

**CVICU EXAM**

Mrs. Jennings is a 71-year-old post-op CABG x5 with an IABP in her left femoral artery

1. Nursing standards for a patient on an IABP device include:
  - a. Know results of the PT, PTT, platelet count, etc.
  - b. Check for bleeding at the insertion site
  - c. Note color and temperature of extremity with balloon in place
  - d. Check pulses every hour and document
  - e. All of the above
  
2. Proper placement of an IAB in the aorta is:
  - a. In the pulmonary artery
  - b. Just distal to the subclavian artery
  - c. In the aortic arch
  - d. In the left ventricle
  
3. A male patient ejects 50 ml of blood from his ventricle with each heartbeat. His heart rate is 120. What is his cardiac output?
  - a. 3 L/min
  - b. 2.4 L/min
  - c. 6 L/min
  - d. 5 L/min
  
4. Symptoms of cardiac tamponade include:
  - a. Diminished atrial pressures
  - b. Paradoxical pulse
  - c. Intensified heart sounds
  - d. Increased cardiac output
  
5. In patients on intra-aortic balloon therapy you would expect their platelet count to be:
  - a. Affected for only 24 hours
  - b. Decreased
  - c. Elevated
  - d. Not affected
  
6. One of the primary therapeutic actions of sodium nitroprusside is to:
  - a. Decrease afterload
  - b. Increase systematic vascular resistance
  - c. Increase preload
  - d. Decrease pulmonary vascular resistance



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Jennifer Payne, age 30, underwent mitral valve replacement twelve hours ago. She is still assisted by a ventilator. Her laboratory values are:

WBC 1000/cc      pCo<sub>2</sub> 30mm/hg  
Hct 30.6          pO<sub>2</sub> 100mm/hg  
Na<sup>++</sup> 138 meq/l  
K<sup>+</sup> 3.0 meq/l    pH 7.30

7. Jennifer's cardiac arrhythmia continues for several days after surgery. The physician orders digoxin 0.25 mg QD. The major pharmacological action of digitalis for this condition is:

- a. Increase contractility of the left ventricle
- b. Decrease myocardial excitability
- c. Slow impulse conduction through the AV node
- d. Increase automaticity of the heart muscle

8. One of the major complications as a result of being placed on a pump oxygenator during surgery is:

- a. Heart block
- b. Hypernatremia
- c. Polycythemia
- d. Air embolism

9. Which of the following orders would be carried out, based on Jennifer's laboratory values:

- a. Maintain oxygen respiratory rate to retain carbon dioxide
- b. Administer potassium chloride IV volutrol
- c. Administer fluids IV to decrease Hct
- d. Decrease respiratory rate to retain carbon dioxide

10. With valvular stenosis the valve leaflets:

- a. Calcify and become immobile
- b. Become edematous
- c. Rupture
- d. Atrophy and tear

11. The pre-operative factor that most affects fluid status is:

- a. Coronary artery diseases
- b. Congestive heart failure
- c. Peripheral vascular disease
- d. Chronic obstructive pulmonary disease

12. Aminophylline:
- Forms crystals if solution ph falls below 8.0
  - Rapid administration can lead to ventricular fibrillation or cardiac arrest
  - Should be given by itself due to its alkalinity
  - All of the above
13. During the immediate post-operative period, physician evaluation is required for chest-tube drainage in excess of:
- 50 cc/hour
  - 25 cc/hour
  - 150 cc/hour
  - 100 cc/hour
14. The doctor has ordered an aminophylline drip at 30 mg/hour. One (1) ampoule of aminophylline = 500 mg. If mixed in 250 cc D5W, what is your hourly rate of administration?
- 22 cc/hour
  - 12 cc/hour
  - 5 cc/hour
  - 15 cc/hour
15. Conditions that may be treated by aminophylline are:
- Asthma
  - COPD
  - Bronchospasm
  - All of the above
16. In a patient who has had cardiac surgery the primary goal of post-operative supplementation is augmentation of:
- Afterload
  - Preload
  - Cardiac output
  - Stroke volume
17. You notice that the temporary pacemaker in your patient is occasionally failing to sense. You perform the following trouble shooting actions:
- Increase the MA
  - Increase sensitivity
  - Decrease the MA
  - Increase pacemaker rate above patient's HR

18. A breakdown component of nipride is:
- a. Lactic acid
  - b. CO<sub>2</sub>
  - c. Cyanide
  - d. None of the above
19. What is the indication for protamine?
- a. To neutralize anti-coagulation activity of heparin
  - b. To potentiate the action of calcium chloride
  - c. To slow the heart rate
  - d. To potentiate the action of heparin
20. Isuprel is indicated in which of the following:
- a. Bronchospasm
  - b. A - V block
  - c. Treatment for hypertension
  - d. Treatment for tachycardia caused by digoxin toxicity
21. Dopamine infusing at 5.2 mcg/kg/min  
Dopamine 400 mg/250 cc D5W  
How many ccs - 5.2 mcg/kg/min?
22. It is recommended that dextran 40% IV at 20 cc/hour be administered during IABP therapy to reduce platelet adherence to the balloon catheter.
- a. False
  - b. True
23. The therapeutic blood level for digoxin is:
- a. > 3.0 nanograms/ml
  - b. 2.5-4.0 nanograms/ml
  - c. 0.8-2.0 nanograms/ml
  - d. None of the above
24. Mannitol must always be given with filter size .45 microns?
- a. False
  - b. True



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25. The administration of calcium chloride is appropriate in the following situation:
- a. Ventricular fibrillation
  - b. Asystole
  - c. Tetany
  - d. Ionized calcium less than 2.0
  - e. All but D

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Signature

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Date