

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 2/12/2024 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)?

For a venous thromboembolism you would look at ACT (shows how long it takes blood to clot), aPTT which a shortened time can suggest the blood is clotting faster than normal, INR which with a slow level can indicate risk of blood clot forming, Hgb and Hct increase can indicate risk of VTE, and D-dimer that is released when clots break down.

What does an elevated D-dimer suggest?

An elevated D-dimer suggests the presence of abnormal blood clotting or clot breakdown in the body. When a clot is broken down it releases D-dimer protein.

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

A peripheral arteriography and/or venography can be used to detect and visualize blockages or abnormalities in the arteries and veins.

What problems can a transesophageal echocardiogram (TEE) detect?

It's used to detect mitral valve disease, endocarditis vegetation, thrombus prior to cardioversion.

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

My responsibilities are to ensure the pt is NPO for 6 hours, get IV access for sedation, monitor VS, suction as needed, monitor for complications, monitor for esophageal tears, monitor for aspiration, watch for vasovagal reactions, allow the pt to resume eating and drinking when 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?

A chemical stress test is conducted when a patient is unable to exercise on a treadmill. During the procedure, Lexiscan and a nuclear agent are administered via IV. As a nurse, it is important to inquire whether the patient has consumed caffeine in the last 12 hours or taken Theophylline in the past 24 hours before the test.

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 change in vital signs**
3. **ECG changes that indicate cardiac ischemia**
4. **Peak HR is achieved**
5. **Peak tolerance is achieved**

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?

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)?