Rwandan Nurses Saving Lives: Core Team- Expert level

Please provide a 4-digit code to use on the pre and post conference questionnaire. You will need to remember to use the same code to keep the research data matched and anonymous. My 4-digit code is : _____

Instructions: Please read each question and choose your answer by circling the letter

1. A mother brings in her 14-year-old daughter and reports she is concerned because the child has been tired, complaining she cannot carry food home from the market because she is short of breath, and she does not sleep well. Her mother thinks she is depressed. The young lady says it is because she is getting "fat" and shows you her legs that are swollen. These are signs and symptoms of _____.
    a. A cardiac arrythmia
    b. Anxiety/depression
    c. Heart failure
    d. Vit B 12 deficiency
2. Which treatment is appropriate for Streptococcal sore throat for prevention of acute rheumatic fever and rheumatic heart disease?
    a. Penicillin
    b. Augmentin
    c. Lidocaine
    d. Gentamicin
3. Name three diagnostic tests you can order to diagnose rheumatoid heart disease.
    a. Cardiac MRI, bronchoscopy, and abdominal x-ray
    b. Throat culture, EKG, and cardiac catheterization
    c. Percutaneous coronary intervention, head CT, and thoracentesis
    d. Chest x-ray, echocardiogram, and ASO titer
4. What is the best diagnostic test for heart Failure?
    a. Chest x-ray
    b. Echocardiogram
    c. EKG- electrocardiogram
    d. Laboratory tests: CRP, H&H, T4, Troponin
5. The potential complications of group A Streptococcus (GAS) pharyngeal infection include both suppurative (eg, peritonsillar abscess, otitis media, sinusitis) and inflammatory, nonsuppurative conditions. The inflammatory, nonsuppurative condition(s) can include:
    a. Acute rheumatic fever (ARF)
    b. Scarlet fever
    c. Acute glomerulonephritis [AGN])
    d. All of the above

6. Your patient with history of RHD and HFrEF (Heart Failure with reduced ejection fraction) has improved on medical therapy and her Left Ventricular ejection fraction is now normal. She wants to come off medications as they are expensive. You advise her to:
    a. Stop the most expensive medication
    b. Decrease doses of all her medications
    c. Cut her diuretic and after load reducer dose in ½
    d. Make no change in her medications
7. A normal cardiac ejection fraction (the amount of blood squeezed to the body with every heart beat) is:
    a. 30-45%
    b. 40-55%
    c. 55-70%
    d. 70-85%
8. Group A Streptococcus (GAS), also known as Streptococcus pyogenes, is the most common cause of bacterial pharyngitis in children and adolescents. Where is GAS normally found?
    a. The reservoirs are in cold, wet locations in the environment during cold months
    b. The reservoirs are found on poorly washed object like pens, pencils, or toys
    c. The only known reservoirs are the skin and mucous membranes of humans
    d. There are multiple reservoirs in man, animals, and environment
9. Polyarthritis is the major musculoskeletal manifestation in ARF, which joints are most affected?
    a. Fingers and toes
    b. Elbows, wrists, knees, and ankles
    c. Back and Hips
    d. All of the joints
10. Which valve is mostly affected by RHD?
    a. Aortic
    b. Pulmonic
    c. Mitral
    d. Tricuspid
11. RHD occurs from an immunologic response from the streptococcus pyogenes to cardiac tissue and production of inflammatory cytokines from an autoimmune response. This process is called, _____.
    a. Molecular mimicry
    b. Myosin carditis
    c. Antigen crossover
    d. Antibody tweaking
12. Rheumatic fever (RF) and rheumatic heart disease (RHD) pose a global heart burden, with an estimated _____ new cases of acute RF per year, of which _____ % lead to rheumatic heart disease.
    a. 270,000; 60%
    b. 370,000; 50%
    c. 470,000; 60%
    d. 570,000; 40%

13. Carditis is the major cardiac manifestation of acute rheumatic fever, occurring in 50% to 70% of first episodes, and is associated with valvulitis. What physical findings would aid your diagnosis of acute rheumatic fever?
    a. A rapid heart rate over 110
    b. Rhonchi that change with a cough
    c. A faint radiating murmur
    d. Unequal thoracic excursion

14. When assessing for a potential Strep Throat, which of the following symptoms would make you consider this sore throat is NOT strep throat?
    a. A throat with red spots instead of white pus on tonsils
    b. A child with a persistent cough and runny nose
    c. A child who has been nauseated and may have vomited
    d. A child with a very high fever

15. What HEENT physical finding would indicate an emergent need to refer to a physician to rule out meningitis?
    a. Fever greater than
    b. Pain with passive or active range of motion of the neck
    c. Ringing in the ears
    d. Bilateral rales with high pitch wheezing

16. Which skin manifestations would add to the diagnosis of ARF?
    a. Painful, raised, red lesions that have a clearing in the center, uniform size of 1 centimeter
    b. Painless, firm, variable in size (typically between a few millimeters and 2 centimeters in diameter), and usually found over joint extensor surfaces.
    c. Painful and pruritic (itchy), flat lesions, red and irregular shape that are usually clumped together
    d. Painless tiny (1-2 millimeters) red lesions scattered on back and chest.

17. Where do you assess when inspecting for accessory muscle use in an adult patient with dyspnea? Select all correct.
    a. Abdominal breathing
    b. Sternocleidomastoids
    c. Intervertebral spaces
    d. Open mouth and tri pod position

18. Where do you hear the Right Middle Lobe (RML) of the lung during auscultation?
    a. Mid axillary line between ribs 5-8
    b. Anterior chest between ribs 5-8
    c. Posterior chest between ribs 5-8

d. All of the above

19. You have a patient with known aortic stenosis. Where do you hear the aortic valve best?
    a. 2nd Intercostal space right sternal border
    b. 3rd intercoastal space right sternal border
    c. 3rd intercoastal space left sternal border
    d. 4th intercostal space left mid-clavicular line

20. You listen to a patient with a murmur that was loud and easily noticeable as soon as you placed your stethoscope on the patient's chest. There is a mild thrill by palpation, no radiation. This murmur is a grade:
    a. Grade III/VI
    b. Grade IV/VI
    c. Grade V/VI
    d. Grade VI/VI

21. Which of the following are functions of the respiratory system?
    a. Acid-base balance, initial response to bio active material, metabolism
    b. Storage and filtration of blood for systemic circulation, phonation (speaking)
    c. Moistens and warms air, handles vasoactive substances in the blood
    e. Inspiration, expiration, and ventilation
    d. All of the above

22. Which valve open simultaneously to allow blood to flow from the atrium to ventricles?
    a. Tricuspid and Mitral
    b. Tricuspid and Atrial
    c. Atrial and pulmonic
    d. Pulmonic and Mitral

23. A mother brings a 9-year-old child to your clinic with reports of abrupt, purposeless, non-rhythmic, involuntary movements. She is also concerned of the child's emotional lability. The child reports muscle weakness. What is it and exam do you want to do?
    a. This is Chorea and an EKG and echocardiogram is indicated to assess for carditis.
    b. This is Chorea and a full mental and neurological exam is required help determine if meningitis is developing.
    c. This is Chorea and full muscle-skeletal exam is required to assess for septic arthritis.
    d. This is Chorea and a psychological evaluation is required to determine if a psychosis is present.

24. Which physical findings would be supporting the diagnosis of heart failure?
    a. Rales (crackles) in the left lung field and opening snap of the cardiac cycle
    b. Decrease breath sounds in the bases and deviated PMI (point of maximum intensity)
    c. A respiratory stridor and elevated jugular vein distention

d. Rhonchi that do not change with cough and cardiac murmur

25. You suspect that your patient has carditis, what can you do to confirm the sound is from the heart?
    a. Have the patient cough before listening to the heart
    b. Have the patient lean forward while listening to the heart
    c. Have the patient run in place to increase the heart rate before listening
    d. Have the patient hold their breath while listening to the heart

26. Which symptoms should you ask about to help clarify if a child may have heart failure?
    e. Headaches, fever, shortness of breath
    f. Not wanting to lay flay, swelling, fatigue
    g. Sore joints, chest pain, cough
    h. Wheezing, dizziness, left sided pain

27. What could the sound be like in a RHD mitral murmur and where on the chest do you hear it?
    a. A high squeaky sound heard 2nd intercostal space on left
    b. A high squeaky sound heard down the sternum 3rd and 4th intercostal spaces
    c. A low-pitch muffling sound heard between the heart sounds heard at the point of maximum intensity
    d. A low-pitch muffling sound heard between the heart sounds heard down the 2nd and 3rd intercoastal spaces

28. What non-respiratory physical assessment can you do to assess fluid overload in a patient suspected of heart failure?
    a. Check the spleen size
    b. Check for hepato-jugular reflux
    c. Do a heel-thump for abdominal inflammation
    d. Check egophony for fluid sound transmission
29. You are sharing with a colleague about Mitral valve surgery options for RHD. Which is the correct statement:
    a. A mechanical valve is best because the autoimmune response impacts the chordae tendae as well as the valve structure.
    b. A mechanical valve is best because the removal of all scar tissue will prevent it from returning.
    c. A bioprosthetic valve is best because it last the longest.
    d. A mitral valve repair is best because only the annulus is impacted by the autoimmune reaction.
30. Why does the Streptococcus pyogenes M protein cause an autoimmune response in some people exposed to the bacteria?
    a. M proteins share a structural homology with cardiac myosin, tropomyosin, keratin, laminin, vimentin, and valvular proteins.

b. M proteins are highly antigenic and cause an over response of T-cells which trigger massive inflammation.
c. M proteins bind with proteins from the red blood cells creating a new large protein causing the antibody release of cytokines.
d. M proteins respond to the M antibodies allowing the M proteins to break into smaller components that embed in the collagen throughout the body.