DIAGNOSING ACUTE AORTIC SYNDROME

KEY RECOMMENDATIONS
In patients with clinical features of AAS, use a combination of historical pain features, risk factors, and physical exam findings to determine the pretest probability of AAS. Clinical features include non-traumatic chest/abdominal/back pain, perfusion deficit, syncope, interarm BP differential >20mmHg, or SBP >180mmHg.

In patients with high pre-test probability (>5%), start with a CT aorta.
In patients with moderate pre-test probability (0.5-5%), start with D-dimer, if negative no further testing is required, if positive, follow with CT aorta.
In patients with low pre-test probability (<0.5%), no further investigations required.

ESTIMATING PRETEST PROBABILITY

Risk Factors
- Connective tissue disease
- Aortic valve disease
- Recent aortic manipulation
- Family history of AAS
- Known aortic aneurysm

Pain Features
- Severe/worst pain ever
- Teasing or ripping sensation
- Abrupt or thunderclap
- Migrating or radiating

Physical Exam
- Pulse deficits
- Neurological deficits
- New aortic insufficiency
- Hypotension or pericardial effusion

Suspected ACS:
- Consider CXR, POCUS
- Hold anticoagulation
- D-Dimer

Suspected/confirmed PE:
- Strong suspicion of PE
- Hold anticoagulation
- D-Dimer

Inclusions:
- Adults (≥18) with suspected acute aortic syndrome
- AAS Most Likely Dx

Exclusions:
- Pregnancy
- Recent cocaine use
- Leaky/ruptured AA

Acute Aortic Syndrome: Includes aortic dissection, intramural hematoma, and symptomatic aortic ulcer.

RISK FACTORS
- None +0
- Any non-aneurysmal RFs +1
- Aortic aneurysm +2

PAIN FEATURES
- No high-risk features +0
- 1-2 features +1
- 3+ features +2

PHYSICAL EXAM
- No high-risk findings +0
- Any high-risk finding +2

OTHER أفLOWS
- Suspected for alt dx -1
- Unsure +0
- AAS most likely dx +1

DECISION ALGORITHM

<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>High-Risk Pain Features</th>
<th>High-Risk PE Findings</th>
<th>AAS Most Likely Dx</th>
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Limitations:
- Incomplete reporting of patient involvement during CPG development process, although patients were engaged in this project.

Scope:
- For physicians, patients and decision-makers to select a diagnostic strategy for AAS that is most likely to yield a diagnostic result with minimum # of tests and radiation exposure.