL/min). Drowsiness is common and a coma-like state may ensue. Where there is diagnostic uncertainty, there can be a role for waiting to see how events develop before reaching for a diagnostic label. This produces temporary relief from the obstruction. Most cases of acute gastroenteritis (especially in developed countries) resolve
within 10 days; if symptoms persist, other causes, such as colitis, are more likely. Food poisoning Food poisoning is a legally notifiable condition in England and Wales. 18.6 Injection for tennis elbow. Treatment is symptomatic and supportive. hypertension have been encountered and influenza- like symptoms may develop. • Blood film. • Hold the
arms forwards, with elbows straight and fingers apart, palm up and palm down. Thanks to Kim Benson for her work in putting together the online content in a way that will maximize its usefulness to readers around the world. General and neurological examinations are often necessary, and may reveal some of the signs described in the figure on page
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413. The insulin response to oral glucose is greater than the response to intravenous glucose, a phenomenon known as the incretin effect. • Could it be referred from another site? 23.6 Insulin signalling in peripheral cells (e.g. muscle and adipose tissue). The insulin receptor consists of \alpha- and \beta-subunits linked by disulphide bridges (top left)
Monocytes are the blood form of a cell that spends a few days in the circulation before entering into the tissues to differentiate into macrophages, and some types of dendritic cell. These skills can be best learned by experience - particularly in
assessing patients presenting to the hospital emergency department or who have been admitted to critical care units. Solar lentigines ('age spots', 'liver spots') are common on the dorsal hands and face and on bald scalps in older, fair-skinned people. Vitiligo is a chronic depigmenting skin disorder that affects 1-2% of the
 world population; about a third of all cases start in childhood. eMRSA can affect valves. Primary hyperparathyroidism is caused by single (>80%) parathyroid adenomas are rare. • Endogenous dermatitis/eczema - where no external factors can be identified.
Exacerbating factors Exposure to soap and detergent skin cleansers dries and damages the epidermis and promotes inflammation. Ask about and record drug allergies, including the timing and nature of any reactions. Family history This is particularly relevant when assessing younger patients or when the differential diagnosis includes possible
genetic conditions. • Phenotypic sex. 793). Atrial arrhythmia is also common in this group. In neonates, coarctation is treated with surgical repair. Visualization of particular structures can be enhanced with different resonance sequences. 17.18).
and meningitis. First edition 1987 Second edition 1998 Fifth Edition 2002 Sixth Edition 2002 Sixth Edition 2005 Seventh Edition 2017 Tenth Edition 2018 Fight Edition 2018 Fight Edition 2018 Fight Edition 2019 Fight Edition
photocopying, recording, or any information storage and retrieval system, without permission in writing from the publisher. Low normal gonadotrophins with low oestradiol or testosterone may either represent secondary hypogonadism or constitutional delay. 22.28), and vulvovaginal candidiasis or 'thrush'. Treat pulmonary oedema and/or ARDS (see
p. Improvements in disease-free survival, after both initial and second-line therapy, are encouraging. Diffuse large B-cell lymphoma worldwide (increasing in incidence with age) and the second most common lymphoma in childhood, accounting for approximately 30% of all cases. Rarely, junctional
 bradycardia, seizures and The majority of patients recover with supportive therapy alone (adequate oxygenation, control of convulsions and correction of acidosis), although a small percentage who ingest a tricyclic will require assisted ventilation for 24-48 hours. 1.3 Approaches to diagnosis. (A) The traditional model of diagnosis. Tigecycline is also
used to treat spirochaetal and rickettsial infections, and also has a role as malaria prophylaxis. The metal object in frame is the distal end of a transoesophageal echocardiography probe. Other drugs in clinical trials include the JAK pathway inhibitor tofacitinib. Biological therapy Advances in understanding the immunopathogenesis of psoriasis have
led to development of an expanding and increasingly effective group of targeted biological drugs that block pro-inflammatory cytokines or their receptors. Rashes may also be a feature of systemic tropical infections such as dengue, schistosomiasis and rickettsial diseases. Treatment for diabetic emergencies, which may be the presentation when
diabetes is first diagnosed, is covered on page 722. We are delighted to welcome the new editors for this edition, who are all in current clinical posts with research activities. Care should be taken, however, when examining a dead snake, as a reflex bite can still occur. The initial patient story is first developed into a set of problems, which in turn
becomes a list of differential diagnoses. Persistent high levels predict a relapse when drug treatment is stopped. TRH, thyrotrophin-releasing hormone. Management Management is with a splint to hold the wrist in dorsiflexion overnight, which relieves the symptoms and is diagnoses. Persistent high levels predict a relapse when drug treatment is stopped. TRH, thyrotrophin-releasing hormone.
shown in bold are those normally measured on a single basal 09:00 hours sample in the initial assessment of pituitary function. Systemic accumulation of mercury from any source and by any route of exposure leads to characteristic neurological features, including a fine tremor, lethargy, memory loss, insomnia, personality changes and ataxia. Vitiligo
Some 30-40% of individuals who present with an acute coronary syndrome have had no prior warning symptom to suggest the presence of underlying disease. Diagnosis Cardiovascular risk assessment for primary and secondary prevention of the atherosclerotic disease
process and secondary prevention as treatment of the atherosclerotic disease process (i.e. treatment of the disease process (i.e. treatment of the finger pulps is called 'pulpitis'. The range of serum prolactin seen in common causes of hyperprolactinaemia is illustrated in Fig. •
Oestrogen levels. Gastrointestinal symptoms appear 5-8 hours after exposure. It is often traumatic and work- related, although lifting apparatus, other mechanical devices and improved office seating help to avoid it. Correct dosage is often difficult to establish in the child but should ensure normal androstenedione and mildly elevated 17OHP levels
while allowing normal growth; excessive replacement leads to stunting of growth. The syndrome may be unrecognized in the male until a salt-losing crisis occurs, usually within 10 days of birth. Hyperkeratotic scales should be removed with a keratolytic agent before application of a scabicide. • Wash or clean recently worn clothes (preferably at
60°C) to avoid re- infection. 662) is common and may be the presenting sign of HIV. Wear protective clothing (boots not open sandals, socks, long trousers) when walking in the undergrowth or deep sand, and carry a light at night. 23.9). In women of childbearing age, contraception is essential. • Assessing the severity or extent of problems. The
diagnostic sign is fine linear or curved burrows a few millimetres long, but these are not always visible and dermoscopy may help. This uncommon form of eczema mainly affects older men and is caused by excessive sensitivity to UV radiation in sunlight. Some progress inexorably, some are self-limiting and some relapse and remit. Urgent systemically affects older men and is caused by excessive sensitivity to UV radiation in sunlight.
antiviral therapy is indicated to reduce the risk of disseminated life-threatening infection. These will allow the distinction to be made between primary gonadal (testicular) failure and hypothalamic-pituitary disease. Most of the identified genetic markers exert very modest risk and together explain less than 20% of the heritability of type 2 diabetes
Ageing Pancreatic β-cell function declines with age and so the incidence of type 2 diabetes increases with age; most people are diagnosed after the age of 40 and one-third of those living with type 2 diabetes increases with age; most people are diagnosed after the age of 40 and one-third of those living with type 2 diabetes increases with age; most people are diagnosed after the age of 40 and one-third of those living with type 2 diabetes increases with age; most people are diagnosed after the age of 40 and one-third of those living with type 2 diabetes increases with age; most people are diagnosed after the age of 40 and one-third of those living with type 2 diabetes increases with age; most people are diagnosed after the age of 40 and one-third of those living with type 2 diabetes increases with age; most people are diagnosed after the age of 40 and one-third of those living with type 2 diabetes increases with age; most people are diagnosed after the age of 40 and one-third of those living with type 2 diabetes increases with age; most people are diagnosed after the age of 40 and one-third of those living with type 2 diabetes increases with age; most people are diagnosed after the age of 40 and one-third of those living with type 2 diabetes increases with age; most people are diagnosed after the age of 40 and one-third of those living with type 2 diabetes increases with age; most people are diagnosed after the age of 40 and one-third of those living with type 2 diabetes are diagnosed after the age of 40 and one-third of those living with type 2 diabetes are diagnosed after the age of 40 and one-third of those living with type 2 diabetes are diagnosed after the age of 40 and one-third of those living with type 2 diabetes are diagnosed after the age of 40 and one-third of those living with type 2 diabetes are diagnosed after the age of 40 and 0 a
a pituitary mass, including arachnoid and Rathke cleft cysts. Hypopituitarism Pathophysiology Deficiency of hypothalamic releasing hormones or of pituitary trophic hormones can be selective or multiple. Mechanical shear stresses (e.g. from morbid hypertension), biochemical abnormalities (e.g. elevated low-density lipoprotein (LDL), diabetes
mellitus), immunological factors (e.g. free radicals from smoking), inflammation and genetic alteration may contribute to the initial endothelial 'injury' or dysfunction, which is believed to trigger atherogenesis. Weight loss (T1DM) Weight gain (T2DM) Dehydrated? • History of the presenting complaint: further information about the patient's main
problem • Past medical and surgical history • Drug history and allergies • Family history • Social history: information on the patient's present living arrangements and come with a well- thought-through story; others may not have reflected much on what has been going on, and
key information may need to be drawn out by sensitive questioning. Structuring the medical history Over the last 150 years a formal structure for the recording of the patient's history has evolved. It is initiated by phosphorylation, and subsequent ageing, of at least 70% of an esterase - neuropathy target esterase (NTE) - in peripheral nerves. Genetic
analysis suggests that Klebsiella is intrinsically resistant to fosfomycin and that heteroresistance to colistin and tigecycline can emerge during therapy. Teicoplanin is less nephrotoxic than vancomycin. 273). If it does not, a corticosteroid injection into the carpal tunnel (avoid the nerve!) helps in about 70% of cases, although it may recur. Delayed--
contact allergy to metals in amalgam fillings may cause localized LP-like changes on the oral mucosa. Some common pituitary tumours cause no clinically apparent hormone excess and usually affecting the lips, tongue and eyelids. of the blood
pressure is mandatory. A common example is grapefruit juice that inhibits CYP3A4 in the intestinal wall, increasing the bioavailability of drugs metabolized by CYP3A4 (see Box 12.10), resulting in higher exposure and toxicity. Treatment is with topical antibiotics, topical antibiotics or oral antibiotics; management should address the underlying
predisposing factors. Boils (furuncles) and carbuncles are deeper infections of hair follicles and surrounding tissue, and appear as painful, red, pus-filled swellings. If necrosis is present, antibiotics should be given. Serum levels at 1 hour post dose (peak) are also monitored to optimize drug efficacy. Dose-related nephrotoxicity and appear as painful, red, pus-filled swellings. If necrosis is present, antibiotics should be given.
 ototoxicity (vestibular and auditory) can occur, particularly in the elderly. Treatment options include topical minoxidil or oral 5- alpha- reductase inhibitors (finasteride or dutasteride). • Traditional methods, such as incision, suction, tourniquet, electric shock, cryotherapy, instillation of chemicals and snake stones, are useless and harmful
Interventions for the symptoms and signs resulting from jellyfish stings. 595) and need T4 replacement, as well as cortisol; in this case, hydrocortisone must be started before T4. Impaired kidney injury. • Guttate psoriasis is the term given to a 'raindrop-like' pattern of
psoriasis, most commonly seen in children and young adults (Fig. Clinical practice guideline on diagnosis and treatment of hyponatraemia. Pituitary function commonly demonstrates partial or complete anterior hyponatraemia. Pituitary function commonly demonstrates partial or complete anterior hyponatraemia.
amputation) and intravenous antibiotic therapy are required. aOpsonize means coat bacteria to enhance phagocytosis by granulocytes and monocytes/macrophages. • Other androgens. Symptoms of prominent tricuspid stenosis include abdominal pain (hepatomegaly), abdominal distension (ascites) and peripheral oedema. Signs See Fig. Go RS
Rajkumar SV. Normal responses depend on test and GH assay used. Children of two short parents will probably be short and similarly for tall parents. Childhood urticaria pigmentosa usually resolves spontaneously but adult-onset disease is often persistent. The following should be considered: • perivalvular extension of infection and possible abscess
formation • drug reaction (the fever should resolve promptly after drug withdrawal) • hospital-acquired infection). Most people with hypothalamic-pituitary disease have panhypopituitarism (see p. Aspirated fluid is
sent for microscopy, Gram-stain and culture. Tinea infections are classified according to body, tinea capitis (scalp) and tinea unguium (nails). Normal adult levels are below 0.5 µg/L for most of the day, except during stress or
a 'GH pulse'. Only 0.02-0.1% of the eggs from a flock of chickens infected with S. 264). The ascending aortic wall may be calcified in syphilis, and the aortic valve calcified if valvular disease is responsible for the regurgitation. ECG The ECG appearances are those of left ventricular hypertrophy due to 'volume overload': tall R waves and deeply
inverted T waves in the left-sided chest leads, and deep S waves in the right-sided leads. Vitamin D metabolism is discussed on page 474. • Anti-double-stranded DNA (dsDNA) antibodies. As pressures equalize, the murmur becomes softer. GH antagonists are also available for acromegaly (see p. Bacterial peritonitis: see page 1222. Unresponsive
phimosis may necessitate circumcision. They show a characteristic coral-pink fluorescence when examined with Wood's light (UVA). Some ADRs are so typical, such as an ADR is likely. As a general rule, type A reactions can usually be managed by a reduction in
dosage, while type B reactions almost invariably require the drug to be withdrawn (and never re-instituted). These defects are associated with a loud pansystolic murmur. LH hypersecretion is a frequent feature of PCOS, but the pulsatile nature of secretion of this hormone means that a 'classic' increased LH/FSH ratio is not always observed on a
random sample. (A) Arteriovenous nicking (black arrows) and focal narrowing (white arrow). Bed bug infestation is a common problem worldwide and is caused by bites from small, brown/black, apple seed-sized insects that emerge from the seams of bedding at night when attracted to the warmth and carbon dioxide emissions of a sleeping human
body. The deposit is usually just proximal to the greater tuberosity. Toxic multinodular goitre This commonly occurs in older women. Atropine 0.6-2 mg i.v. should be given to manage the cholinergic syndrome. Orellanin poisoning Orellanin poisonin
and nasal stuffiness are common. Periocular lesions may be associated with glaucoma and so ophthalmological follow- up is required. MRI is superior to CT (Fig. MAS usually occurs in girls, with precocity, polyostotic fibrous dysplasia and skin pigmentation (café- au- lait patches). Skin swelling subsides to leave dry, flaky skin. In this form of
diagnostic reasoning, clinicians rapidly compare the patient presenting to them with many other patients they have seen previously, subconsciously drawing on similarities and differences to form an initial impression that is then tested as further information becomes available (Fig. A cervical and lumbar lordosis and a thoracic kyphosis are normal
Depression and impaired body image are common co-morbidities. In 80% of cases the aortic valve is bicuspid. • Venom components can also act directly on platelets. If prophylactic use of bisphosphonate therapy is required to prevent 21 21 606.
postoperative Resumption of normal maintenance Simple procedures (e.g. gastroscopy, simple dental extractions) Hydrocortisone 100 mg i.m. - Immediately if no complications and eating normally Minor surgery (e.g. laparoscopic surgery, veins, hernias) Hydrocortisone 100 mg i.m. - Immediately if no complications and eating normally Minor surgery (e.g. laparoscopic surgery, veins, hernias) Hydrocortisone 100 mg i.m. - Immediately if no complications and eating normally Minor surgery (e.g. laparoscopic surgery, veins, hernias) Hydrocortisone 100 mg i.m. - Immediately if no complications and eating normally Minor surgery (e.g. laparoscopic surgery, veins, hernias) Hydrocortisone 100 mg i.m. - Immediately if no complications and eating normally Minor surgery (e.g. laparoscopic surgery, veins, hernias) Hydrocortisone 100 mg i.m. - Immediately if no complications and eating normally Minor surgery (e.g. laparoscopic surgery, veins, hernias) Hydrocortisone 100 mg i.m. - Immediately if no complications and eating normally Minor surgery (e.g. laparoscopic surgery) Hydrocortisone 100 mg i.m. - Immediately if no complications and eating normally Minor surgery (e.g. laparoscopic surgery) Hydrocortisone 100 mg i.m. - Immediately if no complications and eating normally Minor surgery (e.g. laparoscopic surgery) Hydrocortisone 100 mg i.m. - Immediately if no complications and eating normal laparoscopic surgery (e.g. laparoscopic surgery) Hydrocortisone 100 mg i.m. - Immediately if no complications and eating normal laparoscopic surgery (e.g. laparoscopic surgery) Hydrocortisone 100 mg i.m. - Immediately if no complications and eating normal laparoscopic surgery (e.g. laparoscopic surgery) Hydrocortisone 100 mg i.m. - Immediately if no complications and eating normal laparoscopic surgery (e.g. laparoscopic surgery) Hydrocortisone 100 mg i.m. - Immediately if no complications and eating normal laparoscopic surgery (e.g. laparoscopic surgery) Hydrocortisone 100 mg i.m. - Immediately in the laparoscopic surgery (e.g. laparoscopic surg
 if not eating After 24 h if no complications Major surgery (e.g. hip replacement, vascular surgery) Hydrocortisone 100 mg i.m. 6-hourly for 72 h After 72 h if normal progress and no complications Perhaps double normal dose for 2-3 days GI tract surgery or major thoracic surgery (not eating or ventilated)
Hydrocortisone 100 mg i.m. 6-hourly for 72 h or longer if still unwell When patient eating normally again Until then, higher doses (to 50 mg 6-hourly) may be needed a useful summary of surgical steroid guidelines can be found at: . Elsevier Ltd, 2018, Fig. 22.59); it is occasionally mistaken for a sign of child abuse. • Ask
the patient to straighten and flex each knee. These should be plotted formally by automated computer perimetry, but clinical assessment by confrontation using a small red pin as the target is also sensitive and valuable. Eur Heart J 2005; 26:384-416, Fig. Aspiration and injection with corticosteroid can help. Adhesive
capsulitis (true 'frozen' shoulder) This condition can develop with rotator cuff lesions, or following hemiplegia, chest or breast surgery, or myocardial infarction and in diabetics. Both mast cells and basophils release pro-inflammatory mediators, which are either pre-formed or synthesized de novo (Box 3.6). firm diagnosis can be made almost solely on
the basis of examination findings, such as in a number of skin disorders. We have taken much advice, as well as criticisms (!) and suggestions, from our readers so that Clinical Medicine remains a comprehensive reference book, as well as being practical and user-friendly. They usually recover in 6-12 weeks. For example, a patient with a history of
intravenous drug use presents with worsening headache, although a CT scan of their head is normal. Flucloxacillin is the treatment of choice for staphylococcal infection and phenoxymethylpenicillin for streptococcal disease. 22.48), with wrinkles and solar lentigines. 23 23 708 Diabetes mellitus How these environment factors interact with the
immune system is uncertain and there are several theories to explain this: • The environmental factor damages the β cells leading to presentation of self-antigens to the T-helper cells, which trigger the autoimmune response against the remaining healthy β cells. Topical corticosteroids are classified into four groups, according to potency (Box 22.13).
Thus, 17-hydroxyprogesterone, androstenedione and testosterone levels are increased, leading to virilization. Some sub- specialize in areas including inpatient care, diabetes in pregnancy, technology (insulin pumps and continuous glucose monitoring), and pancreas or islet-cell transplantation. Hereditary angio-oedema (HAE) is a rare autosomal
dominant condition that can cause recurrent and severe swellings of the skin, upper airways and intestinal tract. A number of oncogenes and tumour suppressor proteins have been implicated in the pathogenesis. In the developed world, eczema may affect about 10% of the population at any one time, with up to 40% experiencing an episode of eczema
during their lifetime. Aromatic anticonvulsants are one of the most common causes of DRESS and, as they cross-react, all drugs of this group must be avoided in the future. Therefore, most patients and % Fig. The 'Hello, my name is ...' campaign, supported by the Department of Health in the UK, highlights the importance of basic introductions on the
part of staff members (Box 1.1). X-ray is often normal but ultrasound is very useful to distinguish bursitis, tendonitis and partial or complete tendon tears. Individuals have pale skin, white or yellow hair, and a pink iris. Non-dominant hand and wrist X-rays allow assessment of bone age by comparison with standard charts. There are no comedones.
Rajab F, Drake LA, Senna MM et al. • In large, non-restrictive defects, a large volume of blood shunts into the pulmonary vessels and pulmonary vessels are vessels and pulmonary vessels and pulmonary vessels are vessels and pulmonary vessels are vessels and pulmon
20 minutes to see whether clotting has occurred. If intravenous nitrates (e.g. glyceryl trinitrate infusion 10-200 µg/min) are required (e.g. concomitant myocardial ischaemia, severe hypertension), careful monitoring 30 30 1078 Cardiology Box 30.29 Pharmacological therapy in acute heart failure Drug Dose Indications/mechanism of action 35-50%
inspired oxygen concentration Ensure airway is patent and maintain arterial saturation at 95-98% Myocardial oxygenation Oxygen Non-invasive pressure ventilation (NIPPV), e.g. CPAP Use if failing to maintain arterial saturation Increases pulmonary recruitment and functional residual capacity - reduces work of breathing
Intubation/mechanical ventilation Use if patient is failing to maintain arterial saturation and is fatigued (reduced respiratory rate, increased arterial CO2, confusion) Opiate Morphine 2.5-5.0 mg i.v. (with antiemetic metoclopramide 10 mg i.v.) Use in agitated patient Relieves dyspnoea, venous and arterial dilation e.g. Enoxaparin 1 mg/kg s.c. ×2 daily
ACS or 40 mg s.c. daily prophylaxis Use in patients with AHF, ACS or atrial fibrillation, or for DVT prophylaxis Caution if creatinine clearance 85-90 mmHg Sodium nitroprusside 0.3-5 µg/kg per min i.v. infusion Use in severe AHF where there is predominantly high afterload, e.g. hypertensive AHF Needs arterial BP monitoring for profound
hypotension Bolus 40-100 mg i.v. or infusion 5-40 mg/h Low doses produce vasodilation, reduce right atrial pressure and PCWP, and promote diuresis Need to monitor sodium, potassium and creatinine Low dose >5 μg/kg per min High
dose acts on α-receptors, causing vasoconstriction and increases afterload, PAP) Dobutamine 2-20 μg/kg per min (patients on beta- blockers may need high dose) Stimulates β1 and β2-receptors, producing vasodilation. Type 1 thinking is prone to bias (see later), where it is assumed that everything new must be
similar to things seen before. Other Enterobacteriaceae, most commonly K. Most cases involve self-administration of prescribed or over- the-counter medicines, and/or illicit drugs. Typically, overall testicular volume diminishes and SHBG and gonadotrophin levels gradually rise, but other men present with low or borderline testosterone without
elevation of LH/FSH. Short stature in childhood - challenges and choices. 222-223) and can be given to shrink tumours prior to definitive therapy or to control symptoms and prolactin- producing (mammotroph) tumours. Some will The medical
consultation 3 Box 1.2 G ood practice for using the medical history to build a therapeutic relationship • A llow the patient to tell their story, without jumping in prematurely with questions. 17.25). Pediatric regional examination of the musculoskeletal system: a practice and consensus-based approach. • Pregnancy provides complete demonstration
of normal male and female function. Some of the blood from the right atrium, but rather enters the right ventricle and is pumped into the Heart defects are the most common birth defect and affect approximately 1% of babies born in the UK. Pulmonary pressure can be assessed. Similarly, the use of praziquantel by the
Schistosomiasis Control Programme, funded by many organizations, has in many areas significantly reduced the prevalence of schistosomiasis (bilharzia), one of the most common but neglected tropical diseases. Treatment has been revolutionized by the use of oral propranolol to shrink infantile haemangiomas rapidly. Corynebacteria are also
implicated in pitted keratolysis, which appears as multiple punched-out areas and maceration of the skin on weight-bearing plantar surfaces. • Availability: Assuming that because certain explanations spring easily to mind, they are likely to be correct. Those with large unrestrictive defects may present with congestive heart failure in infancy and, if
untreated, may develop pulmonary vascular disease; with time, Eisenmenger's syndrome will develop. Patent ductus arteriosus (PDA) is a persistent communication between the proximal left pulmonary artery and the descending aorta, resulting in a continuous left-to-right shunt (Fig. 30.98) demonstrate the coarctation and the descending aorta, resulting in a continuous left-to-right shunt (Fig. 30.98) demonstrate the coarctation and the descending aorta, resulting in a continuous left-to-right shunt (Fig. 30.98) demonstrate the coarctation and the descending aorta, resulting in a continuous left-to-right shunt (Fig. 30.98) demonstrate the coarctation and the descending aorta, resulting in a continuous left-to-right shunt (Fig. 30.98) demonstrate the coarctation and the descending aorta, resulting in a continuous left-to-right shunt (Fig. 30.98) demonstrate the coarctation and the descending across the coarctation across t
the proximity to the aortic branch vessels, which needs to be considered in intervention. The initial dose can be repeated every 3-5 min, but if there is no response in pulse rate or blood pressure after three doses, it is unlikely that further boluses will be helpful. Does it come and go? A low plasma osmolality is usual at the start of the test, and since
vasopressin secretion and action can be stimulated, the patient's urine becomes concentrating ability may be impaired); the initially low urine osmolality gradually increases with the duration of the water deprivation. Syndrome of inappropriate antidiuretic hormone secretion History and examination Inappropriate
secretion of ADH (also called vasopressin) leads to retention of water and hyponatraemia. The hourglass swelling extends from the back of the hand and under the extensor retinaculum. Two-thirds of people with type 2 diabetes have more than
a 50% chance of developing diabetes; the risk to non-identical twins or siblings is approximately 25%, confirming a strong inherited component to the disease. Release of cytokines, such as platelet-derived growth factor and transforming growth factor beta (TGF-β), by monocytes, macrophages or the damaged endothelium promotes further
accumulation of macrophages, as well as smooth muscle cell migration and proliferation. Occasionally, larger ('giant') lesions of up to a centimetre in diameter may occur. N Engl J Med 2020;382:1136-1148. SKIN INFECTIONS The skin is home to a diverse population of microbies (microbiome), most of which are commensals (permanent non-
pathogenic residents) or transients (temporary residents). Pamidronate is preferred (60-90 mg as an intravenous infusion in 0.9% saline or glucose over 2-4 hor, if less urgent, over 2-4 days). Antivenoms are not generally indicated unless envenomation is present, as they can cause severe allergic reactions. Severe pulmonary obstruction may be
incompatible with life but lesser degrees of obstruction give rise to fatigue, syncope and the 30 30 1102 Cardiology Pulmonary stenosis Pulmonary 
 second heart sounds, soft P2 Murmurs: Ejection systolic murmur second LICS S1 Murmurs heard best with patient on left side S2 P2 S1 Pulmonary regurgitation Look: Elevated JVP Pulse: Sinus rhythm RV: Hyperdynamic palpable left parasternal heave Sounds: Loud P2 (if pulmonary hypertension) Murmurs: Early diastolic murmur second to fourth
 Erythrodermic and pustular psoriasis are the most severe variants and are manifestations of extensive inflammatory skin disease. The devices can be extracorporeal (suitable for short-term support as a bridge to transplantation or as destination therapy in patients with end-stage heart failure who are
not candidates for transplantation). If more than 1% of the body surface area is contaminated with a 50% or higher solution of hydrofluoric acid, there is a high risk of hypocalcaemia from the formation of calcium fluoride. Three antihypertensives at half-standard dose reduce BP by 20/11 mmHg. Most adverse effects with antihypertensives, in keeping
with most pharmaceuticals, are type A adverse reactions (see p. These drugs are useful in the treatment of pneumonias caused by Legionella and Mycoplasma spp. Livestock raised and slaughtered under modern intensive farming conditions is frequently contaminated with Sal monella or Campylobacter. The most common infective organisms are β--
haemolytic streptococcus and Staph. The top of the adenoma is compressing the optic chiasm (arrowed). The ability to detect autoantibodies in children prior to the development of type 1 diabetes secondary to genetic defects of β-cell function – MODY (maturity-onset diabetes of the
 young) - Glucokinase mutations - Hepatic nuclear factor mutations - Neonatal diabetes - Mitochondrial diabetes • Genetic defects of insulin action - Leprechaunism - Type A insulin resistance - Rabson-Mendenhall syndrome - Lipoatrophic diabetes biabetes secondary to exocrine pancreatic disease • Chronic pancreatitis • Haemochromatosis •
                                                                                                                               Diabetes secondary to endocrine disease • Acromegaly • Cushing's syndrome • Phaeochromocytoma • Glucagonoma • Hyperthyroidism • Somatostatinoma • Aldosteronoma Diabetes secondary to drugs and chemicals • Glucocorticoids • Thiazide
diuretics • Antipsychotics • β -adrenergic receptor blockers Infections • Congenital rubella • Cytomegalovirus • Mumps Uncommon forms of immune-mediated diabetes • Stiff man syndrome • Klinefelter's syndrome • Turner's
 syndrome • Prader-Willi syndrome • DIDMOAD (Wolfram's) syndrome • Friedreich's ataxia • Huntington's chorea • Laurence-Moon-Biedl syndrome • Myotonic dystrophy • Porphyria Gestational diabetes apeople with any form of diabetes may require insulin treatment at some stage of their disease. Because amiodarone inhibits the deiodination of
T4 to T3, biochemical presentation of both types of AIT may be associated with higher T4: T3 ratios than usual. Patients with clinically evident lymphadenopathy or positive SLNB are further evaluated with higher T4: T3 ratios than usual. Patients with clinically evident lymphadenopathy or positive SLNB are further evaluated with positron emission tomography-computed tomography (PET-CT) to detect distant metastases. Typically, the C-reactive protein (CRP) and white cell
count are significantly raised. It is estimated that as many as 4.5 million bites occur worldwide each year, with about 90 000 deaths and a staggering 400 000 limb amputations. Subacromial space. An MRI scan clearly distinguishes facet joint OA, root canal narrowing and disc prolapse. Management A support collar, rest, analgesia and sedation are
used initially as necessary. In the long term, many are of such severity that the clinical need for high-dose steroids should be continually and critically assessed. The eczematous changes range from mild erythema and scaling to an acute exudative inflammatory rash. • Medical therapy with somatostatin analogues and/or dopamine agonists sometimes
causes shrinkage of specific tumour types (see p. The mechanism of action is unclear. The rash does not usually appear until at least 12-24 hours after skin contact and may even be delayed by several days, so the cause is often unsuspected. Scratching leads to excoriations with serosanguinous exudate. A meeting of two experts It has been said that a
medical consultation is a meeting of two experts. Ingestion of household products is usually accidental and is most common among children less than 5 years of age. Clinical features very rarely occur, except in the case of petroleum distillates where aspiration is a recognized complication because of their low surface
tension. Pneumonia and nephritis can develop and a mortality rate of 10% has been reported. Unpredictable fluctuations in conscious level, with variations between agitation and marked somnolence, have been particularly associated with olanzapine overdose. Management Intravenous procyclidine 5-10 mg in an adult can occasionally be required for
the treatment of dyskinesia and oculogyric crisis. Plaque stabilization/remodelling HMG-CoA reductase inhibitor drugs (statins) and ACE inhibitors are routinely administered to patients with ACS. • Oestrogens (e.g. oral contraceptives) suppress ovarian androgen production and reduce free androgens by increasing SHBG levels. The subendocardial
myocardium is initially affected but, with continued ischaemia, the infarct zone extends through to the subepicardial myocardium, producing a transmural Q wave MI. 30.60) are mechanical systems that replace or help the failing ventricles in delivering blood around the body. Anti-dandruff shampoos containing selenium sulphide or ketoconazole may
also be used as a body wash. What things do they enjoy? ART (see p. Careful clinical evaluation of the patient is necessary before treatment is required. Keloids and hypertrophic scars Abnormal wound healing with excessive dermal
fibrosis leads to hypertrophic scars and keloid formation. 624) increases with age and may be the cause of gynaecomastia in this group. After Mupirocin prevents bacterial RNA and protein synthesis. An online supplement covers these other naturally occurring poisons in detail, alongside much more detailed description of the treatment of different
subtypes of snake envenomation. 23.7 Fasting and postprandial effects of insulin. In the fasting state, insulin concentrations are low and it acts mainly as a hepatic hormone, modulating glucose production (via glycogenolysis and glucose production (via glycogenolysis) from the liver. pneumoniae and S. They may show dysplastic features on histology but the clinical and
microscopic features do not always tally. Receptor antagonists (abciximab, eptifibatide, tirofiban) have been developed that are powerful inhibitors of platelet aggregation. Cochrane Database Syst Rev 2017; 5:CD004767. Fungal infections Fungal skin diseases have a high prevalence in humans, 'thrush' and 'athlete's foot' being two extremely
common examples. Clean the skin and your hands scrupulously. British Association of Dermatologists' guidelines for the management of onychomycosis 2014. Nausea and vomiting are the most frequent adverse effects of tigecycline. Macrolides inhibit protein synthesis by interrupting ribosomal function. Pulmonary regurgitation usually
causes no symptoms and treatment is rarely necessary. PROSTHETIC VALVES There is no ideal replacement for our own normally functioning, native heart valves. Because of the aortic runoff during diastole, diastolic blood pressure falls and coronary perfusion is decreased. B2M is a marker of renal impairment and cell turnover. Immunology • T
otal protein is normal or raised. In most cases, no microbiological diagnosis is made. TOE can be helpful to identify structural valve abnormalities before surgery (see Fig. The initial dose of antivenom depends on the type of antivenom, the offending snake species and the severity of envenoming. Current and emerging biologic and small molecule
therapies for atopic dermatitis. 674), triggers the inflammatory skin changes of seborrhoeic dermatitis in susceptible individuals. As mentioned, adherence is increasingly recognized as a key barrier to achieving BP control. • Spironolactone (200 mg daily) also has antiandrogen activity and can cause useful improvements in hirsutism. 30.69).
Fosfomycin retains activity against many ESBL-producing E. Management of chronic hand eczema includes use of emollients and moderate to potent topical corticosteroids (see p. The diagnosis is made by taking a careful dietary history, followed by oral food challenge tests. Morning spinal stiffness in younger adults - think of axial spondyloarthritisation.
(e.g. ankylosing spondylitis) (see p. Clothing should be made of soft, 'breathable' fabric such as cotton (see Box 22.12). Insulin-glucose euglycaemia has been shown to improve myocardial contractility and systemic perfusion, and should be considered in cases of resistant hypotension. Underlying venous hypertension should be managed with
compression hosiery or vascular surgery. They cause a metallic taste and polyneuropathy with prolonged use. After secretion, insulin enters the portal circulation and is carried to the liver, its prime target organ. Severe pityriasis rosea in the first trimester of pregnancy has been associated with fetal loss, and off-label use of aciclovir may be
considered. Polymorphic light eruption ('prickly heat') This sun-induced rash is common in young women and is usually triggered by unusually intense exposure to strong sunshine on holiday. The spoiled fish can contain excessively high concentrations of histamine (muscle histidine is broken down by the bacteria to histamine), though the precise role
of histamine in the pathogenesis of the clinical syndrome is uncertain. Clinical features and management Clinical syndrome is uncertain.
period, coma supervenes. SSRIs. Even in large overdoses, SSRIs appear to be relatively safe unless potentiated by ethanol. Episodes are generally short- lived and self-limiting, and patients attend a physiotherapist or osteopath more often than a doctor. Scorpions Scorpion stings are a serious problem in North Africa, the Middle East and the
 Americas. In the history, three preliminary questions should be asked of the victim: • Which part of your body was bitten? Hypochromic, microcytic anaemia indicates iron deficiency, sometimes due to non- steroidal anti- inflammatory drug (NSAID)-induced gastrointestinal bleeding. It is not always possible to make a clear distinction. Further readin
Sterling JC, Gibbs S, Haque Hussain SS. Diabetes insipidus (DI) may be masked by simultaneous cortisol deficiency; cortisol replacement allows a water diuresis and DI then becomes apparent. Aetiology Causes of DI are listed in Box 21.52. It is avascular and derives nourishment from synovial fluid. It may lead to acute or chronic recurrent shoulden
pain and restriction of movement. Annular lesions are rarely seen on palmoplantar skin. Bacterial infections (e.g. staphylococcal boils) and fungal infections (tinea and Candida) are also common. (C) A flame-shaped retinal haemorrhage (white arrow). N Engl J Med 2010; 363:365-371. Dihydropyridines (e.g. amlodipine, felodipine, nifedi pine) are
predominantly peripheral vasodilators, while verapamil (a phenylalkylamine) and diltiazem (a benzothiazepine) also have significant cardiac effects. Hand pain is commonly caused by injury or repetitive, work-related activities. Carbon monoxide has a greater affinity for haemoglobin and forms carboxyhaemoglobin (COHb), thereby reducing the
oxygen-carrying capacity. Non-steroidal anti- inflammatory drugs (NSAIDs) should be avoided, especially in the elderly, as they reduce renal excretion of methotrexate metabolites and may cause toxicity. Sulfamethoxazole is mainly used in combination with trimethoprim (as co-trimoxazole). Height must be measured, ideally at the same time of day on
the same instrument by the same trained observer. Some patients suffer a mild gastrointestinal disturbs sleep. The pathogenesis is
unclear, although ischaemia may play a part. It prevents active abduction of the arm 18 18 420 Rheumatology $FURPLRFODYLFXODUMRLQW &RUDFRLGSURFHVV $FURPLRQ &RPPRQH[WHQVRURULJLQ 5RWDWRUFXII 6XEDFURPLDO EXUVD 'HOWRLG PXVFOH 6\QRYLDO FDYLW\ Fig. Nausea is the main side-e ffect and there are rare
reports of peripheral neuropathy, usually in patients with pre-existing renal impairment. It may not be possible to exclude MI in patients with symptoms compatible with MI should be triaged in the MI pathway. N Engl J Med 2013; 369:2294-2303. ADVERSE DRUG REACTIONS Adverse
drug reactions (ADRs), defined as 'the unwanted effects of drugs occurring under normal conditions of use', are a significant cause of morbidity and mortality. The autophagy machinery targets an autophagosome with the relevant material to fuse with lysosomes, which then causes degradation of the contents. We are grateful to them for their efforts
J Clin Oncol 2015; 33:2863-2869. • Some 36.9 million people are living with human immunodeficiency syndrome (HIV/AIDS), and 65% of deaths from HIV/AIDS occur in the WHO African region. (From National Academies of Sciences, Engineering, and Medicine. Disorders of vasopressin secretion or activity include:
 cranial diabetes insipidus with deficiency as a result of hypo thalamic disease 3ODVPDYDVRSUHVVLQSPRO/ THE THIRST AXIS 1RUPDOYDVRSUHVVLQ UHVSRQVHWR LQFUHDVLQJRVPRODOLW\ 3DWLHQWZLWKFUDQLDO', 3ODVPDRVPRODOLW\P2VPNJ Fig. ABG, arterial blood gases; ACE, angiotensin-converting enzyme; APTT,
 activated partial thromboplastin time; BP, blood pressure; CABG, coronary artery bypass graft; COPD, chronic obstructive pulmonary disease; i.v., intravenous; PCI, percutaneous coronary intervention; s.c., subcutaneous. New York: Farrar, Strauss and Giroux; 2012. Common bacterial causes of food poisoning are listed in Box 20.46. Mechanical
assist devices Mechanical assist devices can be used in patients who fail to respond to standard medical therapy but in whom there is either Coronary artery disease 1079 Fig. Eur J Heart Failure 2016; 37:2129-2200. CORONARY ARTERY DISEASE Myocardial ischaemia occurs when there is an imbalance between the supply of oxygen (and other
essential myocardial nutrients) and the myocardial demand for these substances. Not all children with short stature require this assessment, particularly as the test has a high false-positive rate, and therefore it should be considered only in ongoing growth failure with no other explanation. True precocious puberty must be distinguished from normal
variants: • Premature thelarche. Gastrointestinal disturbances, photosensitive rashes and occasional neurotoxicity can occur. It occurs almost exclusively in heavy cigarette smokers. Lice can be seen near the base of the hair with eggs somewhat further up the shaft. Color Atlas and Text of Clinical Medicine, 3rd edn. perfringens), following
contaminated penetrating injuries - historically, battlefield wounds but now commonly found in intravenous drug users and patients who have undergone gastrointestinal tract surgery. These patients who have undergone gastrointestinal tract surgery. These patients will need life-long oral zinc replacement therapy to improve the skin and ensure normal neurological development. In health, neutrophils are rarely
seen in the tissues. In 30 30 1108 Cardiology /HIWDWULXP 3XOPRQDU\DUWHU\ +HDUWVRXQGVDQGPXUPXUV /HIWYHQWULFOH 6\VWROH 5LJKWDWULXP 6 'LDVWROH 6 6 +DUVKSDQV\VWROLFPXUPXUKHDUGDWWKHOHIWVWHUQDOHGJH DFFRPSDQLHGE\DV\VWROLFWKULOO"OHIWSDUDVWHUQDOKHDYH
3RVVLEOHVLJQVRISXOPRQDU\K\SHUWHQVLRQ 3DWKRSK\VLRORJ\ $RUWD ‡ ‡ ‡ ‡ 5LJKWYHQWULFOH 9HQWULFXODUVHSWDOGHIHFW /HIWWRULJKWVKXQW :KHQWKHOHIWYHQWULFXODUVHSWDOGHIHFWLQWR
WKHULJKWYHQWULFOHDQGSXOPRQDU\DUWHU\ 6PDOO96'VpPDODGLHGH5RJHU¶ ORXGDQGVRPHWLPHVORQJV\VWROLFPXUPXU (LVHQPHQJHU¶VFRPSOH[PD\UHVXOW Fig. The presence of dilated pupils that
are unreactive to light suggests that permanent blindness is likely to ensue. Secondary to endocrine disease • diabetes secondary to endocrine disease • diabetes secondary to endocrine pancreatic disease • diabetes secondary to endocrine pancre
forms of immune-mediated diabetes • other genetic syndromes sometimes associated with diabetes. Further reading Lewis FM, Tatnall FM, Velangi SS et al. What medication is the patient taking? Compensatory mechanisms, including renal excretion of bicarbonate and potassium, result in a metabolic acidosis. • Pathological. In severe cases of
 intoxication, coma and hypothermia are often present, and lactic acidosis, ketoacidosis and acute kidney injury have been reported. Supportive care is paramount. Other islet autoantibodies involved are the cation transporter ZnT8 and the recently identified tetraspanin 7. (water hemlock) and the related genus Oenanthe contain cicutoxin, a potential potential acute with the recently identified tetraspanin 7.
CNS stimulant that produces violent seizure activity. An extensive form of hand, foot and mouth disease may also occur in children with eczema coxsackium'). This is associated with outbreaks of severe recurrent boils and skin abscesses in healthy adults.
21.37 Plasma vasopressin response to increasing smolality in normal subjects and in a patient with diabetes o insipidus (DI). Treatment of infection caused by multidrug-resistant organisms Meticillin-binding protein 2a, an enzyme that
catalyses cell- wall cross-linking, which meticillin or flucloxacillin is unable to inhibit. • Could their presenting complaints be related to a complication of diabetes? Diagnosis of diabetes • When were they diagnosed? There is no oedema. Snake venom is not a single toxin. The Global Burden of Disease (GBD) Study 2010 provided critical data for
guiding prevention and other interventions by retrospectively reviewing and updating data using the same methodology. The burden of ADRs is huge in both adults and children: ADRs account for about 6.5% of hospital admissions, affecting 15% of adult inpatients. Atrial fibrillation is common. Investigations An echocardiogram shows dilation of the
right ventricle with thickening of the valve. Management Functional tricuspid regurgitation usually disappears with medical management. These drugs can be given both intravenously and by mouth, and are almost 100% bioavailable by the oral route in patients with normal gastrointestinal absorption. It commonly presents on the head or neck with
red-brown nodules that look like apple jelly when pressed with a glass slide ('diascopy'). Extensive infection is occasionally accompanied by a widespread Fig. 704)? 30.80 Mitral regurgitation. (A) Transoesophageal echocardiography with marked prolapse of part of the posterior mitral valve leaflet (PMVL). For example, a doctor may be distracted
away from a common diagnosis by a much rarer one, which was covered in a recent teaching session they attended. There are multiple IGF-binding proteins (IGF-BP) in plasma; IGF-BP3 can be measured clinically to improve assessment of GH status, particularly in children. • Painful regional lymph node enlargement - a common early sign of
envenoming. difficile infection and remains useful for some resistant Gram- negative infections. Rarely, it can occur proximal to the left subclavian. Insulin is secreted at a slow background rate throughout the day, resulting in a low plasma insulin concentration between meals and overnight. One-quarter of cases are not inherited and are due to deep to de
novo mutations. There are other common phenotypes of hypertension: Isolated systolic hypertension Due to age-related arterial stiffening, systolic BP. Genetics of T2DM in 2016: biological and translational insights from T2DM genetic. Convulsions
rhabdomyolysis, hyperthermia, metabolic acidosis and cardiac arrhythmias may develop. There is an erythematous, sometimes blistering, rash around the perineum, mouth, hands and feet. Tacrolimus ointment can also be used prophylactically twice a week to prevent eczema flares. Antibiotics and antiseptics Antibiotics are indicated if there are
clinical signs of infection and are usually given orally for 7-10 days. Keloids (Fig. Salicylates also interfere with carbohydrate, fat and protein metabolism, and disrupt oxidative phosphorylation, producing increased concentrations of infraspinatus
and teres minor posteriorly, supraspinatus superiorly, and teres major and subscapularis anteriorly. 48); they are the only cells capable of this. They are more effective than conventional Academies Press; 2015. CLINICAL
DIAGNOSTIC REASONING Forming a diagnosis involves a complex process of reasoning. It is only used topically, mainly for the nasal eradication of S. The frequency and size of GH pulses increase during the growth spurt of adolescence and decline thereafter. A raised serum alkaline phosphatase may indicate liver or bone disease. Sensation is
absent within lesions, which are dry and hairless due to nerve damage. • Have they had any problems with neuropathy or vascular disease affecting their feet? and more pigmented at the tip) at the edge of a bald area is diagnostic. The use of modified-release hydrocortisone may have a role in the management of CAH. Blood monocytes can be divided
into subsets according to expression of CD14 (a receptor for lipopolysaccharide, a bacterial cell wall component) and CD16 (a receptor for IgG antibodies). Treatment is with an oral tetracycline, as for rosacea, and with weaning off topical steroids. Other rarer causes of facial rashes These include autoimmune rheumatic diseases, lymphocytic and
granulomatous infiltrates. Potent steroids are usually required to treat palmoplantar eczema due to the thick stratum corneum at this site. 23.5). Hyperglycaemia and lipid excess are toxic to β cells, at least in vitro, a phenomenon known as glucotoxicity, which is thought to cause further β-cell loss and further deterioration of glucose homeostasis. A
 small amount of insulin is secreted by the β cell directly via the 'constitutive pathway', which bypasses the secretory granules. The diagnostic criteria were updated in 2014 to include three additional 'biomarker' features, which are associated with a high risk of transformation to symptomatic disease: • involved: uninvolved SFLC ratio (e.g. kappa:
lambda) of \geq 100 • bone marrow plasma cell infiltration of \geq 60\% • \geq 2 focal lesions on MRI scan. Diagnosis A traditional model of medical diagnosis suggests that a clinician should begin by considering all possible causes of a particular presenting
symptom, and use information gathered from the diagnostic process to include and exclude likely causes gradually, using probabilistic reasoning, until only one remains (Fig. 183). Investigations The usual features are: • dilutional hyponatraemia due to excessive water retention • euvolaemia (in contrast to hypovolaemia of sodium and water depletion
states) • low plasma osmolality with 'inappropriate' urine osmolality >100 mOsm/kg (and typically higher than plasma osmolality) • continued urinary sodium excretion >30 mmol/L (lower levels suggest sodium depletion or 'hypovolaemic hypovolaemic hypovo
renal and adrenal and thyroid function. ACTH, adrenocorticotrophic hormone; CRH, corticotrophin-releasing hormone; CRH, drenocorticotrophic hormone; CRH, drenocorticotrophic hormone; CRH, drenocorticotrophin-releasing hormone; CRH, drenocorti
hormone; TSH, thyroid-stimulating hormone. Macroprolactinaemia can be diagnosed in the laboratory by precipitation of immunoglobulin G (IgG) with polyethylene glycol, after which prolactinaemia can be diagnosed in the laboratory by precipitation of immunoglobulin G (IgG) with polyethylene glycol, after which prolactinaemia can be diagnosed in the laboratory by precipitation of immunoglobulin G (IgG) with polyethylene glycol, after which prolactinaemia can be diagnosed in the laboratory by precipitation of immunoglobulin G (IgG) with polyethylene glycol, after which prolactinaemia can be diagnosed in the laboratory by precipitation of immunoglobulin G (IgG) with polyethylene glycol, after which prolactinaemia can be diagnosed in the laboratory by precipitation of immunoglobulin G (IgG) with polyethylene glycol, after which prolactinaemia can be diagnosed in the laboratory by precipitation of immunoglobulin G (IgG) with polyethylene glycol, after which prolactinaemia can be diagnosed in the laboratory by precipitation of immunoglobulin G (IgG) with polyethylene glycol, after which prolactinaemia can be diagnosed in the laboratory by precipitation of immunoglobulin G (IgG) with polyethylene glycol, after which prolactinaemia can be diagnosed in the laboratory by precipitation of immunoglobulin G (IgG) with polyethylene glycol, after which provides the properties of the propertie
prolactinomas. Box 21.8 Comparisons of primary treatments for pituitary tumours Treatment method Advantages Disadvantages Disadvantages Disadvantages Trans-sphenoidal adenomectomy or hypophysectomy Relatively minor procedure Potentially curative for microadenomas and smaller macroadenomas Some extrasellar extensions may not be accessible Risk of CSF leakage Trans-sphenoidal adenomectomy or hypophysectomy Relatively minor procedure Potentially curative for microadenomas Some extrasellar extensions may not be accessible Risk of CSF leakage Trans-sphenoidal adenomectomy or hypophysectomy Relatively minor procedure Potentially curative for microadenomas Some extrasellar extensions may not be accessible Risk of CSF leakage Trans-sphenoidal adenomectomy or hypophysectomy Relatively minor procedure Potentially curative for microadenomas Some extrasellar extensions and smaller macroadenomas extensions and smaller m
 and meningitis Transcranial (usually transfrontal) route Good access to suprasellar region Major procedure; danger of frontal lobe damage High chance of subsequent hypopituitarism External (40-50 Gy) Non-invasive Reduces recurrence rate after surgery Slow action, often over many years Not always effective Possible late risk of tumour induction
Stereotactic Precise administration of high dose to lesion Long-term follow-up data limited Dopamine agonist therapy (e.g. bromocriptine, cabergoline) Non-invasive; reversible Usually not curative; significant side- effects in minority Concerns about fibrotic reactions Somatostatin analogue therapy (octreotide, lanreotide) Non-invasive; reversible
Usually not curative; causes gallstones; expensive Growth hormone receptor antagonist (pegvisomant) Highly selective Usually not curative; very expensive Growth hormone receptor antagonist (pegvisomant) Highly selective Usually not curative; very expensive Growth hormone receptor antagonist (pegvisomant) Highly selective Usually not curative; very expensive Growth hormone receptor antagonist (pegvisomant) Highly selective Usually not curative; very expensive Growth hormone receptor antagonist (pegvisomant) Highly selective Usually not curative; very expensive Growth hormone receptor antagonist (pegvisomant) Highly selective Usually not curative; very expensive Growth hormone receptor antagonist (pegvisomant) Highly selective Usually not curative; very expensive Growth hormone receptor antagonist (pegvisomant) Highly selective Usually not curative; very expensive Growth hormone receptor antagonist (pegvisomant) Highly selective Usually not curative; very expensive Growth hormone receptor antagonist (pegvisomant) Highly selective Usually not curative; very expensive Growth hormone receptor antagonist (pegvisomant) Highly selective Usually not curative; very expensive Growth hormone receptor antagonist (pegvisomant) Highly selective Usually not curative; very expensive Growth hormone receptor antagonist (pegvisomant) Highly selective Usually not curative; very expensive Growth hormone receptor antagonist (pegvisomant) Highly selective Usually not curative; very expensive Growth hormone receptor antagonist (pegvisomant) Highly selective Usually not curative; very expensive Growth hormone receptor antagonist (pegvisomant) Highly selective Usually not curative; very expensive Growth hormone receptor antagonist (pegvisomant) Highly selective Usually not curative; very expensive Growth Highly selective Usually not curative; very expensive Usually not curative; very expensiv
mg daily (starting dose 10 mg on rising/5 mg lunchtime/5 mg evening) (Normally no need for mineralocorticoid replacement) Thyroid Levothyroxine 100-150 µg daily Gonadal Male Testosterone intramuscularly, or ally, transdermally or implant Female Cyclical oestrogen/progestogen or ally or as patch Fertility HCG plus FSH (purified or recombinant).
or pulsatile GnRH to produce testicular development, spermatogenesis or ovulation Growth Recombinant human GH used routinely to achieve normal growth in children $ % Fig. 22.16 Psoriasis of the nail. Yellowish brown discoloration and distal nail plate separation (onycholysis). They also have antimuscarinic actions and class 1 antiarrhythmic
 (quinidine-like) sodium- channel-blocking activity. We endeavoured to produce a new book with colour, tables and algorithms, changing the old, staid texts into a lively, easy-to-learn and user-friendly book. Nail polish and nail polish and nail polish remover contain acetone, which may produce a coma if ingested in substantial quantities. ADH, alcohol dehydrogenased
 FDH. formaldehvde dehvdrogenase; 10-FTS, 10-formyl tetrahydrofolate synthetase. The role of house dust mites and diet is less clear-cut. On the face, it presents with scaling and erythema around the nose (Fig. • Framing: Making decisions in different ways, depending on whether a choice is presented in positive or negative terms. The UK's National
Institute for Health and Care Excellence (NICE) restricts use of these drugs to patients with severe psoriasis (defined by a Psoriasis Area Severity Index (PASI) of >10), in whom phototherapy and conventional systemic drug therapy have failed, are contraindicated or are not tolerated. AO, aorta; LA, left atrium; LV, left ventricle. A
relationship has been shown between circulating IGF-1 concentrations and breast cancer in men. In addition, patients can also develop neuropsychiatric side-effects, including compulsive behaviours such as gambling. Intervention is indicated if there is a peak-peak gradient across the
coarctation of more than 20 mmHg in the cardiac catheter laboratory or greater than 50% luminal narrowing with associated hypertension or left ventricular hypertrophy. It is thought to be an organ-specific autoimmune disease of the hair follicle that occurs due to loss of hair follicle immune privilege. There is an increased risk of anxiety and
depression. Normally, sinus rhythm is present. Echocardiogram (Fig. This patient, who was previously fit and well, presented with fracture of his right arm. Multiorgan failure is common and mortality is high. Gas gangrene is caused by deep tissue infection with Clostridium spp. A watch and wait approach to those
with constitutional delay, potentially with a very-low-dose sex steroids in 3-to 6- month courses to kick-start puberty and induce acceleration of growth. There is, however, no good evidence that this improves clinical outcomes: recently, a large UK trial of adjunctive rifampicin demonstrated no clinical benefit in staphylococcal bacteraemic infection.
There is a low probability of serious bony injury if there is: • no midline cervical tenderness • no intoxication • no other painful distracting injury. The clinical appearance of bald,
scaly patches with broken hairs. Even when the infecting organism is shown to be susceptible to penicillins by minimum inhibitory concentration (MIC), a carbapenem should be used, as piperacillin/tazobactam has been found to be inferior to carbapenem resistant Enterobacteriaceae Carbapenem resistance is mediated
through the production of enzymes that inactivate carbapenems, together with most \( \beta\)- lactams, and are therefore called carbapenemases. Oculocutaneous albinism This rare group of autosomal recessive disorders is caused by reduced or absent pigment synthesis in the skin, hair and eyes. 628) is associated with short stature. There is an association
with circle of Willis aneurysms (affecting approximately 10%). Sulphonamides cause a variety of skin eruptions, including toxic epidermal necrolysis, the Stevens-Johnson syndrome, thrombocytopenia, folate deficiency and megaloblastic anaemia with prolonged usage. Rarely, in severe poisoning, non-cardiogenic pulmonary oedema, coma and
convulsions ensue. It also occurs with corticosteroid treatment. See StudentConsult.com for additional online content on naturally occurring poisons. In the fasting state, it additionally promotes glucose uptake by fat and muscle. • • hat medication do
they use to control their blood glucose? Patients should also be informed of potential side-effects, and all this information should be documented in the clinical record. Local corticosteroids injected alongside the tendon under low pressure (not into the tendon itself) are helpful. Rarely, confusion, visual disturbances and hallucinations occur. They are
usually caused by Staph. • A sk the patient to place each foot in turn on the opposite knee with the hip externally rotated. 23.2), and is synthesized in the β cells of the pancreatic islets of Langerhans (Fig. 22.8 Atopic eczema behind the knees. The only oral treatment is linezolid; intravenous options include daptomycin and tigecycline. Carbapenem-
resistant Pseudomonas The most common cause of carbapenem resistance in Pseudomo nas is increased expression of efflux systems or increased impermeability due to decreased porin expression. Prolactin levels show mild to moderate hyperprolactinaemia in 30% of patients (Fig. Thrombocytopenia is seen in drug-induced bone marrow suppression
and may be a feature of SLE. Typically, inflammatory lesions of the pituitary stalk are associated with DI (Fig. J Invest Dermatol 2000; 115:149-153.) a clinical severity score that can help assess prognosis (Box 22.33). The anogenital mucosa may be affected by LP and lesions on the penis are often annular. This complement cascade is initiated via
three distinct pathways: alternative, classical and lectin (Fig. Expert Opin Biol Ther 2019; 19:367-380. Widespread skin disease may require tapering courses of oral steroids, phototherapy, oral retinoids or systemic immunosuppressants.
performed investigations. Typically a general assessment will be made as the history is being elicited (Is the patient well or unwell? It is used in portosystemic encephalopathy (see p. International Diabetes Federation. The 'advanced plaque' may grow slowly and encroach on the lumen, or become unstable, undergo thrombosis and produce an
obstruction ('complicated plaque'). Tenosynovitis The finger flexor tendons run through synovial sheaths and under loops that hold them in place. • If active movement is limited, try passive movement is limited.
systemic sclerosis are more common in women, whereas gout and ankylosing spondylitis are more common in men. Treatment is androgen replacement therapy if deficient in testosterone. Put yourself in their shoes: how might they be feeling? The evolution of the ECG during the course of STEMI is illustrated in Fig. Specific poisons 269 QT interval
prolongation and subsequent ventricular arrhythmias (including torsades de pointes) have occurred following overdose with the atypical neuroleptics. groins and axillae should be biopsied to exclude rarer pathology such as Langerhans cell histocytosis. They are designed to allow movement, which is restricted to a required range, and stability is
maintained during use. Variable pigmentation is characteristic, with pale areas developing after tanning and in darker-skinned individuals as the yeast impairs melanin synthesis. High-level resistance to mupirocin in MRSA due to plasmid-encoded MupA may lead to failure of topical therapies. Fosfomycin This is a relatively old antibiotic that has been
used in some European countries for many years. There may be mild systemic upset but internal organs are not involved. Hypertrophic scars remain confined to the borders of the original wound and usually regress spontaneously. Large doses produce non-polarizing neuromuscular blockade, which may result in respiratory depression and death.
Datura stramonium Datura stramonium (jimsonweed) and other Datura spp. Prolonged hyperandrogenization from any cause may lead to polycystic changes in the ovary. 48). The timing, magnitude and other considerations related to the management of these conditions are considered in Box 31.7. Referral to specialist care The majority of
hypertensive patients are managed in primary care. Although there are different validated measures to assess this, such as the Morisky-8 Medication Treatment 1141 A B C D E F Fig.
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