Investigation of Suspected Pulmonary Embolism in Non-Hospitalised Patients

Patient Haemodynamically Stable

If patient is haemodynamically unstable (BP <90mmHg) consider Massive PE and refer to separate guidance
For suspected PTE in pregnant patients refer to separate guidance

Assess the Modified Geneva Predictive Risk Score:

<table>
<thead>
<tr>
<th>Modified Geneva Predictive Risk Score</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age &gt; 65 years</td>
<td>1</td>
</tr>
<tr>
<td>Previous DVT or PE</td>
<td>3</td>
</tr>
<tr>
<td>Recent surgery or lower limb fracture (&lt; 1 month)</td>
<td>2</td>
</tr>
<tr>
<td>Malignant disease (active or cured &lt; 1 year)</td>
<td>2</td>
</tr>
<tr>
<td>Unilateral lower limb pain</td>
<td>3</td>
</tr>
<tr>
<td>Haemoptysis</td>
<td>2</td>
</tr>
<tr>
<td>Heart rate 75-94</td>
<td>3</td>
</tr>
<tr>
<td>Heart rate ≥ 95</td>
<td>5</td>
</tr>
<tr>
<td>Pain on deep venous palpation of leg and unilateral oedema</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
</tr>
</tbody>
</table>

Perform the following investigations:
1. D Dimer
2. ECG
3. CXR

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Low risk = 0-3
- D dimer negative
  - PE not likely
  - Consider other diagnosis

Intermediate risk = 4-10
- D dimer positive
  - Administer LMWH treatment dose
  - CTPA or VQ SPECT scan

High risk ≥11
- Administer LMWH treatment dose
  - CTPA or VQ SPECT scan

No PE
- Consider other diagnosis

PE present
- Commence anticoagulation
  - See NHSL Guidelines for use of oral anticoagulant in PE and/or DVT

Check Troponin and Risk stratify according to 1. Troponin and 2. Evidence of RV strain (from ECHO or CTPA report)

RV normal
- Troponin normal
- Low 30 day mortality
- Consider early discharge and outpatient management - see specific inclusion and exclusion criteria below

RV strain
- Troponin normal
- Intermediate 30 day mortality
- Admit for further management

RV strain or RV thrombus
- Troponin elevated
- High 30 day mortality
- Admit for further management

Inclusion and Exclusion Criteria for Early Discharge and Out Patient Management

**Inclusion**
- Heart rate <100 bpm
- Systolic BP >100mm Hg
- SpO2 > 92% on room air
- No contraindications to LMWH
- Understands and able to comply with treatment instructions
- Able to attend hospital and social circumstances permit

**Exclusion**
- Age > 80 years
- If has evidence of large central PE on CTPA
- Requiring intravenous analgesia
- Intercurrent illness requiring admission, including cancer or chronic cardiorespiratory disease
- Significant risk of bleeding:
  - Active peptic ulceration
  - Angiodysplasia
  - Recent hemorrhagic stroke
  - Uncontrolled hypertension
  - Recent eye/CNS surgery
  - Liver disease
  - Thrombocytopenia

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1. Only use D dimer assay in non-hospitalised and non-pregnant patients.
2. Aim to perform CTPA within 24 hours - ideally discuss all CTPA requests with Duty Radiologist to avoid delay.
3. VQ SPECT scan is an alternative in renal impairment, contrast allergy and pregnancy
4. Review CTPA with radiologist, consider 2nd line investigation for PE (VQ SPECT scan, Doppler leg US) or other investigations