

ACTIVE LEARNING TEMPLATE: *System Disorder*

STUDENT NAME _____

DISORDER/DISEASE PROCESS Coronary Artery Disease

REVIEW MODULE CHAPTER _____

Alterations in Health (Diagnosis)

Coronary artery disease

Pathophysiology Related to Client Problem

Coronary artery atherosclerosis

Health Promotion and Disease Prevention

Risk factor modification

ASSESSMENT

Risk Factors

Modifiable:
Smoking, Obesity, hypertension, uncontrolled diabetes mellitus, dyslipidemias, sedentary lifestyle, uncontrolled stress or anger, unhealthy diet high in saturated fats and cholesterol
Non-modifiable:
Advanced age, Gender(male), family disposition, race (African American)

Expected Findings

Shortness of breath, Fatigue, Chest discomfort, Malaise, and Chest pain.
Tachycardia, irregular pulse, initially elevated BP or hypotension and cardiogenic shock with right ventricular MI or severe left ventricular dysfunction, increased respiratory rate, coughing, wheezing, and the production of frothy sputum.

Laboratory Tests

Complete blood count; Chemistry panel; Lipid profile
Thyroid function tests (to exclude thyroid disorders)
MI Fractional flow reserve (FFR)
Coronary flow reserve (CFR); C-reactive protein level
Cardiac troponin (in cases of suspected acute coronary syndrome)

Diagnostic Procedures

Medical and social history
Physical examination
Imaging studies:
Echocardiography, Nuclear imaging, Cardiac computed tomography with CT angiography, Electron beam CT scanning, Optical coherence tomography imaging, MRI, PET, Coronary angiography

SAFETY CONSIDERATIONS

Conducting all diagnostic procedures under aseptic conditions. Appropriate prescription and use of medication. Making prompt and correct diagnosis. Risk factor modification

PATIENT-CENTERED CARE

Nursing Care

Patient education
Cardiac monitoring during and after treatment
Preparation of patients for diagnostic and therapeutic procedures
Administration of medication
Follow-up care following an acute attack

Medications

- 1) Organic nitrates and nitrites
- 2) Calcium channel blockers
- 3) Beta blockers
- 4) Metabolism modifiers:
Ranolazine
- 5) ACE inhibitors
- 6) IV Glycoprotein IIb/IIIa inhibitors
- 7) Aspirin

Client Education

Benefits of risk factor modification
Instruct on the benefits and risks involved for the diagnostic tests that they are supposed to undergo
Advice on appropriate use of medication
Advice on what to do should they experience sudden onset of symptoms

Therapeutic Procedures

Coronary artery bypass grafting (CABG)
Percutaneous coronary intervention (PCI)
Percutaneous transluminal coronary angioplasty (PTCA)

Interprofessional Care

Cardiac rehabilitation
Management of underlying conditions

Complications

MI
Heart failure
Death