Stress testing during COVID-19

Exercise stress testing is a procedure which may have a high risk of droplet spread. This document outlines the guiding principles for conducting stress testing during the COVID-19 pandemic. This document has been reviewed to reflect the changing epidemiology of COVID-19 in NSW; in particular, the outbreak of the Delta variant beginning in June 2021.

Guiding principles

- Delay all non-urgent exercise stress testing.
- Cardiopulmonary exercise testing should not be performed unless absolutely necessary. Gas analysis equipment should be cleaned between patients. One mask and tubing set should be used for each patient.
- Only perform stress tests where the result will influence or change management, or aid diagnosis.
- Screen all patients prior to stress testing for COVID-19 risk factors using questions on symptoms, travel and exposure.
- Consider temperature measurement.
- Formal laboratory testing is not recommended unless the patient is considered high risk for COVID-19 or has suspected COVID-19 infection.
- Encourage patients to carry out hand hygiene, respiratory hygiene and cough etiquette.
- Clinicians should use appropriate personal protective equipment if the patient has suspected or confirmed COVID-19 in line with local infection prevention and control policies and the Clinical Excellence Commission’s (CEC’s) COVID-19 Infection Prevention and Control Manual.
- Limit the number of people present in the room during any stress test and maintain distance as much as possible.
- Cover the patient’s arm with plastic food wrap and place the blood pressure (BP) cuff over the film. Staff should record the BP at the side of the patient. Use a single use, disposable BP cuff if the BP cuffs are not able to be cleaned properly after use.
- Appropriate personal protective equipment (PPE) should be worn by staff in line with local infection prevention and control policies and the CEC’s COVID-19 Infection Prevention and Control Manual.
- Following each test, equipment should be cleaned using standard infection control processes.
- Staff should practice frequent hand hygiene and if they are unwell with cold or flu-like symptoms, stay at home, be tested for COVID-19 and self-isolate until the result is known.
- If the patient’s condition deteriorates, stop the stress test, manage the symptoms and commence basic life support if necessary.
- If stress testing is not available or inappropriate, CT coronary angiography should be considered, when available.
- Specific local area COVID-19 incidence and prevalence data will determine the risk of transmission.
Methodology

The document was developed by a cardiologist and was informed by the evidence check on cardiac stress testing. The Cardiac Advisory Group, which is a subgroup of the Cardiac Community of Practice, provided expert review of the guidance.

The information in this document is not meant to be a guideline nor should it supersede NSW Government, NSW Health or a local health district’s (LHD’s) policies. There is limited evidence to support formal guideline development.

This document should be read along with LHD infection prevention and control policies, NSW Ministry of Health latest case locations and alerts and policies and active Public Health Orders, the CEC’s COVID-19 Infection Prevention and Control Manual and the Cardiac Society of Australia and New Zealand consensus guidelines.

Stress echocardiograms

- Appropriate PPE and partial screens should be used to protect sonographers performing stress echocardiograms in line with local infection prevention and control policies and the CEC’s COVID-19 Infection Prevention and Control Manual.
- For stress echocardiogram or nuclear perfusion studies, consider pharmacological stress testing.

Resources

- NSW Health - COVID-19 (Coronavirus)
- Clinical Excellence Commission - Resources for health and other workers in NSW
- Cardiac Society of Australia and New Zealand - COVID-19 Resources
- ACI Intensive Care NSW - Adult Basic Life Support (BLS) Guidance