Eastern Heart Victoria

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Patient Information Sheet
Dobutamine Stress Echocardiogram

A **dobutamine stress echocardiogram (DSE)** is a diagnostic test used to assess how well your heart functions under stress. It combines the use of a medication called dobutamine, which simulates the effects of exercise by increasing your heart rate and strength of contractions, with an echocardiogram to visualise the heart's structure and movement. This test is often recommended when a person cannot perform physical exercise for a standard stress echocardiogram.

Purpose of a Dobutamine Stress Echocardiogram:

- Diagnose coronary artery disease (narrowing of the arteries that supply blood to the heart).
- Assess the severity of heart valve problems or other structural heart issues.
- Evaluate the heart's pumping ability, especially after a heart attack.

During a dobutamine stress echocardiogram:

- Electrodes are placed to monitor your heart rhythm, and an IV is inserted for the dobutamine.
- Baseline heart images are taken using ultrasound.
- Dobutamine is infused to gradually increase your heart rate, simulating exercise.
- Additional ultrasound images are taken as your heart works harder.
- Once the target heart rate is reached or symptoms develop, the infusion stops, and your heart rate normalizes.

Prior to the test:

- Avoid eating or drinking for **4–6 hours** before the test.
- Follow your doctor's instructions on stopping certain medications, like beta-blockers.
- Wear loose, comfortable clothing.
- Ask about any concerns and sign the consent form.

Risks:

This is a very low risk procedure and the risks of this test are no different to those of a standard stress test. The most common occur only occur in 3:1,000 people and include:

- Chest pain which can be treated by stopping the test and administering medication
- An abnormal heart beat which maybe treated by stopping the test and treated with/without medication
- There is a risk of heart attack in 1:2,500 people and a risk of death in 1:10,000 people.

After the test you can go home and resume normal activities but should avoid strenuous exercise for a few hours. It is important to follow-up with your doctor will review the results and discuss next steps.

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