

1. Which of the following statements best describes a differential diagnosis list?

- A. It is a list of planned interventions for the problems assessed during the visit.
- B. It is the list of concerns brought to the appointment by the patient.
- C. It is a list of different diagnoses experienced by the patient in the past.
- D. It is a list of potential/plausible diagnoses that may be causing the patient's signs and symptoms.
- E. It is a list of diagnoses that have already been ruled out as causes for the chief complaint.

Pg 83

It is also important to ask about the presence or absence of additional symptoms or other relevant information—such as risk factors for coronary artery disease in patients with chest pain, or current medications in patients with syncope—that may help you generate a list of possible causes (differential diagnosis) to explain the patient's problem or condition. This list will include the most likely and, at times, the most serious causes, even if less likely. When clinicians obtain a history, they are continually generating possible explanations in their minds, allowing the patient's answers to direct the logical use of additional probing questions. This process of probing with questions is similar to testing a hypothesis. With each question, the list of probable diagnoses (or hypotheses) is pared down until a few likely choices are left from a formerly longer list of diagnostic possibilities.

2. A 66-year-old female presents to the primary care office with complaints of jaw pain, fatigue, and nausea for the last 48 hours. What course of action is appropriate in the treatment of this patient?

- A. Refer the patient to an otolaryngologist to evaluate for jaw pain.
- B. Prescribe the medication for the jaw pain and nausea and reevaluate in 2-3 days.
- C. Order x-rays of the jaw and abdomen to further evaluate.
- D. Recognize these could be atypical symptoms of acute coronary syndrome and proceed accordingly.
- E. Order screening blood work to evaluate for thyroid disease.

Pg 503

Upper back pain, neck or jaw pain, SOB; paroxysmal nocturnal dyspnea; N&V = careful history taking is especially important
Atypical symptoms are particularly seen in woman esp if over the age of 65

3. In an adult over the age of 40, an S3 assessment finding on cardiac auscultation may be indicative of what? Select all that apply.

- A. anemia
- B. myocardial infarction
- C. heart failure pg 551
- D. normal for athletes - pg 522
- E. ventricular volume overload from aortic or mitral regurgitation - pg 551

Pg 551

Pathologic S3 or ventricular gallop sounds like a physiological S3 - in adult over 40 is usually pathologic, arising from high left ventricular filling pressures and abrupt deceleration of inflow across the mitral valve at the end of the rapid filling phase of diastole. Causes include decreased myocardial contractility, heart failure, and ventricular volume overload from aortic or mitral regurgitation and left to right shunts

Pg 548 MI can cause soft S1; pg 495 MI causes pathological ventricular stiffness which marks an S4 heart sound right before the S1 (also heard in HTN)

Pg 1049

Chronic Anemia and following exercise can cause pulmonary flow murmurs - in the presence of volume overload

4. A 72-year-old male is admitted to intensive care from the Emergency Room for the initial complaint of chest pain. After the history and physical examination, the NP documents the following cardiovascular findings:

JVP is 5 cm above the sternal angle with the head of the bed elevated to 50°. Carotid upstrokes are brisk; a bruit is heard over the left carotid artery. The PMI is diffuse, 3 cm in diameter, palpated at the anterior axillary line in the fifth and sixth intercostal spaces. S1 and S2 are soft. S3 is present at the apex. High-pitched harsh 2/6 holosystolic murmur best heard at the apex, radiating to the axilla. Which of the following possible diagnoses is based on the accurate interpretation of the assessment findings?

- A. **These findings suggest heart failure.**
- B. These findings suggest previous myocardial infarction.
- C. These findings suggest right carotid occlusion.
- D. These findings suggest mitral stenosis.
- E. These findings suggest aortic aneurysm.

This scenario is word for word on pg 530 answer in red = **these findings suggest heart failure with volume overload with possible left carotid occlusion and mitral regurgitation**

5. A 76-year-old male presents to the office for a routine physical examination. The NP documents the following skin findings:

Decreased elasticity with multiple lentiginous macules on habitually sun-exposed skin. Multiple, discrete, brown, stuck-on, non-indurated, verrucous plaques on the back and abdomen varying from 1-2 centimeters.

Which of the following is the most accurate interpretation of these findings?

- A. **These findings suggest seborrheic keratoses.**
- B. These findings suggest actinic keratoses.
- C. These findings suggest malignant melanoma.
- D. These findings suggest lichen planus.
- E. These findings suggest psoriasis.

This exact scenario is described on pg 286 = seborrheic keratosis
 Description elements = number, color, shape, texture, primary lesion, location and configuration

| | |
|----------------------|---|
| Seborrheic keratoses | Pg 286 5 mm - 2 cm tan to brown, oval, stuck on, flat topped verrucous (cauliflower like) plaques on the back and abd, following skin tension lines |
| Actinic keratoses | Pg 313 Superficial keratotic papules come and go on sun-damaged skin - keratotic scales can evolve and SCC (squamous cell carcinoma) is formed by keratin and can result in cutaneous horn - (scalp, lip, ears) |
| Malignant melanoma | Pg 286 Melanoma with all the classic features from the ABCD method: Asymmetry, Border irregularity, Color variation, and Diameter >6mm. When screening moles for melanomas, ABCD-EFG method. Asymmetry, boarder irregularity - ragged, notched, or blurred; color variation (more than 2 colors, esp blu-black, white or red); diameter >6 mm; evolving or changing rapidly in size, symptoms or morphology; elevation; firmness to palpation and progressive Growing over several weeks.... |
| Lichen planus | 290 freq on wrist, forearms, genitals and lower legs. |
| Psoriasis | Pg 290 freq affects the scalp, extensor surfaces of the elbows and knees, umbilicus and the gluteal cleft.- 288 psoriasis commonly form plaques |

6. A 14-year-old male presents to the clinic with his grandmother for a complaint of a sore throat. The patient is afebrile and denies cough. After completing the history and physical examination, the NP documented the following partial assessment findings:

Throat—Oral mucosa pink, dental caries in lower molars, tongue midline, uvula, and pharynx erythematous, bilateral tonsils enlarged, no exudates.

Neck—Trachea midline. Neck supple; thyroid isthmus midline, lobes palpable but not enlarged.

Lymph Nodes—Submandibular and anterior cervical lymph nodes tender, 1 cm × 1 cm, rubbery and mobile; no posterior cervical, epitrochlear, axillary, or inguinal lymphadenopathy.

Which of the following is the most accurate interpretation of the findings?

- A. **These findings suggest pharyngitis.**
- B. These findings suggest tonsillar abscess.
- C. These findings suggest lymphoma.
- D. These findings suggest mononucleosis.
- E. These findings suggest upper respiratory illness.

Pg 427 this scenario is detailed with - **these findings suggest pharyngitis or mild tonsillitis**

Pg 1018 Tonsillar abscess - **a peritonsillar abscess is suggested by erythema and asymmetric protrusion of one tonsil, pain, difficulty opening mouth (trismus), and lateral displacement of the uvula.**

Pg 427 **Asymmetry tonsils particularly when associated with other symptoms, may signify and underlying pathology such as lymphoma**

Pg 432 - infectious mononucleosis - enlarged posterior cervical lymph nodes (or **general lymphadenopathy** pg 345); **fatigue** pg 212; pg 1047 **an adolescent with persistent fever, sore throat, swollen tonsils and cervical lymphadenopathy may have streptococcal pharyngitis or infectious mononucleosis**

Pg 402 - Upper respiratory infection - Is nasal or sinus congestion preceded by a viral upper respiratory tract infection? Is there purulent nasal discharge, loss of smell, tooth pain, facial pain made worse by bending forward, ear pressure, cough or fever? - **Acute bacterial sinusitis (rhinosinusitis) is unlikely until viral URI symptoms persist more than 7 days; both purulent drainage and facial pain should be present for diagnosis (sensitivity and specificity are above 50%)** if nasal congestion only on one side - consider nasal septum, nasal polyp, foreign body, granulomatous disease or CA

7. The NP is assuming care for a 56-year-old female resident of a long-term assisted living facility. The woman is seated in a wheelchair next to a window in her private room. After completing the history and physical examination, the NP documented the following mental status findings:

The patient appears sad and fatigued; clothes are wrinkled. Speech is slow and words are mumbled.

Thought processes are coherent, but insight into current life reverses is limited. The patient is oriented to person, place, and time. Digit span, serial 7s, and calculations accurate, but responses delayed.

Clock drawing is good.

Which of the following is the most accurate interpretation of the findings?

- A. **These findings suggest depression.**
- B. These findings suggest anxiety.
- C. These findings suggest mood disorder.
- D. These findings suggest a neurocognitive disorder.
- E. These findings suggest intellectual disability.

This scenario is detailed on page 262 - **these findings suggest depression**

Pg 245 - Anxiety - **common risk factors in patient with anxiety and related disorders include family history of anxiety**

personal history of anxiety or mood disorder, childhood stressful life events or trauma, being female, chronic medical illness and behavioral inhibition.

Pg 247 Anxiety is often comorbid with substance use and mood disorders

Pg 250 Sudden-onset memory problems are concerning for major vascular neurocognitive disorders, wherein vascular occlusion damages structures important for memory. Rapid-onset memory problems after a head injury should raise suspicion for a major neurocognitive disorder due to TBI. delirium and dementia fall under neurocognitive disorders pg 249; mini mental is best known screening for dementia pg 264

Intellectual disability - poor scoring in constructional ability (draw these simple shapes) pg 261; poor abstract thinking - ask what a proverb means (don't count your chickens before they hatch) pg 261; impaired recent memory pg 260; poor performance in serial 7s pg 259; digit span - poor performance at - repeat # back pg 259; poor judgment pg 258;

8. The NP conducted a physical assessment on a 74-year-old male with a complaint of shortness of breath. His history is significant for a 20 pack-year history of smoking. He uses 2 inhalers daily (medication unknown) but did not bring them with him to his appointment. The documentation for the respiratory findings is as follows:

Which of the following is the most accurate interpretation of the findings?

- A. **These findings suggest COPD.** - total guess (2 inhalers - smoker? - makes me think emphysema not list)
- B. These findings suggest pneumonia.
- C. These findings suggest asthma.
- D. These findings suggest chronic bronchitis.
- E. These findings suggest left-sided heart failure.

COPD - unable to speak more than two or three words at a time due to shortness of breath. He has intercostal muscle retraction when breathing and sits upright in bed. He is thin, with diffuse muscle wasting. Height is 6 ft 2 in; weight, 175 lb; BP, 160/95, right arm; HR, 108 and irregular; RR, 32 and labored; temperature, 101.2°F.”

Pneumonia - pg 87 fever and cough - hx of smoking - rhinorrhea, asymmetric chest wall excursion and dullness to chest w/ percussion p 145; exudates seen on c ray; pleuritic pain with deep inspiration pg 448; sputum often green with bacterial pneumonia pg 450

Asthma - pg 483 WH pg 455 retraction occurs in severe asthma

Chronic bronchitis - pg 477 - chronic cough; sputum mucoid to purulent, may be blood-streaked or even bloody - often recurrent WH and dyspnea and prolonged hx of tobacco

Left-side HF - rales or crackles (pg 462); orthopnea and PND pg 504; increase JVP (508)

9. A 28-year-old female presents to the office for an annual physical examination. The NP is evaluating the cranial nerves (CNs) while assessing the eyes. The findings are represented in this image. Damage or inflammation of which of the following cranial nerve(s) is demonstrated in this image?

ADA Description: Eyes looking right and looking left.

- A. CN II
- B. **CN III** somewhat of a guess
- C. CN IV
- D. CN V
- E. CN VI

| | |
|----------------|---|
| I | Smell |
| II | Visual acuity, visual fields, and ocular fundi |
| II, III | Pupillary light reflex |
| III, IV, VI | Extraocular movements |
| V | Facial sensation (sensory) and jaw movements (motor) |
| V, VII | Corneal reflex |
| VII | Facial movements and strength |
| VIII | Hearing |
| IX, X | Swallowing and palatal movement, gag reflex |
| V, VII, X, XII | Voice and speech |
| XI | Shoulder and neck movements (head rotation, shoulder elevation) |
| XII | Tongue symmetry, position, and movement |

10. Ooscopic examination of the patient's left ear reveals the assessment findings represented in this image. What is the best documentation for the assessment findings of the tympanic membrane and external auditory canal?

ADA Description: Left ear, tympanic membrane, and external canal.

- A. **Bulging TM with gray, translucent appearance. No effusion. Non-erythematous external canal without exudate.**
- B. Retracted TM with gray, translucent appearance. No effusion. Erythematous, edematous, external canal without exudate.
- C. Retracted TM. Effusion with amber fluid. Non-erythematous external canal without exudate.
- D. Bulging TM with yellow, purulent, fluid level. Erythematous, edematous, external canal without exudate.
- E. Bulging TM with yellow, translucent fluid. Non-erythematous external canal without exudate.

Hard to answer with out pict... i would do A

Normally TM would be described as neutral position, pearly gray, translucent...

11. A 44-year-old female presents with a painful skin rash on her neck for several days (see image). How would you best document the integumentary findings?

ADA Description: Rash on the neck.

- A. grouped, 2-5 mm vesicles on erythematous base on left anterior neck in a dermatomal distribution that does not cross the midline
- B. clustered, yellow 2-5 mm pustules involving the skin creases of the left anterior neck
- C. scattered, 3-6 mm erythematous papules and vesicles with transudate crust, some with linear arrays, on left neck and chest
- D. multiple, discrete 3–6 mm erythematous pustules with a 1 cm central bulla on the left anterior neck and upper chest

- E. scattered, erythematous round drop-like, flat-topped well-circumscribed scaling papules on the left anterior neck that does not cross the midline

Cannot do without photo

12. An NP is caring for a patient with depression. The patient reports not feeling suicidal although still depressed on their current regimen of medication. Documenting the lack of suicidal ideation is an example of what important aspect of clinical documentation?

- A. including pertinent negatives
- B. including sufficient detail to support the diagnosis and plan
- C. including pertinent positives
- D. keeping a neutral and professional tone
- E. establishing a problem list

Pertinent negatives - pg 86 - note absence of symptoms r/t differential dx = expected symptoms or signs that are not present, facts that you expect to find if a possible cause for a patient's problem were true - which weakens dx
There was no fever, cough with sputum production, chest pain, nausea or vomiting. He has no prior history of coronary artery disease or anxiety."

Historical information that may be possible causes of shortness of breath to consider in this example is lung infections (fever, cough with sputum production), heart attack (history of coronary artery disease, chest pain), and anxiety. = **pertinent positives**

especially the negatives clarify the possible causes of the patient's condition as well as eliminate other less likely possibilities based on the patient's story.

13. The NP is establishing rapport with a patient during an initial encounter and prepares to ask the patient how they would like to be addressed. What additional consideration should the NP acknowledge when asking patients about their pronouns?

- A. Patients will likely feel uncomfortable with gender identification questions.
- B. When asking patients about their own pronouns, it can be helpful to share your own.
- C. Addressing patients using depersonalized names can avoid conflict or uncomfortable feelings during the clinical encounter.
- D. Children are less likely to share how they prefer to be addressed.
- E. You should select the pronoun that best matched the person's physical appearance.

Page 7 - When asking patients about their pronouns, it can be helpful to share your own pronouns with patients, asking: "Which gender pronouns do you use?" (Box 1-3). For example, "I use . . . he and him/she and hers/they and theirs." Some of your patients may use nontraditional pronouns.

14. Orthopnea and paroxysmal nocturnal dyspnea (PND) generally occur in the following conditions? Select all that apply.

- A. left ventricular heart failure
- B. mitral stenosis
- C. obstructive lung disease
- D. pulmonary embolus
- E. spontaneous pneumothorax

Page 504 - Orthopnea and PND occur in left ventricular heart failure and mitral stenosis and also in obstructive lung disease.

15. A 19-year-old male sustained a laceration to the ulnar aspect of his mid-forearm. He did not have his injury evaluated at that time and is now noticing purulent discharge and increasing pain from the wound along with fever and chills. Where would the NP expect to find the first signs of lymphadenopathy?

- A. anterior cervical chain nodes
- B. central axillary nodes
- C. lateral axillary nodes
- D. epitrochlear nodes
- E. infraclavicular nodes



Right hand of examiner
Medial epicondyle of humerus

16. An NP is evaluating a 74-year-old female for an open wound on the right lower leg (see image). She denies injury and reports the wound is very painful. On examination, the NP does not note any odor from the wound or increased warmth with palpation. Based on history and physical examination, which of the following most likely explains her signs and symptoms?

ADA Description: Right, lower leg with open wound above the lateral ankle

- A. chronic venous insufficiency without having picture
- B. peripheral artery disease
- C. gangrenous wound
- D. chronic atrial insufficiency
- E. neuropathic ulcer

Chronic Venous Insufficiency - pg 589 usually medial & sometimes the lateral malleolus - small, painful granulation tissue and fibrin; necrosis or exposed tendons are rare. **Borders** are irregular, flat, or slightly steep. **Pain** affects quality of life in 75% of patients. Associated findings include edema, reddish pigmentation and purpura, venous varicosities, the eczematous changes of stasis dermatitis (redness, scaling, and pruritus), and at times cyanosis of the foot when dependent. Gangrene is rare.

Arterial Insufficiency - pg 589 - occurs in the toes, feet, or possibly areas of trauma (e.g., the shins). Surrounding skin shows no callus or excess pigment, although it may be atrophic. Pain = severe unless masked by neuropathy. May be accompanied by gangrene, along with decreased pulses, trophic changes, foot pallor on elevation, and dusky rubor on dependency.

Gangrenous wound - pg 569 - Hair loss over the anterior tibiae points to decreased arterial perfusion. "Dry" or brown-black ulcers from gangrene may ensue.

Neuropathic Ulcer - pg 589 - in pressure points of areas with diminished sensation; = diabetic neuropathy, neurologic disorders, and Hansen disease. The surrounding skin is calloused. There is **no pain**, so the ulcer may go unnoticed. In uncomplicated cases, there is no gangrene. Associated signs include decreased sensation and absent ankle jerks.

17. A 42-year-old male complains of pain in his left leg. He does not remember injuring his leg; however, he notes that there is a small wound on the lateral aspect of his mid-shin. Upon examination, some mild erythema surrounding the wound and flat, nonpalpable red streaks progressing up his leg are noted. What do these streaks likely represent?

- A. thrombus formation in a superficial vein
- B. draining lymphatic channels** - unsure
- C. dilated arterioles
- D. dilated veins secondary to incompetent valves
- E. occluded arterial vessels

Sounds like pt has more than one thing causing issue... So focusing on the streaks I think it is likely Acute Lymphangitis = red streaks on the skin with tenderness, enlarged, tender lymph nodes and fever- caused by acute infection usually from staph, spread up the lymphatic channels from distal portal of entry such as skin abrasion, ulcer or dog bite (pg 587)

Pg 574 - Calf asymmetry >3 cm increases the LR for DVT to >2.20 Also consider muscle tear or trauma, Baker cyst (posterior knee), and muscular atrophy.

Local swelling, redness, warmth, and a subcutaneous cord signal superficial thrombophlebitis, an emerging risk factor for DVT.22 Asymmetric warmth and redness over the calf signal cellulitis.

Unilateral calf and ankle swelling, and edema suggest venous thromboembolism (VTE) from DVT, chronic venous insufficiency from prior DVT, or incompetent venous valves; or it may be lymphedema. If you detect unilateral swelling or edema, measure the calves 10 cm below the tibial tuberosity. Bilateral edema is present in heart failure, cirrhosis, and nephrotic syndrome. Venous distention suggests a venous cause of edema.

Rationale: Acute lymphangitis is typically caused from an acute bacterial infection of the skin that causes red streaks from distal drainage through the lymphatic system. The streaks are typically flat, not palpable cords as found in thrombus formation in a superficial vein. Dilated veins also are not flat. Occluded arterial vessels are not superficial or visible. Dilated arterioles are still too small to be visible at the skin surface.

18. A 61-year-old female was recently diagnosed with ovarian cancer. She has not been feeling well lately and presents to the clinic with a cough and some mild shortness of breath for the past couple of days as well as worsening pain and swelling in her right groin and leg for about a week. On physical examination, 2+ edema of the right leg up to the thigh; 1+ femoral, popliteal, dorsalis pedis, and posterior tibial pulses; and no significant erythema are noted. Based on the history and symptomatology, the NP should consider which high-risk differential diagnosis?

- A. acute lymphangitis
- B. ovarian metastasis
- C. pulmonary embolism**
- D. acute arterial occlusion
- E. superficial thrombophlebitis

Pg 148 - Pulmonary embolism is likely as the patient has shortness of breath & unilateral leg swelling also tachy and hx of long fight can be pertinent

Pg 477 - PE = dry cough or hemoptysis - associated symptoms = Tachypnea, chest or pleuritic pain, dyspnea, fever, syncope, anxiety; factors that predispose to deep venous thrombosis.

Rationale: Cancer patients are at high risk of deep venous thrombosis (DVT), and, with the presenting symptoms of swelling and pain in her groin, along with recent history of cough and shortness of breath, this patient's presentation is suspicious for PE. Patients with DVT in the proximal leg veins are at high risk of thromboembolism. Acute arterial occlusion should not cause significant edema, and pulses would likely be absent. The constellation of symptoms and history in this patient also does not suggest an acute arterial occlusion. Superficial thrombophlebitis typically only causes mild local swelling, redness, and warmth along with a subcutaneous cord. Acute lymphangitis typically presents with red streaks from an infection passing through lymph channels.

19. When assessing for the femoral pulse, between which anatomical landmarks should the NP begin deeply palpating?

- A. below the inguinal ligament, midway between the anterior superior iliac spine and symphysis pubis
- B. above the inguinal ligament, just medial to the anterior superior iliac spine
- C. above the inguinal ligament, just lateral to the symphysis pubis
- D. below the inguinal ligament, just lateral to the symphysis pubis
- E. below the inguinal ligament, just medial to the anterior superior iliac spine

Pg 575 - Femoral pulse. Press deeply, below the inguinal ligament and about midway between the anterior superior iliac spine and the symphysis pubis (Fig. 17-19). As in deep abdominal palpation, the use of two hands, one on top of the other, may be helpful, especially in patients who are obese, in whom it can be particularly difficult to palpate the femoral pulse.

Rationale: The clinician would begin deeply palpating below the inguinal ligament, midway between the anterior superior iliac spine in the symphysis pubis. The external iliac artery transitions into the femoral artery at the level of the inguinal ligament. Therefore, palpating above the inguinal ligament would be assessing the external iliac artery. The femoral artery is typically located midway between the anterior superior iliac spine in the symphysis pubis in most patients.

20. A 73-year-old male presents to the Emergency Department complaining of chest pain that started about 2 hours ago. Electrocardiogram, cardiac enzymes, and chest x-ray are normal. The NP notes that his blood pressures in the right arm are significantly lower than of blood pressures in his left arm. Based on the history and physical examination, which of the following will most likely explain his signs and symptoms?

- A. dissecting aortic aneurysm
- B. myocardial infarction
- C. pericarditis
- D. angina pectoris
- E. pulmonary embolism

Pg 226 - A pressure difference of more than 10 to 15 mm Hg occurs in subclavian steal syndrome, supraaortic stenosis, and aortic dissection and should be investigated.

Rationale: Patients with dissecting aortic aneurysms typically present with chest pain, many times described as a "tearing" type pain. They are usually elderly, and, due to the dissection of the aorta, asymmetric pulses in blood pressures in the extremities may be present. Coarctation of the aorta can also cause similar symptoms; however, it would be unlikely due to the patient's age as this is a congenital defect. MI, PE, and pericarditis are also common causes of concerning chest pain; however, neither typically will cause asymmetric blood pressures or pulses in the extremities.

21. A 68-year-old female complains of a 3-month history of recurring pain after ambulating that radiates from her back in the upper lumbar region into both buttocks, bilateral thighs, and mid-calf regions. Her pain is typically improved by sitting or by leaning forward. The origin of her pain is likely secondary to which of the following?

- A. neurogenic claudication
- B. venous stasis
- C. acute arterial occlusion
- D. peripheral arterial disease
- E. abdominal aortic aneurysm

Pg 568 - Symptomatic limb ischemia with exertion is usually atherosclerotic PAD. Pain with walking or prolonged standing, radiating from the spinal area into the buttocks, thighs, lower legs, or feet, is **neurogenic claudication**.

Pg 569 - If the pain is relieved by sitting and bending forward, or if there is bilateral buttock or leg pain, the etiology is more likely to be **spinal stenosis**

Rationale: Neurogenic claudication can mimic PAD by causing pain related to walking; however, it is typically relieved simply by sitting or by leaning forward. Many patients with spinal stenosis of the lumbar spine have pain that originates in the spinal region and radiates into the areas noted. PAD is not typically relieved just by sitting alone and usually will take some time. PAD also does not typically improve with bending over. Acute arterial occlusion does not cause recurring symptoms and is not usually bilateral. Abdominal aortic aneurysms may cause similar pain as well; however, they typically do not have the same palliating factors.

22. A 70-year-old male presents with progressive shortness of breath and two-pillow orthopnea. On physical examination, the blood pressure is 145/90 mm Hg, there is jugular venous distension, lower extremity pitting edema to the knee, and a blowing holosystolic murmur heard best at the lower left sternal border. No other murmurs or thrills are auscultated on the physical exam. Which of the following interventions is most likely to improve the patient's symptoms?

- A. decrease in blood pressure
- B. **removal of intravascular volume with diuresis**
- C. replacement of the mitral valve
- D. replacement of the aortic valve
- E. repair of a ventricular septal defect

Pg 507 - Although the JVP accurately predicts elevations in fluid volume in heart failure, its prognostic value for heart failure outcomes and mortality is unclear.

Rationale: This patient is in heart failure based upon the symptoms and physical examination findings. The murmur is consistent with tricuspid regurgitation that may be the result of ventricular dilation and failure of the valve to completely close. Symptoms often improve with diuresis. Based upon the examination, the murmur is not consistent with underlying mitral or aortic valve disease. Although the blood pressure is high, it is not high enough to cause this degree of symptomatology. A ventricular septal defect is a holosystolic murmur heard within the left third to fifth interspaces, but is often associated with a thrill.

23. A 21-year-old male is experiencing dyspnea on exertion and palpitations. On cardiac auscultation, the second heart sound is split and fixed on both inspiration and expiration. What is the most likely cardiac condition associated with this finding?

- A. right bundle branch block
- B. **atrial septal defect**
- C. tricuspid stenosis
- D. left bundle branch block
- E. pulmonic stenosis

Pg 549 - Wide physiologic splitting of S2 refers to an increase in the usual splitting of S2 during inspiration that persists throughout the respiratory cycle. Wide splitting is caused by delayed closure of the pulmonic valve (as in **pulmonic stenosis or right bundle branch block**) or early closure of the aortic valve (mitral regurgitation). Right bundle branch block is illustrated here.

Rationale: Patients with an atrial septal defect often experience dyspnea as well as atrial arrhythmias. Fixed splitting of the second heart sound occurs in atrial septal defects and right heart failure and does not vary with respiration. A left bundle branch block causes paradoxical splitting secondary to the delayed closure of the aortic valve. Wide splitting of the second heart sound is secondary to a delayed closure of the pulmonic valve and is often found in right bundle branch blocks and pulmonic stenosis. Tricuspid stenosis would not usually affect the second heart sound as it is a component of S1.

24. An NP student is examining a patient with a structurally normal heart. The student is having difficulty auscultating the splitting of the second heart sound. At what area on the patient's chest would the student have the best opportunity of hearing this sound?

- A. first intercostal space at the lower left sternal border
- B. fifth intercostal space at the midclavicular line
- C. apex
- D. second intercostal space at the right sternal border
- E. **second and third intercostal space at the left sternal border**

Pg 521 - Listen for splitting of this sound in the second and third left intercostal spaces. Ask the patient to breathe quietly and then slightly more deeply than normal.

Rationale: The pulmonic area is the left second and third interspace close to the sternum. The mitral area is at the apex. The right second interspace overlies the aortic valve. The tricuspid space is the lower left sternal border. The midsternum does not correspond to the anatomic location of any of the four cardiac valves; however, it is important to remember that murmurs radiate and must be interpreted in the setting of the clinical scenario.

25. A 77-year-old male is experiencing progressive shortness of breath and dizziness. The patient undergoes cardiac catheterization, and the systolic blood pressure measured in the left ventricle is 180 mm Hg, while the systolic blood pressure measured in the aorta is 140 mm Hg. The patient is most likely experiencing symptoms related to what valve condition?

- A. aortic insufficiency
- B. mitral regurgitation
- C. pulmonic stenosis
- D. **aortic stenosis**
- E. mitral stenosis

Rationale: Patients with aortic stenosis often experience dyspnea with exertion, chest pain, or dizziness. The calcification of the aortic valve and narrowing of the valve area effectively decreases the blood flow from the left ventricle to the aorta. Given the obstruction created from the narrowing of the aortic valve, the pressure within the left ventricle is often higher than that seen in the aorta. Aortic insufficiency is associated with blood flow from the aorta to the left ventricle during diastole and is often not associated with differences in systolic blood pressure. Mitral stenosis involves narrowing of the valve between the left atrium and left ventricle while mitral regurgitation involves the flow of blood from the left ventricle to the left atrium during systole when the mitral valve is normally closed.

26. An 89-year-old female with a history of smoking two packs of cigarettes a day for 50 years complains to her NP of progressive shortness of breath. On cardiac examination, the NP finds the most prominent palpable impulse to be in the xiphoid area. This is most likely a result of what condition?

- A. **pulmonary hypertension**
- B. aortic stenosis
- C. mitral regurgitation
- D. hypertrophic cardiomyopathy
- E. hypertension

Rationale: Pulmonary hypertension may arise from underlying lung disease from smoking such as emphysema or chronic obstructive pulmonary disease. Pulmonary hypertension often results in right ventricular hypertrophy. Aortic stenosis, hypertrophic cardiomyopathy, and hypertension all cause left ventricular hypertrophy and would displace the point of maximal impulse (PMI) lateral to the midclavicular line. Mitral regurgitation is often not associated with ventricular hypertrophy.

27. A 16-year-old male arrives at the Emergency Department (ED) for shortness of breath following a motor vehicle accident. A chest x-ray shows a rib fracture and a pneumothorax on the right side. The acute care NP decides that a chest tube needs to be placed in the fourth intercostal space. What steps are necessary to determine the accurate location of the fourth intercostal space?

- A. First, find the clavicle. The second intercostal space is just below the clavicle. Next, in descending order, find the third rib, third intercostal space, fourth rib, and then the fourth intercostal space.
- B. First, find the angle of Louis and then move laterally to the first rib. Next, in descending order, find the fourth intercostal space.
- C. **First, find the sternal angle and then move laterally to the second rib. Next, in descending order, move down to the second intercostal space, third rib, third intercostal space, fourth rib, and then the fourth intercostal space.**
- D. First, find the angle of Louis and then move laterally to the third rib. The fourth intercostal space is just below the third rib.
- E. First, find the suprasternal notch and then move laterally to the third rib. The fourth intercostal space is just below the third rib.

Rationale: He finds the sternal angle and then moves his finger laterally to the second rib. He then walks down to the two intercostal space, third rib, third intercostal space, fourth rib, and then the fourth intercostal space. Conventionally, the sternal angle is used as the starting point for determining where the second rib is and then one walks down from there to find the intercostal spaces and other ribs. He finds the suprasternal notch and then moves his finger laterally to the third rib. The fourth intercostal space is just below the third rib is incorrect. The suprasternal notch is not the starting point and the third rib is not lateral to the suprasternal notch. In addition, the fourth intercostal space is just below the fourth rib, rather than the third rib. He finds the angle of Louis and then moves laterally to the first rib. He walks down from there to the fourth intercostal space is incorrect. The angle of Louis (sternal angle) is the starting point, but it is the second rib, rather than the first rib, that is lateral to it. He finds the clavicle. The second intercostal space is just below the clavicle. He then walks down to third rib, third intercostal space, fourth rib, and then the fourth intercostal space is incorrect. The clavicle is not the starting point and the second intercostal space is not just below the clavicle. He finds the angle of Louis and then moves his finger laterally to the third rib. The fourth intercostal space is just below the third rib is incorrect. The angle of Louis (sternal angle) is the starting point, but it is the second rib, rather than the third rib, that is lateral to it. In addition, the fourth intercostal space is just below the fourth rib, rather than the third rib.

28. After examining a patient who is in the hospital for shortness of breath, the NP records the following for lung examination: "There is dullness to percussion over the right lung base. Breath sounds are absent at the right lung base. There are no crackles, wheezes, or rhonchi. There are no transmitted voice sounds." Which of the following is the most likely etiology?

- A. left-sided heart failure
- B. pneumonia
- C. chronic obstructive pulmonary disease (COPD)
- D. **atelectasis**
- E. pneumothorax

Rationale: All of the physical examination findings are characteristic of atelectasis. They can also be seen with a pleural effusion, but that was not one of the answer options for this question. Left-sided heart failure is incorrect. It characteristically has different findings for all the physical examination parameters mentioned and particularly late inspiratory crackles in the dependent portions of the lungs. Pneumonia is incorrect. Dullness to percussion can be seen with both atelectasis and pneumonia, but with pneumonia typically late inspiratory crackles are heard over the involved area and bronchophony, egophony, and whispered pectoriloquy can also be heard over the involved area. Pneumothorax is incorrect. Hyperresonance is characteristic of the percussion note with a pneumothorax, rather than dullness, which is characteristic of the percussion note with atelectasis. COPD is incorrect. Hyperresonance is characteristic of the percussion note with chronic obstructive pulmonary disease, rather than dullness, which is characteristic of the percussion note with atelectasis. Notice that the words "characteristic" and "typical" are used in the explanation rather than "always."

29. A 29-year-old male presents to the clinic with a cough for 2 months. When he lowers his gown so the NP can listen to his lungs, the NP notices a depression of the lower part of his sternum. Which of the following best describes the appearance of his chest?

- A. flail chest
- B. pectus excavatum
- C. thoracic kyphoscoliosis
- D. barrel chest
- E. pigeon chest

Rationale: Pectus excavatum is a congenital abnormality in which the inferior part of the sternum is displaced inward. Barrel chest is incorrect. In a barrel chest there is an increased anteroposterior diameter. A barrel chest often accompanies chronic obstructive pulmonary disease. Flail chest is incorrect. The injured area of a flail chest moves inward with inspiration and moves outward with expiration. Pigeon chest is incorrect. Pigeon chest, also known as pectus carinatum, is a congenital abnormality in which the sternum is displaced anteriorly. Thoracic kyphoscoliosis is incorrect. Thoracic kyphoscoliosis is characterized by abnormal spinal curvatures and vertebral rotation, which are visible posteriorly (rather than anteriorly).

30. An NP is percussing the lungs of a patient with chronic obstructive pulmonary disease (COPD) for resonance. Which of the following is an example of good percussion technique?

- A. The wrist is kept still during percussion.
- B. Strike using the finger pad of the fourth finger.
- C. The proximal interphalangeal joint is the joint that is struck.
- D. Strike using the tip of the third finger.
- E. Put the third and fourth fingers next to each other on the chest.

Rationale: Strike using the tip of the third finger is a part of good technique for percussing the lungs and some other structures in the body. The proximal interphalangeal joint is the joint that is struck is incorrect. It is the distal interphalangeal joint that is struck in good percussion technique. Press the third and fourth fingers next to each other on the chest is incorrect. Only the third finger is pressed against the chest in good percussion technique. Strike using the finger pad of the fourth finger is incorrect. It is the tip of the third finger that is used in good percussion technique. The wrist is kept still during percussion is incorrect. A direct brisk yet relaxed wrist movement is used in good percussion technique.

31. An 18-year-old male presents to the clinic for a 3-month history of periodic dyspnea when playing basketball. It resolves shortly after resting. He has not had a fever, chills, cough, sputum production, or chest pain. He has no history of serious illness. Based on the history, asthma is suspected. Which of the following sounds heard on expiration during lung auscultation would be most suggestive of asthma?

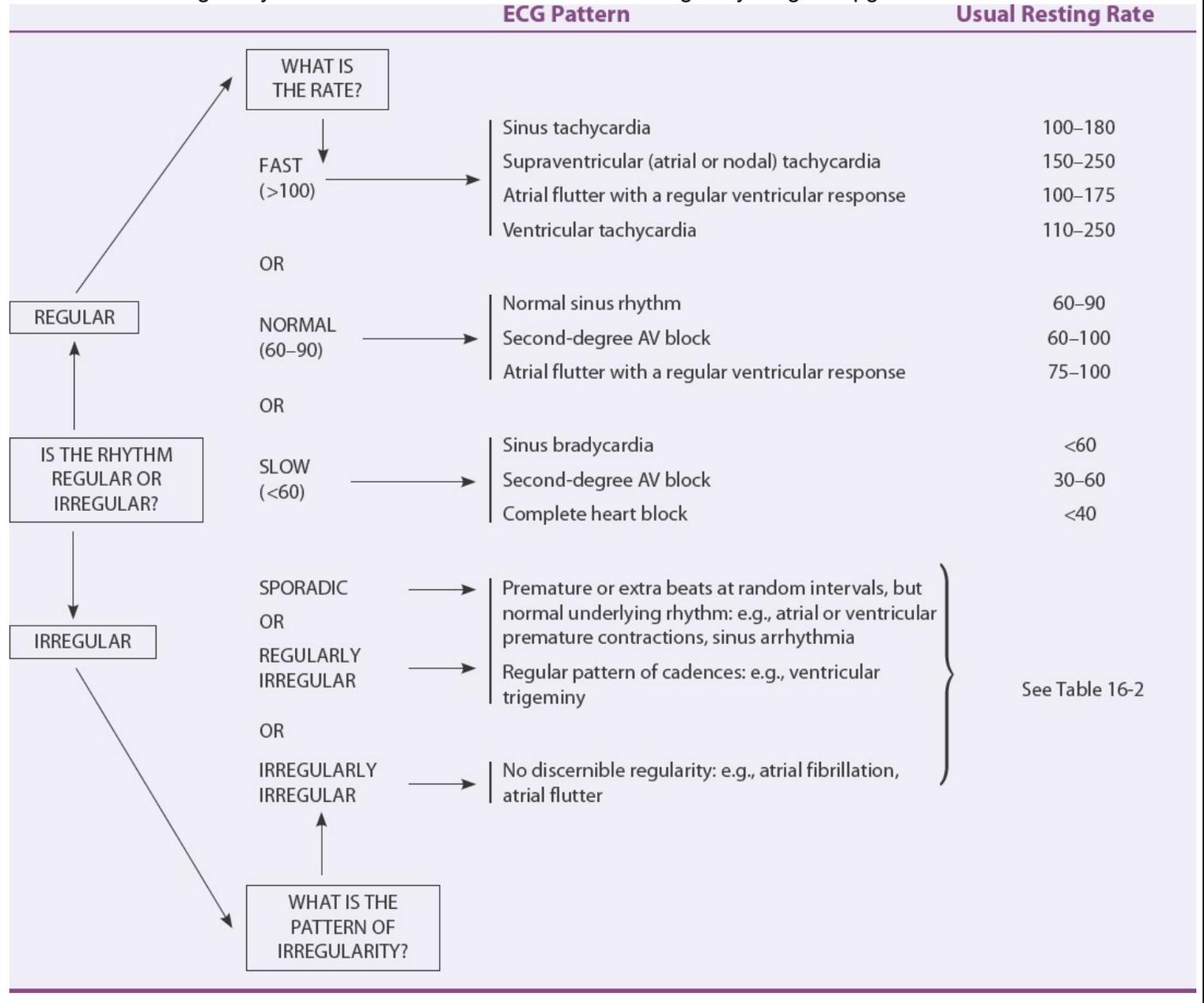
- A. stridor
- B. wheezes
- C. rhonchi
- D. mediastinal crunch
- E. pleural rub

Rationale: Wheezes are suggestive of narrowed airways, as in asthma, chronic obstructive pulmonary disease, or bronchitis. Mediastinal crunch is incorrect. A mediastinal crunch is suggestive of pneumomediastinum, not asthma. Pleural rub is incorrect. A pleural rub can be suggestive of a pleural effusion or a pneumothorax, not asthma. Rhonchi are incorrect. Rhonchi are suggestive of secretions in larger airways, not asthma. Stridor is incorrect. Stridor is suggestive of partial obstruction of the larynx or trachea, not asthma.

32. A 74-year-old female patient presents with a complaint of palpitations. While checking her pulse, you notice an irregular rhythm. During auscultation, you note every fourth beat sounds different. It sounds like a triplet rather than the usual “lub dub.” How would you document your examination findings?

- A. regular rate and rhythm
- B. irregularly irregular rhythm
- C. regularly irregular rhythm
- D. supraventricular tachycardia
- E. sporadic arrhythmia

This sounds like trigeminy to me - on chart below document as “regularly irregular” pg 539-540



33. Regarding the eyes, which of the following physical assessment findings are expected as part of the normal aging process?

- A. blurring of near vision
- B. superficial grayish-white discoloration of the cornea
- C. opacity of the lenses visible through the pupil
- D. thickening of the bulbar conjunctiva
- E. copper deposits in the periphery of the cornea resulting in gold to red ring formation

Blurring of near vision - pg 365 Testing near vision with a handheld card can help identify the need for reading glasses (bifocals or progressive lenses) in patients older than 45 years. You can also use this card to test visual acuity at the bedside. Held 14 inches from the patient's eyes, the card simulates a Snellen chart. Presbyopia causes focusing problems for near vision, found in middle-aged and older adults. A person with presbyopia often sees better when the card is farther away.

Google "What are normal age-related vision changes?"

As you age, it is normal to notice changes in your vision. A few common changes for older adults include: Losing the ability to see up close. Having trouble distinguishing colors, such as blue from black."

Pg 387 - Corneal Arcus. A thin grayish-white arc or circle not quite at the edge of the cornea. Accompanies normal aging but also seen in younger adults, especially African Americans. In young adults, suggests possible hyperlipoproteinemia. Usually benign.

Pg 394 Drusen are yellowish round spots that vary from tiny to small. The edges may be soft, as here, or hard (p. 377). They are haphazardly distributed but may concentrate at the posterior pole between the optic disc and the macula. Drusen consist of dead retinal pigment epithelial cells. Seen in normal aging and age-related macular degeneration.

34. An 81-year-old male presents to the vascular clinic with a painful sore on his right leg. On examination, the NP notes an ulcerative lesion near the medial malleolus with accompanying hyperpigmentation. Which of the following etiologies is most likely associated with these assessment findings?

- A. arterial insufficiency
- B. neuropathic ulcer
- C. venous insufficiency**
- D. trauma
- E. superficial phlebitis

Pg 589 - Arterial - This condition occurs in the toes, feet, or possibly areas of trauma (e.g., the shins). Surrounding skin shows no callus or excess pigment, although it may be atrophic. Pain often is severe unless masked by neuropathy. May be accompanied by gangrene, along with decreased pulses, trophic changes, foot pallor on elevation, and dusky rubor on dependency.

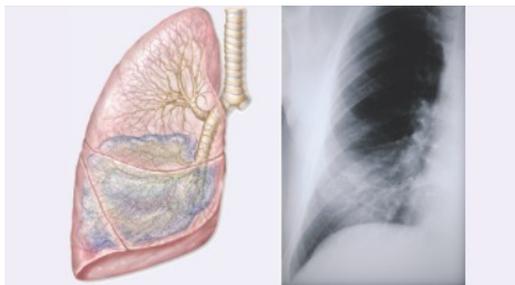
Pg 589- Neuropathic Ulcer -This condition develops in pressure points of areas with diminished sensation; seen in diabetic neuropathy, neurologic disorders, and Hansen disease. The surrounding skin is calloused. There is no pain, so the ulcer may go unnoticed. In uncomplicated cases, there is no gangrene. Associated signs include decreased sensation and absent ankle jerks.

Pg 589 **Chronic Venous Insufficiency-** This condition usually appears over the medial and sometimes the lateral malleolus. The ulcer contains small, painful granulation tissue and fibrin; necrosis or exposed tendons are rare. Borders are irregular, flat, or slightly steep. Pain affects quality of life in 75% of patients. Associated findings include edema, reddish pigmentation and purpura, venous varicosities, the eczematous changes of stasis dermatitis (redness, scaling, and pruritus), and at times cyanosis of the foot when dependent. Gangrene is rare.

Pg 584 - Superficial phlebitis - involves inflammation of superficial vein at times venous thrombosis - confirmed by imaging; pain and tenderness along superficial vein (most often saphenous system); causes = immobility venous stasis, chronic venous disease, venous procedures- local induration, erythema - if palpable nodules or cords consider superficial or deep vein thrombosis, both associated with risk of DVT and PE

35. A 61-year-old female presents with the complaint of cough for 1 week. She is a smoker. The pulmonary examination revealed positive egophony with E-to-A change in the left lower lobe and crackles on auscultation. These assessment findings are strongly indicative of what etiology?

- A. lobar pneumonia**
- B. pleural effusion
- C. chronic bronchitis
- D. emphysema
- E. asthma



Pg 463 - Transmitted Voice Sounds. If you hear abnormally located bronchovesicular or bronchial breath sounds, assess transmitted voice sounds using the three techniques below. With the diaphragm of your stethoscope, listen in symmetric areas over the chest wall for abnormal vocal resonances suspicious for pneumonia or pleural effusion.

Egophony. Ask the patient to say "ee." You will normally hear a muffled long E sound.

If "ee" sounds like "A" and has a nasal bleating quality, an E-to-A change, or egophony, is present.

Localized bronchophony and egophony are seen in lobar consolidation from pneumonia. In patients with fever and cough, the presence of bronchial breath sounds and egophony more than triples the likelihood of pneumonia.- pt does not have fever

Bronchial or bronchovesicular over the involved area

Spoken "ee" heard as "ay" (*egophony*)

Spoken words louder (*bronchophony*)

Whispered words louder, clearer (*whispered pectoriloquy*)

Increased

NOTE: In the dull lung of pleural effusion, breath sounds are decreased to absent (bronchial sounds possible at upper margin of effusion). Transmitted voice sounds are decreased to absent (but may be increased at upper margin of effusion). Fremitus is decreased.

- Image is from Pg 482

Page 462 - Crackles can arise from abnormalities of the lung parenchyma (pneumonia, interstitial lung disease, pulmonary fibrosis, atelectasis, heart failure) or of the airways (bronchitis, bronchiectasis).

Pleural effusion would not have egophony

36. A 37-year-old female presents with left lower extremity swelling and redness that extends from the foot to the mid-calf. Her posterior calf is tender with palpation during knee extension and dorsiflexion of the left foot. The right lower extremity is unremarkable. She denies fever or injury. Which of the following history findings would be most significant given the presenting complaint?

- A. patient is of Mediterranean descent
- B. 12-hour car trip three days ago for a holiday visit
- C. history of Raynaud's disease
- D. 24-hour diet recall/history
- E. currently taking ibuprofen for menstrual cramps

Pg 584

Likely DVT - long car trip = risk factor due to immobility other risks include = recent sx, pregnancy or post partum, hypercoag state

DVT can be painful or painless, have swelling with erythema, asymmetric calf diameters more diagnostic than palpable cord or tenderness over femoral triangle, high risk of PE

37. You are examining a 60-year-old male with a long-standing history of chronic obstructive pulmonary disease (COPD). The patient reports smoking since he was a teenager. Which of the following physical examination finding(s) are expected with the patient presentation? Select all that apply.

- A. AP diameter that exceeds 0.9
- B. generalized hyperresonance to percussion over the lung fields
- C. increased length of expiration
- D. jugular vein pressure that is decreased during expiration
- E. cough with scant, mucoid sputum

A. = barrel chest - pg 455

B. Hyperresonance to percussion - pg 459 Generalized hyperresonance is common over the hyperinflated lungs of COPD or asthma. Unilateral hyperresonance suggests a large pneumothorax or an air-filled bulla.

C. Pg 454 - Delayed expiration occurs in COPD.

D. Jugular venous distension during expiration indicates that the intrathoracic pressure has become excessively positive due to airway obstruction. [35] Due to the large swings in the intrathoracic pressure, the jugular venous pressure is often difficult to assess in COPD patients.- doesn't sound right that it would

fever, dyspnea, and chest pain. Commonly from *Streptococcus pneumoniae*; *Haemophilus influenzae*; *Moraxella catarrhalis*; *Klebsiella pneumoniae* in alcoholism, especially if underlying smoking, chronic bronchitis, and COPD; cardiovascular disease; diabetes.- Sputum is mucoid or purulent; may be blood-streaked, diffusely pinkish, or rusty

38. A 25-year-old female comes to your clinic for evaluation of fatigue. As part of your physical examination, you listen to her heart and hear a murmur only at the cardiac apex. Which valve is most likely to be involved, based on the location of the murmur?

- A. mitral murmur
- B. tricuspid murmur
- C. aortic murmur
- D. pulmonic murmur
- E. diastolic murmur

Pg 496

Box 16-1. Chest Wall Location and Origin of Valve Sounds and Murmurs

| Chest Wall Location | Typical Origin of Sounds and Murmurs |
|---|--------------------------------------|
| Right second intercostal space or cardiac apex | Aortic valve |
| Left second and third intercostal spaces close to the sternum, but also at higher or lower levels | Pulmonic valve |
| At or near the lower left sternal border | Tricuspid valve |
| At and around the cardiac apex | Mitral valve |

39. Proper positioning of the patient is critically important during the physical assessment. During the physical examination, which is the best position to place the patient when assessing for the murmur of aortic regurgitation?

- A. sitting, leaning forward
- B. lying flat
- C. lying supine with the head of the bed elevated 45 degrees
- D. lying supine with the head of the bed elevated 30 degrees
- E. lying on the left side

Pg 524 -Auscultating for mitral stenosis in the left lateral decubitus position.

Pg 524 - Auscultating for aortic regurgitation with the patient leaning forward.

You may easily miss the soft diastolic decrescendo murmur of aortic regurgitation unless you listen at this position.

Pg 523 - Ask the patient to roll into the left lateral decubitus position, which brings the LV closer to the chest wall.

Place the bell of your stethoscope lightly on the apical impulse (Fig. 16-31).

Ask the patient to sit up, lean forward, exhale completely, and briefly stop breathing after expiration. Pressing the diaphragm of your stethoscope on the chest, listen along the left sternal border and at the apex, pausing periodically so the patient may breathe (Fig. 16-32).

40. Proper positioning of the patient during the physical examination is fundamental to conducting an effective and efficient cardiovascular assessment. During the physical examination, which is the best position to place the patient when auscultating for S1, S2, and murmurs?

- A. sitting, leaning forward
- B. lying flat
- C. lying supine with the head of the bed elevated 45 degrees
- D. lying supine with the head of the bed elevated 30 degrees
- E. lying on the left side

Box 16-6. Sequence of Patient Positions in the Cardiac Examination

| Patient Position | Examination | Accentuated Abnormal Findings |
|---|---|---|
| Supine, with the head elevated 30° | After examining the JVP and carotid pulse, inspect and palpate the precordium: the second right and left intercostal spaces; the RV; and the LV, including the apical impulse (diameter, location). | |
| Left lateral decubitus | Palpate the apical impulse to assess its diameter. Listen at the apex with the <i>bell</i> of the stethoscope. | Left lateral decubitus: low-pitched extra sounds such as an S ₃ , opening snap, diastolic rumble of <i>mitral stenosis</i> |
| Supine, with the head elevated 30° | Listen at the second right and left intercostal spaces, down the left sternal border to the fourth and fifth intercostal spaces, and across to the apex the six listening areas with the <i>diaphragm</i> , then the <i>bell</i> (see p. 521). As indicated, listen at the lower right sternal border for right-sided murmurs and sounds, often accentuated with inspiration, with the <i>diaphragm</i> and <i>bell</i> . | |
| Sitting, leaning forward, after full exhalation | Listen down the left sternal border and at the apex with the <i>diaphragm</i> . | Sitting, leaning forward: Soft decrescendo higher-pitched diastolic murmur of <i>aortic regurgitation</i> |

41. A 40-year-old male presents with daily headaches that have worsened over the past several months. The headaches are worse with lying down and persist throughout the day. On funduscopic examination of the right eye, you note that the disk edge is indistinct, and the veins do not pulsate. What medical condition is most closely associated with these physical assessment findings?

- A. migraine
- B. acute angle glaucoma
- C. detached retina
- D. increased intracranial pressure
- E. diabetic retinopathy

- A. Migraine - not correct b/c it has to do with funduscopic exam
- B. Acute angle glaucoma - Occasionally, the iris bows abnormally far forward, forming a very narrow angle with the cornea. The light then casts a crescentic shadow (Fig. 12-18). This narrow angle increases the risk for acute narrow-angle glaucoma, a sudden increase in intraocular pressure when drainage of the aqueous humor is blocked.- In open-angle glaucoma, the common form of glaucoma, the normal spatial relation between iris and cornea is preserved and the iris is fully lit.
- C. Detached retina - pg 374 - Absence of a red reflex suggests an opacity of the lens (cataract) or, possibly, the vitreous (or even an artificial eye). Less commonly, a detached retina; mass; or; in children, a retinoblastoma may obscure this reflex.
- D. Pg 375 - Importance of Detecting Papilledema- Swelling of the optic disc and anterior bulging of the physiologic cup suggest papilledema (Fig. 12-25), which is optic nerve head swelling associated with increased intracranial pressure. This pressure is transmitted to the optic nerve, causing stasis of axoplasmic flow, intra-axonal edema, and swelling of the optic nerve head. Papilledema signals serious disorders of the brain, such as meningitis, subarachnoid hemorrhage, trauma, and mass lesions, so searching for this important disorder is a priority during all your funduscopic examinations (see technique as described on prior page). - Inspect the fundus for spontaneous venous pulsations (SVPs), rhythmic variations in the caliber of the retinal veins as they cross the fundus (narrower in systole; wider in diastole), present in 90% of normal patients.

E. Diabetic neuropathy - pg 393- Microaneurysms. Tiny, round, red spots commonly seen in and around the macular area. They are minute dilatations of very small retinal vessels; the vascular connections are too small to be seen with an ophthalmoscope. A hallmark of diabetic retinopathy.- A common feature of the proliferative stage of diabetic retinopathy. The vessels may grow into the vitreous, where retinal detachment or hemorrhage may cause loss of vision.

42. A 45-year-old male has noticed multiple small, blood-red, raised lesions over his chest and abdomen for the past several months. They are not painful, and he has not noted any bleeding or bruising. On physical examination, the NP notes more than 75 discrete, raised, red papules of varying size between 0.1-0.4 cm as represented in this image. Which of the following actions if taken by the NP is an appropriate next step?

ADA Description: Bare chest with multiple scattered, discrete, red, papules.

- A. Reassure him that there is nothing to worry about. ?
- B. Order laboratory tests to check for platelet problems.
- C. Ask about a family history of blood problems and bleeding disorders.
- D. Perform a skin biopsy in the office.
- E. Discontinue his aspirin therapy.

purpura, and vascular structures (cherry angiomas, vascular malformations) are not erythematous, but rather bright red, purple, or violaceous.

| Cherry Angioma | Petechia/Purpura |
|--|---|
|  |  |
| Bright or ruby red; may become purplish with age; 1-3 mm | Deep red or reddish purple, fading away over time; petechia, 1-3 mm; purpura are larger |
| Round, flat, or sometimes raised; may be surrounded by a pale halo | Rounded, sometimes irregular; flat |
| Absent; may show partial blanching, especially if pressure applied with edge of a pinpoint | Absent; no effect from pressure |
| Trunk; also extremities | Variable |
| None; increases in size and numbers with aging | Blood outside the vessels; may suggest a bleeding disorder or, if petechiae, emboli to skin; palpable purpura in vasculitis |

the redness temporarily lightens then refills.

43. A 15-year-old male presents to the emergency room with his mother for evaluation of an area of blood in the left eye. He denies trauma or injury but has been coughing forcefully with a recent cold. He denies visual disturbances, eye pain, or discharge from the eye. On physical examination, the pupils are equal, round, and reactive to light, with a visual acuity of 20/20 in each eye and 20/20 bilaterally. There is a homogeneous, sharply demarcated area at the lateral aspect of the base of the left eye. The cornea is clear. Based on the history and physical examination findings, what is the most likely diagnosis?

- A. subconjunctival hemorrhage
- B. acute viral conjunctivitis
- C. acute iritis
- D. corneal abrasion
- E. acute angle closure glaucoma

Pg 363- A red painless eye is seen in subconjunctival hemorrhage and episcleritis. A red eye with a gritty sensation is seen in viral conjunctivitis and dry eye. A red painful eye is seen in corneal abrasions, foreign bodies, corneal ulcers, acute angle closure glaucoma, herpes keratitis, fungal keratitis, hyphema, and uveitis.9,10 See Table 12-1, Red Eyes, pp. 382-383.

44. A 32-year-old female presents with ear pain. She is an avid swimmer. The history includes pain and drainage from the left ear for about a week. On examination, she has pain when the ear is manipulated, including manipulation of the tragus. The canal is narrowed and erythematous, with some white debris in the canal. The rest of the examination is unremarkable. What diagnosis would you assign this patient based on physical assessment findings?

- A. acute otitis media
- B. acute otitis externa**
- C. otitis media with otitis externa
- D. malignant otitis externa
- E. chronic otitis externa

Pg 401 - Pain occurs in the external canal in otitis externa (inflammation of the external ear canal) and deeper within the ear in otitis media (infection of the middle ear).⁴ Pain in the ear may also be referred from other structures in the mouth, throat, or neck. - Ask about discharge from the ear, especially if associated with earache or trauma. Wax or debris in the ear is usually normal. - Acute otitis externa and acute or chronic otitis media with perforation usually present with yellow-green discharge.

Pg 404 - Movement of the auricle and tragus is painful in acute otitis externa (inflammation of the ear canal), but not in otitis media (inflammation of the middle ear).

Pg 405 - In acute otitis externa (Fig. 13-11), the canal is often swollen, narrowed, moist, erythematous or pale, and tender.

45. A patient with hearing loss by whisper test is further examined with a tuning fork, using the Weber and Rinne maneuvers. The abnormal results are as follows: bone conduction is greater than air on the left, and the patient hears the tuning fork better on the left. Which of the following is most likely?

- A. otosclerosis of the left ear**
- B. exposure to chronic loud noise of the right ear
- C. otitis media of the right ear
- D. perforation of the right eardrum
- E. tympanosclerosis

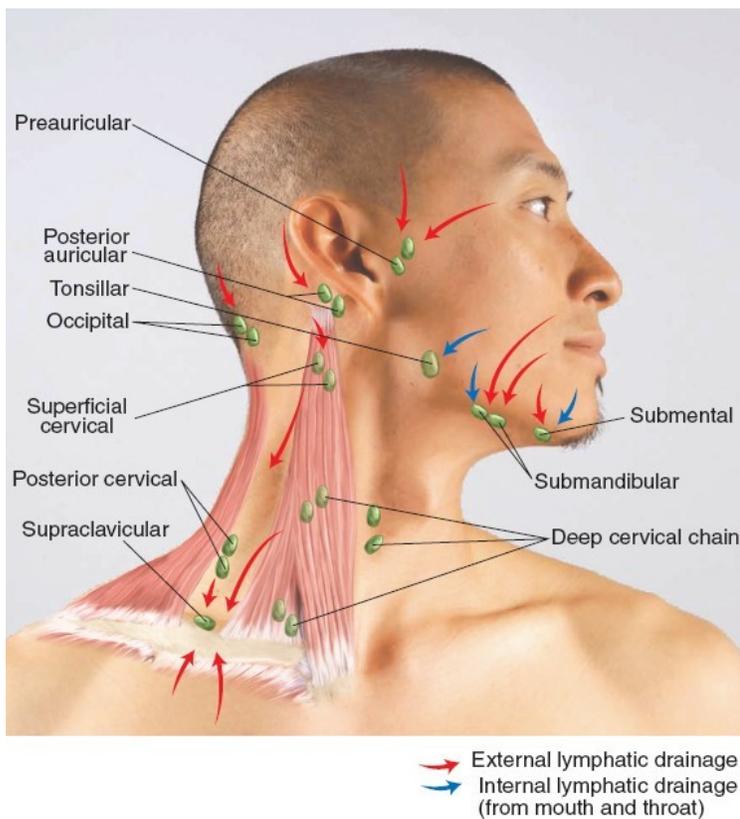
Pg 389- Hearing disorders of the external and middle ear cause conductive hearing loss. External ear causes include cerumen impaction, infection (otitis externa), trauma, squamous cell carcinoma, and benign bony growths such as exostosis or osteoma. Middle ear disorders include otitis media, congenital conditions, cholesteatomas, otosclerosis, tympanosclerosis, tumors, and perforations of the tympanic membrane.

Disorders of the inner ear cause sensorineural hearing loss from congenital and hereditary conditions, presbycusis, viral infections such as rubella or cytomegalovirus, Ménière disease, noise exposure, ototoxic drug exposure, and acoustic neuromas.

Problem seems to be in Left ear - someone on quizlets rationale = The above pattern is consistent with a conductive loss on the left side. Causes would include foreign body, otitis media, perforation, and otosclerosis of the involved side.

46. A 21-year-old female presents with a sore throat, fever, and fatigue for several days. You notice exudates on her enlarged tonsils. You do a careful lymphatic examination and notice some scattered small, mobile lymph nodes just behind her sternocleidomastoid muscles bilaterally. Which group of lymph nodes is this?

- A. anterior superficial cervical lymph node group
- B. posterior cervical lymph node group**
- C. deep cervical chain lymph node group
- D. supraclavicular lymph node group
- E. submandibular lymph node group



6. Occipital lymph node group—at the base of the skull posteriorly

7. Anterior superficial cervical lymph node group—superficial to the SCM muscle

8. Posterior cervical lymph node group—along the anterior edge of the trapezius

9. Deep cervical chain lymph node group—deep to the SCM muscle and often inaccessible to examination

10. Supraclavicular lymph node group—deep in the angle formed by the clavicle and the SCM muscle

Pg 432 - This red throat has thick white exudates on the tonsils. This, together with fever and enlarged cervical nodes, increases the probability of group A streptococcal infection or infectious mononucleosis. Anterior cervical lymph nodes are usually enlarged in the former, posterior nodes in the latter.- bc it says behind sSCM it has to be posterior cervical LN

47. When testing for nystagmus, the NP instructs the patient to:

- A. fix their gaze on an object located in the distance
- B. fix their gaze on a nearby object within 3-6 inches
- C. fix their gaze in the right and left peripheral fields**
- D. fix their gaze downward and quickly look up
- E. fix their gaze on the tip of the nose

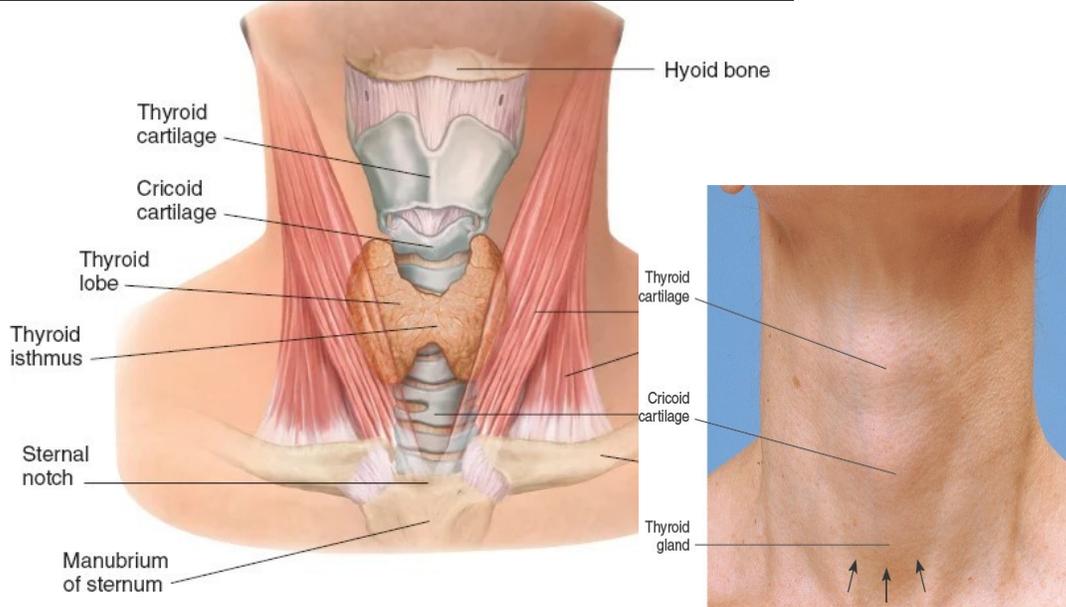
Pg - 372 Pause during vertical and lateral gaze to detect nystagmus. Move your finger or pencil at a comfortable distance from the patient. Because middle-aged or older adults may have difficulty focusing on near objects, increase this distance. Some patients move their heads to follow your finger. If necessary, hold the head in the proper midline position.

48. Identify the anatomical landmark on the neck between the examiner's fingers in this image.

ADA Description: Examiner's hands bilaterally on the anterior neck

- A. thyroid cartilage ?
- B. cricoid cartilage ?
- C. thyroid isthmus
- D. tracheal ring
- E. thyroid gland ?

I would think that since between fingers it will either be A or B or E



49. A 57-year-old male complains of a tender growth under his tongue. He reports a history of cigarette use, but not for 20 years. He also reports a non-productive cough and general malaise. Upon inspection, you note the lesion cannot be removed and bleeds slightly when touched with a tongue blade. What medical condition is most likely associated with the history and physical exam findings?

ADA Description: White lesion under the tongue.

- A. carcinoma on the tongue
- B. foreign body reaction
- C. oral candidiasis
- D. oral leukoplakia
- E. geographic tongue

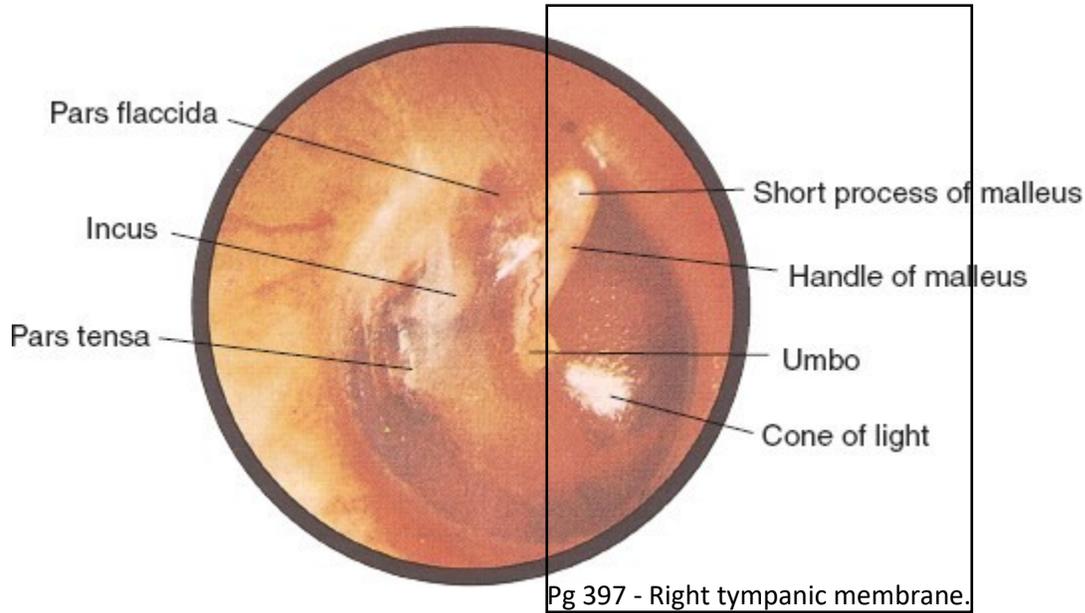
d oral cavity, usually squamous cell carcinomas on the side or base of the tongue. Any persistent nodule or ulcer, red or white, is suspect,



50. Identify the letter that corresponds with the handle of the malleus in this image of the right tympanic membrane of the ear.

ADA Description: Anatomy of the right tympanic membrane

- A. A
- B. B
- C. C
- D. D
- E. E



51. Examination of the nose of a 27-year-old male during a routine appointment reveals the following (see red oval in the image). The patient denies pain, injury, or difficulty smelling. What medical condition is associated with this physical examination finding?

ADA Description: Left nare with partial obstruction of the vestibule

- A. deviated nasal septum
- B. nasal polyp** - no picture
- C. foreign body
- D. granulomatous disease
- E. carcinoma

? Rationale: Nasal polyps are more likely in patients with CF (as well as other conditions such as allergic rhinitis, aspirin sensitivity, and chronic sinusitis). Ulcer is incorrect as an ulcer is not a mass but rather a tender denuded area. Viral rhinitis is incorrect as it should not produce a saclike structure. Allergic rhinitis is incorrect as it produces a pale and boggy mucosa but not a saclike structure. Deviated nasal septum is incorrect. The nasal septum was reported to be normal.

52. A 25-year-old male complains of a swishing noise in both ears that never goes away for about 6 months. He is otherwise healthy, can work on his job (operating large, vibrating machinery) without problems, and is not taking any medications. A complete examination reveals an abnormality. Which abnormality is most often associated with tinnitus in this patient demographic?

- A. mild tremor
- B. headache
- C. wax in both ears
- D. bilateral earache
- E. vertigo**

Rationale: Vertigo and tinnitus together comprise a syndrome called Ménière disease, which may affect young adults. A more common diagnosis in this case would have been tinnitus resulting from the loud noise of the machinery he is working with. Bilateral earache is incorrect. Otitis media can cause pounding in the ear but not tinnitus, and it is rarely bilateral. Wax in both ears is incorrect. Cerumen can push against the tympanic membrane and can cause a dull sound and pressure, but not typically tinnitus. Headache is incorrect as it can be associated with tinnitus in the case of a brain lesion, but this is rare. A mild tremor is incorrect as it would be unusual at this age but it is sometimes a normal variant, and in this case might be associated with his work.

53. An 82-year-old male is speaking loudly during an examination, suggesting that he may not be hearing well. What is a good question to ask him to help identify whether he has hearing loss?

- A. "Do you have discharge from his ear?"
- B. "How well do you understand people in a noisy environment such as a restaurant?"
- C. "Have you been having an earache?"
- D. "Do you have vertigo?"
- E. "Have you been listening to loud music?"

Glitched and wouldn't give rationale

54. A 70-year-old male complains of double vision. Which of the following associated symptoms or signs discovered during the history and physical examination would be worrying about an underlying neurological problem (as opposed to pathology in the eye)?

- A. worsening vision bilaterally on examination
- B. symptoms of flashing lights
- C. an associated conjunctivitis
- D. abnormality in extraocular movements on examination
- E. diplopia persisting in the right eye when the left eye is closed

Rationale: Paralysis or weakness of extraocular muscles suggests a possible brainstem or cerebellar lesion. Diplopia persisting in the right eye when the left eye is closed is incorrect. Diplopia in one eye while the other eye is closed suggests a problem in the cornea or lens. An associated conjunctivitis is incorrect. Conjunctivitis is an independent problem and generally a minor one. Worsening vision bilaterally on examination is incorrect. Worsening bilateral vision is common among elderly patients. Symptoms of flashing lights is incorrect. Flashing lights suggest vitreous floaters, although it could suggest detached vitreous from the retina.

55. Which of the following statements is true regarding aphasia?

- A. It is best characterized by involuntary, rhythmic, repetitive movements involving the tongue and jaws making speech difficult to comprehend.
- B. The ability to write a full correct sentence does not rule out the presence of aphasia in a patient.
- C. It involves a loss of the voice or a slurring or hoarseness of speech secondary to the pathology of the larynx or its nerve supply.
- D. It is best characterized by slurred speech with an associated defect in language control.
- E. It is defined as an inability to produce or understand language.

Rationale: Aphasia, the inability to produce or understand language, includes two common subtypes: receptive and expressive. A loss of the voice or hoarseness defines aphonia and dysphonia, respectively. Slurred speech with intact language is dysarthria. Involuntary movements as described are characteristic for oral–facial dyskinesias. Because writing a sentence involves both understanding the question and executing the task (expressive), by definition, maintenance of language production and understanding effectively rules out aphasia.

56. Abstract thinking is an important component of the human thought process. A person's ability to understand questions that test his or her ability to answer appropriately is dependent upon several factors. Which one of the following answers is true in identifying a patient with concrete thinking and a reduced ability to think abstractly?

- A. an inability to draw a clock correctly including all numbers and make it tell time as requested (i.e., 10:15)
- B. **an inability to discern the similarity between two words (e.g., a cat and a mouse by answering "The cat chases the mouse.")**
- C. an inability to correctly perform serial 7s
- D. an inability to spell "world" backward
- E. an inability to name the occupations of common well-known public figures such as the President and Vice President

Rationale: An inability to link a cat and a mouse as both representing animals (abstraction) is an example of loss of the ability to think abstractly. Serial 7s is a simple math test that tests attention, not abstract thinking, and spelling "world" backward is another test for attention. These tests may be particularly difficult to perform for a person with a mild delirium, representing an inability to concentrate and maintain attention. Memory deficits are represented by the inability to name public figures, and clock-drawing abnormalities are most associated with executive functioning deficits.

57. Which complaints/findings are considered patient identifiers for mental health screening? Select all that apply.

- A. a patient with type I diabetes and neuropathic pain
- B. **substance abuse history**
- C. high use of health services due to chronic unstable medical diagnoses
- D. acute pain syndromes of at least a 10-day duration and requires opiates for relief
- E. **depression symptoms lasting longer than 6 weeks**

Rationale: The answer is substance abuse. High use of health services in an unstable patient is frequently indicated; however, it is those without demonstrable problems that may require further evaluation, that is, mental health screening. Symptoms of a more chronic nature, namely 6 weeks, might warrant referral, but not 2 weeks. Acute pain should be managed in the context of the patient presentation, and type I diabetics frequently suffer from difficult to manage neuropathic pain, which is not easily treated but medically based and well-described clinically.

58. A 42-year-old male presents with widespread pain. He reports almost daily headaches, pain in his back from an old motor vehicle accident, and generalized achiness and hypersensitivity throughout the body. He recounts ongoing pain since his early 20s and has sought treatment from several providers. Which of the following statements is true regarding chronic pain?

- A. Following assessment and evaluation, approximately 80% of patients with non-cancer-related pain report control of their symptoms.
- B. **Chronic pain is defined as pain not due to cancer or a recognized medical condition that persists for more than 3–6 months.**
- C. Chronic pain is defined as focused pain lasting more than 8 months following acute injury or illness.
- D. Pain that recurs at intervals of months or years is never considered to be "chronic pain."
- E. In primary care practices, non-cancer-related chronic pain is seen in patients.

Rationale: Although many definitions exist for this condition—which is often multifactorial and difficult to differentiate—the definition of chronic pain as pain not due to cancer or a recognized medical condition that persists for >3–6 months is supported by the American Medical Association and is useful in separating acute or focused pain from long-term chronic pain. Following assessment and evaluation, ~80% of patients with non-cancer-related pain report control of their symptoms is incorrect. More than 40% of chronic pain patients report that their pain is poorly controlled. Chronic pain is defined as focused pain lasting >8 months following acute injury or illness is incorrect.

This does not fit any common definition of chronic pain. In primary care practices, non-cancer-related chronic pain is seen in less than 10% of patients is incorrect. Up to a third of patients in primary care settings are affected by chronic pain. Pain that recurs at intervals of months or years is never considered to be “chronic pain” is incorrect. Under some definitions of chronic pain, pain from a single predictable source that recurs at wide intervals with interim times of notable relief may still be called chronic pain.

59. A 19-year-old male presents to the clinic after a syncopal episode. During your general survey, you note that he is very thin for his height. He admits that he eats only minimally to maintain a very low body weight that he feels is ideal. You suspect that he may have an eating disorder. Concerning the two most common eating disorders (anorexia nervosa and bulimia nervosa), which of the following statements is true?

- A. Both of these eating disorders are associated with a real or imagined fear of appearing fat.
- B. The prognosis is similar regardless of whether individuals are diagnosed and treated in the early or late stages of these disorders.
- C. Men and women are both afflicted, but with a female to male prevalence ratio estimated at approximately 2:1.
- D. Persons with eating disorders are generally easily identified by their appearance.
- E. Both of these eating disorders are associated with a body mass index (BMI) of less than 17.5.

Rationale: A real or imagined fear of appearing fat is a common finding in both anorexia and bulimia—which sometimes overlap more than they present as distinct diagnoses. Both conditions are characterized by distorted perceptions of body image and weight. Men and women are both afflicted, but with a female:male prevalence ratio estimated at ~2:1 is incorrect. Both men and women suffer from eating disorders, but the ratio is closer to 5—10:1 (female:male). This pattern may change with evolving cultural norms. Both of these eating disorders are associated with a BMI of <17.5 is incorrect. Although anorexia is notable for a sustained low BMI, those suffering from bulimia (characterized by normal or high caloric intake followed by purging) may demonstrate normal BMI. Persons with eating disorders are generally easily identified by their appearance is incorrect. Concealing of the appearance is often an integral part of the disorder, making recognition of very underweight individuals difficult in street clothes. Prognosis is similar regardless of whether individuals are diagnosed and treated in the early or late stage of these disorders is incorrect as prognosis is improved by early identification and treatment of eating disorders.

60. A 58-year-old male presents for his annual physical examination. The NP notes a systolic murmur on auscultation of the aorta. However, the NP does not immediately conclude that this patient has aortic stenosis. Which of the following is the accurate rationale for seeking additional information?

- A. systolic murmurs are unrelated to aortic stenosis
- B. systolic murmurs have high sensitivity but low specificity for aortic stenosis
- C. systolic murmurs have high sensitivity and high specificity for aortic stenosis
- D. systolic murmurs have low sensitivity but high specificity for aortic stenosis
- E. systolic murmurs have low sensitivity and low specificity for aortic stenosis

Rationale: Most people who have aortic stenosis have a systolic murmur, but there are many other causes of systolic murmurs besides aortic stenosis. Using the presence of a murmur as the only criterion for diagnosing aortic stenosis would lead to too many false-positive diagnoses. Systolic murmurs have high sensitivity and high specificity for aortic stenosis, systolic murmurs have low sensitivity and low specificity for aortic stenosis, and systolic murmurs have low sensitivity but high specificity for aortic stenosis are incorrect because systolic murmurs have high sensitivity but low specificity for aortic stenosis. Systolic murmurs are unrelated to aortic stenosis is incorrect because this sign has high specificity for aortic stenosis.

61. A 45-year-old male presents to the clinic complaining of intense substernal chest pain and nausea. He appears pale and sweaty. At work that day, he filled in for an absent co-worker and was asked to perform heavy lifting not normally a part of his job. The NP questions the patient in detail about his nausea, eating habits, and digestive history. Which of the following steps of clinical reasoning has the NP failed to follow?

- A. elicit information about the patient’s family history of digestive disorders
- B. match findings against conditions that could cause them
- C. give special consideration to potentially life-threatening problems
- D. localize findings anatomically
- E. elicit information about the patient’s gastrointestinal (GI) system

Rationale: This patient may be experiencing a myocardial infarction (MI), a much more serious disorder than a chronic digestive condition; this possibility should be ruled out first as a “worst-case scenario.” Elicit information about the patient’s GI system is incorrect because this task has already been completed. Localize findings anatomically is incorrect because this has been attempted (although perhaps for the wrong system). Match findings against conditions that could cause them is incorrect because although the PA did match findings to conditions that may have caused them, he ignored only the most important findings and the most critical potential condition (MI).

Elicit information about the patient’s family history of digestive disorders is incorrect because it is not the most

62. An NP student is interviewing an 80-year-old new patient brought to the office by her granddaughter. As part of the patient’s history, the NP student obtains information about childhood illnesses and adult illnesses and then moves on to inquire about the family history. Which important area of the past medical history (PMH) was omitted?

- A. chief complaint
- B. immunizations**
- C. social history
- D. medications
- E. allergies

Rationale: It is important to understand the three components of the past history: childhood illnesses, adult illnesses, and health maintenance behaviors including immunizations and screening tests. Understanding what conditions the patient is protected against is important for understanding the possible causes of the present illness. The patient’s chief complaint(s) are, of course, highly significant, but they are not part of the past history. Allergies and medications also are relevant, but are part of the present illness, not the past history. Social history is its own category of investigation.

63. A 65-year-old male presents to the office for an unscheduled visit. He complains of recurrent headaches. The patient reports gradual onset of dizziness and occasional numbness on the left side. Which of the following body systems or regions should be a priority focus during the physical assessment?

- A. respiratory
- B. HEENT
- C. cardiovascular
- D. musculoskeletal
- E. neurological**

Pg 102 - Neurologic: Changes in mood, attention, or speech; changes in orientation, memory, insight, or judgment; headache, dizziness, vertigo, fainting, blackouts; weakness, paralysis, numbness or loss of sensation, tingling or “pins and needles,” tremors or other involuntary movements, seizures.

64. A 59-year-old man presents to the office for a scheduled visit. He complains of feeling tired and hungry, despite getting sufficient rest and having a good appetite and access to food. The patient is obese and is wearing thermal socks with his sandals despite the warm weather outside. He says this is because his feet are always cold and “feel funny.” With which body system should the NP begin the examination?

- A. nervous system
- B. head and neck**
- C. posterior thorax
- D. lower extremities
- E. abdomen

Rationale: The physical examination should proceed “head to toe” to optimize patient comfort; minimize the number of changes in patient position; and, because it is always done in the same way, to ensure that nothing is missed. Even though symptoms are reported in the lower extremities, the examination will attend to this region at the appropriate time. The same argument applies to the posterior thorax, abdomen, and nervous system.

65. A 26-year-old male presents to the free clinic. He reports having active hepatitis C from intravenous drug use. He also suffers from uncontrolled asthma since childhood and bipolar disorder. On today's visit, his main concern is an abscess in his right arm at a heroin injection site. Which of the following is the best approach to the health history for this patient at his first visit?

- A. a clinician-centered health history
- B. a review of systems (ROS) only
- C. a comprehensive health history**
- D. a health history with only yes/no options
- E. a problem-focused health history

Rationale: Almost all new patients should undergo a comprehensive health history including the history of present illness (HPI), past medical history, family history, personal and social history, and ROS. This patient, in particular, has a complex past with a number of current issues; becoming acquainted with the whole picture of his health and health care at the first visit can make future visits more streamlined and fruitful. In this patient's case, he has one very acute issue that must be addressed that day (the abscess), but his other chronic conditions can wait until future visits for more thorough treatment. A clinician-centered health history is incorrect because it is structured toward discrete data items desired by the clinician, such as ticking boxes for billing reasons. This approach may not best serve the needs of a patient with such a complex medical and social history. A health history with only yes-no options is incorrect because this may be helpful in the ROS portion of a history, such an approach is unlikely to elicit this patient's full range of conditions and needs. An ROS only is incorrect because it is a very limited portion of the examination that often covers areas not mentioned in the HPI. Performing this portion alone is inadequate for any patient or conditions. A problem-focused health history is incorrect because this patient's abscess may require a brief problem-focused assessment (when did it start? how painful it is? any associated symptoms?), his overall care demands a more thorough subjective history to establish appropriate care.

66. A 29-year-old male complains of persistent cough and wheezing, particularly when he exercises. He says he smokes cigarettes "occasionally" and vapes e-cigarettes 3 times daily. Upon hearing this information, what is the best next step for the NP to proceed?

- A. determine the patient's immunization history
- B. determine the patient's exercise regimen
- C. conduct a mental status examination
- D. explain the relationship between smoking and cancer
- E. determine the number of pack-years the patient smokes**

Rationale: An accurate determination of a patient's tobacco use is important for assessing the overall health risk due to smoking. Although the patient minimizes his smoking, it is possible that the number of cigarettes smoked per day and the length of time he has smoked would result in a high pack-year value. Although determining the patient's exercise regimen could be of value later on, it is not necessarily relevant to his presenting problem, which is coughing. Exercise simply precipitates this symptom. There are no signs such as memory loss or anxiety suggesting that a mental status examination would be helpful. At some point, it may become important to explain the relationship between smoking and cancer, but this would not be the best "next step" in fact-finding. Similarly, determining a patient's immunization history is important for health maintenance, but is not necessary for the initial diagnosis of the causes of his problem.

67. A 16-year-old female presents to the office with his mother to establish care. The patient underwent treatment for sarcoma including an above-the-knee amputation 3 years ago. Since then, she has learned to ambulate with a prosthetic leg and recently began talking about sports again. The patient is very engaged in most of the visit, but when the topic of cancer arises, she becomes quiet. Which of the following statements would help to build trust between the provider and the patient?

- A. "That sounds like a frightening experience that you are recovering well from."**
- B. "You are becoming an adult and must be able to talk about your health."
- C. "You have recovered well and should start moving on with your life."
- D. "You need to see a counselor since you have not adjusted well to your new condition."

Rationale: This patient is exhibiting an emotional cue that bears exploring—that is, his reticence to speak of a difficult event and his deference to his parent when the topic arises. Drawing on strength and acknowledging the patient’s struggle is the best way to open up conversations around behavioral health, transitioning his care to a more adult model, and future risks from the disease itself. “You are becoming an adult and must be able to talk about your health.” is incorrect because the patient will eventually be responsible for his own health, this approach is somewhat accusatory and puts the patient in a situation of feeling that he is doing wrong. Moreover, at the age of 14, he still has several years during which adult support at his appointments is very appropriate. “You need to see a counselor since you have not adjusted well to your new condition.” is incorrect because behavioral health support may be appropriate for a child who has survived cancer, there is no evidence that this patient has not adapted to his status as a cancer survivor in an age-appropriate way. Behavioral health resources that are coerced are unlikely to be well accepted by patients of any age. “You have recovered well and should start moving on with your life.” is incorrect because this patient has shown age-appropriate adjustment to his condition, including re-engaging in challenging activities such as sports. This response again puts the patient on the defensive, as it appears accusatory that he has done something wrong or inadequately. “You cannot rely on your father for support forever.” is incorrect because this is technically correct, as the child is likely to outlive the father; this response appears condescending and accusatory at a time when the patient would benefit most from connection and rapport with the

68. A 59-year-old male complains of several episodes of epigastric pain. His father died of pancreatic cancer at age 52 years. He recalls, “My father’s pain was just like mine is now . . .” The NP replies, “Just like?” after which the patient restarts his narrative. Which of the following is an example of the interviewing techniques employed by the NP?

- A. **echoing**
- B. asking a leading question
- C. eliciting a graded response
- D. encouraging with continuers
- E. clarifying

Rationale: Echoing is the technique of repeating the patient’s last words in a questioning voice to encourage the patient to continue their narrative. This approach demonstrates active listening and indicates the clinician’s desire to hear in more detail without derailing the patient’s narrative. Clarifying is incorrect because it (also an example of active listening) requires that the clinician repeat the patient’s concerns alongside a question eliciting more detail (such as, “His pain ... was that also located above the belly button as yours is?”). Encouraging with continuers is incorrect because this technique uses neutral words that encourage a patient to expand without exactly repeating the patient’s words. “Mmm hmm ...” and “Go on ...” are examples of encouragement with continuers. Eliciting a graded response is incorrect because this allows a spectrum of responses, such as “How many steps can you climb?” This clinician is instead utilizing the technique of echoing. Asking a leading question is incorrect because it is one that pushes the patient to answer in the positive, such as, “That chest pain is probably from your heart, isn’t it?” This is not an example of appropriate interviewing skills.

69. A 65-year-old male presents as a new patient. He wishes to discuss issues with erectile dysfunction and fatigue. As the interview continues, the NP becomes suspicious that the patient is suffering from decompensated heart failure. When the patient mentions that he has had vague chest pain since last night, the NP feels that the focus must be redirected to this potentially emergent condition. Which of the following interview techniques is the most appropriate to effectively manage this visit?

- A. **moving from open-ended to focused questions**
- B. asking leading questions that focus on the presumed diagnosis of chest pain
- C. asking a series of negative questions such as, “You don’t have any swelling in your feet, do you?”
- D. providing serial reassurances such as, “Don’t worry, you’re going to be fine.”
- E. nonverbally cueing the patient to focus on his narrative regarding a motor vehicle accident (MVA) that led to back pain

70. A 38-year-old female is a well-established patient. She complains of irregular menstrual periods and pelvic pain. She says that she is having trouble sleeping and asks whether she could be given a “sleeping pill.” The patient also says she is thinking of leaving her job. What is the best “next step” in caring for this patient?

- A. perform a pelvic examination
- B. obtain a more complete description of problems
- C. obtain blood for testing
- D. ask about recent travel destinations
- E. obtain a urine sample for testing

Rationale: It is critical to thoroughly understand the patient’s problem in order to narrow the focus of the examination. This is particularly true when symptoms are reported in multiple body systems, as in this case. To the extent possible, the seven attributes of each symptom should be explored. Although it may be necessary to perform a pelvic examination, the exam will yield more information if the clinician has determined, for example, the patient’s pregnancy history. The clinician may need to obtain a urine sample for testing later but should have a possible diagnosis in mind when doing so. A similar argument applies regarding obtaining blood for testing—testing for what? Recent travel destinations should be elicited if there is a suspicion that an infectious agent was acquired somewhere else, but more information is needed to determine whether this would be a realistic suspicion.

71. A 44-year-old female presents for follow-up care. She was diagnosed with systemic lupus erythematosus 6 months ago. Since her diagnosis, she has been minimally compliant with medications. The NP elects to explore the issues using the FIFE model to guide the encounter. Which of the following best defines the elements of the FIFE model?

- A. facts, intensity, focus, and evidence
- B. focus, intensity, function, and evaluation
- C. facts, intelligence, fortuity, and eventuality
- D. feelings, impression, fantasy, and emotion
- E. feelings, ideas, function, and expectations

Rationale: This model captures the patient’s emotional landscape, intellectual landscape, current situation (function), and thoughts about future conditions. This breadth is important as aspects of a patient’s illness experience may be missed without a wide exploration. For example, a clinician may deeply engage with a patient’s emotional experience, but the lack of attention to a patient’s ideas surrounding their care and treatment may be perceived as condescending—especially to a very well-educated patient. Focus, intensity, function, and evaluation and facts, intensity, focus, and evidence are incorrect because these elements are very concrete in nature and may miss the emotional aspects of the patient’s illness. Feelings, impression, fantasy, and emotion is incorrect because, in contrary to the above two answers, these elements are almost entirely rooted in the emotional landscape with little attention paid to the intellectual side of a patient’s experience. Facts, intelligence, fortuity, and eventuality are incorrect because this group of elements (especially the latter two) does not clearly specify the topics that the clinician should explore.

72. A 17-year-old male presents to a sexually transmitted disease clinic. He prefers same-sex partners and is afraid that he contracted an infection from his last partner. The patient expresses that he is nervous and embarrassed by the situation. The nurse practitioner wishes to best connect with the patient at this critical juncture in his care with the clinic and ease his discomfort. Which of the following is an example of an active listening technique?

- A. using nonverbal communication to encourage the patient to expand their narrative
- B. paring down the patient’s concerns to concrete medical needs
- C. setting aside the patient’s emotional state to focus on his medical needs
- D. considering a differential diagnosis while the patient is speaking to maximize the patient’s time with the provider
- E. ignoring visual cues to focus on the patient’s exact words

Rationale: Active listening is the core of the interview technique and demands such skills as setting aside diagnostic priorities in favor of open discussion; using verbal and non-verbal skills to encourage the patient to engage fully with their own narrative, and being aware of the patient's emotional state. Ignoring visual cues to focus on the patient's exact words is incorrect because focusing on the patient's words is important, and other cues to concerns and discomforts may be gleaned from nonverbal cues such as posture and facial expression. Setting aside the patient's emotional state to focus on his medical needs is incorrect because except in emergent circumstances, laying a foundation of trust and emotional connection is critical prior to engaging in specific medical needs. Paring down the patient's concerns to concrete medical needs is incorrect because addressing the concrete medical needs at hand is a vital part of medical visits, without a greater understanding of the patient's concerns, fears, and anxieties, the patient is unlikely to feel satisfied on the end of the visit. Considering a differential diagnosis while the patient is speaking to maximize the patient's time with the provider is incorrect because this may save time for the provider, but it is unlikely to serve the patient best if the provider is distracted with complex

73. A 34-year-old male presents to the clinic to establish care. The patient has experienced several adversarial relationships with prior providers. He voluntarily left two practices within the previous year and was discharged from a third clinic due to misbehavior. The NP desires to utilize an approach to this patient that will most likely lead to comprehensive care and patient compliance. Which of the following is the most appropriate interview style for the NP to use?

- A. Permit the patient to lead the encounter to understand their thoughts, ideas, concerns, and requests.
- B. Focus on the need for immediate diagnostic certainty over personal connection.
- C. Defer respect, empathy, humility, and sensitivity in favor of the acquisition of concrete details about the patient's condition.
- D. Take a symptom-focused approach to reduce the involvement of the patient's emotional difficulties.
- E. Take charge of the interaction to meet the clinician's desire to acquire diagnostic information.

Rationale: Following the patient's lead is the key concept of patient-centered medical care. This approach helps to identify the personal context and address concerns as well as concrete maladies. Current evidence suggests that this technique is not only very satisfying to the patient and the clinician, but also leads to optimal outcomes. Focusing on the need for immediate diagnostic certainty over personal connection and taking charge of the interaction to meet the clinician's desire to acquire diagnostic information are incorrect because diagnostic certainty may be required in emergent conditions, whereas establishing personal connection with patients first may lead to improved long-term care. Ignoring the personal connection with patients can lead to alienation and missed diagnoses as the patient is less likely to engage in care. Deferring respect, empathy, humility, and sensitivity in favor of the acquisition of concrete details about the patient's condition is incorrect because deferring respect for the patient in favor of concrete details is unlikely to engage the patient in his or her care. Taking a symptom-focused approach to reduce the involvement of the patient's emotional difficulties is incorrect because emotional issues may be at the forefront of a patient's issues (such as a diabetic who is unmotivated to control his diabetes due to concurrent depression), and sidelining the emotional needs may sabotage progress on medical issues.

74. A 23-year-old nurse practitioner (NP) student found that she felt nervous when called upon to examine men in her age group. On one occasion, she encountered a young male patient who appeared embarrassed to see her walk into the room. Which action if taken by the student would help to minimize their mutual discomfort?

- A. provide ongoing interpretation of findings
- B. adjust the lighting so it is tangential to the patient's body
- C. explain how the examination will proceed
- D. explain that she is an NP student
- E. tell the patient where you come from

Rationale: Patient comfort is a primary concern in setting the stage for the examination, and, if patients know how the exam will proceed, they are likely to feel more relaxed. In addition, explaining a routine may help remind the PA student of the routine she will follow. Adjusting lighting so that it is tangential to the patient's body is important for accurate visualization of body structures but does not necessarily reduce the patient's embarrassment. Asking the patient where he comes from would move the situation away from the professional to the personal, which could enhance discomfort. Explaining that she is a PA student may reduce the PA's own anxiety but will not necessarily calm the patient. Providing ongoing interpretation of findings is not advisable for beginners, who are not primary caregivers and may make errors.

75. A 62-year-old male presents to the urgent care clinic with complaints of pain, numbness, and tingling in the foot and lower leg for 3 hours. On physical examination, the NP notes the affected foot is cold, pale, and pulseless. Which action, if taken by the NP, is an appropriate next step?

- A. Order stat imaging studies and have the patient return to the office in one day.
- B. Refer the patient for emergency evaluation and treatment.**
- C. Start the patient on aspirin and reevaluate within three days.
- D. Refer the patient to an outpatient vascular specialist for further evaluation.
- E. Order blood work including a d-dimer test.

Pg 577 - Acute arterial occlusion from embolism or thrombosis causes pain and numbness or tingling. The limb distal to the occlusion becomes cold, pale, and pulseless. Pursue emergency treatment.

76. The usual starting position for the head of the bed or examining table when assessing jugular venous pressure (JVP) is?

- A. 15 degrees
- B. 25 degrees
- C. 30 degrees**
- D. 45 degrees
- E. 90 degrees

Pg 510 -Jugular Venous Pressure and Volume Status.

As you begin your assessment, consider the patient's volume status and whether you need to alter the elevation of the head of the bed or examining table. The usual starting position for the head of the bed or examining table when assessing the JVP is 30°. Turn the patient's head lightly to the left, then the right, and identify the external jugular vein on each side. Then focus on the internal jugular venous pulsations on the right, transmitted from deep in the neck to the overlying soft tissues. The JVP is the highest oscillation point, or meniscus, of the jugular venous pulsations that is usually evident in euvolemic patients.

Some authors report that at 30° to 45°, the estimated JVP may be 3 cm lower than catheter measurements from the right mid-atrium.^{39,40}

77. A newborn has an embryologic defect affecting the aortic valve. What additional valve is most likely to be affected?

- A. pulmonic valve**
- B. mitral valve
- C. pyloric valve
- D. tricuspid valve
- E. eustachian valve

Rationale: The pulmonic and aortic valves are semilunar valves and have similar embryologic origin. The tricuspid and mitral valves are atrioventricular valves. The pyloric valve is located between the stomach and small intestine. The Eustachian valve lies at the junction of the inferior vena cava and right atrium.

78. A 13-year-old female is brought by her mother to the clinic one day before the start of eighth grade because of a 3-day history of episodes of shortness of breath. When symptomatic, she also notices tingling around her lips. Her history and physical examination are unremarkable. Which of the following is the most likely etiology?

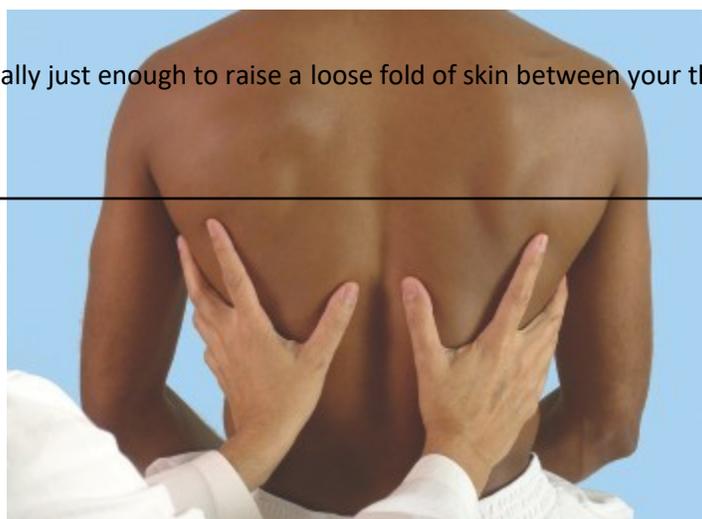
- A. situational anxiety**
- B. left-sided heart failure
- C. intermittent asthma
- D. early pneumonia
- E. panic disorder

Rationale: Tingling around the lips can be a symptom of anxiety. The start of a new school year can be anxiety provoking for children. The normal lung examination is consistent with anxiety. Aspiration of a foreign body is incorrect. She does not have a cough. Putting a foreign body in her mouth and aspirating it would be unusual at her age. Asthma is incorrect. Asthma is a possible cause of shortness of breath but is less likely in this girl because of the tingling around her lips and lack of cough or chest tightness, in addition to the lack of wheezing on examination. Left-sided heart failure is incorrect. Left-sided heart failure is uncommon in children. She also has no other symptoms of heart failure, such as orthopnea or paroxysmal nocturnal dyspnea. She has no history of heart disease, high blood pressure, or other conditions that could put at an increased risk of heart disease. She also has no crackles on lung auscultation, which can be heard in left-sided heart failure. Pneumonia is incorrect. Pneumonia is less likely than anxiety because of the lack of other characteristic symptoms of pneumonia (fever, cough, sputum production, and chest pain) and the normal lung examination.

79. What assessment technique is being performed in this image?

ADA Description: Examiner's hands on patient's bilateral thoracic back

- A. checking for lung expansion
- B. percussing the lungs
- C. palpating for CVA tenderness
- D. measuring the width of the lungs
- E. bronchophony



80. The NP is performing a cardiac assessment on a 64-year-old male with a history of congestive heart failure (CHF) with left ventricular hypertrophy (LVH). Which of the following assessment findings is indicative of displacement of the point of maximal impulse (PMI)?

- A. PMI palpable at 11 cm lateral to the midsternal line
- B. PMI diameter measures 2.5 cm
- C. PMI palpable at the epigastric area
- D. PMI palpable in the fifth intercostal space at the left midclavicular line
- E. PMI palpable in the second intercostal space at the left sternal border

Pg 489 - The left ventricle (LV), behind the RV and to the left, forms the left lateral margin of the heart (see Fig. 16-1). Its tapered inferior tip is often termed the cardiac apex. It is clinically important because it produces the apical impulse, identified during palpation of the precordium as the point of maximal impulse (PMI). This impulse locates the left border of the heart and is normally found in the fifth intercostal space at or just medial to the left midclavicular line (or 7 to 9 cm lateral to the midsternal line). In supine patients, the diameter of the PMI is approximately 1 to 2.5 cm. The PMI is not always palpable, even in a healthy patient with a normal heart. Detection is affected by both the patient's body habitus and position during the examination.

- Rarely, in dextrocardia, the PMI is located on the right side of the chest.
- A PMI >2.5 cm is evidence of left ventricular hypertrophy (LVH), often seen in hypertension or dilated cardiomyopathy.
- In some patients, the most prominent precordial impulse may not be at the apex of the left ventricle. For

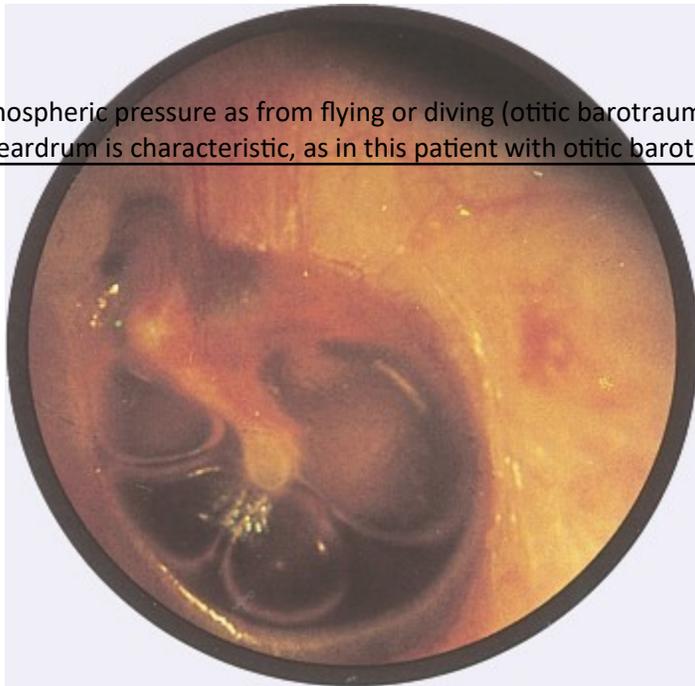
example, in patients with chronic obstructive pulmonary disease (COPD), the most prominent palpable impulse or PMI may be in the xiphoid or epigastric area due to right ventricular hypertrophy.

- Displacement of the PMI lateral to the midclavicular line or >10 cm lateral to the midsternal line occurs in LVH and also in ventricular dilatation from myocardial infarction (MI) or heart failure.

81. A 12-year-old female complains of fullness as well as “popping sensations” in the ear and sometimes pain. During the physical assessment you note mild conduction hearing loss. Identify the abnormal assessment findings in this image. What medical condition is associated with these findings?

ADA Description: External auditory canal and tympanic membrane

- A. serous effusion
- B. purulent effusion
- C. tympanosclerosis
- D. bullous myringitis
- E. tympanic membrane perforation



in atmospheric pressure as from flying or diving (otic barotrauma). The eustachian tube cannot equalize the air pressure in the middle ear and the eardrum is characteristic, as in this patient with otitic barotrauma. A fluid level, a line between air above and amber fluid below, can

82. A 74-year-old male complains of non-traumatic right eye pain for 1 day. He suspects something accidentally got into his eye but does recall this happening. After flushing out his eye, the pain and blurred vision remains and is getting worse. His visual acuity is 20/20 OS and 20/100 OD. Which action if taken by the NP is the best next step?

- A. Perform a complete neurological examination.
- B. Refer to an ophthalmologist emergently for the possibility of a corneal ulcer, uveitis, or acute glaucoma.
- C. Reassure him that pain from a foreign body can remain for a day or two (even after the foreign body is removed).
- D. Check his blood pressure.
- E. Repeat the visual acuity examination.

Rationale: A unilateral, painful eye may be due to acute glaucoma or corneal pathology (foreign body, ulcer, uveitis, etc.). Reassure him that pain from a foreign body can remain for a day or two (even after the foreign body is removed) is incorrect. The pain from a foreign body tends to resolve rather quickly once it is removed. Perform a vision examination is incorrect. (Visual exam should be performed even if referral to an ophthalmologist is urgently needed. Extra information can be added to this option to make it completely incorrect.) Although a vision examination is always good, unilateral pain/blurriness indicates pathology in a single eye. Perform a complete neurological examination is incorrect. A complete neurological examination is never harmful, but not highest priority for this patient who clearly has single eye pathology. Check his blood pressure is incorrect. Hypertension does not cause these symptoms.

83. A 42-year-old fair-skinned woman presents with an abnormal skin growth that was first noted 7 years ago. On examination, the NP notes a 2 × 3-cm lesion over her left bicep. Which of the following historical elements should raise the NP's suspicion for malignancy?

- A. minimal but discernible increase in size over the past 6 months
- B. no evolution in size since onset, but uniformly darkly pigmented color
- C. no evolution in size since onset, but mild intermittent pruritus over the last 2 years
- D. proximal location, that is, over the bicep rather than the distal arm
- E. presence of similar pinkish-tan lesions on the sun-exposed areas including the face and hands

Rationale: Regardless of the appearance of a lesion and its duration, any discernible change in size or other characteristics (such as color or regularity of borders) requires further evaluation. No evolution in size since onset, but mild intermittent pruritus over the last 2 years is incorrect. Although any skin lesion may evolve into a malignancy, a long-standing lesion that is essentially unchanged carries a very low likelihood of being malignant. No evolution in size since onset, but uniformly darkly pigmented color is incorrect. Although dark lesions are sometimes of concern, lesions should be evaluated specifically for variegation of color, especially blue and black mixed with white and red (which represents cycles of inflammation and scarring characteristic of melanoma). Presence of similar pinkish tan lesions on the sun-exposed areas including the face and hands is incorrect. Generally, skin cancer is characterized by an initial focus of malignancy with distal metastases to organs other than the skin; multiple similar skin findings that do not meet the criteria in the ABCDE-EFG mnemonic (Asymmetry, Border irregularity, Color variations, Diameter >6 mm, Evolving, Elevated, Firm, Growing) are more likely to be benign.

Proximal location, that is, over the bicep rather than the distal arm is incorrect. Proximal versus distal location does

84. Concerning hallucinations, an abnormal perception experienced by a patient, which of the following statements are true about this abnormality? Select all that apply.

- A. They include false perceptions associated with dreaming and occurring with falling asleep and awakening.
- B. Objective testing can be performed by a trained neuropsychologist to ascertain the correct diagnosis associated with this complaint.
- C. It may occur in association with several conditions including delirium and dementia, posttraumatic stress disorder (PTSD), and schizophrenia.
- D. Hallucinations are confined to those abnormal perceptions that are either auditory or visual in nature.
- E. Alcohol is a known cause of hallucinations.

Rationale: Hallucinations may be associated with a number of different primary diagnoses. By definition, they exclude perceptions occurring with dreaming or close to falling asleep or awakening. As hallucinations are a subjective patient self-reported complaint, objective testing is not available. Alcohol is a known cause of hallucinations, and abnormal perceptions may include ones of a gustatory, olfactory, and tactile nature

85. Of the following statements, which are true concerning mental health disorders in primary care? Select all that apply.

- A. Anxiety disorders are the most prevalent of all diagnoses in this setting.
- B. Mood disorders make up approximately 25% of all diagnoses.
- C. Alcohol and substance abuse are considered mental health disorders.
- D. The prevalence for mental disorders is estimated to be approximately 10%, of which only 25% are not diagnosed.
- E. Somatoform disorders comprise 10% to 15% of mental health disorders and are relatively common.

Rationale: Mood disorders make up ~25% of all diagnoses. Mental health disorders of various types ranging from major mental illness to personality disorders are very common diagnoses encountered in primary health care.

Approximately 20% of primary care patients are thought to suffer from mental disorders, of which 50%–75% goes undetected. Somatoform disorders are relatively common in the range of 10%–15%, while alcohol and substance abuse are important contributors to patient dysfunction and are considered under the broad

86. Weight change may indicate the presence of important underlying pathology requiring further investigation. Which of the following patient scenarios best describes a significant weight change that requires further evaluation?

- A. a 31-year-old male with a baseline body mass index (BMI) of 20 who loses 3 lb. after a prolonged bout of infectious gastroenteritis
- B. a 45-year-old recently menopausal female who gains 5% beyond her baseline weight of 140 lb. in 6 months
- C. a 32-year-old female with a baseline weight of 175 lb. who checks her weight irregularly but reports a 5-lb unintended weight loss over 3 months
- D. a 45-year-old male with a baseline weight of 280 lb. who decides to undertake a light exercise regimen and loses 15% of his total body weight in 3 months
- E. a 26-year-old female with a baseline body mass index (BMI) of 25 who loses 5% of her body weight with 6 months of diet and exercise modification

Rationale: A safe rate of intentional weight loss is no more than 2 lb/week; this patient has lost about 3.5 lb/week. In addition, it would be reasonable to question why he experienced such rapid weight loss from such a small deviation in his baseline activity. A 32-year-old female with a baseline weight of 175 lb who checks her weight irregularly but reports a 5-lb unintended weight loss over 3 months is incorrect. Regular fluctuations in weight are normal; this patient has lost <3% of her baseline weight—a matter of only minor concern. A 45-year-old recently menopausal female who gains 5% beyond her baseline weight of 140 lb in 6 months is incorrect. Weight gain around menopause is normal, although excessive weight gain may bear review for thyroid status, changes in diet/exercise, etc. A

26-year-old female with a BMI of 25 who loses 5% of her body weight with 6 months of diet and exercise modification is incorrect. This is well within the reasonable range of weight loss for a healthy adult who changes diet and exercise patterns. A 31-year-old male with a baseline BMI of 20 who loses 3 lb after a prolonged bout of infectious gastroenteritis is incorrect. Although a clinician may be duly concerned about this patient's health, the

87. A 32-year-old female reports excessive stress at work and pain in the right lower quadrant. She states that last night she vomited twice. Her blood pressure is 120/75, heart rate is 93 bpm. The patient looks pale and is sweating lightly. Which of these assessment findings are objective? Select all that apply.

- A. high stress level
- B. history of vomiting
- C. pain in the right lower quadrant
- D. diaphoretic skin - not a choice on other question?
- E. accelerated heart rate

d) Diaphoretic; e) Accelerated heart rate

Objective findings are those detected on physical examination by the clinician. A resting heart rate of 93bpm is higher than normal. Pain in the right lower quadrant, history of vomiting, and the patient's high stress level are all subjective findings because they rely on the patient's report. A pale appearance is not necessarily an objective finding, because what appears pale to one clinician might not appear pale to another.