Protocol for escalating urgent Transthoracic Echocardiogram cases Full Clinical Guideline

Reference no.: CG-CLIN/4201/23

1. Introduction

Guidelines for the escalation of abnormal echo findings to ensure results are communicated appropriately for the clinical safety of patients.

2. Aim and Purpose

The guidelines are in place for the clinical safety of patients. They provide clarity for echocardiographers and clinicians and ensure results are communicated efficiently and appropriately, relative to the abnormalities found.

3. Definitions, Keywords

TTE, Transthoracic Echocardiogram, valve, endocarditis, aorta, pericardial, tamponade, LV, systolic, VSD, Echoes, AR, MR, AF, Cardiology

4. MAIN

Echocardiograms: Findings and reporting of echocardiograms

For in-patients:

Echocardiographic findings are to be discussed with the doctor on the ward and inform the on-call Cardiology Registrar of these echo findings. It is important to document who you have spoken to on the echo report and in the patient's notes.

For out-patients:

Echocardiographic findings are to be discussed with the on-call Cardiology Registrar. It is important to document on the echo report and any action to be taken from this (e.g., admission to the hospital, urgent GP appointment).

Findings:

Valves

- Severe mitral regurgitation with evidence of flail leaflet.

- Suspected endocarditis with vegetation and mild+ valvular incompetence - *where there is a small (0.5cm) mobile mass (fibroelastoma etc) and no regurgitation present in a well patient it is reasonable to flag this urgently on the report for further review with cardiologist or at echo meeting rather than via on-call.*
- Prosthetic valve abscess or dehiscence, or severe prosthetic or para-prosthetic regurgitation.
- High index of suspicion of prosthetic valve obstruction (e.g., mechanical MV gradient >8mmHg with visual evidence of obstruction to inflow).

Aorta

- Suspected type A aortic dissection (proximal aortic flap visible in dilated aortic root, usually with aortic regurgitation +/- pericardial effusion).
- Severe proximal aortic dilatation (STJ>40mm, ascending aorta> 55mm) especially if associated with aortic incompetence.

Structural

- Moderate pericardial effusion (>2cm) if evidence of incipient tamponade (>50% mitral inflow variation/ RV diastolic collapse).
- Large pericardial effusion (>3cm) if new diagnosis or if evidence of incipient tamponade.
- Suspicion of contained LV rupture (with recent history of AMI).
- New diagnosis of VSD post-MI.
- Unknown severe LV systolic dysfunction +/- thrombus.
- Severe LV systolic dysfunction with clear evidence of apical thrombus in an un-anticoagulated patient.

Where the patient attends very unwell or has experienced rapid deterioration in symptoms it may be appropriate to discuss with the registrar or consultant on-call. As per current practice this is a matter of common sense and there is no expectation of the echocardiographer to elicit clinical symptoms.

Additional notes on abnormal echoes:

If we perform an echo that shows the following pathologies, please follow guidelines below:

New diagnosis severe AS (AVA <0.7cm^2 / AVAi 0.4cm^2/m^2)

On the day of test inform the requesting Dr's secretary that the echo is abnormal (via phone call or e-mail).

Write that you have done this on the report.

Write on the report that you advise cardiology review.

Send a copy of the report to the requester and GP (via e-mail) to aide in continuity of care.

If the patient is symptomatic seek advice from the on-call cardiology registrar.

AR & MR

If you see echoes with unexpected moderate or more AR and / or MR irrespective of LV, please add comment – "suggest cardiology referral".

If you see any echo that causes you concern e.g., unexpected findings in young patients please ensure that the abnormality is highlighted to referrer.

New diagnosis AF

Rate <120bpm, stable symptoms, +/- medication/anticoagulation – email results back to referring doctor (document on report).

Rate >120bpm, +/- symptoms, +/- medication/anticoagulation – contact on call cardiology registrar.

5. Documentation Controls (these go at the end of the document but before any appendices)

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6. Appendices