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.