CCDHB EMERGENCY DEPARTMENT CLINICAL GUIDELINE FOR ACUTE AORTIC DISSECTION

Capital & Coast District Health Board
Toko ki te uru hauora

Consider Acute Aortic Dissection (AD) in patients presenting with:
- **Chest, back or abdominal pain**
- **Syncope**
- **Symptoms consistent with perfusion deficit (CNS, mesenteric, myocardial or limb ischaemia)**

Medical history + Clinical examination + ECG + SMO* review / discussion

→ **Alternative diagnosis is evident OR SMO considers Aortic Dissection Pathway not appropriate**

→ **STEMI – use ACS Guideline**

AD is still considered possible differential

Haemodynamic state

Unstable

- Bedside echo by ED SMO*
- Urgent Cardiothoracic consultation
- Contact ICU
- Transfer to CT or theatre as directed by Cardiothoracic Consultant

AD present?

- Yes → Proceed to 'Aortic Dissection Management Pathway'
- No → ED SMO* review. Consider an alternative diagnosis

Stable

Focused bedside pre-test risk assessment (Score 1 for each high-risk box applicable). Max score in any box is 1.

High risk conditions:
- ☐ Connective tissue disease
- ☐ Family history of aortic disease
- ☐ Known aortic valve disease
- ☐ Known thoracic aortic aneurysm
- ☐ Previous aortic manipulation or cardiac surgery

High risk pain features:

Chest, back or abdominal pain described as any of the following:
- ☐ Sudden in onset
- ☐ Severe in intensity
- ☐ Ripping or tearing in quality

High risk examination features:
- ☐ Evidence of pulse deficit -
  - » Pulse deficit
  - » Systolic BP difference (>20mmHg)
  - » Focal neuro deficit (with pain)
- ☐ Aortic diastolic murmur (new + with pain)
- ☐ Hypotension or shock

Low risk score 0-1

- **Chest x-ray**
- **D-dimer**
- **ED bedside echo**
- **Early SMO* review, before results**

- **Wide mediastinum OR other sign of AD on CXR**
- **OR Positive d-dimer (>500 ng/ml)**
- **OR Signs of AD on echo**
- **OR SMO* opinion that AD is likely**

- All negative → ED SMO* review. Consider an alternative diagnosis
- Any positive → Request CT Angiogram

AD present?

- Yes → Proceed to 'Aortic Dissection Management Pathway'
- No → ED SMO* review. Consider an alternative diagnosis

High risk score 2-3

Request CT Angiogram AND inform ED SMO* immediately

AD present?

- Yes → Proceed to 'Aortic Dissection Management Pathway'
- No → ED SMO* review. Consider an alternative diagnosis

How to use this clinical guideline

This clinical guideline is a tool to guide clinical practice and standardise patient care.

It is not designed to replace individual clinician judgement and patient preference. Patient can exit the decision pathway at any point.

If ACS is the suspected cause for presentation, the patient is not to enter this pathway.

* Senior Registrar if SMO is unavailable, such as overnight

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