

08/19/2019

## Final Exam Review

- Hypovolemic Shock
  - Volume depletion; plasma of the blood is too low
  - S/s-
    - a. Dehydration
    - b. Dizziness
    - c. Fainting
    - d. Fatigue
    - e. Thirst
    - f. Weakness
    - g. Nausea
    - h. Vomiting
    - i. Tachycardia
    - j. Insufficient urine production
    - k. Mental confusion
    - l. Pallor
    - m. Sleepiness
- Deep Vein Thrombosis
  - Deep vein occluded by a thrombus
  - Inflammation, blocked venous return, cyanosis, edema
  - Virchow triad- stasis, hypercoagulability, endothelial dysfxn
  - Causes- prolonged rest, history of varicose veins, trauma, infection, cancer, obesity, immobility, heart failure, estrogen hormone use, smoking
  - S/s- intense, sharp, deep calf pain; warmth, swelling, redness, dependent cyanosis, tender to palpation
  - Wells criteria
- Vitals on Infants and Toddlers
  - Respirations → pulse → temperature
  - Rectal temperature w/ infants
  - Tympanic or temporal w/ toddlers
  - Pulse- palpate or auscultate an apical rate
  - Respirations- watch infants abdomen for diaphragmatic respirations; sleeping rate most accurate
    - a. Neonate = 30-40 bpm
    - b. 1 y/o = 20-40 bpm
    - c. 2 y/o = 25-32 bpm
  - Blood Pressure- annual BP 3 y/o and up; most common error is wrong size cuff; crying stopped for 5-10 mins before measuring
- Peripheral Artery Disease
  - Affects noncoronary arteries supplying the limbs; usually caused by atherosclerosis

- More men have PAD than women
- S/s- coolness in skin, weak thready pulse
- Ankle-Brachial Index of 0.9 or lower = PAD
- Beginning vs end stage?
- COPD
  - Obstruction of air flow
  - S/s- barrel chest, wheezing, decreased breath sounds, accessory muscle use, clubbing, paradoxical pulse
  - A-P diameter = transverse
- Contact Dermatitis
  - Local inflammatory reaction to an irritant in the environment or an allergy
  - S/s- erythema, swelling, wheals (urticaria), maculopapular vesicles, scales, intense pruritus
  - Can be caused by poison ivy
  - Vaginal-
    - a. Red, swollen vesicles
    - b. Weeping of lesions
    - c. Crusts
    - d. Scales
    - e. Thickening of skin
    - f. Excoriations from scratching
    - g. Pruritus
  - Diaper Dermatitis-
    - a. Red, moist, maculopapular patch with poorly defined borders in the diaper area,
    - b. Extending along inguinal and gluteal folds
    - c. History of infrequent diaper changes or occlusive coverings
    - d. Inflammatory disease caused by skin irritation from ammonia, heat, moisture, occlusive diapers.
  - Atopic Dermatitis (Eczema)-
    - a. Erythematous papules and vesicles, with weeping, oozing, and crust
    - b. Lesions usually on scalp, forehead, cheeks, forearms, and wrist, elbows, back of knees
    - c. Paroxysmal and severe pruritis
    - d. Family history of allergies
- Pursed Lip Breathing
  - Inhaling through the nose and exhaling through pursed lips
  - Lips are puckered when exhaling
  - Helps the airways stay open during exhalation
- Emphysema
  - Caused by destruction of pulmonary connective tissue; permanent enlargement of the air sacs distal to terminal bronchioles and rupture of interalveolar walls; increased airways resistance; hyperinflated lung and increased lung volume

- S/s-
  - a. Increased AP diameter (barrel chest)
  - b. Accessory muscle use
  - c. Tripod position
  - d. SOB
  - e. Respiratory distress
  - f. Tachypnea
  - g. Decreased tactile fremitus
  - h. Decreased chest expansion
  - i. Hyper-resonant breath sounds
  - j. Decreased breath sounds
  - k. Prolonged expiration
  - l. Muffled heart sounds
  - m. Occasional wheezing
- Chronic Bronchitis
  - Proliferation of mucus glands in the passageways resulting in excessive mucus secretion; inflammation of bronchi w/ partial obstruction of bronchi; sections of lung distal to obstruction may be deflated; chronic caused by smoking
  - S/s-
    - a. Hacking
    - b. Rasping cough → productive (thick mucoid sputum)
    - c. Dyspnea
    - d. Fatigue
    - e. Cyanosis
    - f. Clubbing
    - g. Tactile fremitus normal
    - h. Resonant lung sounds
    - i. Normal vesicular sounds
    - j. Prolonged expiration
    - k. Crackles over deflated areas
    - l. May wheeze
- Lung Sounds
  - Normal lung sounds-
    - a. Bronchial- high pitch, loud amplitude, I < E, harsh/hollow; TRACHEA AND LARYNX
    - b. Bronchovesicular- moderate pitch, moderate amplitude, I = E, mixed quality; SCAPULA AND STERNUM
    - c. Vesicular- low pitch, soft amplitude, I > E, rustling quality; LOBES OF LUNGS
  - Abnormal lung sounds-
    - a. Fine Crackles- high pitched; during inspiration; not cleared by coughing; inhaled air collides w/ previously closed airways; HEART FAILURE, COPD, CHRONIC BRONCHITIS

- b. Coarse Crackles- loud, low pitched bubbling/gurgling sounds; start in early inspiration and can go into expiration; secretions in trachea; PULMONARY EDEMA, PNEUMONIA
  - c. Pleural Friction Rub- coarse and low pitched, pleurae lose lubricating fluid; PLEURITIS
  - d. High Pitched Wheeze- predominate in expiration; air compressed through narrow passageways; ACUTE ASTHMA OR CHRONIC EMPHYSEMA
  - e. Low Pitched Wheeze- predominant in expiration, can be in all phases; may clear by coughing; airflow obstruction; BRONCHITIS
  - f. Stridor- high pitched, inspiratory, crowing sound, louder in neck; upper airway obstruction from swollen tissues; ACUTE EPIGLOTTITIS
- Human Papilloma Virus
  - Genital warts
  - Most common STI
  - Risk factors- early age at menarche, multiple sex partners
  - S/s-
    - a. Painless warty growths
    - b. Soft, pointed papules
    - c. Single or multiple in a cauliflower patch
    - d. Occur around vulva, introitus, anus, vagina, cervix
  - Vaccine to prevent cervical cancer
  - Boys and girls ages 9-26 y/o before sexually active
  - Although pap tests save lives, cervical cancer is rare in young women
  - In 2012 new recommendations are: (1) no pap tests for women under age 21 years, regardless of sexual activity.
- Anus Assessment
  - Males- left lateral or standing position w/ toes pointed together
  - Females- lithotomy position
  - Inspection-
    - a. Moist and hairless
    - b. Coarse, folded skin that is more pigmented
    - c. Anal opening tightly closed
    - d. No lesions present
    - e. Sacrococcygeal area → smooth and even
    - f. Valsalva maneuver → no break in skin integrity or protrusion through anal opening
- Inguinal Hernia
  - Assessment-
    - a. Inspect inguinal region for bulge
    - b. Palpate inguinal canal
    - c. Ask male to shift weight to opposite side (unexamined leg)
    - d. Place index finger low on scrotal half and palpate up spermatic cord
    - e. Insert finger into external inguinal ring and ask man to bear down

- Position- standing
- Cranial Nerves
  - CN 1 Olfactory (sensory)- smell test
  - CN 2 Optic (sensory)- confrontation test, read card
  - CN 3 Oculomotor (motor)- PERRLA, cardinal fields
  - CN 4 Trochlear (motor)- PERRLA, cardinal fields
  - CN 5 Trigeminal (both)- clench teeth, touch face w/ q tip
  - CN 6 Abducens (motor)- PERRLA, cardinal fields
  - CN 7 Facial (both)- smile, frown, puff cheeks
  - CN 8 Vestibulocochlear (sensory)- hearing test
  - CN 9 Glossopharyngeal (both)- move tongue side to side, say ahh, light, tight, dynamite
  - CN 10 Vagus (both)- move tongue side to side, say ahh, light, tight, dynamite
  - CN 11 Accessory (motor)- shrug shoulders, push face
  - CN 12 Hypoglossal (motor)- move tongue side to side, say ahh, light, tight, dynamite
- Self-Breast Exam
  - Best time to do it → after menstrual period
- Jugular Venous Pressure
  - Normal jugular venous pulsation is 2cm or less above sternal angle
  - Elevated pressure = 3 cm or more above sternal angle while @ 45 degrees
    - a. Occurs w/ heart failure, cardiac tamponade, constrictive pericarditis
- Hypertension
  - Normal = <120 and <80
  - Prehypertension = 120-139 or 80-89
  - Stage 1 hypertension = 140-159 or 90-99
  - Stage 2 hypertension = > 160 or > 100
  - Risk factors-
    - a. Modifiable- obesity, smoking
    - b. Nonmodifiable- race
- Wernicke's Area
  - Found in temporal lobe
  - Associated with language comprehension
  - When damaged, receptive aphasia results; person can hear sound but it has no meaning
- Rheumatoid Arthritis
  - Chronic autoimmune disease w/ inflammation of synovial tissues and hyperplasia or swelling
  - Leads to fibrosis, cartilage and bone destruction that limits motion and appears as a deformity
  - Joint involvement is symmetrical and bilateral w/ heat, redness, swelling, painful motion
  - RA carries increased cardiovascular risk of heart attack and stroke

- Acute RA- painful swelling and stiffness of joints; fusiform and spindle shaped swelling of soft tissue of proximal interphalangeal joints; fusiform swelling is symmetric, hands are warm, veins are engorged; limited ROM
- Ankylosing spondylitis
- S/s-
  - a. Fatigue
  - b. Weakness
  - c. Anorexia
  - d. Weight loss
  - e. Low grade fever
  - f. Lymphadenopathy
- Prostatic Hypertrophy \*\*\*\*SATA\*\*\*\*
  - Inflammation of the prostate gland; caused by hormonal imbalance
  - S/s-
    - a. Urinary frequency
    - b. Urgency
    - c. Hesitancy
    - d. Straining to urinate
    - e. Weak stream
    - f. Intermittent stream
    - g. Sensation of incomplete emptying
    - h. Nocturia
  - Objective-
    - a. Symmetric nontender enlargement
    - b. Commonly in middle aged men
    - c. Prostate surface feels smooth, rubbery or firm
    - d. Median sulcus obliterated
- Subjective Data
  - What the patient says about themselves and what they feel
- Objective Data
  - What the nurse observes about the patient upon inspection and assessment
- Closed Ended Questions
  - Questions that ask for specific information
  - They elicit a short or two word answer (yes or no) or a forced choice
  - Useful to fill in details that are left out and specific facts
  - Only ask one direct question at a time
  - Choose language the person understands
- Open Ended Questions
  - Questions that ask for narrative information
  - States the topic to be discussed in general terms
  - Used to begin the interview, introduce new questions or when person introduces a new topic
  - Unbiased

- Person is free to answer in any way
- Lets person express themselves freely
- Make eye contact and listen
- Nonverbal Communication
  - Signs of pain
  - Etc
- Kernig's Sign
  - Meningitis
  - Person lays flat and extends knee; normally causes no pain
- Romberg's Test
  - Testing for balance and bodys sense of positioning
  - Person stands w/ hands @ sides and eyes closed for 20 seconds
  - Part of brain → cerebellum
- Cerebella Ataxia
  - Staggering, wide-based gait
  - Difficulty with turns
  - Uncoordinated movement
  - Positive Romberg test
  - Causes- alcohol/barbiturate effect on cerebellum, cerebellar tumor, multiple sclerosis
- Atelectasis
  - Collapsed alveoli as a result of airway obstruction, compression on the lungs, lack of surfactant
  - S/s-
    - a. Cough
    - b. Lag on expansion on affected side
    - c. Increase RR and pulse
    - d. Possible cyanosis
    - e. Chest expansion decreased on affected side
    - f. Tactile fremitus decreased on affected side
    - g. Tracheal shift toward affected side
    - h. Dull percussion over affected area
    - i. Decreased breath sounds over affected area
    - j. Fine crackles
- ECG Strip
  - P wave- depolarization of atria
  - QRS complex- depolarization of ventricles
  - T wave- repolarization of ventricles
- Herpes Zoster (Shingles)
  - Small grouped vesicles emerge along route of cutaneous nerve, the pustules and crusts; reactivation of chickenpox
  - Unilateral; does not cross midline
  - Pain is severe and long lasting in aging adults → “postherpetic neuralgia”

- Atrial Fibrillation
  - Cardiac arrhythmia
  - Rapid, irregular beating of the atria that causes poor blood flow
  - May experience-
    - a. Chest pain
    - b. Dizziness
    - c. Fatigue
    - d. Palpitation
    - e. Shortness of breath
    - f. Weakness
    - g. Inability to exercise
- Pelvic Inflammatory Disease
  - Infection of fallopian tubes
  - Caused by STI bacteria (gonorrhea and chlamydia)
  - S/s-
    - a. Sudden fever  $> 100.4$
    - b. Suprapubic pain and tenderness
    - c. Acute- rigid, boardlike lower abdominal musculature; purulent discharge; intense pain; bilateral adnexal masses
    - d. Chronic- bilateral, tender, fixed adnexal masses
  - Complications- ectopic pregnancy, infertility, reinfection
- Therapeutic Communication
  - Avoid false reassurance
  - Unwanted advice
  - Using authority
  - Using avoidance language
  - Engaging distancing
  - Using professional jargon
  - Talking too much
  - Interrupting
  - Why questions
  - No judging
  - Instead of giving them answers give options instead
- Pregnant Woman
  - Kyphosis
  - Lordosis
  - Anterior curvature of the neck
  - Slumped shoulders
- Carpal Tunnel Syndrome
  - Increased uses of the wrists wears out the tendons in the wrists
  - Tinel's sign- percussion at median nerve
  - Phalen test- hold hands back to back 90 degrees for 60 seconds
  - S/s-



- a. Pain
  - b. Burning
  - c. Numbness
  - d. Positive Phalen test
  - e. Positive Tinel sign
  - f. Atrophy of thenar muscles
- Lasegue's Test
  - Straight leg raising
  - Checks for sciatic pain
- Lymphedema
  - High protein swelling of the limb
  - Commonly caused by breast cancer treatment
  - Impeded drainage of lymph
  - S/s-
    - a. Tired, thick, heavy arm
    - b. Jewelry too tight
    - c. Swelling
    - d. Tingling
    - e. Unilateral swelling
    - f. Nonpitting brawny edema
- Testicular Torsion
  - Sudden twisting of spermatic cord; late childhood and early adolescence; rare after 20 y/o; usually on left side; rotates medially; blood supply cut off
  - \*\*\*EMERGENCY\*\*\*
  - S/s-
    - a. Sudden unilateral pain
    - b. Lower abdominal pain
    - c. Nausea
    - d. Vomiting
    - e. Red swollen scrotum
    - f. One testis higher
    - g. Thick, swollen, tender cord
    - h. Cremasteric reflex absent on side of torsion
- Hypospadias
  - Urethral meatus opens on ventral side of glans or shaft or at penosacral junction
  - Groove extends from the meatus to normal location @ tip
  - Congenital defect
  - Newborn should not be circumcised
- Dehydration
  - S/s-
    - a. Tenting
    - b. Decreased BP
    - c. Increased pulse

- Prioritization
  - First level-
    - a. Emergent, life threatening, immediate
    - b. ABC's and Vitals
  - Second level-
    - a. Require prompt intervention to forestall further deterioration
    - b. Mental status change
    - c. Acute pain
    - d. Acute urinary elimination problems
    - e. Untreated medical problems
    - f. Abnormal labs
    - g. Risk of infection
    - h. Risk to safety
  - Third level-
    - a. Important to health but can be addressed after urgent problems
    - b. Lack of knowledge, activity, rest, family coping
- Osteoporosis
  - Not part of normal aging
  - Occurs primarily in postmenopausal white women
  - Decrease in skeletal bone mass and low BMD
  - Bone degenerates faster than new bone is created
  - Bones become spongy and weak
  - More easily broken
  - Risk factors-
    - a. Sedentary lifestyle
    - b. Smoking
    - c. Diet
    - d. Alcohol use
    - e. Young age at menopause
    - f. Lack of estrogen
    - g. Small height and weight
- Osteoarthritis
  - Degenerative joint disease
  - Noninflammatory, localized, progressive disorder involving deterioration of articular cartilages
  - Early stage- pain is worse with activity
  - Late stage- pain with rest and activity
  - Risk factors-
    - a. Age
    - b. Obesity (knee)
  - S/s-
    - a. Hard, nontender, noninflammatory nodules

- b. Bony overgrowths → Heberden (fingertips, distal), Bouchard (knuckles, proximal)
- Admin Pain Medication
  - 1<sup>st</sup> assessment? RESPIRATORY
- Heart Sounds
  - Aortic Point → right 2<sup>nd</sup> intercostal space; S2 > S1
  - Pulmonic Point → left 2<sup>nd</sup> intercostal space; S2 > S1
  - Erbs Point → left 3<sup>rd</sup> intercostal space; S1 = S2
  - Tricuspid Point → left 4<sup>th</sup> intercostal space, sternal border; S1 > S2
  - Mitral Point → left 5<sup>th</sup> intercostal space, medial to midclavicular line; S1 > S2
- Infection
  - Lab value looking for in the assessment? ELEVATED WHITE BLOOD CELL COUNT
- Toddler w/ Heart Failure?
  - S/s?
    - a. Swelling of legs, ankles, eyelids, face, abdomen
    - b. Fast breathing
    - c. Shortness of breath
    - d. Fatigue
    - e. Nausea
    - f. Falling asleep and sweating when feeding
    - g. Lack of appetite
    - h. Weight gain over a short period of time
    - i. Cough and congestion in lungs
    - j. Loss of muscle mass
    - k. Failure to gain weight
    - l. Change in skin temperature and color
- Skeletal Traction
  - Placing a pin, wire, or screw in fractured bone and placing weights to pull the bone into the correct position
  - Infection-
    - a. Redness
    - b. Tenderness
    - c. Pus
- Diabetes Insipidus
  - Primary things to look for on this patient → frequent urination and extreme thirst leads to \*\*\*DEHYDRATION\*\*\*
  - Disorder of salt and water metabolism
- HIPAA
  - Protection of patient health information
- If you suspect abuse, do a complete assessment before assuming abuse only
- Pregnant Woman's Skin Appearance
  - Linea nigra- dark vertical line on middle of abdomen

- Chloasma- increased pigment in the face
  - Striae gravidarum- stretch marks
- Diabetes Mellitus
  - What to do if gave insulin @ wrong time? Incident report, call provider, monitor closely
- Patient That Harms Themselves
  - Priority? Suicide precaution, assess cuts to determine need for medical attention
  - Assess mental status
- HSV1
  - Cold sores
  - Skin tingling and sensitivity → lesion erupts w/ vesicles then pustules
  - Lips or genital warts
- Asthma
  - Breath sounds → wheezing
- Capillary Refill
  - Greater than 3 seconds indicates what? ARTERIAL INSUFFICIENCY
- Diarrhea, vomiting, what would you expect to see after 3 days? \*\*\*SATA\*\*\*
  - Skin appearance- tenting
  - Urine appearance- concentrated and dark
  - Circulatory- clubbing
- What would you see with fluid volume excess? \*\*\*SATA\*\*\*
  - Edema
  - Increased BP
  - Shortness of breath
  - Bradycardia
- Acute pain 10/10
  - Tachycardia
  - Tachypnea
  - Increased blood pressure
  - Goes away after problem is resolved
- Pulmonary Tuberculosis \*\*\*SATA\*\*\*
  - Inhalation of tubercle bacilli into alveolar wall
  - S/s-
    - a. Initially nonproductive cough, later productive w/ purulent, yellow-green sputum; may be blood tinged
    - b. Dyspnea
    - c. Orthopnea
    - d. Fatigue
    - e. Weakness
    - f. Moist skin @ night from night sweats
    - g. Resonant sounds, dull over effusion
    - h. Normal or decreased vesicular sounds
    - i. Crackles over upper lobes following full expiration and cough

- Anemia
  - S/s-
    - a. Fatigue
    - b. Pallor
    - c. Tachycardia
    - d. Shortness of breath
- Procedure for Digital Rectal Exam
  - Checking for colorectal cancer
  - Insert gloved finger into rectum; patient take a deep breath; feel for abnormalities
- Screening Age for Colorectal Cancer
  - At risk- 20-25 y/o
  - Not at risk- 50 y/o
- Sexual Development
  - Males
    - a. Puberty earlier in boys → avg age of 9 for African americans; 10 for whites and Hispanics
    - b. 1st sign → enlargement of testes
    - c. 2nd → pubic hair
    - d. 3rd → penis size increases
    - e. Sexual Maturity Rating
      1. No pubic hair, fine body hair on abdomen; scrotum and penis same size as childhood
      2. Few straight dark hairs at base of penis; testes and scrotum begin to enlarge
      3. Sparse dark growth over entire pubis; penis begins to enlarge (length), scrotum further enlarged
      4. Thick curly growth over pubic area; penis length and diameter increase (dev of glans), testes almost fully grown and darker
      5. Adult size and shape of penis and scrotum
  - Females
    - a. Estrogen hormones stimulate breast changes
    - b. Breasts enlarge → fat deposition
    - c. Duct system grows and branches
    - d. At age 8-9 years → breast development for African American girls
    - e. At age 10 years → breast development for white girls
    - f. Early breast development linked to greater body mass
    - g. Tenderness common
    - h. Tanner staging:
      1. Preadolescent- small elevated nipple
      2. Breast bud stage- small mound of breast and nipple develops; areola widens
      3. Breast and areola enlarge; nipple is flush with breast surface
      4. Areola and nipple form a secondary mound over the breast

5. Mature breast- only nipple protrudes; areola is flush w/ breast contour
    - i. Breast development precedes menarche (menstruation) by 2 years
    - j. Menarche occurs in stage 3-4 of breast development (age 12)
    - k. Sexual Maturity Rating
      1. Stage 1- no pubic hair; mons and labia have fine vellus hair
      2. Stage 2- sparse growth on labia; slightly curly
      3. Stage 3- sparse over mons pubis; dark, coarse, curly
      4. Stage 4- adult hair in smaller area
      5. Stage 5- adult in type and patter (inverted triangle); also on medial thigh
- Pain and Vital Signs
    - Pulse- increased
    - Blood pressure- increased
    - Respirations- increased
  - Venous Insufficiency
    - Brown discoloration occurs with chronic venous stasis caused by hemosiderin deposits from red blood cells degradation
    - Venous ulcers occurs usually at the medial malleolus because of bacterial invasion of poorly drained tissues
  - 45 y/o female in hospital and nonverbal cues is unhappy what are some reasons why?
    - Age differences
    - Culture
    - Male/female physician
  - Best person to get information from about a patient?
    - Directly from patient
  - Female patient normal finding
    - Supernumerary nipple → can get removed
  - How to Identify an Infection
    - Fever
    - Redness
    - Swelling
    - Heat
  - Type 1 Diabetes
    - Can cause neuropathic ulcers (feet)
    - Peripheral neuropathy
    - Assess glucose levels
    - S/s-
      - a. Polyuria
      - b. Polydipsia
      - c. Frequent hunger
      - d. Weight loss unexplained
      - e. Ketones in urine

- f. Fatigue
    - g. Blurred vision
  - Risk factors-
    - a. Genetics
    - b. Gestational diabetes
    - c. Sedentary lifestyle
    - d. Diet
    - e. Race
    - f. Obesity
    - g. Age
    - h. HTN
- Testicular Self-Exam
  - Examine during shower or bath when testicles are warm
  - Thumb and first two fingers
  - Rubbery w/ smooth surface = normal
  - If lumps present → call doctor
- Prostate Cancer
  - Common in older men
  - Curable
  - Men w/ first degree relative that has had prostate cancer are 2-3x more at risk
  - Diagnosis = PSA blood test and digital rectal exam
- How to Assess Patient Before Initiating CPR
  - Check carotid pulse