

Cardiology and CVS

- 1) Each of the following has been shown to improve mortality in heart failure patients except:
 - a) Beta blocker
 - b) ACEI
 - c) Loop diuretic
 - d) Aldosterone antagonist
 - e) Nitrate

- 2) Each of the following is a potential component of the management of both STEMI and UA/NSTEMI except:
 - a) PCI
 - b) ASA
 - c) Clopidogrel
 - d) Beta blocker
 - e) Fibrinolysis

- 3) Which of the following is not an absolute contraindication to exercise ECG stress testing?
 - a) Acute aortic dissection
 - b) Acute MI within 2 days
 - c) Unstable angina not stabilized by medical therapy
 - d) Asymptomatic aortic stenosis
 - e) Symptomatic heart failure not controlled by therapy

- 4) According to the newest set of ACC/AHA Guidelines, which of the following is an indication for infective endocarditis prophylaxis before bowel surgery ?
 - a) Previous infective endocarditis
 - b) Mitral stenosis
 - c) Bicuspid aortic valve
 - d) Prosthetic cardiac valve
 - e) None of the above

- 5) Each of the following is an ECG feature of acute MI except:
 - a) U wave
 - b) T wave inversion
 - c) ST depression
 - d) New LBBB
 - e) Tall "hyperacute" T waves

- 6) Which of the following is not a mechanism for atrial fibrillation affecting cardiac function:
 - a) Decreased time for diastolic filling
 - b) Decreased ventricular compliance
 - c) Irregular ventricular response
 - d) Loss of atrial contraction
 - e) Decreased time for coronary perfusion

- 7) Dressler's syndrome refers to:
 - a) Migratory superficial thrombophlebitis
 - b) The clinical features of myocarditis
 - c) Delayed pericarditis post MI
 - d) A preexcitation syndrome similar to WPW
 - e) Cardiac myxoma

- 8) Each of the following is a cause of left axis deviation except:
 - a) Left anterior hemiblock
 - b) Inferior MI
 - c) WPW
 - d) RV pacing
 - e) LBBB

- 9) Each of the following in and of itself is a potential indication for AAA repair except:
 - a) Rate of enlargement 1.0 cm/yr
 - b) Comorbid HTN, COPD and smoking
 - c) Size = 5.5 cm in a male
 - d) Size = 5.5 cm in a female
 - e) Ruptured aneurysm

- 10) The subendothelium is the most vulnerable segment of the heart from an ischemic standpoint. The major reason for this is:
- The highest oxygen utilization is in the subendocardium
 - Coronary flow to the subendocardium occurs almost completely during diastole whereas other regions receive some flow during systole as well
 - The subendocardium has a diminished aerobic capacity
 - There is less potential for collateralization to the subendocardium
 - The ratio of capillary to myocyte is less in the subendocardium than in other regions
- 11) Impaired coronary flow reserve is associated with each of the following conditions EXCEPT:
- Severe aortic stenosis
 - Severe systemic hypertension with left ventricular hypertrophy
 - Severe mitral stenosis in the presence of atrial fibrillation
 - A totally occluded coronary artery but with excellent collateral supply from the contralateral (i.e. opposite) coronary artery
 - An isolated 30% diameter stenosis of a coronary artery
- 12) Which of the following would NOT be part of your plan for the treatment of acute ventricular fibrillation?
- Electrical defibrillation
 - Lidocaine
 - Epinephrine
 - Amiodarone
 - Manganese
- 13) Which of the following is not an aggravating factor of congestive heart failure?
- Hypertension
 - Thyrotoxicosis
 - Alcohol
 - Inactivity
 - Arrhythmia
- 14) Endocarditis in an I.V. drug user:
- Is equally prevalent to that of the normal population
 - Transthoracic Echocardiography is highly sensitive in diagnosing
 - Is typically caused by *S. pneumoniae*
 - Is typically found on the tricuspid valve
 - Is typically found on the aortic valve, producing a systolic ejection murmur
- 15) Nitroglycerin administered sublingually may contribute to the relief of myocardial ischemic pain by each of the following mechanisms EXCEPT:
- Coronary vasodilation
 - Decreased venous pooling resulting in increased cardiac preload
 - Reduced systemic vascular resistance
 - Reduced ventricular volume
- 16) A 48 year-old male is brought to the ED with CPR being administered. The ECG shows electrical activity present but you cannot palpate a carotid pulse. Which of the following is not on the differential for pulseless electrical activity?
- Alkalosis
 - Hypokalemia
 - Cardiac tamponade
 - Hypothermia
 - Tension pneumothorax
- 17) Which of the following is not a surgically correctable cause of hypertension?
- Aortic coarctation
 - Renal artery atherosclerosis
 - Pheochromocytoma
 - Primary hyperaldosteronism (Conn syndrome)
 - None of the above
- 18) Which of the following findings is inconsistent with cardiac tamponade?
- Hypotension
 - Pulsus paradoxus
 - Kussmaul sign
 - Jugular venous distension
 - Muffled heart sounds

- 19) Which of the following is the most common cardiac manifestation of systemic lupus erythematosus?
- Myocarditis
 - Pericarditis
 - Myocardial infarction
 - Mitral valve prolapse
- 20) Which of the following is false regarding the clinical findings of significant aortic stenosis?
- Crescendo-decrescendo systolic murmur with left ventricular hypertrophy
 - Diminished or absent S2
 - Severe cases cause paradoxical splitting
 - Parvus-et-tardus carotid upstroke
 - Radiates to axilla
- 21) All of the following are signs of increasing severity of AS except:
- Late peaking of murmur
 - Diminished or absent S2
 - Radiation to carotids
 - Increased apical carotid delay
 - Lack of brachio-radial delay
- 22) All of the following can lead to elevation of Troponin except?
- Myocarditis
 - Hypothyroidism
 - Pulmonary embolism
 - Subarachnoid haemorrhage
 - Extreme exercise
- 23) All of the following are causes for low voltage on a 12-lead ECG except?
- Hypokalemia
 - Pericardial effusion
 - Thick chest wall, barrel chest, COPD, obesity
 - Generalized edema
 - Hypothyroidism with myxedema
- 24) All of the following are causes of left axis deviation (LAD) on ECG except?
- Inferior myocardial infarction
 - WPW / pre-excitation / bypass tract
 - Hyperkalemia
 - Mechanical shift: Expiration, high diaphragm from pregnancy, ascites, abdominal tumors, etc.
 - Aortic stenosis
- 25) All of the following are the causes of right axis deviation (RAD) on ECG except?
- Right ventricular hypertrophy
 - Right bundle branch block
 - Lateral infarction
 - Hypercalcemia
 - WPW / Preexcitation / Bypass tract
- 26) All of the following are criteria for the CHADS2 score for assessing the risk for stroke among patients with atrial fibrillation except?
- Heart Failure
 - High blood pressure
 - History of smoking
 - Over 75 years old
 - Diabetes mellitus
- 27) When wide complex tachycardia is seen on an ECG, all of the following signs and symptoms suggest ventricular tachycardia (VT) rather than supraventricular tachycardia (SVT)?
- Carotid massage and adenosine terminate the arrhythmia
 - Cannon A waves present on physical exam
 - History of CAD and previous MI
 - Capture or fusion beats
 - AV dissociation
- 28) All of the following are causes of prolonged QT interval except
- Coronary artery disease
 - Hypercalcemia
 - Sotalol
 - Tricyclic antidepressants
 - Hypothermia

ANSWERS

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|------|-------|-------|-------|---------------|
| 1. C | 7. C | 13. D | 19. B | 25. D |
| 2. E | 8. E | 14. D | 20. E | 26. C |
| 3. D | 9. B | 15. B | 21. E | 27. A |
| 4. E | 10. B | 16. A | 22. B | 28. B |
| 5. A | 11. E | 17. E | 23. A | (hypocalcemia |
| 6. B | 12. E | 18. C | 24. E | causes |
| | | | | prolonged QT) |