

Table 8. Clinical considerations for the use of non-invasive testing for people at intermediate risk. Adapted with permission from Kontos et al. (218).

Ischaemic test modality	Strengths	Limitations	Considerations for use
Exercise stress ECG	<ul style="list-style-type: none"> • Low cost • Wide availability • Assessment of exercise symptoms, capacity • No ionising radiation 	<ul style="list-style-type: none"> • Decreased accuracy compared with anatomical and stress-imaging tests • Requires interpretable ECG and ability to exercise sufficiently • Higher false positive rate in females 	<ul style="list-style-type: none"> • Rarely recommended as a stand-alone test in people with known CAD, inability to exercise, or significant arrhythmias • Contraindicated in severe symptomatic aortic stenosis or severe hypertension
Stress echocardiography	<ul style="list-style-type: none"> • Wide availability • High diagnostic specificity • Assessment of ventricular and valvular function • No ionising radiation 	<ul style="list-style-type: none"> • Decreased sensitivity compared with anatomical and other stress-imaging tests • Dependent on good image quality • Requires dobutamine in people unable to exercise 	<ul style="list-style-type: none"> • Known good image quality and ability to exercise • Consider use of an ultrasound-enhancing agent to improve endocardial visualisation • Known moderate or severe valvular disease
Stress/rest SPECT	<ul style="list-style-type: none"> • Wide availability • Relatively high diagnostic sensitivity • Assessment of ventricular function 	<ul style="list-style-type: none"> • Increased artefacts resulting in non-diagnostic results and decreased diagnostic accuracy compared with stress/rest PET • Radiation exposure 	<ul style="list-style-type: none"> • Known CAD or high coronary artery calcification burden on chest computed tomography (CT) imaging • Preferred over stress echocardiography in people who cannot exercise or who have significant exercise-induced bronchospasm
Stress/rest PET	<ul style="list-style-type: none"> • High diagnostic accuracy • Lower radiation exposure than SPECT • Measures myocardial blood flow and flow reserve • Assessment of ventricular function 	<ul style="list-style-type: none"> • Limited availability • Relatively higher cost • Lack of exercise assessment 	<ul style="list-style-type: none"> • Known CAD or high coronary artery calcification burden on chest CT imaging • Preferred over SPECT due to higher diagnostic accuracy and lower rate of nondiagnostic test results
Stress CMR	<ul style="list-style-type: none"> • High diagnostic accuracy • Accurate assessment of chamber sizes, ventricular and valvular function • Diagnosis of prior infarction, scar, fibrosis • Measurement of myocardial blood flow and flow reserve is possible (but not widely available currently) • No ionising radiation 	<ul style="list-style-type: none"> • Limited availability • Relatively higher cost • Lack of exercise assessment • Long scan acquisition times • Claustrophobia • Often not immediately available to people with pacemakers or ICDs • Contraindicated in people with significant renal dysfunction 	<ul style="list-style-type: none"> • Known CAD and/or cardiomyopathy • Elevated troponin not thought to be secondary to ACS • Known moderate or severe valvular disease • No significant renal dysfunction
CTCA	<ul style="list-style-type: none"> • High diagnostic accuracy • Does not require exercise • Identifies non-obstructive CAD 	<ul style="list-style-type: none"> • Radiation exposure • Lack of exercise assessment • Contraindicated in people with significant renal dysfunction • Blooming artefacts when significant coronary calcification present • Atrial fibrillation or other arrhythmias • May require beta blockers • Incidental non-cardiac findings 	<ul style="list-style-type: none"> • No known CAD • Absence of severe coronary calcification • Prior normal, mildly abnormal, or inconclusive stress test results • No known iodinated contrast medium allergy or significant renal dysfunction • Low likelihood of high-quality stress testing or lack of timely access

Abbreviations: ACS, acute coronary syndromes; ECG, electrocardiogram; CAD, coronary artery disease; CMR, cardiac magnetic resonance imaging; CT, computed tomography; CTCA, CT coronary angiogram; ICD, implantable cardioverter defibrillator; PET, positron emission tomography; SPECT, single photon emission computed tomography.