

| Disease | Cause | Symptoms | Diagnos | Transmition | Treatment |
|--|--|--|--|---|--|
| Morel's dis “ Abscess dis. “ | Anaerobic staphilococcus aureus | Same corynbacterium Superficial l.n only but Spread faster than coryn | | Exudate | تطهير الخراج اسفل الفك والاذن و اليود penecillin Dead vaccine |
| Calf Diphtheria الخنق “ Foot rot “ | Fusobacterium necrophorum Present normally in cattle intestine | *Young calves < 3m foul-smelling and swelling of the mouth Difficult breath, chewing and swallowing *older cattle foul-in-the foot عفن الحافر and liver abscess | Systemic : ceftiofur - nuflor Locally : Foot trimming تقليم القدم Spray Foot bath | | |
| Pasteurella | Pasteurella multocida _ve | • Fever. • Nasal discharge : pus • cough. • Rapid, shallow breathing. | Eliza pcr Stress (travel, density,new environment) | *Florfenicol *Marbocyl *killed vaccine immunity for 6 months | |
| Mycoplasma | Mycoplasma bovis +ve | • Fever. • Nasal discharge: watery • cough. • Rapid breathing. • Arthritis • Mastitis Why tylosin not penicillin? Mycoplasma lack a cell wall around their cell membranes. This characteristic makes them resistant to antibiotics that target cell wall synthesis (like the beta-lactam antibiotics such penicillin) But tylosine act on protein synthesis make inhibition | Eliza pcr Cough , nasal secretions, and direct contact | Drug of choice *Tylosine *Draxin | |
| Enterotoxemia | Clostredia perfringes | characterized by sudden death in Sheep | | Vaccine : killed vaccine immunity for 6 months | |
| Rhodococcus equi | | pneumonia in young horse (foal) | | | |
| Q fever {Zoonotic disease} | bacteria Coxiella burnetii | abortion | | | |

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| Glander, Farcy Intracellular | Burkholderia mali _ve Morbidity 95% Incubation period 3d : 2 week | Fever – mucopurulent nasal discharge – ulcerative nodules on 3 forms *Nasal *Pulmonary *Cutenauos “farcy” | *Eliza *PCR *mallentest | Meat , food , water from infected animal | Streptomycin Gentamycin Doxycyclin No vaccine cz Polysacharide capsule |
| Strangles, Distemper | Streptococcus equi +ve Incubation period 3d : 2 week | Fever 41.1 - mucopurulent nasal discharge – lymphadenopathy - Bastard difficult swolling – noisy respiration – extended neck – brain abscess | Microscopic examination | *Direct contact with Exudate * Flies insect | *Drug of choice Penecillin *NSAID تطهير خراج ويود* *Intranasal attenuated vaccine |
| Brucella, Storm abortion Intracellular | Coccobacilli _ve Ziehl nelson tr | Late abortion - Anemia Weakness of new born Retained placenta - Bull: Orchitis Human: fever- night sweat | *Rose Bengal test : Rapid slide agglutination *Milk ring test | Shed in Blood milk semen urine uterine secretion + Transmitted to human by contact to aborted fetus | Test& slaughter Vaccine : *RB51 for cow *Rev1 for sheep and goat Rifampin for human |
| T.B Intracellular . Tubercle is : *cytokines and dead macrophages *granulocyte lymphoc *fibrous capsule & granulation tissue | Mycobacterium tuberculosis Acid fast bacilli Ziehl nelson Infect mainly L.N of mesenteric and pharynx and lung macrophages | Wet cough - Broncho Pn. Enlarged l.n – affect internal l.n liver spleen kidney through Macrophages - Emaciation- bloat | Tuberculin test : Intra dermal if swelling + slaughter | *Air born dis. Infected droplets *Inside body by Macrophages | Eradication Test slauter لا تعالج فلحيوان BCG vaccine Rifampin for human for 6 -9 months |
| Para T.B Johne's dis. Ch. By Peyer's patches in intestine | Mycobacterium paratuberculosis High MB rate 80% Incubation period: 2 -5 years | Bottle jaw - Sever Diarrhia - Low milk production - Emaciation - death | Eliza pcr Control : Clean feed and water and area Colostrum for newborn | *Fecal oral route *Intra uterine *Milk | لا يوجد علاج ولا تحصين الانسان يسببه مرض Crohn dis. Chronic granulomatous enteritis cause diarrhea – weight loss – weakness - death |
| Pseudo T.B الميل الكذب | Corynebacterium pseudotuberculos | *Caseous lymphadenitis in Sheep *Ulcer pharyngitis in cow and horse *Oedematous skin dis (OSD) buffalo *Abscess in camel | | Exudate | تطهير الخراج اسفل الفك والاذن و اليود penecillin BCG vaccine |

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| Peste des Petits Ruminants (PPR) “goat plague” Notifiable disease goats exhibit more severe clinical disease than sheep | Morbilli virus of Paramixoviridae High MR MB P.M (zebra striped appearance) on large intestine | fever – depression - discharges from the eyes and nose – foul smelling diarrhoea – death | Eliza pcr | Direct contact *Broad spectrum antibiotics * live attenuatd vaccine 1Y immunity *control : mass vaccination campaigns to block the epidemic cycle of the virus. | |
| Foot-and-mouth disease (FMD) Not infect horse or donkey | Aphtho virus of Picornaviridae | Fever – Ropy (foamy) saliva – vesicles in the mouth, tongue, udder and claws -lameness – low milk production | 7 serotypes of FMDV : A, O, C, Asia1, SAT1, SAT2, and SAT3 | inhalation, ingestion and direct contact | Killed vaccine Immunity for 6 months FMD vaccine produced in the form of... Imunty for ... |
| Rabies | Rhabdo virus Inflamation of the brain | After rabies bite prodromal phase nervous signs Furious phase aggressive – off food – “Mad dog syndrome” Dumb phase virus take over all body - paralysis | | Only by the bite of a rabid animal Or saliva | *no treatment for a dog with rabies. *vaccine only effective if given before the virus enters the nervous system. |
| Lumpy skin disease (LSD) not affect sheep and goat | capripox virus | | | Insect bite – mosquitoes | |
| Sheep pox Goat pox | Poxviridae virus Fatal in young | widespread skin eruption on the muzzle, ears, and areas free of wool or long hair | | direct contact | live attenuated vaccines Immunity 1 Year |
| Orf “contagious pustular dermatitis” sheep and goats | Parapox virus | “scabby mouth” جرب الفم skin lesions on the lips and muzzle and nose | | direct contact | live attenuated vaccines Immunity 1 Year |

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| Rift Valley fever (RVF) “ hemorrhagic fever “ P.M Hemorhage to all organs | Phlebo virus of the Bunya virus Affect liver maily P.M necrotic hepatitis RVF characterized by ? ... Syptoms | high MR newborn animals –wide spread abortion in older animals – Fever - hemorrhagic diarrhea “bloody” nasal discharge - lacrimation | Culex Mosquitoes Rainy season at Summer Transmit to human by ? contact with blood or body fluids or tissues of infected animals in slaughter house | | live-attenuated vaccine immunity for 3 years Antibiotic + antiinflammatory+ liver tonics |
| Blue tongue disease Esp in sheep | Orbivirus, of the Reoviridae High MR MB | high fever - excessive salivation - swelling of the face and tongue - cyanosis of the tongue | | Culicoides | live attenuated vaccines |
| African horse sickness (AHS) | Orbivirus, of the Reoviridae High MR MB | high fever - *Pulmonary form: caugh *Cardiac form : Conjunctivitis | | * Culicoides *ticks such as Hyalomma and Rhipicephalus | live attenuated vaccines |
| Bovine Ephemoral fever “three days sickness” | Rhabdo virus | | | Arthropod | |

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| Infectious bovine rhinotracheitis (IBR) Infectious pustular vulvovaginitis (IPV) Infectious pustular balanoposthitis (IPB) <u>Red nose</u> | (BHV-1) Bovine Herpes virus type 1 | 1 - Respiratory form : Rhinitis – laryngitis – tracheitis Red nose – fever 42c – discharge – mouth breathing – 2- Encephalitic form : Corneal opacity – lacrimation – conjunctivitis – lymphomonocytic leptomeningitis – ataxia 3- Genital form : Latency – erosion in vulva and vagina – ulcer in prepuce and penis – Diarrhea 4- Abortion form : Late abortion | Aerosol – venereal – transplacental– nasal exudate – semen P.M *Congestion of trachea mucosa *pus at upper respiratory t. and on vaginal mucosa and on prepuce, penis *L.N of neck , throat swollen | Antibiotic + antiseptic Live attenuated vaccine Inactivated vaccine |
| Malignant catarrhal fever (MCF) <u>Eye ring</u> | (AHV-1) Alcelaphine Herpes virus 1 and (OHV-2) Ovine Herpes virus 2 In old animals | Fever – Enlarged L.N corneal opacity start at the limbus and progress toward the center of the cornea causing blindness – nasal and ocular discharge – diarrhea. Mouth lesion _ black diarrhea | close contact with sheep or goats during lambing | No treatment Hopeless |
| Bovine viral diarrhea (BVD) | BVD Virus In young animals | Fever – Enlarged L.N Corneal opacity start fom center to limbus - nasal and ocular discharge – diarrhea. Salivation | *Flies *uterine discharge | No treatment Infected calves should be culled to prevent the spread of BVD |
| Middle East respiratory syndrome | Coronavirus In camels | nasal and lachrymal discharge, coughing, sneezing, fever and loss of appetite | camels to humans | |
| Chronic alveolar emphysema “pneumonia emphysema” | In horses only | expiratory dyspnea, cough and lack of endurance to exercise – pneumonia - abscess | | Bronchodilator like the aminophylline + Corticosteroid |

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| Babesia [Red water fever] Tick fever | Intraerythrocytic protozoan parasit | Fever > 41 – HG urea Anemia – jaundice - +respiration rate P.M enlarged gall bladder and spleen and liver | *Microscop ex. Of Geimsa st.or leishman st. for blood *Eliza – PCR | Tick Rhipicephalus spp | -Imidocarb probionate [Imizol] -diminazine aceturate |
| Hypophosphatemia | Nutritional def. low phosphorus in blood circulation | *No fever – no off food * HG urea | | | phosphorus |
| Leptospira | Spirochaete لا تتواجد في كرات الدم | HG urea – Bloody milk - fever – abortion – stillbirth | Eliza pcr | Food water contaminated with rodent urea | Streptomycin or tetracyclin or penicillin + فوسفور + فلونكسين |
| Clostridia | Clostridium haemolyticum High MR | HG uria Fever - Depression - anemia – jaundice | | | *Penicillin + *Flunoxine |

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| Theileria | Intraerythrocytic leukocytic parasit | Fever >41 – corneal opacity Enlarged L.N – black diarrhea P.M enlarged L.N – pulmonary odema | *Microscop ex. Of Geimsa st.or leishman st. for blood *Eliza – PCR | Tick | Buparvaquone [Butalex] + Oxytetracycl لمنع انقسام الطفيل في بداية المرض |
| Anaplasma [Gall sickness] | -ve Bacteria | Fever not exceed 40 – anemia – jaundice – no hg urea P.M enlarged gall bladder and spleen - jaundice | Eliza – PCR | Ixodes tick | Imidocarbe probionate [Imizol] +Oxytetracyclin |
| Trypanosoma [Surra dis] Tsetse sleeping sickness | Protozoan parasit | Intermittent fever – dullness – high heart rate – brisket and leg and abdomen odema – anemia – jaundice | Microscop ex. Of Geimsa st. for blood | Tsetse – flies “ Stomoxys – tabonids “ | Quinapiramine sulphate Or Cymelrsan Or diminazine aceturate |
| Horse babesia, Equine piroplasmosis, Biliary fever | Theileria equi And babesia caballi | | | By ixodid ticks | Imidocarb dipropionate |

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| Schistosomiasis bilharziasis [snail fever] | Blood flukes Adult in live in messentric and hepatic vein and Eggs in intestine or liver or U.B | Loss appetite – weight loss – lethargy – diarrhea – melena “stool becom dark”- nasal schistsoma cause coli flower growth | *Microscop ex. Of Stool or urine for eggs – *blood test for adult | Schis eggs to fresh water to hatch larvae to snail to cercaria to pnetrate skin to blood v. to intestine or stool or liver | Praziquantel |
| Fasciola | Trematode Liver flukes | bottle-jaw – weakness – anemia – green diarrhea – loss appetite – hair loss | *Microscop ex. Of Stool using petri dish then deposition of eggs under microscope *blood test | From bile duct of liver to eggs in fresh water to hatch miracidium to snail to cercaria to ingest aquatic plants | Triclabendazole Or Nitroxynil Or Clorsulon For adult liver flukes Give liver tonic first after improvement then start |
| Hydatid cyst Hydatid dis. Final definitive host : Dog Intermediate host : cattle or human | “Tapeworm” Echinococcus in dog *Small intestine adult worm dog *liver larvae in sheep *lung larvae in cattle | *if go liver : aboominal pain - jaundice – anemia - weight loss *if go lung : cough | ultrasound | Small intestine of dog to eggs in faeces to plants ingested by cattle or human to liver or lung | Ivermectin Surgical removal of cyst or inject saliva into cyst |
| Mange | contagious skin disease caused by 3 mites. | Itching – scaly formation | *washing by water & soap *spary or wash by Butox or Diazinon * sulfer ointm or moxidectin oint for horse * Ivermectin *treatment Repted after 14 days | | |
| Thelazia caused by 3 types | Round Eye worm Adult live in eyelids, lacrimal glands, eye | watery eyeslei | | Muca fly and diptera fly | ivermectin drops into the conjunctival sac |
| Oxyuris equi | Pinworms the infective stage is the embryonated egg | Tail rubbing and puritus فرك الذيل وحكة | scotch tape test examination of a sample from the skin around the anus to identify pinworms and pinworm eggs | | albendazole |
| Verminous bronchitis Parasitic bronchitis | Lung worm Dictyocaulus | Persistent cough | 3 Species | | Albendazole + ivermectin |
| Ring worm | Fungus Trichophyton verrucosum | itchy, red, circular rash مطفح جلدي احمر متير للحكة | | | Benzoic acid or sulfer ointment |
| Myiasis | Screw worm (maggots) | | Under skin of nasal and horn | | Break of horn |
| Demodicosis | parasitic mites live within the hair follicles of all dogs | | | | Amitraz insecticide agent |
| Equine strongylosis grazing horses | nematode strongyles | | Diagnosed by floating test for larvae and adult parasites in the intestinal lumen. | | |
| Sheep Nose Bot | Oestrus ovis | Mucopurant nasal discharge tinged with blood due to hemorrhages produced by the hooks of the larvae | | | Ivermectin |

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| Milk fever postparturient Hypocalcaemia parturient pariesis شلل الولادة more commonly seen in older animals dairy cows and in milking goats. | low blood calcium when demand for calcium for colostrum and milk production exceeds the body's ability to mobilize calcium | Ataxia – hyper sensitivity - tremors - ear twitching if not treat then sternal recumbency - Tachycardia – dull – dry muzzle -cold extremities- head into flank - Lateral recumbency – coma - death | Prevention : *avoiding over-fattening cow *feeding hay before calving *Clover pasture *Vitamin D help absorp ca keeping calcium intake to less than 50g/day before calving symptoms usually progress until treated | | oraly calcium salt + calcium borogluconate I/V cal-D-mag If the cow is lying 'flat out' then immediate intravenous therapy is required to avoid death. |
| Ketosis <i>Hypoglycemia</i> Acetonaemia Pregnancy toxemia “pregnancy disease” “twin lamb disease” Lambing paralysis early lactation in dairy cows and sheep and goats | low blood glucose high blood ketone bodies When energy demand for milk production exceed energy intake | Reduced milk production Weight loss Reduced appetite - off food Acetone smell of breath - Fever excess salivation, licking, agression | Prevention : *High diet of carbohydrate before parturition *use of sodium propionate after calving is to make higher blood sugar levels and lower blood ketone bodies and higher milk production. *Monensin # we give proplyene glycol cause it gluconeogenesis and inhibit synthesis of keton bodies Ketones can be diagnosed by urine or milk or blood test | | Orally : Propylene glycol (Triglyceride) I/V Dextro 50% S/C : Neostigmine to improve muscle strength I/M : Corticosteriod dexamethson Induction of partirution |
| | | | Diagnosis of ketosis : 1-Found in early lactation 2-clinical signs as mention above 3-test kit based on presence of acetone in urine 4-Keto-Test is a simple milk-dip test that changes color in the presence of ketone bodies 5- blood ketone meter 6-diffrencial diagnosis from abomasal displacement – retained placenta – metritis – rabies and other CNS diseases | | |

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| Vitamin A deficiency | lack of vitamin A in the diet, or inhibition of absorption from the digestive tract. | Night blindness - Xerophthalmia -weak newborn - Reduce feed intake- infertility | | | Vitamin AD3 injection |
| Vitamin D deficiency | inadequate exposure to sunlight, inefficient production in the skin | heart disease – bone disorders such as osteomalacia (softening of bones) and rickets (bone deformities) | Rickets due to reduction of Calcium and phosphor absorption | | Vitamin D daily |
| Vitamin E deficiency | inadequate dietary intake Fresh grass and grass silage | white muscle disease - nerve and muscle damage that results in loss of feeling in the arms and legs - muscle weakness | | | |
| white muscle disease “stiff lamb disease” *congenital form : affects cardiac muscle *delayed form : affect skeletal muscle. | اعتلال عضلي due to deficiency of selenium or vitamin E, or both | Stiffness – arched back – Friable heart – white chalky plaques in left ventricles لويحات طباشيرية بيضاء في البطين الأيسر Death due to myodegeneration | | | Administration of E.Selenium I/M or S/C |
| B1/Thiamine Deficiency polioencephalomalacia (PEM) | reduced production by rumen microbes | Star -gazing – head turned over the back - Recmbency - Rigid legs – Blindness – Death | | | injecte B1 supplement should return to full health within 24 hours. |
| B2 Deficiency “Riboflavin deficiency” | | Curled toe paralysis in chicks تقسخ الارجل edema of the mouth and throat | | *Water soluble vitamins chicks *administration of riboflavin rapidly cures the deficiency | |
| B6 Deficiency | | inflammation of the skin (dermatitis) | | | vitamin B ₆ supplements |
| Vit K Deficiency | Haemorrhaging (Generalized) is usually due to a relative.. vitamin k deficiency. | | | | |

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| Copper (Cu) deficiency | | *Loss of pigment hair *white hair around eye (glass like) *steely wool syndrome *sway back disease *lameness *death of young *falling disease | | | Copper methionate + Vit B12 |
| Iodine deficiency | | *Thyroid enlargement (goitre) *stillborn *alopecia *weakness | | | iodized salt |
| zinc deficiency "Parakeratosis" "wool eating disease" مرض أكل الصوف | *excessive calcium *low concentration of essential fatty acids | hair loss – eating wool - growth retardation - delayed sexual maturation - eye and skin lesions | *decrease of Phosphate Alkaline ALP which absorp Phosphorus Lead to low Phosphorus | | zinc sulphate |
| Iron Deficiency | *feeding whole milk without iron *bleeding *Blood parasites | anemia in calves – Decreased growth rate - Weakness - Pale skin - Rapid breathing - Depression | | | Blood transfusion – Iron gluconate or sulphate such antoplex And Vit B12 |
| Photosensitization “Phototoxins” | *Some plants *liver damage *some drugs *phenothiazine | severe inflammation of the skin with depigmentation and ulceration | | Access to shade at daylight - removing the source of toxin | corticosteroid – antihistamine – panthenol cream – antibiotic_AD3 |
| Vitamin B-12 deficiency & Cobalt deficiency | Anemia is a main cause of a cobalt and vitamin B-12 deficiency | Emaciation - poor appetite - anaemia and de-creased milk production | | Cobalt help absorb and use of vitamin B12 in the body | Vitamin B12 injection |
| Grass tetany | Low blood magnesium | | | *calcium and magnesium solution Cal-D-Mag *magnesium sulphate added to feed | |

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| Leishmaniosis | <u>Leishmania donovani</u> Protozoan parasit found in dogs and rodents | * cutaneous leishmaniasis , skin ulcer * visceral leishmaniasis , 'black fever' fatal Fever - anemia enlarged liver and spleen | Blood and urine tests | sand fly Definitive host Human Intermediate host Sandfly Reservoir host Dog | *Meglumine antimoniate with antibiotic |
| Listeriosis 'Circling Disease' | Listeria monocytogenes affect humans and domesticated animals | a head tilt down – circling - paralysis on one side of the face - abortion and stillbirth. | ELIZA | contaminated food by Listeria monocytogenes | penecillin at high doses with gentamicin |
| Coenurosis Coenurus cerebralisl | larvae of Taenia multiceps in intestine of dog | Sheep rotate in circles around its position | | | |

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| Colic in horse | gas, impaction, grain overload, sand ingestion, and parasite infection. | | *(NSAIDs) such as flunixin *Buscopan relax GIT muscle *Laxatives as paraffin oil *Fluid Therapy *use nasogastric (stomach) tube to evacuate it | | |
| laminitis in horse حمى الحافر أو (الحمرة) | Diseases with inflammation ☒ certain types of colic ☒ diarrhoea ☒ retained placenta ☒ severe pneumonia Hormonal diseases *Cushing's disease: abnormality in the pituitary gland result from excessive thirst and appetite يعاني من العطش والشهية الشديدة Mechanical overload High intake of soluble carbohydrates (sugars and starch) تناول كميات كبيرة من الكربوهيدرات القابلة للذوبان Stress : change in environment or travelling Obesity : overfeed the horse يعاني من السمنة المفرطة | | *(NSAIDs) such as flunixin *Anti histamine *Acepromazine to increase the blood supply to the feet *ice to cool the feet *Foot support to limit movement of the pedal bone and to reduce the pain of the horse. *Box rest with dietary changes | | |
| Indications for rumenotomy | allows a surgeon direct access to the rumen, allowing for removal of ingested | traumatic reticuloperitonitis - esophageal obstruction - foreign body ingestion (impaction) – plant toxicity | | | |
| Hard pad disease | Canine distemper in puppies is fatal | puppies with severe symptoms usually die Adult dogs can recover from it | | | |
| Rectal Tenesmus | unable to empty your bowel after you have already defecated | diarrhea with curved shape | | Enema سائل معد لحقنة شرجية | |
| Ionophore antibiotic Monensin -Salinomycin | added to cattle and chicken feed to promote growth and to prevent coccidial infection and to prevent bloat by increasing propionic acid | | | | |
| Pleuromutilin antibiotic Tiamulin | used in treatment of dysentery and pneumonia and mycoplasma infections in pigs and poultry. Best way orally | | | | |
| Magnesium sulphate Epsom salt English salt | MgSO4 | 1-Purgative orally : as a laxative to treat constipation 2- muscle relaxant – CNS depressant I/M I/V: to treat tetanus 3- Hypomagnesemia S/C : 20% with calcium to help calcium absorption 4- reduce inflammation locally on swelling Topical application | | | |
| Furazolidone “Antibacterial antiprotozoal” broad spectrum | Gram positive Clostridium perfringens – Corynebacterium - pyogenes Streptococci – Staphylococci Gram negative Escherichia coli – Salmonella – Shigella Protozoa Giardia - Eimeria - Histomonas meleagridis | | | Aslo treat histoplasmosis in pets | |

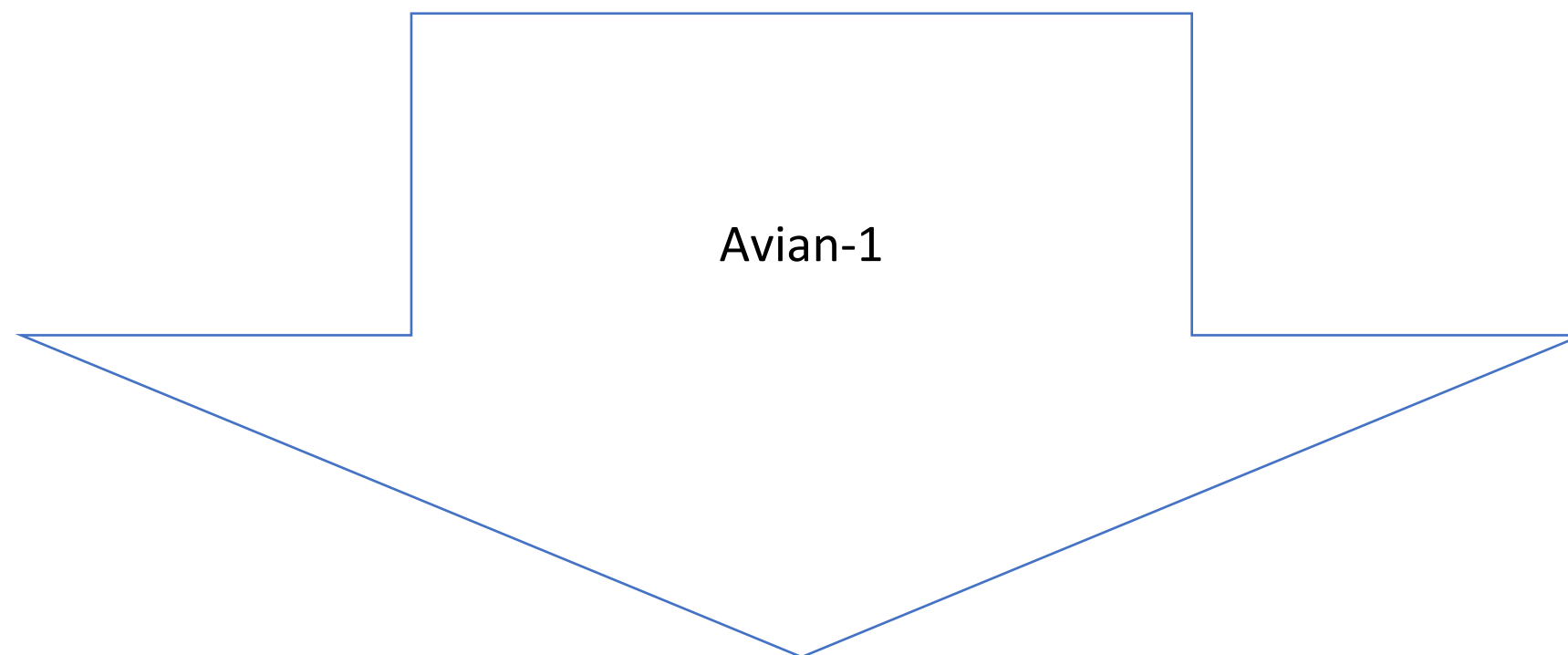
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| Quinapyramine toxicity | trembling, sweating and salivation - increase in respiration and heart rate - death | | | | Atropine + liver tonic |
| Sulfonamide toxicity in poultry | Haemorrhage on leg, breast, ms, and all abdominal – pale bone marrow – blood slow to clots – low egg production | | | | Vit K |
| Lead poisoning | | Blindness – frothy saliva رغوة في الفم Loss of appetite - Muscle tremors | | | Orally magnesium sulphate I/M vitamin B1 Rumotomy |
| Strychnine poisoning in dogs | | Stiff muscles and Limb - difficult breathing – arched back | | | Diazepam is sedative, muscle relaxant in dogs |
| Diazinon toxicity in dogs or cattle “Organophosphate” | acute pancreatitis in dogs - watery eyes, runny nose, loss of appetite, coughing, urination, diarrhea, and vomiting. | | | | 1-Atropine 2- Chlorpromazine (anti emetic) كمثاع للقيء، وكمهدئ عصبي قوي وايضا لتهدئة الكلاب من اجل تطهيرهم purgation of dog 3-washing with soap & water |
| Diazepam toxicity (Benzodiazepines) | Diazepam overdose | Coma - Weakness - Vomiting - Relaxed muscles | | | Flumazenil |
| Mycotoxicosis 3 fungi | Mould growth in the feed Molds grow on cool weather in food and produce toxins | Decrease body weight - palness | Anti fungal (anti mycotic) : calcium propionate inhibit mould growth so used in food storage to longer food period without fungal growth | | |
| Aflatoxicosis by falvus in poultry | Affect poultry growth – carcinogenesis – mutagenesis – immune suppression | | | | Aluminium silicate |
| Hydrocyanic acid poisoning | | | | | Sodium thiosulfate (STS) |
| Ionophore toxicity | Leg weakness - Extended back ward | | | | |
| sodium chloride toxicity salt poisoning | Excessive salt (sodium chloride, NaCl) intake | subcutaneous edema and ascites and hydropericardium | | | |
| organophosphorus poisoning (OPS) causing Choline esterase inhibition | Contaminated food or water with Organophosphates (OPs).as insecticide | Tearing - excess salivation - vomiting – sweating - cyanosis - ms tremors | | 1-Atropine 2- Chlorpromazine (anti emetic) كمثاع للقيء، وكمهدئ عصبي قوي وايضا لتهدئة الكلاب من اجل تطهيرهم purgation of dog 3-washing with soap & water | |
| Atropine “Anticholinergic” I/V or I/M or Eye drops | Uses : Organophosphate toxicity - decrease saliva and bronchial secretion during surgery - uveitis - Bradycardia “low heart rate” Diarrhea and with imizole to decrease it's side effect Side effect : dry mouth - large pupils - urinary retention – احتباس – constipation - fast heart rate – glaucoma “high blood pressure” -blurred vision -عدم وضوح الرؤية -nausea | | Large doses atropin to treat some poisonings Atropin antidote : physostigmine or pilocarpine Contraindicated in thyrotoxicosis | | |
| Cyanide poisoning | | | | | Vit B12 |

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|--|---|--|---|---|---|
| Free gas tympany rumen on the left side | Physical obstruction of esophagus an excessive volume of gas in the rumen | Gas in nature | Passing a stomach tube will distinguish between gas and frothy bloat. | If it's gassy bloat a stomach tube passed into the rumen will allow the gas build-up to escape through the tube. | Passing a stomach tube is the best treatment for gassy bloat. |
| Frothy tympany | Occurs after ingests legumes or grass rich in protein or a diet high in concentrat | Foam gas with bubbles Distension of left flank and doughy palpation | | No such gas is seen in frothy bloat. | * turpentine oil for tympany *Dimethicone For bloat |
| Ruminal indigestion | excessive feeding of grain results in ruminal atonyضعف and increase fecal out put | | Low appetite – constipation or diarrhea – rumenal atony | | saline via a stomach tube |
| Impaction | the accumulation of the indigestible materials in the rumen such plastic | Rumen stasis – acidosis - no feces - salivation, recumbency - death | *Rumenotomy and emptying rumen *I/V Na bicarbonate for lactic acidosis *slaughtering in sever cases | | |
| Udder oedema | Physioglcal disorder before or after parturition | No fever – no pain – no hotness – milk the same shape – increase size of udder – healthy udder tissue | Mention the difference between udder oedema and mastitis ? | *Diuretics *Corticosteroid if not pregnant *Hotcompress | |
| Mastitis | Bacterial or Fungal infection due to contaminated tool | Fever – pain – hotness – Milk may be change with blood or pus - Inflamed | | *Antibiotic *anti inflammatory *ointment | |
| Mastitis | Staphylococcus aureus and Mycoplasmas | 1-Subclinical mastitis : increase in somatic cell counts in the milk. (milk appear normal) 2- Clinical mastitis : mammary gland inflammation - milk clots. 3- Acute mastitis : (fever, depression, loss of appetite) - The udder is swollen and painful. 4-Chronic mastitis : Milk contain clots or shreds 5-Acute gangrenous mastitis : Toxaemia - milk become watery and bloody- mammary gland is necrotic | Mode of transmission : 1-Contagious mastitis : during the milking process 2-Environmental infections : bacteria acquired from environment of the cow. | intramammary infusion of an ointment or I/M or I/V of antibiotics, such as streptomycin, ampicillin, tylosin penicillin, and tetracycline | |
| Traumatic Pericarditis | ingestion of wire or piece of metal into the rumen of the cow. | | | | |
| Femur Femoral fractures | 1-in calves during forced extraction for dystocia 2-adult cattle after falling during mounting or on slippery flooring have a Grave prognosis because of high body weight | | | Good prognosis Mention prognosis ? | |

| Disease | Cause | Description | Diagnosis | Diffirencial | Treatment |
|--|---|--|--|--|---|
| Free gas tympany rumen on the left side | Physical obstruction of esophagus an excessive volume of gas in the rumen | Gas in nature | Passing a stomach tube will distinguish between gas and frothy bloat. | If it's gassy bloat a stomach tube passed into the rumen will allow the gas build-up to escape through the tube. | Passing a stomach tube is the best treatment for gassy bloat. |
| Frothy tympany | Occurs after ingests legumes or grass rich in protein or a diet high in concentrat | Foam gas with bubbles Distension of left flank and doughy palpation | | No such gas is seen in frothy bloat. | * turpentine oil for tympany *Dimethicone For bloat |
| Ruminal indigestion | excessive feeding of grain results in out put | ruminal atonyضعف and increase fecal | Low appetite – constipation or diarrhea – rumenal atony | | saline via a stomach tube |
| Impaction | the accumulation of the indigestible materials in the rumen such plastic | Rumen stasis – acidosis - no feces - salivation, recumbency - death | *Rumenotomy and emptying rumen *I/V Na bicarbonate for lactic acidosis *slaughtering in sever cases | | |
| Udder oedema | Physiolgical disorder before or after parturition | No fever – no pain – no hotness – milk the same shape – increase size of udder – healthy udder tissue | Mention the difference between udder oedema and mastitis ? | | *Diuretics *Corticosteroid if not pregnant *Hotcompress |
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| Disease | Species | Comment | |
|---------------------------|---|---|---|
| Brucella | B.abortus B.meletensis B.ovis B.canis B.suis | Human cattle camel Sheep goat camel Sheep Dog Pig | Fistulous withers caused by B.abortus |
| Mycobacteria | M.tuberculosis M.bovis M.avium | Human cow only other subclinal inf. Cow Bird | Other animals have resistance from M.tuberculosis |
| Pasteurella | P. multocida P. Mannheimia haemolytica | | |
| Mycoplasma | M. capricolum Contagious caprine pleuropneumonia (CCPP) M. bovis Contagious bovine pleuropneumonia (CBPP) M.gallisepticum (MG) meleagridis synoviae | Goats Cattle Chickens - Turkey - birds Braxi - malignant odema - false | |
| Clostridia | C.septicum C.chauvae C.novyii C.botulinum C.perfringes C.perfringes type c C.tetani C.haemolyticum C.sordellii | Blackleg disease Black disease Black big head Tremors - paralysis Pulpy kidney - lamb dysentery - Enterotoxemia Struck Tetanus in human cause (MS rigidity - prolapsed eyelid - lockjaw Bacterial red water bacillary hg urea Sudden death syndrome | Braxy in sheep : High MR ch. By inflammation of abomasal wall. |
| babesia | B.bovis B.bigmenia | | |
| Theileria | T.annulata T.parva | | |
| Anaplasma | A.marginal A.centrale | | |
| Trypanosoma | T. congolense T. vivax T. evansi | All animal All animal Camel | |
| schistosoma | S.hematobium S. mansoni S. japonicum | Urinary bladder Intestine 'colon' Japan | |
| Fasciola | F. hepatica F. gigantica | | |
| Mange caused by 3 Mites | M. Sarcoptes scabiei M. Demodex M. Chorioptic | | |
| Thelazia | T. callipaeda T. lacrymalis T. rhodesi | dogs and cats horse cattle | |
| Lung worm Dictyocaulus | D. viviparous D. filarial D. arnfieldi | Cattle Sheep and goat Horse | |
| Mycotoxins | Aflatoxin produced by fungi Ochratoxicosis produced by fungi Fusario toxin produced by fungi | Aspergillus flavus Penicillium Fusarium | carcinogenesis – mutagenesis – immune suppression |
| Eimeria | E. acervulina E. tenella E. maxima E. mitis E. necatrix | Ch. By accumulation of blood and tissue debris | Mention 5 types of Eimeria |

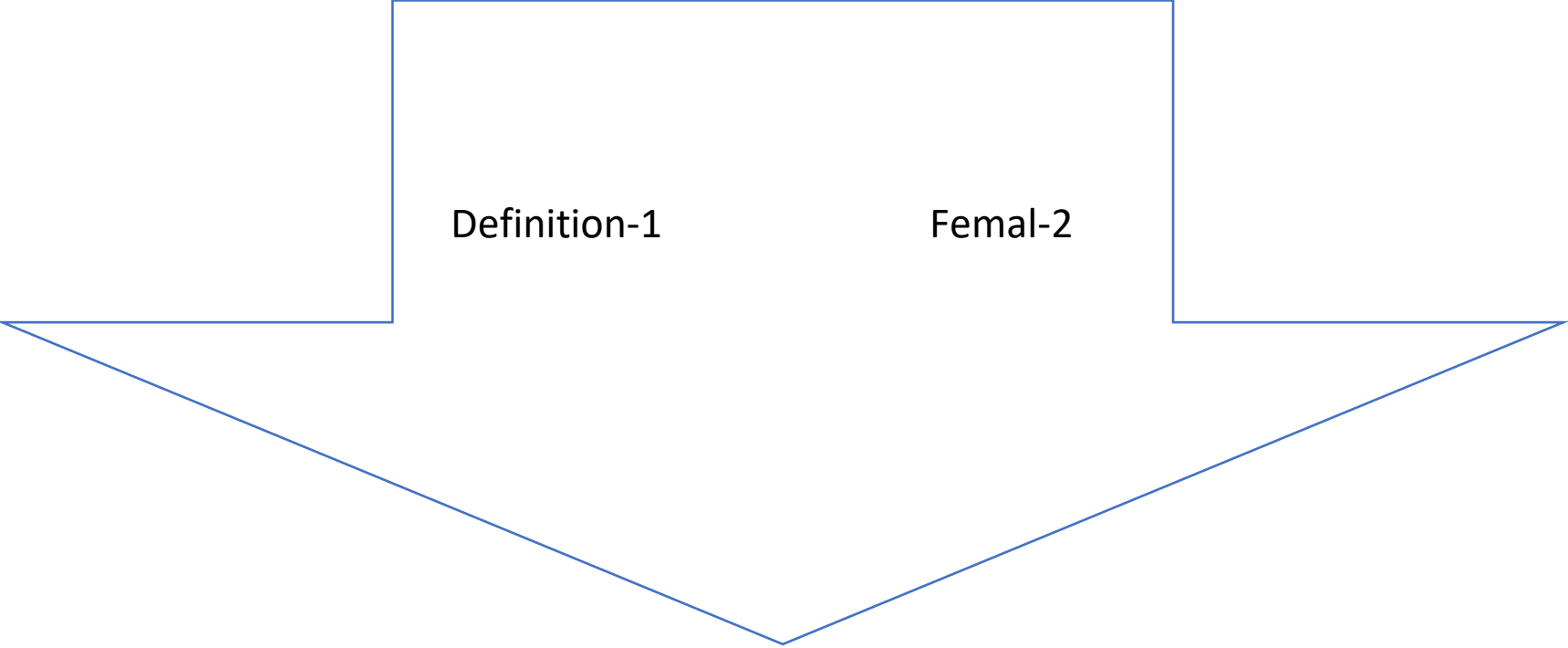


| Disease | Cause | Symptoms | Transmition | Treatment |
|--|---|--|--|---|
| Fowl cholera “avian hemorrhagic septicaemia” | Pasteurella multocida High MR | Green diarrhea - Lameness - joint enlargement - swollen wattles cyanosis head | Fecal dropping | I/M tetracycline |
| Pullorum disease “bacillary white diarrhea” | Salmonella pullorum High MR | whitish fecal pasting around the vent لصق البراز الأبيض حول فتحة التهوية drop in egg production | Egg transmitted disease- contact with inf birds | I/M tetracycline |
| Fowl typhoid (FT) | Salmonella Gallinarum | | | |
| Colibacillosis “coli granuloma” | Escherichia coli | Lameness - coligranulomas in liver and intestine and messentry P.M airsacculitis – pericarditis - perihepatitis - egg peritonitis - swollen head | | |
| Mycoplasma | | | | Tylosin |
| Erysipelas | common disease in turkeys but is rare in the fowl. | Arthritis – yellowish green diarrhea | | |
| Bumblefoot “plantar pododermatitis” | Staphylococcus aureus | swelling of the foot pad – arthritis and osteomyelitis التهاب المفاصل والتهاب العظم | | |
| Infections Coryza | Haemophilus paragallinarum | Swollen head – nasal discharge - lacrimation | | Doxy or sulpha trithoprime |
| Snuffles in rabbits شخر بصوت مسموع (Pasteurellosis) | Pasteurella multocida | nasal discharge – rubbing nose in cage – difficult breathing - head tilting - skin sores تقرحات الجلد - death | Enrofloxacin Prevented by ventilation and clean place | |
| Avian chlamydiosis (AC) (Psittacosis, Ornithosis, Parrot Fever) الببغيات ، الطيور حمى الببغاء | Chlamydia psittaci P.M : enlarged liver – spleen - & thickened air sac broncho pneumonia | Anorexia – drop in egg – diarrhea – ocular and nasal discharge – conjunctivitis – sinusitis – fever - ruffled feathers مكشوش Weakness – loss appetite – weight loss. Transmission : Fecal oral route – inhalation – vertical transmission | | In human cause pneumonia No vaccine for poultry Traetment : tetracyclin |
| Paratyphoid | | | rodents | |
| candidiasis in pigeons | Candida fungus | Caseous mass in the pharyngeal region | | fluconazole |

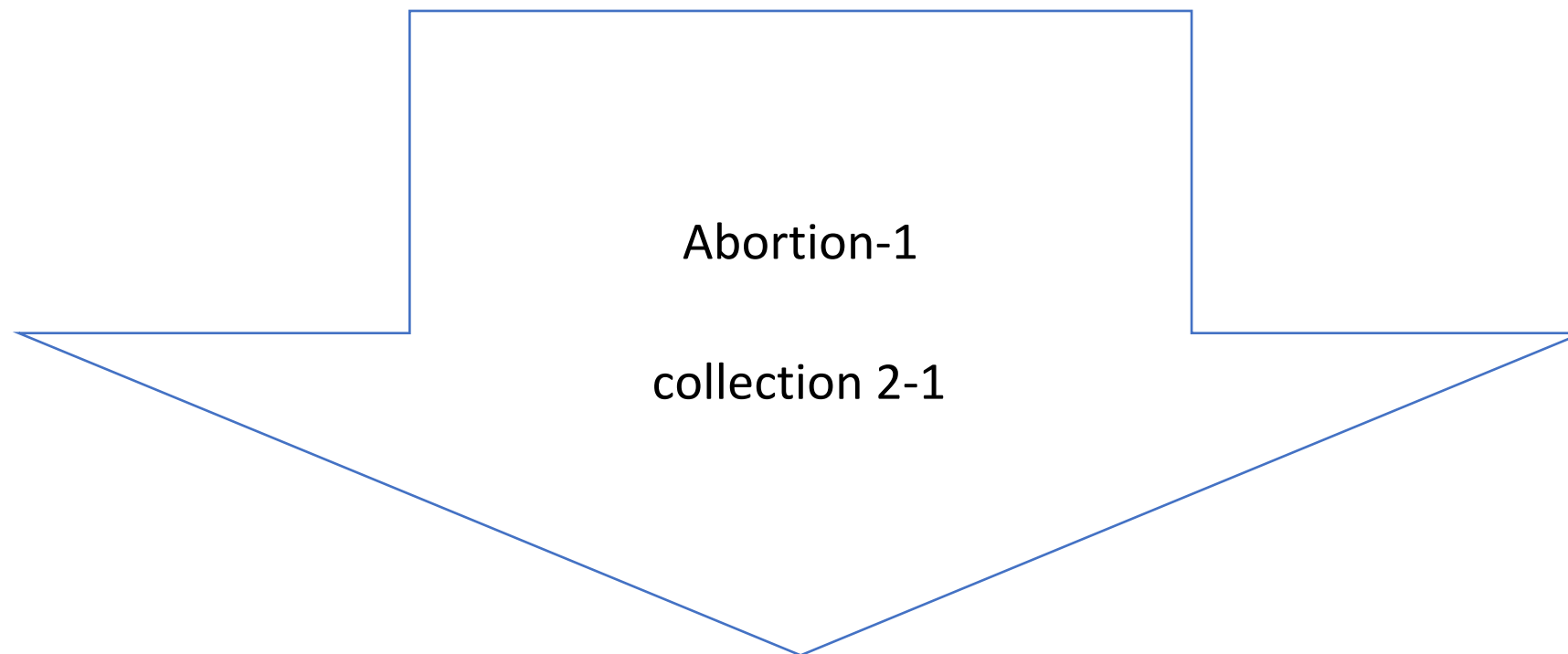
| Disease | Cause | Symptoms | Transmition | Treatment |
|---|---|---|--|------------------------------|
| Chicken Infectious Anemia | | Bone marrow is pale - thymus is atrophied | | |
| Egg drop syndrome | EDS Virus | abnormal eggs | Egg transmitted disease | |
| Chicken anemia virus (CAV) | | Latent infection العدوى الكامنة | | |
| Avian pneumovirus | | | Carrier the virus after recovery | |
| Derzsy disease Goose hepatitis | Goose parvo virus | highly contagious and fatal disease of goslings and Muscovy ducklings Ch. By short beaks and dwarfism syndrome (SBD5) | | |
| Vitamin A deficiency | Vitamin A deficiency | white diphtheritic membrane in pharynx easily removed – swelling of eye – urate deposition in kidney and urater - loss of appetite and decreased growth rate | | vit A |
| Vitamin E Deficiency “Avian Encephalomalacia” | Vitamin E Deficiency | *Encephalomalacia : (crazy chicken disease) *muscular dystrophy : white or yellowish muscle fibres. *Exudative diathesis : skin of legs cyanotic | | Vitamin E And or selenium |
| Curly toe paralysis | Riboflavin (vit B2) deficiency | | riboflavin + multivitamins | |
| Perosis “chondrodystrophy” | manganese (Mn) deficiency in diet or choline or nicotic acid or folic acid. | enlarged hock joints - tendon slips to one side | | |
| fatty liver syndrome | High feed intake esp. caged layers – negative energy balance – hepatic insuffiecncy | Increase in body weight - Increase of viscera and abdominal fat | Changing the balance of carbohydrates and fat in the diet + selenium | |
| Fatty Liver and Kidney Syndrome | biotin deficiency | | | |
| Articular gout النقرس المفصلي visceral gout | Due to damage of kidney | deposition of urate crystals in joint ترسب بلورات اليورات في المفصل | | |

| Disease | Cause | Symptoms | Transmition | Treatment |
|--|--|---|---|---|
| Avian influenza | avian influenza Type A virus | Nervous sign Like Orthomyxoviridae | airborne transmission or indirectly, through faecal contamination of material or feathers or feed | |
| Infectious Laryngotracheitis (ILT) | Herpesvirus P.M haemorrhagic tracheitis with blood clots | Rhiniti - Swollen head - difficult breath - Haemorrhagic tracheal exudate | respiratory droplets | |
| Infectious bronchitis disease (IBD) Gumboro disease In chickens less than 2 months | Bi rna virus P.M Enlarged bursa of fabricous | trembling, ruffled feathers, poor appetite, dehydration, huddling, vent pecking, and depression | horizontally by aerosol – contaminated water and feed and equipment | Control: by vaccination live-attenuated vaccine day 1 as follow Biosecurity protocols |
| Infectious Bronchitis (IB) | Corona virus | misshapen shelled respiratory signs, decreased egg production and egg quality eggs | | |
| Newcastle disease (ND) | para-myxo virus Gross lesion : Viscerotropic Velogenic is hemorrhagic ulcer in intestinal mucosa | nervous signs such as paralysis - convulsions Conjunctivitis | droppings and secretions from the nose | Hitchner B1 for day 1 |
| Marek's disease Neoplastic disease امراض سرطانية | Herpesvirus Highly contagious affects chickens younger than 4 months | Nodules on (cutaneous) + (nervous) (ocular) + (visceral) P.M Thickening of nerve trunks and loss of striation. fully productive infection with mareks disease virus occur only in B lymphocytes | dust of contaminated chicken coops, الملونة + Vcaccine from day 1 to establish early immunity. Marek's vaccine preserved at ...room temperature Horizontal transmission | |
| Lymphoid leucosis “Visceral Lymphoma” Neoplastic disease امراض سرطانية | Retrovirus adult chickens, 4 months of age or older. | Tumors in the liver Erythroid leukosis Myeloid leukosis هشاشة عظام Avian Osteopetrosis | Egg transmitted disease Horizontal + Vertical transmission | |
| Avian encephalomyelitis | Tremo virus of Picornaviridae | tremors of the head and neck هزات | Egg transmitted disease - Vertical transmission | |
| Fowl pox “dry pox” (skin) form “wet pox” (diphtheritic) form | avian pox virus | Yellow plug difficultly removed leave bleeding Lesion on feather, vent –emaciation, difficulty in swallowing and breathing | mosquitoes | Fowl Pox Vaccine used for chickens and turkey |

| Disease | Cause | Symptoms | Transmition | Treatment |
|--|--|---|---|-----------|
| Trichomoniasis in pigeons (pigeon canker) | Trichomonas gallinae | Yellow plug difficultly removed no leave bleeding – caseous mass in the pharyngeal region of pigeon | Drug of choice Metronidazole antibiotic (Flagyl) | |
| Histomoniasis “Blackhead disease” “Entero hepatitis” Infective stage of histomoniasis eggs of roundworm Heterakis gallinarum in dropping | Histomonas meleagridis protozoa Turkey more susceptible than chicken | Transmission by roundworm Heterakis gallinarum ...protozoa live in cecum and liver then move to the bird’s intestines where the H. gallinarum lives then worm eats the protozoa then roundworm’s eggs become infected with the protozoa then bird sheds the protozoal- infected roundworm eggs in its droppings. | For Histomoniasis Dimetridazole For roundworm levamisole | |
| | Knemidocoptes Mutans | | Dip the birds up to the shank in kerosene | |
| Scaly Leg Mites | | | Or ivermectin inj. Or orally | |
| Coccidia | Eimeria Protozoan parasite | Thiamine antagonise Amprolium | Amprolium used to prevent and treat intestinal coccidiosis - Sulfa | |



| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|---|--|--------------------------|---|--|------------------------------------|--------------------------------------|--|--|--------------------------|--------------------------------------|--|--|-------------------------|---|--|--|----------|---|---|--|-------------------|---|---|--|---|---|--|--|-----------------------------------|---------------------------------|--|--|---|--|------------------------------------|--|----------------------|---|-------------|--|---------------------------------|---|---|--|-----------------------|--|---|--|----------|---|--|--|----------|---|--|-------|---------------|--|--|--|--|---|---|---|---------------------------|---|--|---------------------------------------|-------------------------------|---|--|---|---|--|--|--|
| <p>tumor..abnormal mass of tissue that formed when cell grow and divide more than they should Tumors may be benign (not cancer) or malignant (cancer). tentative diagnosis a diagnosis which is not confirmed phimosis ضيق غطاء راس القضيب foreskin is too tight to be pulled back over the head of the penis withdrawal period ...the time required for the body to eliminate the drug from it and become safe for human consumption Case history... a record of history, environment, and relevant details of a case for use in analysis Zoonotic risk ... infectious disease caused by an infectious agent, such as a bacterium, virus, parasite that has jumped from an animal to a human. Infectious diseases are disorders caused by organisms — such as bacteria, viruses, fungi or parasites. Biosecurity procedures taken to prevent or minimize entry of disease into farm or out of farm Biosecurity in poultry farms : Keep rodents and other animals away - Keep your coop and runs clean Keep food and water disease free - Limit visitors and visits - Proper poultry feed. Proper vaccination precaution of burner in poultry farms in summer ... Ventilators - Water temperature - Exchange the drinker water frequently - Maintenance of optimum air temperature Disinfection of cars, tools, room, people, water Eradication of *animal, rats, rodents, birds, insects, visitors to farm *Decrease transport from farm to farm *Daily disinfectant of farm *Keep areas around farm clean *farm should be far from other farms Mechanism of drug action the specific biochemical interaction which a drug produces its pharmacological effect. includes the drug binds to specific molecular targets, such as an enzyme or receptor. Animal welfare : Including proper housing and management and disease prevention and treatment and care Inguinal hernia Protrusion of abdominal cavity through inguinal canal in small animal TTT surgically Drug additive : Compound such vitamin or preservative which added to other ingredient to improve the external Quarantine : Strict isolation of infected animal to prevent the spread of disease Epidural anesthesia : Injection of anesthesia into the lumber in sapce between spinal cord and the dura which eliminate sensation from surgery Rose Bengal test : Rapid slide agglutination test used for identifying brucellosis antibodies in sera (B.abortus) Debeaking : Cut off the upper part of poultry beaks so they do not harm each other chicks Brucella meletensis : Affect sheep and goat causing late abortion and still birth treated by oxy and streptomycin long term vaccinated Rev1 Abomasum displacement : (True stomach) Abomasum filled with gas and then raise to the top of abdomen due to calving or abomasum atony treated by casting and rolling animal to it's back</p> | | | | <p>The course (Duration) : 1- Peracute : very short course 2- Acute : short course 3- Subacute : long course 4- Chronic : very long course Notifiable disease A disease must be reported to public health authorities at the time it is diagnosed because it cause high economic loss Such : Anthrax – brucellosis – T.B - FMD Occurance حادثة : 1-Spordic : disease which occurs infrequently or irregularly from time to time in isolated places 2-Endemic : disease belongs to a particular people or country 3-Epidemic : disease that affects a large number of people within a community or region. 4-Pandemic : is an epidemic that's spread over multiple countries 5-Exotic : disease imported into a country in which they do not otherwise occur</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table><tr><td>Gonadotropin-releasing hormone</td><td>From Hypothalamus (GnRH)</td><td colspan="2">stimulate the anterior pituitary gland to release of (FSH) and (LH)</td></tr><tr><td>Follicle-stimulating hormone (FSH)</td><td>made by the anterior pituitary gland</td><td colspan="2">*maturation of ovarian follicle *stimulate estrogen secretion *stimulate spermatogenesis in male</td></tr><tr><td>Luteinizing hormone (LH)</td><td>made by the anterior pituitary gland</td><td colspan="2">*stimulate ovulation *formation of corpus luteum *stimulate progesterone secretion *stimulate testosterone production in male</td></tr><tr><td>Estrogen Estradiol (E2)</td><td>produced by Ovarian follicle which regulated by FSH</td><td colspan="2">*Induce estrus * development of reproductive system</td></tr><tr><td>Oxytocin</td><td>produced by the posterior pituitary gland</td><td colspan="2">*milk ejection *contraction of uterus during parturition *stimulate uterine PGF2α secretion</td></tr><tr><td>Progesterone (P4)</td><td>produced by Corpus luteum which regulated by LH</td><td colspan="2">*inhibit GnRH release which inhibit (FSH , LH) *inhibit reproductive behavior *maintain the pregnancy</td></tr><tr><td>Prostaglandin F2α (PGF2α) Estrumate or lutealyse</td><td>Indicated for synchronize estrus and pyometra also used in terminate pregnancy Why pgf2 for synch and pyometra ?</td><td colspan="2">*lutelytic effect on growing corpus luteum *Open the cervix *Contraction of the uterus to remove pus *stopping the production of progesterone *stimulate ovulation</td></tr><tr><td>Prolactin hormone هرمون الحليب</td><td>produced by the pituitary gland</td><td colspan="2">*stimulate milk production *mammary gland develop</td></tr><tr><td>summer heat stress (HS) summer sterility</td><td>Increase day length and high temperature</td><td colspan="2">Cooling Cows and make shading area</td></tr><tr><td>Cystic Ovary Disease</td><td>Causes : negative energy balance and high milk producers.</td><td colspan="2">Infertility</td></tr><tr><td>"Nymphomania" الشهوة العالية</td><td>(frequent or constant heat) due to cystic ovaries produce large amounts of estrogen</td><td colspan="2">Treatment is injection of (GnRH) to induce (LH)</td></tr><tr><td>Smooth inactive ovary</td><td>1-Diet is low in phosphorus 2-internal parasite 3-hormon</td><td colspan="2">1- Phosphor with ردة 2- Ivermectin + tonics 3- (GnRH) induce (LH) or Estrogen</td></tr><tr><td>Anestrus</td><td colspan="3">Failure of estrus cycle - 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over size fetus - abnormal presentation - Twins Abnormal fetus 2- Maternal cause Uterine inertia – obstruction or inadequate size of birth canal – uterine torsion – incomplete cervical dilution – neoplasm in vagina – low expulsive force</td><td>1-correction pasture and presentation 2-cessation section if needed 3-fetotomy as in case emphysematous fetus</td></tr></table> | | | | Gonadotropin-releasing hormone | From Hypothalamus (GnRH) | stimulate the anterior pituitary gland to release of (FSH) and (LH) | | Follicle-stimulating hormone (FSH) | made by the anterior pituitary gland | *maturation of ovarian follicle *stimulate estrogen secretion *stimulate spermatogenesis in male | | Luteinizing hormone (LH) | made by the anterior pituitary gland | *stimulate ovulation *formation of corpus luteum *stimulate progesterone secretion *stimulate testosterone production in male | | Estrogen Estradiol (E2) | produced by Ovarian follicle which regulated by FSH | *Induce estrus * development of reproductive system | | Oxytocin | produced by the posterior pituitary gland | *milk ejection *contraction of uterus during parturition *stimulate uterine PGF2α secretion | | Progesterone (P4) | produced by Corpus luteum which regulated by LH | *inhibit GnRH release which inhibit (FSH , LH) *inhibit reproductive behavior *maintain the pregnancy | | Prostaglandin F2α (PGF2α) Estrumate or lutealyse | Indicated for synchronize estrus and pyometra also used in terminate pregnancy Why pgf2 for synch and pyometra ? | *lutelytic effect on growing corpus luteum *Open the cervix *Contraction of the uterus to remove pus *stopping the production of progesterone *stimulate ovulation | | Prolactin hormone هرمون الحليب | produced by the pituitary gland | *stimulate milk production *mammary gland develop | | summer heat stress (HS) summer sterility | Increase day length and high temperature | Cooling Cows and make shading area | | Cystic Ovary Disease | Causes : negative energy balance and high milk producers. | Infertility | | "Nymphomania" الشهوة العالية | (frequent or constant heat) due to cystic ovaries produce large amounts of estrogen | Treatment is injection of (GnRH) to induce (LH) | | Smooth inactive ovary | 1-Diet is low in phosphorus 2-internal parasite 3-hormon | 1- Phosphor with ردة 2- Ivermectin + tonics 3- (GnRH) induce (LH) or Estrogen | | Anestrus | Failure of estrus cycle - 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over size fetus - abnormal presentation - Twins Abnormal fetus 2- Maternal cause Uterine inertia – obstruction or inadequate size of birth canal – uterine torsion – incomplete cervical dilution – neoplasm in vagina – low expulsive force | | 1-correction pasture and presentation 2-cessation section if needed 3-fetotomy as in case emphysematous fetus | <p>The length of the normal estrous cycle is 17 days for sheep and 21 days for goats and cow and mare and for she camel is 13-40 days</p> <p>Duration of pregnancy in the 1- Mare : 11 months 2- Camel : 13 months 3- Cow : 9 months 4- Bitch : 60 – 65 days 5- Ewe : 5 months</p> <p>Estrogen before oxytocin is indicated for expulsion of mummified fetus (right) Why use PGF2 before oxytocin ? First dilute the cervix and then use of oxytocin for contraction of uterus to expel mummified fetus</p> <p>In cow rectal palpation at 75 days what you can find ? Cotyledons - amniotic vesicle - fetal membrane slip – fetus</p> <p>To induce abortion in macerated fetus mummified fetus use .. PGF2α and oxytocin To induce parturition in sheep and goat at end of pregnancy PGF2α and dexamethasone. To induce parturition or abortion in horse at end of pregnancy oxytocin</p> <p>Corpus luteum give PGF2α Smooth in active ovary or cystic ovary give GnRH or Estrogen</p> <p>The highest estrogen level in case of ... ovulation</p> | | | |
| Gonadotropin-releasing hormone | From Hypothalamus (GnRH) | stimulate the anterior pituitary gland to release of (FSH) and (LH) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Follicle-stimulating hormone (FSH) | made by the anterior pituitary gland | *maturation of ovarian follicle *stimulate estrogen secretion *stimulate spermatogenesis in male | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Oxytocin | produced by the posterior pituitary gland | *milk ejection *contraction of uterus during parturition *stimulate uterine PGF2α secretion | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Progesterone (P4) | produced by Corpus luteum which regulated by LH | *inhibit GnRH release which inhibit (FSH , LH) *inhibit reproductive behavior *maintain the pregnancy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prostaglandin F2α (PGF2α) Estrumate or lutealyse | Indicated for synchronize estrus and pyometra also used in terminate pregnancy Why pgf2 for synch and pyometra ? | *lutelytic effect on growing corpus luteum *Open the cervix *Contraction of the uterus to remove pus *stopping the production of progesterone *stimulate ovulation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prolactin hormone هرمون الحليب | produced by the pituitary gland | *stimulate milk production *mammary gland develop | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| summer heat stress (HS) summer sterility | Increase day length and high temperature | Cooling Cows and make shading area | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cystic Ovary Disease | Causes : negative energy balance and high milk producers. | Infertility | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| "Nymphomania" الشهوة العالية | (frequent or constant heat) due to cystic ovaries produce large amounts of estrogen | Treatment is injection of (GnRH) to induce (LH) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Smooth inactive ovary | 1-Diet is low in phosphorus 2-internal parasite 3-hormon | 1- Phosphor with ردة 2- Ivermectin + tonics 3- (GnRH) induce (LH) or Estrogen | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Anestrus | Failure of estrus cycle - absence of estrous signs due to failure of growing of ovarian follicle and causes are : A- Environmental factors: season – lactation – nutrition B- persistence of corpus luteum: pregnancy – pyometra – high lactating animal – early embryonic death C- cystic ovary | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pyometra | accumulation of purulent exudate in the uterus due to high exposure to progesterone | | PGF2α | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Corpus luteum | Mass of cells that form on ovary after ovulation and secrete progesterone during pregnancy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Retained placenta "retained fetal membranes" failure to expel fetal membranes after parturition. | Hypocalcaemia – low vit E Selenium Weak uterine atony Previous uterus surgery Twin – fating – abortion – toxemia | Start remove it manually After 12h in summer and After 24h in winter. | Oxytocin Inj. or PGF2& + Calcium + E.selenium | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Retained placenta in Mare | can be easily removed because simplicity of it's attachment to uterus | | If the placenta is retained 5-6 hours | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dystocia "difficult birth" | 1- Fetal cause Mummified fetus - over size fetus - abnormal presentation - Twins Abnormal fetus 2- Maternal cause Uterine inertia – obstruction or inadequate size of birth canal – uterine torsion – incomplete cervical dilution – neoplasm in vagina – low expulsive force | | 1-correction pasture and presentation 2-cessation section if needed 3-fetotomy as in case emphysematous fetus | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



| Disease | Cause | Symptoms | Diagnos | Transmition | Treatment |
|--|---|--|--|--|--|
| Brucella, Storm abortion Intracellular | Coccobacilli _ve Ziehl nelson | Late abortion - Anemia Weakness of new born Retained placenta - Bull: Orchitis Human: fever- night sweat | *Rose Bengal test *Milk ring test *Eliza pcr | Direct contact with Blood , milk , semen or urine | Test slauter Oxytetracyc Streptomycin Long course |
| Leptospira | Spirochaete | HG urea – bloody milk - fever – abortion – stillbirth | Eliza pcr | (oral ingestion) Food water contaminated with rodent urea | Streptomycin or tetracyclin or penecillin |
| Listeriosis 'Circling Disease' | Listeria monocytogenes Affect human | a head tilt down – circling - paralysis on one side of the face - abortion and stillbirth. | Eliza pcr | contaminated food by Listeria monocytogenes | penecillin at high doses with gentamicin |
| Trichomoniasis | Tritrichomonas fetus | abortion < 5 months - Infertility – Pyometra - retained placenta | | (venereal) only | The drug of choice for treatment of Trichomoniasis in animals is ... Metronidazole antibiotic |
| Vibrio | Campylobacter fetus | Early abortion - Infertility | | (venereal) | |
| Toxoplasma | Toxoplasma gondii protozoan parasite | focal necrosis of the placenta - early abortion – mummification - stillbirth, and neonatal death | *Ingestion of uncooked meat *ingestion of un washed fruits and vegetables contaminated with cat feces infected by T.gondii | | |
| Chlamydia | Chlamydia psittaci | Intermittent late abortion - | | *direct contact *oral ingestion of the organism | Oxyteracyclin every 5 days for 3 times during gestation |
| Bovine Virus Diarrhea (BVD) | | Early abortion - | | aerosol or contact | |
| Foothill abortion (EBA) | | Late abortion | | Pajahuello tick | |
| Infectious Bovine Rhinothacheitis (IBR) | Herpes | Late abortion | | | |
| Neospora | protozoan, Neospora caninum | Late abortion | | feed contaminated with dog feces. | |
| Sarcocystis | | Late abortion | | Infected dogs, cats in their feces | |

Most common food poisoning.....salmonella (most danger) – clos. Perfringes ,Botulinum – E.coli – campylobacter - listeria
 Dermatitis.... B6
 Morbilli virus... rinder pest (cattle plaque) – PPR (goat plaque) – canine distemper
 Disease transmission by egg of chicken vertically ... 3 diseases and causative agent transmitted by egg... 3 bacterial disease vertically in poultry ...
 Bacterial Salmonella – Mycoplasma – campylobacter
 Viral avian encephalomyelitis - Lymphoid leucosis – Viral Arthritis – adeno v. – chicken anemia - Egg drop syndrome
 Four viral disease cause locomotor and nervous signs in poultry....
 Avian Influenza - para-myxo virus - herpesvirus virus - Eastern Equine Encephalitis virus (EEEV)
 three virus causing tumor in poultry...
 retroviruses and reticuloendothesiosis viruses (REV) - herpesvirus virus.
 Three disease like avian influenza .. ND – ILT - IB
 three anticoccidial feed additive... Monensin – narasin - Amprolium
 Omphalitis التهاب السرة ... E.Coli - Staphylococcus aureus
 Arthritis in chickens.. Avian reoviruses - Staphylococcus aureus
 Swollen head coryza
 Types of suture ...
 absorbable break down in the body used for deep tissues as vicryl
 non-absorbable used in closure of abdominal wall removed after period of time as silk or catgut
 Pneumonia...
 Bacterial Pasteurella – mycoplasma – Escherichia coli – Staphylococcus aureus
 Viral PPR – para influenza – canine distemper
 Mycotic Aspergillus spp, candida spp, Cryptococcus neoformans,
 Parasitic Dictyocaulus
 3 Viral respiratory diseases in poultry (ILT) - (IB) - avian influenza (AI)
 Jaundice
 Pre-hepatic Jaundice : increased red blood cell destruction
 Clostridium haemolyticum – Leptospire – Babesiosis - hypophosphataemia
 Hepatic Jaundice : Liver cell damage hepatic lipidosis
 Post-hepatic Jaundice : obstruction in the biliary tract gall stones
 Transmitted by insect LSD – AHS – blue tongue
 In camels, only 3 ruminant stomach chambers are rumen, reticulum, and abomasum.
 Persistent dry cough with lower head and extend neck
 Moist cough abducted elbow cb
 Vaccinated by web method ... Fowl cholera - Avian encephalomyelitis

Bloody urine بول دموي
 Babesia - bacillary hg urea - hg septicaemia - hypo phosphorus – cystitis - anthrax - leptospira
 Bloody diarrhoea الإسهال الدموي
 MCF – RVF – coccidian – worm – abdominal ulcer – rectal palpation injury – haemorrhagic septicaemia
 Milk-borne diseases transmitted to human....
 Brucella - Campylobacter - E. coli – Listeria – Mycobacterium – paratuberculosis - Salmonella - Staphylococcus aureus
 Diseases cause mouth lesion in cattle....
 foot-and-mouth disease malignant catarrhal fever Bovine viral diarrhea virus Bluetongue virus
 (FMD – MCF – BVD – BT)
 Sudden Death caused by ...
 Bacterial Salmonella – Anthrax - Clostridia
 Other Nitrate and Lead poisoning - Ruminal acidosis - Grass tetany - Bloat
 Nervous sign caused by ...
 Hypo MG – B1 def – ketosis - lead poisoning – OPT - otitis media – brain abscess – meningitis – coenurus cerebrialis (worm in brain need surgery) - oestrus ovis larvae (big white worm) - rabies – listeria – tetanus – babesia nervous form (hopeless)
 Salivation caused by ...
 FMD – BVD – rabies – OPT – Sharp teeth – ketosis – foreign body - Blue tongue
 Corneal opacity caused by ... Pink eye – theileria – MCF – BVD - vit A def – edema
 Circling of animal caused by Listeriosis – Encephalitis - oestrus ovis larvae
 Viral zoonotic disease
 FMD – ORF – RVF – rabies – west Nile virus – Plague
 Bacterial zoonotic disease ...
 Brucella – salmonella – leptospira – tuberculosis – Listeriosis – anthrax
 Protozoal zoonotic disease ...
 Toxoplasmosis - neosporosis - sarcocystosis – trypanosomiasis
 bird zoonotic diseases
 avian tuberculosis - erysipelas – histoplasmosis - salmonellosis cryptosporidiosis, campylobacterosis – E.coli
 immunosuppression in chickens...
 Virus Reovirus and infectious bursal disease virus
 Fungi Aflatoxicosis by falvus
 What disease causes the most economic loss for dairy farmers
 Mastitis - milk fever - retained placenta – lameness - ketosis
 Hepatic lesion caused by
 Hepatic toxic plant – pasteurellosis - salmonellosis – Anthrax - PPR

Infectious Diseases

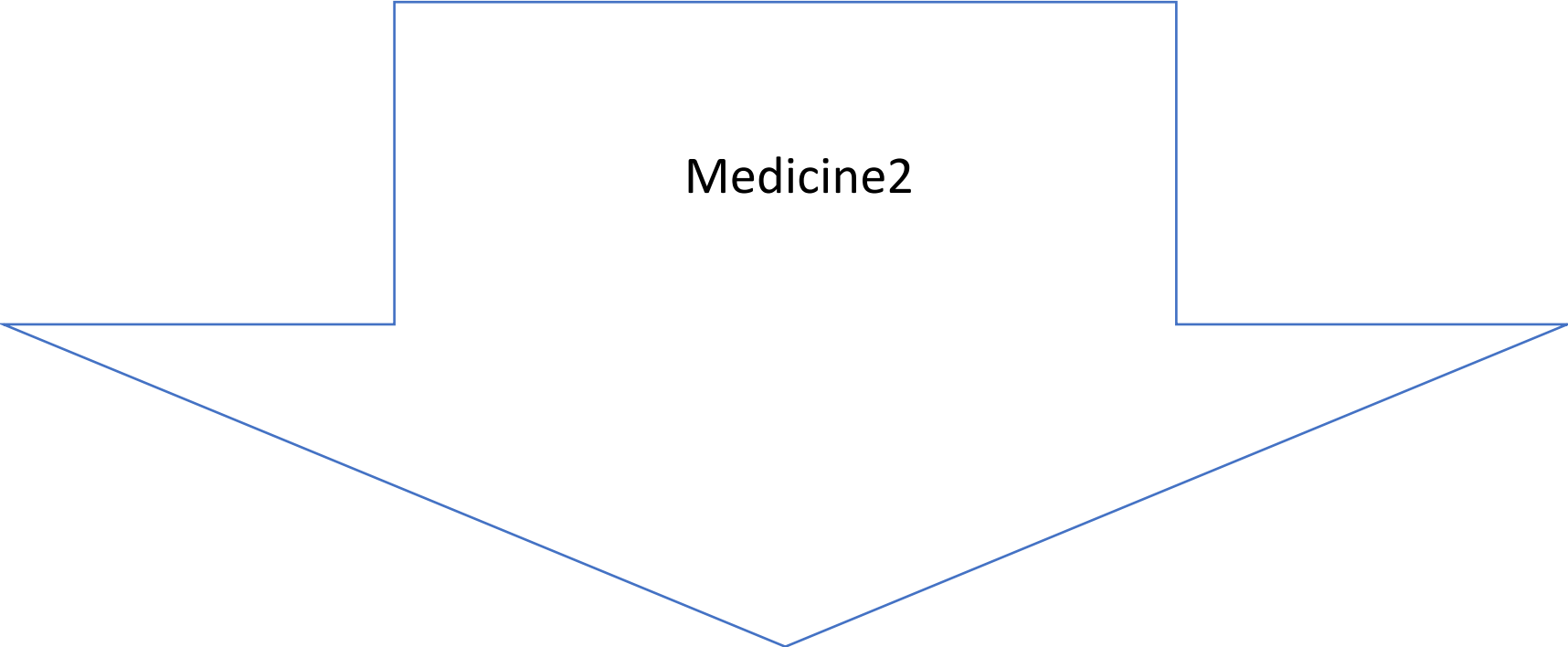
Non infectious Diseases :

Nutritional : Deficiency of selenium – starvation

Poisoning

Chemical : pesticide – fertilizer

Hormonal : increase estrogen



Medicine2

| | |
|---|--|
| <p>Bacteriostatic + Bacteriostatic = additive bactericidal + bactericidal = Additive bactericidal + bacteriostatic = Antagonist because bacteriostatic stop growth of bacteria and prevent killing of it by bactericidal Combined uses of broad with narrow spectrum ones = antagonist Combined uses of amino glycosider for long time destroy kidney. penicillin is narrow-spectrum antibiotic tetracycline & chloramphenicol & ampicillin & cephalosporin are broad spectrum antibiotics Gentamycin & penicillin are bacteriocidal Tetracycline is bacteriostatic Penicillin properties : synergism streptomycin and gentamicin antagonize tetracycline and macrolide and chloramphenicol Its advisable to use penecilin in infection of Anaerobec bacteria penicillin potentiate oxytetracycline (X) Flumazenil is diazepam (benzodiazepine) antagonist Thiamine antagonize action of ... amprolium because amprolium inhibit intestinal absorpotion of thiamine colistin antagonist with lincomycin A broad spectrum antibiotic acts against both G+ and G- bacteria... Tetracycline – cephalosporin – chloramphenicol A narrow spectrum antibiotic acts against G+ ... Glycopeptide as vancomycin bactericidal: An agent that kills bacteria. bacteriostatic: A drug that prevents bacterial growth and reproduction but does not necessarily kill them. When it is removed from the environment the bacteria start growing again. Antibacterial origin is manufacture as sulfatritthoprim Antibiotic origin from nature as penicillin and tetracyclin and chloramphenicol Antibiotic coccidial is ... Sulfadimidine Tylosin is not used for (contraindicated) equine And salinomycin is not used for (contraindicated) Camel and Duck and dairy Cow (Toxic) Oxytocin is contraindicated in dystocia due to abnormal presentation (right) Permethrine ... insecticide Insecticide as ... Permethrine fumigation by التبخير بواسطة ... formalin Prohibit use In Equine ... Macrolide – lincomycin – clindamycin – ivermectin Prohibit use In Birds .. Pancure Aspirin, also known as acetylsalicylic acid (ASA) side effect is gastric ulcer Diclofenac side effect is gastritis prevent in stomach disease Paracetamol not used in cat Tiamulin is not used with... ionophores Combined administration of tiamulin and ionophores (monensin or salinomycin) to farm animals lead to intoxication Tiamulin and ionophores is antagonist Tiamulin + chloramphenicol = additive</p> | <p>Ionophores + chloramphenicol or erythromycin or gentamicin or tetracycline = toxic in liver drug incompatibility such as عدم توافق الأدوية مثل ... Tiamulin and ionophores drug synergism as diaverdine and ethopabate choose Lamness in chickens caused by ... E.coli benzimidazoles... (fenbendazole, triclbendazole, and albendazole) nicotinic agonist ... (levamisole - pyrantel – morantel) macrocyctic lactones... (ivermectin, doramectin, and moxidectin) benzene sulphonamide ... (clorsulon) Amitraz is insecticide against demodicosis in dog and It is also used as a topical treatment for flea and tick (Ectoparasite) infestations in dog Dog is the final host of Echinococcus addition of clavulanic acid to amoxicillin will lead to.. extend the antibacterial spectrum of amoxicillin to include B-lactamase which bacteria produce antidote to anticoagulant rodenticide toxicity is vitamin K الترياق المضاد لمبيدات القوارض Vitamin used as anticoccidia ... vit K Parameters can be checked to determine depth of anesthesia by ... تحديد عمق التخدير eye position – jaw muscle tone - palpebral reflex منعكس الجفن drug use as immune stimulant is interferon Interferons group of signaling proteins released by infected cell to boost anti viral defense brucella canis in dogs no treatment but may we use combination of antibiotics to help reduce the amount of bacteria not completely disappear but Treatment for life is necessary. Antifungal .. fluconazole high ceiling diuretics as furosemide...loop diuretics مدرات البول used to treat hypertension – edema in congestion H.F - liver cirrhosis – renal disease Saline purgatives المسهلات المالحة as MGSO4 and laxavit used for treat constipation and promote defecation and increase intestinal secretion and peristalsis انقباضات Bronchodilator الموسعة للقصبات type of medication that make breathing easier by relaxing the ms in the lung and widening the airways (bronchi) as aminophylline and caffeine Respiratory stimulant as aminophylline and caffeine used for increase respiratory activity infants and decrease apneic episodesتقليل نوبات انقطاع النفس - pneumonia - emphysema – nasal discharge Anti acid مضاد للحمض substance used to neutralize stomach acidity as sodium bicarb Xanthine found in most human body tissues and fluids and Several stimulants are derived from xanthine, including caffeine Morphine pain killer used in severe pain Penicillin is for anaerobic bacteria types of aminoglycosides... gentamicin, amikacin, tobramycin, neomycin, and streptomycin. Aminoglycoside antibiotics are poorly absorbed from the gastrointestinal tract (GIT) types of macrolides ... erythromycin, roxithromycin, azithromycin and clarithromycin and tylosin Blood parasite stained by Geimsa or leishman stain Brucella and T.B satined by Ziehl nelson Example of drug synergism ... sulpha & trithoprim</p> |
| <p>Ivermectin used for ... Eradication of internal and external parasite (except tapeworms) and GIT round worm and mites Clorsulon used with ivermectin for ...Eradication of internal and external parasite and liver fluke Clorsulon used to treat ...immature and adult liver flukes (Fasciola hepatica and Fasciola gigantica) in cattle Dimethicone used in treatment of ...bloat in sheep Diminazine used in treatment of... babseia and trypanosome Disinfectant activity is choose according to.. phenol co efficient يتم اختيار نشاط المطهر وفقًا لمعامل الفينول Drug are poorly absorbed by GIT ... neomycin and streptomycin except.. lincomycin Vitamin important in calcium absorption .. Vit D Vtamin used as anti coccidian... Vit K which is bactericidal ... gentamycin not used to relive pain of stomach .. diclofenac and used safe in ... pregnancy located beneath the diaphragm in the right upper quadrant of the abdominal cavity .. liver diagnostic test to recover the eggs of the equin pinworm ... scotch tape test Fleas not same of ticks not same mites Uses of sulfanomides in laying hens ...in decreased egg production Why sulfanomides are not effective in pus ? the sulfonamide or sulphadimidine concentration must be kept high enough to prevent bacterial access to PABA which lead to renal complications. PABA para amino benzoic acid Why sulfanomides antagonized by pus ? because presence of PABA in pus Why paracetamol are not given to cat ? cats does not have the glucuronyl transferase enzyme which needed to break down paracetamol safely so lead to toxins produced that damage their liver and RBCs Why tylosin not penicillin in treatment of mycoplasma ? Mycoplasma lack a cell wall around their cell membranes. This characteristic makes them resistant to antibiotics that target cell wall synthesis (like the beta-lactam antibiotics such penicillin) But tylosine act on protein synthesis make inhibition Why horse more suseptable to closterdia tetany ? because of their environment and tendency to suffer injuries. Why horse not give ivermectin ? It cause nausea, vomiting, diarrhea low blood pressure ataxia coma and death for horse Why bad prognosis after 12h from uterine prolapse ? secondary infection occur leading to the cow be unable to be re-bred at all. why not palpate corpus luteum first 6-9 days ? because it can't be palpated why nasogastric tube used by nose in horses ? An NG tube is lubricated so it slides more easily to stomach why slow of calcium administration ? because blood calcium may increase too much and cause a heart attack. why should not give ruminants antibiotic orally ? It may lead to adverse events such as anorexia, regurgitation, severe diarrhea, and even death Neostegmin used for ketosis and bloat by S/C inj.</p> | <p>Causes of cannibalism ... no depeaking – increase light time – crowdeness except battery rearing The major type of antibody found in yolk is IgG The recommended level of calcium in the diet of broiler chickens is ... 1% Infective stage of histomoniasis eggs of roundworm Heterakis gallinarum in dropping Berenil® contains Diminazine Aceturate used for treatment of Babesiosis and trypanosomiasis Chlorpromazine used as anti emetic in dogs in rectal prolapse in use.... Pursa-string suture in stomach and uterus and urinary bladder use ... Lambert suture camels are pseudo-ruminants (not true ruminants) because ... they lack the four well-defined stomachs of the ruminants; the rumen, reticulum, omasum and abomasum In camels, only 3 ruminant stomach chambers are rumen, reticulum, and abomasum no omasum un absorbed suture after 10 days what should you do for wound ? Sutures should be removed and applying Vitamin E cream and avoid sun and dirty. selenium is used for treatment of white muscle disease with vit D (X) Fracture bone healing process is impaired with tetracyclin therapy (right) And reason why for tetracycline is ... impairs mineralization of growing bone addition of ca and mg in feed increase absorpotion of tetracyclin (X) important note : magnesium, calcium, iron and other minerals interfere with the absorption of tetracycline into the bloodstream and reduce its effectiveness Lentogenic and mesogenic strain of Newcastle are more pathogenic and more immunogenic examination of pox virus vaccine TAKE should be done at 7–10 days after vaccination contagious mastitis in cattle caused by Staphylococcus aureus Ketamine is approved for general anesthesia animal lacks upper incisors are Ruminants such as cattle, sheep and goats amoxicillin is drug of choice for staphylococcus and streptococcus one of the following is synthetic type is Nylon C.C mean ML ad lib meaning in feed free Drugs used in diarrhea : antibiotics or anthelmintics, anti-inflammatories, electrolyte fluids, vaccination, mineral supplementation and ration management. Antibiotic include Amoxicillin, neomycin, oxytetracycline, streptomycin, sulfamethazine. substance used commonly in diarrhea kaolin and pectin formulation therapeutic regimen of diarrhea include ... fluid therapy what worm infect puppies before parturition ? Toxocara canis Dogs transmit rabies and cats transmit toxoplasmosis and swine transmit leptospirosis. in Patellar luxation we cut medial patellar ligament What is the most effective way of preventing poultry diseases ? .. Vaccination best temperature first week poultry .. 32 – 30 not cause nervous sign in poultry ... IB The most common problem in the surgery operation is to cut a nerve قطع عصب Dimethicone used for treatment of ... Frothy tympany Mention signs of inflammation : redness – swelling – heat - pain – loss of function</p> |

clinical signs of internal bleeding : Trauma – vit K def – def of clotting factor
swollen head cuased by ... coryza
atropine is contraindicated in thyrotoxicosis
rectal enema used in case of Evacuate the bowel before surgery, X-ray or for bowel examinations such as an endoscopy also Treat severe constipation
What is the hatching period of eggs ? 21 Days
Inactivated vaccines (or killed vaccine) do not need to be frozen
mention differ ?
IBD ILT ND – avian pox and vit A – neoplastic diseases 2 -
Cross resistance of antibiotic with examples ?
resistance to antibiotics belonging to the same class due to a single mechanism
Example nalidixic acid and ciprofloxacin, which are both quinolone antibiotics. When bacteria developed resistance to ciprofloxacin, they also developed resistance to nalidixic acid because both drugs work by inhibiting of DNA replication.
Why not use of drugs for long time ? because it leads to chronic heart conditions, impaired breathing, and ulcers in the digestive system.
Antibiotic act as growth promoter?
Use antibiotic at lower doses in animal feed to improve quality of the meat by increasing protein content and decreasing fat percentage
Bacteria resistant to antibiotics ..
Staphylococcus aureus : resistant to penicillin due to S.aureous hydrolyzes the β-lactam ring
Mycobacterium tuberculosis : resistant to many antibiotics due to presence of tubercle
Enterococcus : resistant to vancomycin
Causes of drug resistance failure
*Over prescribing of antibiotic *not finishing the course of treatment *misdiagnosis
*Over-use of antibiotics in livestock and fish farming. *lower dose *wronge choice of antibiotic
*Poor infection control * poor hygiene and sanitation *Mutation
* Bacteria develop but antibiotics not develop
How to overcome drug resistance ?
*use antibiotic as described *do not skip doses *do not save antibiotic
*talk to your veterinarian for good diagnosis
Causes of vaccine failure
***Vaccine it self** failure of the cold chain - Poor quality of vaccine
***animal it self** improperly fed animals - Lack of herd immunity
* inadequate viral dose
Antibiotic residues in animal
Drug settle in the animal tissue in meat and milk and egg and honey.

write short note on laxative and purgative and their clinical application

| Laxative | | Purgative | |
|--|--|--|--|
| Promote defecation and decrease viscosity content of large intestine | | Used for complete colonic cleaning and produce a more fluid evacuation | |
| Constipation – anal fissure | | Flush out worms after anthelmintic use Food and drug poisoning | |

| Probiotic | Prebiotic | Synbiotic | Phytobiotic |
|--|--|--|---|
| Ingested of living beneficial bacteria and yeast as Yogurt | Non digestible food as fiber such Bananas | Synergistic combination of probiotic and prebiotic Yogurt + Bananas | plant derived products added to feed |
| 1-Kills harmful bacteria such salmonella and e.coli 2-break the toxins 3-stimulate immunity 4-improve ingestion and absorption 5-neutralize PH 6-prevent colonization of gut by pathogens | help these beneficial bacteria grow and improve it’s performance | Improve survival rate and colonization | 1-Stimulation of feed intake and digestive secretions 2-Stimulate immunity 3-Antimicrobial and coccidiostatic 4- Antioxidant |
| Bifidobacterium and lactobacilli Streptococcus, Enterococcus, Escherichia | Oligo saccharide and Oligo fructose | | thyme زعتر and garlic |

| | | |
|-------------------------------------|--------------------------|------------|
| Acepromazine is sedation | 0.02 – 0.05 | I/V |
| Xylazine is sedation and anesthesia | 0.05 – 0.3 0.2 – 0.15 | I/V I/M |
| Diazepam is sedation | 0.2 – 0.4 | I/V |

| Benign Tumor | Malignant Tumor |
|----------------|---|
| Small | Large |
| Slow growing | Fast growing |
| Non invasive | Invasive and destroy surrounding tissue |
| Stay localized | Spread |

Mode of action

•Albendazole is anthelmintic drug act by inhibition of tubulin polymerization and inhibition of fumarate reductase
used for nematode and tape worm and liver fluke but not fasciola because Albendazole has no intestinal activity on adult fasciola like Triclabendazole not approved for pregnant animals
•Triclabendazole is anthelmintic drug act by inhibition of microtubule formation used for treatment of fasciola not approved for pregnant animals
•Levamisol – pyrantel – morantel are anthelmintic drugs act by choline against in worm muscle lead to depolarization of worm.
•Ivermectin is anti-parasitic drug (antibiotic anthelmintic) act by inhibition of GABA from parasite nervous system
•Enrofloxacin is antibacterial drug act by inhibition of (DNA) gyrase
•Moxidectin is ... Broad spectrum anthelmintic for horse mange
•Sulfanomides are antibiotics anti coccidial drug act by inhibition formation of folic acid from PABA
•Aspirin (acetylsalicylic acid) is analgesic, anti inflammatory drug act by inhibition clots formation Used in Fever side effect gastric ulcer- abdominal pain.
•Diclofenac and Flunixin is non steroidal anti inflammatory drug act by inhibition of COX1 and COX 2 which required to synthesis of prostaglandin lowering the pain sensation
•Organophosphorus poisoning is insecticide act by (Choline esterase inhibition)which required for controlling nerval signals in parasite so the damage of this enzyme kill pests and may cause unwanted side effect in exposed human.
•Atropin is anticholinergic act by competitively blocks the effects of excess acetylcholine due to ops poisoning, at muscarinic cholinergic receptors on smooth muscle, cardiac muscle, secretory gland cells and the central nervous system CNS
•monensin is ionophore antibiotic act by transport the cations across lipid membranes in an electroneutral exchange used for prevention coccidial infection and to prevent bloat by increasing propionic acid
•Amprolium is coccidiostatic in poultry act by blocks the thiamine transporter
used for treatment and prevention of intestinal coccidiosis
amprolium is safe anticoccidial but it is better to use in combination with sulphaquinoxalline and excess dietary of thiamine block its action
•Dimetridazole is used for growth promotion and treatment of Histomoniasis
•Metronidazole is antifungal antibiotic used for treatment of Trichomoniasis in animals
but may had side effect which is testicular damage

| Disease | Cause | Treatment |
|----------------------|---|--|
| Grass tetany | Low blood magnesium | *calcium and magnesium solution *magnesium sulphate added to feed |
| canker in pigeon | Trichomonas gallinae | Carnidazole (Spartrix) and Metronidazole antibiotic (Flagyl) |
| laminitis in horse | Diseases with inflammation Hormonal diseases excessive thirst and appetite Mechanical overload High intake of soluble carbohydrates Stress : Obesity : overfeed | *(NSAIDs) such as flunixin *Anti histamine *Acepromazine *ice to cool the feet *Foot support |
| diphtheria in calf | Fusobacterium necrophorum | ceftiofur – nuflor |
| snuffles in rabbits | Pasteurella multocida | Enrofloxacin |
| Nymphomania | negative energy balance and high milk producers. | (GnRH) induce (LH) |
| Mastitis | Bacterial or Fungal infection such Staphylococcus aureus and Mycoplasmasx | *Antibiotic *anti inflammatory *ointment |
| curled-toe paralysis | riboflavin deficiency | riboflavin + multivitamins |
| Trichomoniasis | Tritrichomonas foetus | No treatment |
| summer sterility | Increase day length and high temperature | Cooling Cows and make shading area |
| verminous bronchitis | Lungworm Dictyocaulus | Albendazole +ivermectin |
| Sealy Leg Mites | Knemidocoptes Mutans | ivermectin inj. Or orally |
| Mycotoxicosis | Aspergillus flavus Penicillium Fusarium | calcium propionate |
| Pullorum disease | Salmonella pullorum | I/M tetracycline |
| Pregnancy toxemia | Low blood glucose | Glucose |
| Candidiasis | Candida | fluconazole |
| fatty liver syndrome | High feed intake esp. caged layers | Changing the balance of carbohydrates and fat in the diet + selenium |
| Ruminal impaction | the accumulation of the indigestible materials in the rumen such plastic | rumenotomy |
| foot rot cattle | Fusobacterium necrophorum | ceftiofur – nuflor Locally : Foot trimming تقليم القدم Spray - Foot bath |
| Babesiosis | Intraerythrocytic protozoan parasit | Imidocarb probionate |

| Infectious diseases | Non-infectious diseases |
|---|--|
| Diseases that spread from one animal to another caused by pathogens such as bacteria, protozoans, viruses, etc. | restrain within an animal Caused by environment or genetics |
| Brucella – salmonella - RVF – rabies | feed overload - GI obstruction - gastric ulcers - congenital defects |

| Infectious disease | Contagious disease |
|---|---|
| Disease caused by pathogens such as bacteria, protozoans, viruses, etc. spread by infectious agents. | Infectious disease spread by direct contact |
| Direct and indirect contact such blood, urine, semen and insect - contaminated food and water | direct physical contact – infected droplets |
| Food poisoning – tetanus – blood parasite | Brucellosis |
| All contagious diseases are infectious, but not all infectious diseases are contagious | |

| Diagnosis | Prognosis |
|--|--|
| identification of a disease via examination | guess the result the of treatment |
| diagnosis comes before prognosis | |
| Emulsion | Suspension |
| *Both are dispense system *Both are paticles size 1:30 um *Both are liquid preparation | |
| Two liquid phase are immiscible | External phase is water and Internal phase is insoluble solid |
| 2 liquids + Emulsifying agent | Liquid + insoluble solid + suspending agent |
| Can not be separated by filtration | Separated by filtration |
| Particles not visible by naked eye | Particles visible by naked eye |
| Emulsifying agent are required | Suspending agent are required |
| Freezing lead to cracking | Freezing lead to aggregation |
| lotions and creams | Penstrep Suspension |

| | Actinomycosis | Actinobacillosis |
|-------------------|--------------------------------------|--------------------------------|
| Common name | Lumpy jaw | Woody tongue |
| Causative agent | Actinomyces bovis | Actinobacillus lignieresii |
| Gram stain | Gram + ve | Gram - ve |
| Affecting tissues | Hard tissue (mandible and maxilla) | Soft tissue (tongue and L.N) |
| The colonies | Small and eosinophilic | Large and basophilic |

| Drug synergism | Drug antagonism |
|---|--|
| Occur when drug interact to produce effects greater than used alone | Occur when each drug's effect block or reduce by other |

| Drug synergistic | Drug additive |
|---|---|
| Occur when drug interact to produce effects greater than used alone | Occur when medicines work together in a positive way |
| pesticide and fertilizer | Anti-inflammatory and muscle relaxant to traet joint pain |

| Antagonist | Antidote |
|---|---|
| An interaction between two or more drugs that have opposite effects on the body | a chemical drug that limits the effects of a poison |
| Thiamin and amprolium | Atropine for organophosphates |

| Agonist | Antagonist |
|---|---|
| Drug bind to the receptor and give certain action | Drug bind to the same receptor and stop response of agonist |
| Example : naloxone stop action of morphine | |

| Competitive antagonist | Non Competitive antagonist |
|--|---|
| Competes with agonist for same binding site and it's effect can be removed by increasing agonist concentration | Binds to different binding site and it's effect can not be removed by increasing of agonist concentration |
| If Morphine concentration increased remove naloxone from the receptor and give response | Ketamine block the receptor from glutamate even with high concentration no response |