Diagnostic Studies

Unit Objectives:

- **Interpret results of diagnostic tests in relation to patient symptoms and assessment findings. (1,2)***
  (*Course Objectives)

In order to receive full credit (1H class time) for this assignment, it must be completed in its entirety and submitted to the Unit 4- Diagnostic Studies Dropbox by 2/9/2026 at 0800. Any assignment not completed in its entirety will result in missed class time, and must be made up before the end of the semester.

What blood laboratory studies might be altered in an individual with a venous thromboembolism (VTE)?

A patients D-dimer, ACT, INR, aPTT, Hgb, Hct, and platelet count may all be abnormal.

What does an elevated D-dimer suggest?

An elevated D-dimer may suggest that the patient has a venous thromboembolism due to sensing a fibrin fragment formed.

A peripheral arteriography and/or venography can be used to detect and visualize what?

This can be used to assess blood flow, detecting occlusion, aneurysms, venous abnormalities, traumatic injury, or atherosclerotic plaques.

What problems can a transesophageal echocardiogram (TEE) detect?

Problems that a TEE can detect are mitral valve disease, endocarditis vegetation, or thrombi existing prior to preforming a cardioversion.

If you are the nurse assisting with a TEE, what are your responsibilities?

We need to make sure the patient is NPO for 6 hours before, set up an IV access, monitor vitals, suction patient as needed. We'd also need to monitor complications such as aspiration, esophageal tears, or vasovagal reactions. We can allow the patient to resume eating + drinking when their gag reflex returns.

What is a Lexiscan stress test and why is it performed? What must you, as the nurse, ask the patient prior to performing the test?

This is a test used to evaluate the effect of exercise tolerance on the cardiovascular function, where we use chemicals rather than a treadmill. We need to make sure the patient holds all caffeine 12 hours before and Theophylline must be held 24 hours before.

If you are conducting a stress test on a patient, what are some reasons to conclude or terminate the test?

1. Chest pain
2. Significant changes in VS
3. ECG changes
4. Peak tolerance achieved
5. Peak HR achieved

What are some things we can identify from a 12-lead ECG?

1. Dysrhythmia
2. Pericarditis
3. Ischemia
4. Drug effectiveness
5. Conduction Problems
6. Hypertrophy

A BNP of 775 would be diagnostic for what? Heart failure.

There are two substances released in the blood when cardiac tissue damage occurs. Name them:

1. Troponin
2. CK-MB

View the following 3-minute TEE video:

https://www.youtube.com/watch?v=9Us9mXXILSk

In this particular case they are looking for the presence of what inside the heart?

They are looking for the presence of blood clots.

Optional question: When the cardiac rhythms shows on the bottom of the TEE screen, what tells you the patient is in A-fib (atrial fibrillation)?

No P waves, irregularly irregular rhythm, QRS narrow, and a wavy baseline.