

Diagnostic Studies

Online Content (1H)

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)?

ACT

aPTT

INR

HgB

Hct

Platelet count

D-dimer

What does an elevated D-dimer suggest?

An elevated result may suggest a venous thromboembolism (VTE). Normal results are <250 ng/mL

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

This can detect and visualize:

Atherosclerotic plaques, Occlusions, Aneurysms, Venous abnormalities, and Traumatic injury

What problems can a transesophageal echocardiogram (TEE) detect?

A TEE can detect valve structure and motion, cardiac chamber size and contents, ventricular/septal motion and thickness, pericardial sac, ascending aorta.

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

It is important that the patient is NPO for 6 hours, IV access for sedation, monitor VS, suction as needed. Monitor for complications such as esophageal tears, aspiration and vasovagal reactions.

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?

Lexiscan stress test is a pharmacologic nuclear imaging stress test that is a chemical stress test done when a patient is unable to exercise on a treadmill. This is where the nuclear agent is injected through an IV. The patient must hold all caffeine products for 12 hours so it is important to ask last caffeine intake. Also if they are on Theophylline because that can diminish the effects of Lexiscan and must hold for at least 24 hours.

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

1. Chest pain
2. Changes from baseline vitals
3. ECG changes for possible cardiac ischemia
4. Pt. reaches peak heart rate
5. Pt. reaches peak exercise tolerance

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

1. Conduction problems
2. Dysrhythmias
3. Hypertrophy
4. Pericarditis
5. Ischemia or infarction
6. Drug effectiveness

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?

In this video they are looking the blood clots that can hide in some areas that can hidden on a normal ECG.

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)?

There is no clear presence of P waves and the rhythm is irregularly irregular.