safely triaged in the RACPC service. Since the pandemic, RACPC staff in Glasgow have noticed increasing numbers of patients with MI while waiting for their RACPC appointment. This was not evident in this audit, which may be due.

Conflict of Interest None

71 UTILISING DDIMER IN DIAGNOSING AORTIC DISSECTION

Introduction Acute aortic syndrome is a life threatening condition with high mortality rate of 1% per hour. Specific feature of chest pain in acute aortic dissection includes its Abrupt onset of severe chest and/or back pain, it can be sharp, ripping, tearing, knife-like. ECG in AAD can show ST elevation or nonspecific changes and in 25% of patient can have raised troponin and both ECG and troponin raise fluctuate over the time which may mislead the admitting doctor to the diagnosis of acute coronary syndromes and delay timely diagnose and manage of acute AD or vice versa. Both ESC guideline in 2014 and AHA guideline 2010 advocate the use of DDIMER as rule out tool in low probability cases(risk score 0–1). Since publication of these guidelines multiple trials have been published showing consistently high sensitivity of DDIMER for diagnostic rule-out of AAS.

Aim of this audit:
1. To Identify rate of compliance with ESC guidelines with respect to CT-A requests with a particular focus on if D-
dimer was requested and reviewed prior to CT-A request in low probability cases.

2. Review cases of AMI who underwent CT-A to identify if factors in the clinical history, blood work and ECG could have been used to avoid the need for CT-A

3. Compare coronary artery findings on CT-A to subsequent invasive coronary angiogram to assess accuracy of CT-A in identifying coronary abnormalities

**Method** We retrospectively identified all CT-A requests at our institution between (September-December 2020). A total of 90 CT-A were performed during the audit period and were included for analysis. Patients’ electronic health records were reviewed to extract clinical history, blood results and ECG’s. Patients were classified as either low risk or high risk as per the ESC guideline criteria. Case review was performed for all low risk patients to identify if D-dimer was checked prior to CT-A request as per guideline recommendations. Case review was also performed for patients where the final diagnosis was AMI to identify if the baseline clinical information could have prevented investigation for AAS and an earlier diagnosis of AMI reached. The cut-off value of D-dimer to rule out AAS was set to 0.5 μg/ml or age-adjusted D-dimer (0.5 μg/ml in patients under 50 years and age × 0.01 in patients 50 years or older)

**Result**
- 84/90 request was made by ED team over 4 months period
- Seniority of doctor requesting CT: 28/90 consultant level, 39/90 SPR level, 23/90 SHO level
- Risk score: 2 -3 =41 patients, 0–1 = 49 patients
- 16 patients had troponin raise
- 26 patients had abnormal ECG(Ischaemic pattern per ED clerking) among this 26 patients 12 of them had associated troponin raise
- D-dimer: requested in 31/90 patients. 18/31 in low risk group, Only 15/27 had available result prior to performing CT,
- None of patients with aortic dissection had concomitant ACS
- None of patients had integrated risk score plus DD prior to CT request-7 /90 had aortic dissection (type A or Type b). Of these:
  - none had a raised troponin or ECG changes
  - 6/7 had a risk score of 2 or more
  - 1/7 had a risk score of 1, ddimer was +VE

![Abstract 71 Figure 1](https://www.escardio.org/guidelines)

### Abstract 71 Table 1: ESC recommended clinical probability score

<table>
<thead>
<tr>
<th>Clinical Probability Score of AAS</th>
<th>High-risk conditions</th>
<th>High-risk pain features</th>
<th>High-risk examination features</th>
</tr>
</thead>
<tbody>
<tr>
<td>IIa</td>
<td>Marfan syndrome (or other connective tissue disease)</td>
<td>Chest, back, or abdominal pain described as any of the following:</td>
<td>Evidence of perfusion defect,</td>
</tr>
<tr>
<td></td>
<td>Family history of aortic disease</td>
<td>abrupt onset, severe intensity, ripping or tearing</td>
<td>pulsus alternans,</td>
</tr>
<tr>
<td></td>
<td>Known aortic valve disease</td>
<td></td>
<td>low blood pressure,</td>
</tr>
<tr>
<td></td>
<td>Known thoracic aortic aneurysm</td>
<td></td>
<td>focal neurological</td>
</tr>
<tr>
<td></td>
<td>Previous aortic manipulation (including cardiac surgery)</td>
<td></td>
<td>deficit (in conjunction with pain)</td>
</tr>
</tbody>
</table>

**Recommendations**

- In case of suspicion of AAS, the interpretation of biomarkers should always be considered along with the pretest clinical probability.
- In case of low clinical probability of AAS, the determination of D-dimers levels should be considered to rule-out the diagnosis when negative.
- In case of intermediate clinical probability of AAS with a positive (point-of-care) D-dimer test, further imaging tests should be considered.
- In patients with high probability (risk score 2 or 3) of aortic dissection, testing of D-dimers is not recommended.
Findings in cohort found to have ACS:

- 9 patients had subsequent diagnosis of ACS; 7 patients went to cath lab (5 of these angio findings correlated with CTA findings), two were managed medically and had CMRI arranged.
- On analysing the clinical features (chest pain pattern and risk factors) all these patients had a high suspicion index for ACS rather than AAD

Conclusion Of the 49 patients in this audit who had a low risk score (0–1) for AAD only 18 number (36.7%) had d-dimer requested as per guideline recommendations. The rate of AAS was low in this group (2.0%) compared with the high risk group (14%).We concluded if ADDR-RS with DDIMER have been utilised it would have led to save 48/90(53%) in appropriate CT aortogram request.

Conflict of Interest none