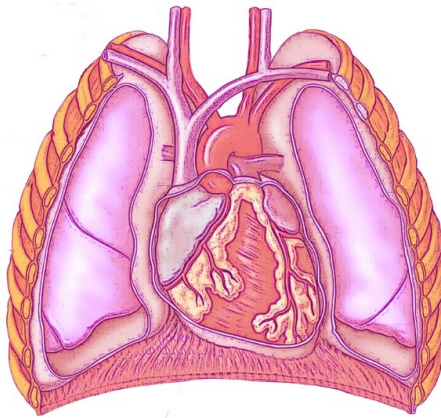




Internal Medicine



Topic : Cardiovascular Quizes
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Ischemic Heart diseases

1. A 72-year-old woman with diabetes presents to the emergency department with nausea, fatigue, and mild epigastric discomfort. Her blood pressure is 135/80 mmHg, and her ECG shows subtle ST-segment depressions in leads II, III, and aVF. Which of the following is the most appropriate next step?

- A) Administer a proton pump inhibitor and discharge home
- B) Perform an upper endoscopy for suspected peptic ulcer disease
- C) Obtain serial troponin levels and repeat ECGs
- D) Administer aspirin and discharge with a follow-up appointment
- E) Order an abdominal ultrasound to evaluate for cholecystitis

Answer: C

2. Which of the following is the primary underlying mechanism of acute coronary syndrome?

- A) Chronic progressive atherosclerotic plaque formation
- B) Coronary artery spasm
- C) Atherosclerotic plaque rupture with superimposed thrombosis
- D) Coronary artery dissection
- E) Myocardial oxygen supply-demand mismatch

Answer: C

3. A 55-year-old man presents with severe, crushing chest pain radiating to his left arm. ECG shows ST elevations in leads V2-V4 with reciprocal ST depressions in leads II, III, and aVF. What is the most likely location of the infarct?

- A) Inferior wall
- B) Anterior wall
- C) Lateral wall
- D) Right ventricle
- E) Posterior wall

Answer: B

4. Which of the following is the most appropriate immediate treatment for a patient presenting with STEMI within 60 minutes of symptom onset?

- A) IV heparin, beta-blocker, and statin
- B) Immediate coronary angiography with PCI
- C) Administration of a fibrinolytic agent
- D) Oral nitrates and discharge home if pain resolves
- E) Morphine and diuretics for symptom relief

Answer: B

5. Which of the following cardiac biomarkers is the most specific and sensitive for diagnosing acute myocardial infarction (AMI)?

- A) Myoglobin
- B) CK-MB
- C) Troponin I
- D) LDH
- E) BNP

Answer: C

6. A patient presents with chest pain at rest. ECG is normal, and troponins are negative. What is the most likely diagnosis?

- A) STEMI
- B) NSTEMI
- C) Unstable Angina
- D) Stable Angina
- E) Pericarditis

Answer: C

7. Which of the following is the characteristic ECG finding in a patient with Prinzmetal's (variant) angina?

- A) ST depressions in anterior leads
- B) ST elevations that resolve with nitroglycerin
- C) T-wave inversions in leads II, III, aVF
- D) Q waves in leads V1-V4
- E) U waves in precordial leads

Answer: B

8. A patient develops acute hypotension and holosystolic murmur 3 days after an inferior MI. What is the most likely diagnosis?

- A) Ventricular free wall rupture
- B) Papillary muscle rupture
- C) Ventricular septal defect
- D) Left ventricular aneurysm
- E) Dressler syndrome

Answer: B

9. Which of the following medications is NOT routinely recommended for long-term secondary prevention after a myocardial infarction?

- A) Aspirin
- B) Clopidogrel (if post-PCI)
- C) Statin
- D) Beta-blocker
- E) Nifedipine (dihydropyridine CCB)

Answer: E

Heart Failure (HF)

1. Which of the following is the primary mechanism responsible for systolic heart failure?

- A) Impaired ventricular relaxation
- B) Increased myocardial oxygen demand
- C) Decreased left ventricular contractility
- D) Increased preload and stroke volume
- E) Decreased systemic vascular resistance

Answer: C

2. What is the most common cause of heart failure in the United States?

- A) Hypertension.
- B) Aortic stenosis
- C) Coronary artery disease.
- D) Dilated cardiomyopathy
- E) Valvular heart disease

Answer: C

3. Which of the following symptoms is most specific for right-sided heart failure?

- A) Orthopnea
- B) Paroxysmal nocturnal dyspnea
- C) Bilateral basal crackles
- D) Jugular venous distension
- E) Frothy pink sputum

Answer: D

4. A 65-year-old man with heart failure reports dyspnea after climbing one flight of stairs but is asymptomatic at rest. According to the New York Heart Association (NYHA) classification, what is his functional class?

- A) Class I.
- B) Class II.
- C) Class III
- D) Class IV.
- E) Class V

Answer: B

5. Which of the following BNP (brain natriuretic peptide) levels is most suggestive of acute decompensated heart failure?

- A) < 100 pg/mL
- B) 100–300 pg/mL
- C) 300–600 pg/mL
- D) > 900 pg/mL
- E) BNP is not useful in HF diagnosis

Answer: D

6. Which of the following medications has been shown to improve survival in heart failure with reduced ejection fraction (HFrEF)?

- A) Furosemide
- B) Digoxin
- C) Diltiazem
- D) Metoprolol succinate
- E) Nifedipine

Answer: D

7. A 58-year-old man with heart failure and an ejection fraction of 30% is on optimal medical therapy. He has no history of arrhythmias. Which of the following is the most appropriate next step?

- A) Start digoxin
- B) Perform coronary angiography
- C) Implant an automatic implantable cardioverter-defibrillator (ICD)
- D) Perform stress echocardiography
- E) Prescribe ivabradine

Answer: C

8. Which of the following medications should be avoided in patients with HFrEF?

- A) Lisinopril
- B) Spironolactone
- C) Amlodipine
- D) Diltiazem
- E) Hydralazine

Answer: D

9. A 72-year-old man with decompensated heart failure presents with dyspnea, bilateral crackles, and peripheral edema. His blood pressure is 135/85 mmHg, and oxygen saturation is 89% on room air. What is the best initial treatment?

- A) IV fluids
- B) IV furosemide
- C) IV labetalol
- D) Oral spironolactone
- E) Digoxin

Answer: B

10. What is the most common cause of death in patients with heart failure?

- A) Cardiogenic shock
- B) Sudden cardiac death due to arrhythmias
- C) Progressive pump failure
- D) Pulmonary embolism
- E) Multi-organ failure

Answer: B

cardiomyopathy

1. Which of the following is the most common type of cardiomyopathy?

- A) Dilated cardiomyopathy (DCM)
- B) Hypertrophic cardiomyopathy (HCM)
- C) Restrictive cardiomyopathy (RCM)
- D) Arrhythmogenic right ventricular cardiomyopathy (ARVC)
- E) Takotsubo cardiomyopathy

Answer: A

2. A 20-year-old athlete collapses and dies suddenly during a basketball game.

Autopsy shows asymmetric septal hypertrophy. What is the most likely underlying condition?

- A) Dilated cardiomyopathy
- B) Hypertrophic cardiomyopathy
- C) Restrictive cardiomyopathy
- D) Arrhythmogenic right ventricular cardiomyopathy
- E) Viral myocarditis

Answer: B

3. Which of the following maneuvers will increase the murmur intensity in hypertrophic cardiomyopathy (HCM)?

- A) Squatting.
- B) Handgrip
- C) Passive leg raise.
- D) Valsalva maneuver.
- E) IV fluids

Answer: D

4. Which of the following is the most common cause of dilated cardiomyopathy (DCM)?

- A) Alcohol.
- B) Ischemic heart disease
- C) Chagas disease.
- D) Peripartum cardiomyopathy.
- E) Genetic mutations

Answer: B

5. A 25-year-old man presents with syncope and palpitations. ECG shows T-wave inversions in V1-V3 and an epsilon wave. What is the most likely diagnosis?

- A) Hypertrophic cardiomyopathy
- B) Dilated cardiomyopathy
- C) Restrictive cardiomyopathy
- D) Arrhythmogenic right ventricular cardiomyopathy
- E) Acute pericarditis

Answer: D

6. Which of the following is the most common trigger for Takotsubo cardiomyopathy?

- A) Hypertension
- B) Cocaine use
- C) Severe emotional or physical stress
- D) Long-standing diabetes
- E) Thyroid dysfunction

Answer: C

7. Which of the following conditions is most commonly associated with restrictive cardiomyopathy (RCM)?

- A) Hemochromatosis
- B) Sarcoidosis
- C) Amyloidosis
- D) Fabry disease
- E) Viral myocarditis

Answer: C

8.Which of the following is the best initial test for evaluating suspected cardiomyopathy?

- A) Coronary angiography
- B) Echocardiography
- C) Cardiac MRI
- D) Cardiac biopsy
- E) BNP levels

Answer: B

9.Which of the following drugs is contraindicated in patients with hypertrophic cardiomyopathy (HCM)?

- A) Metoprolol
- B) Diltiazem
- C) Furosemide
- D) Nitroglycerin
- E) Verapamil

Answer: D

10.Which of the following cardiomyopathies is most strongly associated with sudden cardiac death (SCD) in young adults?

- A) Dilated cardiomyopathy
- B) Hypertrophic cardiomyopathy
- C) Restrictive cardiomyopathy
- D) Takotsubo cardiomyopathy
- E) Peripartum cardiomyopathy

Answer: B

Tachyarrhythmias and Bradyarrhythmias

1. A 25-year-old woman presents with sudden-onset palpitations, heart rate 180 bpm, and a narrow QRS complex on ECG. She is hemodynamically stable. What is the most likely diagnosis?

- A) Atrial fibrillation
- B) Atrial flutter
- C) Atrioventricular nodal reentrant tachycardia (AVNRT)
- D) Ventricular tachycardia
- E) Sinus tachycardia

Answer: C

2. A 67-year-old man with a history of hypertension and diabetes presents with palpitations. ECG shows irregularly irregular rhythm with absent P waves. His heart rate is 130 bpm, and he is hemodynamically stable. What is the initial management?

- A) Immediate synchronized cardioversion.
- B) IV amiodarone
- C) IV metoprolol.
- D) IV digoxin.
- E) IV atropine

Answer: C

3. A 45-year-old woman with a history of alcoholism is found unconscious. ECG shows polymorphic ventricular tachycardia with a shifting axis ("twisting of the points"). What is the best initial treatment?

- A) IV amiodarone.
- B) IV magnesium sulfate
- C) IV adenosine.
- D) IV metoprolol.
- E) Immediate defibrillation

Answer: B

4. A 70-year-old man presents with syncope. ECG shows a third-degree AV block (complete heart block). His blood pressure is 85/50 mmHg. What is the best next step?

- A) Atropine.
- B) Transcutaneous pacing
- C) Adenosine.
- D) Metoprolol
- E) Diltiazem

Answer: B

5. A 62-year-old man presents with palpitations and mild dyspnea. ECG shows a regular, sawtooth pattern in leads II, III, and aVF, with an atrial rate of 300 bpm and a ventricular rate of 150 bpm. What is the best initial treatment?

- A) IV adenosine
- B) IV metoprolol
- C) IV amiodarone
- D) Immediate synchronized cardioversion
- E) IV atropine

Answer: B

6. A 30-year-old man with Wolff-Parkinson-White (WPW) syndrome presents with atrial fibrillation (AF) and a heart rate of 210 bpm. What drug should be avoided?

- A) Procainamide
- B) Amiodarone
- C) Adenosine
- D) Metoprolol
- E) Digoxin

Answer: E (Digoxin)

7. A 58-year-old man collapses at work. CPR is started, and an ECG shows monomorphic ventricular tachycardia without a pulse. What is the next step?

- A) Synchronized cardioversion
- B) IV amiodarone
- C) IV epinephrine
- D) Defibrillation
- E) IV magnesium sulfate

Answer: D (Defibrillation)

8. Which of the following is a contraindication to IV atropine in a patient with sinus bradycardia?

- A) Acute inferior MI
- B) Myasthenia gravis
- C) Second-degree AV block (Mobitz II)
- D) Hypothermia
- E) Hyperthyroidism

Answer: C

9. A 32-year-old woman presents with palpitations. ECG shows a narrow-complex, regular tachycardia at 160 bpm. Carotid massage does not terminate the rhythm. What is the next step?

- A) IV adenosine
- B) IV amiodarone
- C) IV metoprolol
- D) Immediate synchronized cardioversion
- E) IV verapamil

Answer: A

10. Which of the following is the most common ECG finding in sick sinus syndrome (SSS)?

- A) Atrial fibrillation with rapid ventricular response
- B) Sinus bradycardia alternating with atrial tachycardia
- C) Progressive PR interval prolongation
- D) Mobitz type II AV block
- E) Regular narrow-complex tachycardia

Answer: B

Infective Endocarditis (IE)

1. A 55-year-old man with no history of prosthetic valves or IV drug use presents with fever, fatigue, and a new systolic murmur. Blood cultures grow Gram-positive cocci in clusters. What is the most likely causative organism?

- A) *Streptococcus viridans*
- B) *Staphylococcus aureus*
- C) *Enterococcus faecalis*
- D) *Streptococcus pneumoniae*
- E) *Haemophilus influenzae*

Answer: B) *Staphylococcus aureus*

2. Which heart valve is most commonly affected in infective endocarditis in the general population?

- A) Aortic valve.
- B) Mitral valve.
- C) Tricuspid valve
- D) Pulmonary valve.
- E) Septal wall

Answer: B) Mitral valve

3. A 29-year-old IV drug user presents with fever, pleuritic chest pain, and a new murmur. Blood cultures grow *Staphylococcus aureus*. What is the most likely affected valve?

- A) Aortic valve.
- B) Mitral valve.
- C) Tricuspid valve
- D) Pulmonary valve.
- E) Interventricular septum

Answer: C) Tricuspid valve

4. Which of the following is a major criterion in the Modified Duke Criteria for infective endocarditis?

- A) Fever $>38^{\circ}\text{C}$
- B) Glomerulonephritis
- C) Janeway lesions
- D) New valvular regurgitation
- E) Splinter hemorrhages

Answer: D) New valvular regurgitation

5. A 70-year-old man with a prosthetic aortic valve presents with fever, weight loss, and a new diastolic murmur. What is the best initial diagnostic test?

- A) Blood cultures
- B) Transesophageal echocardiography (TEE)
- C) Transthoracic echocardiography (TTE)
- D) Complete blood count (CBC)
- E) CT scan of the chest

Answer: A) Blood cultures

6. A 65-year-old man with native valve endocarditis is hemodynamically stable. Blood cultures are pending. What is the best empiric antibiotic regimen?

- A) Vancomycin + Gentamicin
- B) Nafcillin + Gentamicin
- C) Ceftriaxone + Rifampin
- D) Vancomycin + Ceftriaxone
- E) Linezolid + Cefepime

Answer: D) Vancomycin + Ceftriaxone

7. Which of the following is an absolute indication for valve surgery in a patient with infective endocarditis?

- A) Persistent fever despite 2 weeks of antibiotics
- B) A vegetation measuring 4 mm
- C) Embolic stroke with full neurological recovery
- D) Heart failure due to severe valve regurgitation
- E) Splinter hemorrhages

Answer: D) Heart failure due to severe valve regurgitation

8. A patient with infective endocarditis presents with painless erythematous macules on the palms and soles. What are these called?

- A) Osler's nodes.
- B) Janeway lesions.
- C) Splinter hemorrhages
- D) Roth spots.
- E) Erythema nodosum

Answer: B) Janeway lesions

9. Which of the following organisms is part of the HACEK group associated with culture-negative infective endocarditis?

- A) *Staphylococcus aureus*
- B) *Enterococcus faecalis*
- C) *Haemophilus aphrophilus*
- D) *Pseudomonas aeruginosa*
- E) *Listeria monocytogenes*

Answer: C) *Haemophilus aphrophilus*

10. A 55-year-old man with a prosthetic heart valve is scheduled for a dental procedure. What antibiotic prophylaxis should he receive?

- A) No prophylaxis needed
- B) Amoxicillin 2g PO 1 hour before procedure
- C) Vancomycin 1g IV before procedure
- D) Azithromycin 500mg PO after the procedure
- E) Ciprofloxacin 500mg PO before the procedure

Answer: B) Amoxicillin 2g PO 1 hour before procedure

Rheumatic Fever (RF)

1. A 12-year-old girl presents with fever, joint pain, and a new heart murmur. She had a sore throat 3 weeks ago that was untreated. Which of the following organisms is responsible for her condition?

- A) Staphylococcus aureus
- B) Group A Streptococcus (Streptococcus pyogenes)
- C) Streptococcus pneumoniae
- D) Haemophilus influenzae
- E) Neisseria meningitidis

Answer: B) Group A Streptococcus (Streptococcus pyogenes)

2. Which of the following is not a major criterion in the Revised Jones Criteria for diagnosing rheumatic fever?

- A) Migratory polyarthritis
- B) Carditis and valvulitis
- C) Erythema marginatum
- D) Subcutaneous nodules
- E) Elevated antistreptolysin O (ASO) titer

Answer: E) Elevated antistreptolysin O (ASO) titer

3. Which heart valve is most commonly affected in rheumatic heart disease (RHD)?

- A) Aortic valve.
- B) Mitral valve
- C) Tricuspid valve.
- D) Pulmonary valve.
- E) All valves equally

Answer: B) Mitral valve

4. Which of the following is characteristic of the arthritis in rheumatic fever?

- A) Involves small joints of the hands and feet
- B) Non-migratory and affects a single joint
- C) Migratory and affects large joints
- D) Associated with septic synovial fluid
- E) Does not respond to NSAIDs

Answer: C) Migratory and affects large joints

5. A 10-year-old girl presents with involuntary movements of her hands and face, emotional lability, and a "milkmaid's grip." Which of the following is the best explanation?

- A) Wilson's disease
- B) Huntington's disease
- C) Sydenham's chorea
- D) Tourette syndrome
- E) Parkinson's disease

Answer: C) Sydenham's chorea

6. What is the best initial test for confirming a preceding Group A Streptococcus infection in suspected rheumatic fever?

- A) Throat culture
- B) Anti-streptolysin O (ASO) titer
- C) Echocardiography
- D) Chest X-ray
- E) Electrocardiogram (ECG)

Answer: B) Anti-streptolysin O (ASO) titer

7. A 13-year-old boy with suspected rheumatic fever undergoes an ECG. Which of the following is the most common finding?

- A) ST-segment elevation
- B) Atrial fibrillation
- C) Prolonged PR interval
- D) Peaked T waves
- E) Q waves in inferior leads

Answer: C) Prolonged PR interval

8. A 9-year-old girl is diagnosed with Group A Streptococcal pharyngitis. What is the best primary prevention of rheumatic fever?

- A) Aspirin therapy
- B) Erythromycin for 5 days
- C) Penicillin for 10 days
- D) Corticosteroids
- E) Nonsteroidal anti-inflammatory drugs (NSAIDs)

Answer: C) Penicillin for 10 days

9. A 16-year-old girl with a history of rheumatic fever with carditis is asymptomatic. How long should she receive prophylactic penicillin?

- A) 5 years or until age 21 (whichever is longer)
- B) 10 years or until age 40 (whichever is longer)
- C) Lifelong prophylaxis
- D) No prophylaxis is needed
- E) Until the ASO titer normalizes

Answer: B) 10 years or until age 40 (whichever is longer)

10. Which of the following is the first-line treatment for acute rheumatic fever?

- A) Aspirin + Penicillin
- B) Corticosteroids + Azithromycin
- C) Methotrexate + NSAIDs
- D) Doxycycline + Prednisone
- E) Colchicine + NSAIDs

Answer: A) Aspirin + Penicillin