Assessing the heart for non-cardiac surgery

**Background**

Patients with overt heart disease or exercise limitation often present for surgery

There is evidence that- mostly- investigating the heart before major surgery has no benefit

**Guidelines**

2014 American College of Cardiology/American Heart Association

2014 European Society of Cardiology/European Society of Anaesthesiology

**A practical approach whether to investigate is based on**

* Surgery Urgency
	+ Emergency- proceed to surgery and treat conditions
* Active Cardiac Condition
	+ LVF, severe valve, VT/SVT, angina and MI (<1 month)
	+ Pause and investigate/cardiology refer
* Surgery Severity
	+ Mild/surface surgery -proceed
* Patient Exercise Capacity
	+ >4 metabolic equivalent of task. MET- proceed
* Patient Specific risks / Comorbidities
	+ No risk factors on Lees rCRI – proceed
	+ Any risk factors – consider testing heart
	+ 1% mortality risk or more – consider testing heart
* What to do/how investigate
	+ Consider testing /investigate ‘if it will change management’
	+ Guidelines have lots of suggestions
	+ Resting ECHO – only if new condition / examination suggests
	+ Stress ECHO – is an option
	+ Perfusion Scans - are an option
	+ CPET – is an option
	+ Cardiac CT – not mentioned

**Other issues**

* Biomarkers Troponin and ANP
	+ Elevated Postop Troponin is associated with a poor outcome
	+ What to do about a raised postop Troponin is controversial
	+ Interventional studies have shown no benefit
	+ Raised preop ANP is associated with a poor outcome… Presumably because of its association with cardiac failure.