

<p>Forenames</p> <p>Lastname</p> <p>Hospital No.</p> <p>D.O.B.</p>	 <b>Mersey and West Lancashire Teaching Hospitals</b> NHS Trust																														
<h2 style="margin: 0;">SUSPECTED PULMONARY EMBOLISM</h2>																															
<p><b>DO NOT USE THIS PATHWAY FOR PE IN PREGNANCY – THESE PATIENTS MUST BE SEEN IN ED &amp; REFERRED TO OBSTETRICS.</b></p> <p><b>NON-PREGNANT PATIENTS SHOULD BE SEEN ON 1B SDEC &amp; NOT DISCHARGED FROM ED.</b></p>																															
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center; background-color: #d9e1f2; margin: 0;"><b>PE SUSPECTED</b></p> <p style="font-size: 0.8em; margin: 0;">(If likelihood of PE &lt; 15% the use the <a href="#">PERC</a> rule) *not validated in COVID-19*</p> </div> <div style="text-align: center; margin-bottom: 10px;"> <div style="border: 1px solid black; padding: 5px; background-color: #d9e1f2; display: inline-block;"> <b>2 Level Well's Score</b> </div> </div> <div style="display: flex; justify-content: space-around; margin-bottom: 10px;"> <div style="text-align: center;"> <p>≤ 4 <input type="checkbox"/></p> <div style="border: 1px solid black; padding: 5px; background-color: #d9e1f2; width: 100%;"> <p style="text-align: center; margin: 0;">‘Unlikely’</p> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p style="text-align: center; background-color: #d9e1f2; margin: 0;">Age adjusted D-Dimer</p> <p style="font-size: 0.8em; margin: 0;">Age &lt; 50 = D-Dimer &lt; 500 Age &gt; 50 = D-Dimer &lt; age x10</p> </div> <p>Negative <input type="checkbox"/></p> <div style="border: 1px solid green; padding: 5px; margin-top: 5px;"> <p style="text-align: center; background-color: #d9ead3; margin: 0;">PE EXCLUDED</p> <p style="font-size: 0.8em; margin: 0;">Stop any short term interim anticoagulation (except for when given for primary prevention in COVID-19). Think about other causes.</p> </div> </div> <div style="text-align: center;"> <p>&gt; 4 <input type="checkbox"/></p> <div style="border: 1px solid black; padding: 5px; background-color: #d9e1f2; width: 100%;"> <p style="text-align: center; margin: 0;">‘Likely’</p> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p style="text-align: center; background-color: #d9e1f2; margin: 0;">Positive <input type="checkbox"/></p> </div> </div> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center; background-color: #d9e1f2; margin: 0;">Book Imaging &amp; Commence Interim Anticoagulation</p> <p style="font-size: 0.8em; margin: 0;">Q-Scan may be appropriate if normal CXR <u>AND</u> No history of significant COPD otherwise CTPA</p> <p style="text-align: center; background-color: #d9e1f2; margin: 0;">Request scan on Medway</p> </div> <div style="border: 1px solid orange; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center; background-color: #fff2cc; margin: 0;">Any exclusion criteria to Ambulatory Care</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Severe Pain e.g. requiring Opiates</li> <li><input type="checkbox"/> Active bleeding</li> <li><input type="checkbox"/> High risk of Bleeding (Plts &lt; 75, GI Bleed &lt; 2/52)</li> <li><input type="checkbox"/> History of Intracranial bleed</li> <li><input type="checkbox"/> CKD 4 or 5 or severe liver disease</li> <li><input type="checkbox"/> Anticipated non-compliance</li> <li><input type="checkbox"/> History of HIT or Heparin Allergy</li> <li><input type="checkbox"/> Requiring Oxygen</li> </ul> </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>No <input type="checkbox"/></p> <div style="border: 1px solid black; padding: 5px; background-color: #d9e1f2; margin-bottom: 5px;"> <p style="text-align: center; background-color: #d9e1f2; margin: 0;">Simplified PESI (or Hestia if Cancer)</p> </div> <div style="display: flex; justify-content: space-between; font-size: 0.8em;"> <p>Score = 0</p> <p>Score ≥ 1 <input type="checkbox"/></p> </div> <div style="border: 1px solid orange; padding: 5px; margin-bottom: 5px;"> <p style="text-align: center; background-color: #fff2cc; margin: 0;">Sign of RV Dysfunction or related Myocardial Ischaemia</p> <p style="font-size: 0.8em; margin: 0;"><input type="checkbox"/> Add on Troponin I</p> </div> <div style="display: flex; justify-content: space-between; font-size: 0.8em;"> <p>Tnl normal <input type="checkbox"/></p> <p>Tnl raised <input type="checkbox"/></p> </div> </div> <div style="width: 5%; text-align: center;"> <p>Yes <input type="checkbox"/></p> </div> </div> <div style="border: 1px solid green; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center; background-color: #d9ead3; margin: 0;">SDEC CARE</p> <p style="font-size: 0.8em; margin: 0;">(Patients from ED to be triaged to Ward 1B mSDEC)</p> <ul style="list-style-type: none"> <li>Once request complete on Medway, contact radiology appointments and request for the form to be vetted and for a scan time to be provided. Patient to attend 1BAEC for cannula 30min prior to scan</li> <li>Provide patient information leaflet including contact numbers</li> <li>Patient to attend 1B AEC for review post scan.</li> </ul> </div>	<div style="border: 2px solid red; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center; background-color: #fff2cc; margin: 0;">If Haemodynamically unstable</p> <p style="text-align: center; background-color: #fff2cc; margin: 0;">Urgent Senior and Critical Care input</p> <p style="font-size: 0.8em; margin: 0;">Arrange CTPA Urgently (Urgent bedside ECHO if scan unavailable). When ‘Massive’ PE with haemodynamic instability suspected follow NICE NG 158 Guidelines and consider thrombolysis (see Post Scan Pathway)</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center; background-color: #d9e1f2; margin: 0;">WELL'S SCORE</p> <table style="width: 100%; font-size: 0.8em;"> <tr><td>Clinical signs and symptoms of DVT</td><td style="text-align: right;">+3</td></tr> <tr><td>Alternative diagnosis is less likely than PE</td><td style="text-align: right;">+3</td></tr> <tr><td>Heart Rate &gt; 100</td><td style="text-align: right;">+1.5</td></tr> <tr><td>Immobilization (&gt; 3/7 or Surgery &lt; 4/52)</td><td style="text-align: right;">+1.5</td></tr> <tr><td>Previous PE or DVT</td><td style="text-align: right;">+1.5</td></tr> <tr><td>Haemoptysis</td><td style="text-align: right;">+1</td></tr> <tr><td>Malignancy (on treatment, treated in the last 6 months, or palliative)</td><td style="text-align: right;">+1</td></tr> <tr><td><b>TOTAL SCORE (DOCUMENT SCORE IN NOTES)</b></td><td style="text-align: right;"><div style="border: 1px solid black; width: 40px; height: 20px; margin: 0;"></div></td></tr> </table> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center; background-color: #d9e1f2; margin: 0;">INTERIM ANTICOAGULATION</p> <p style="font-size: 0.8em; margin: 0;">*If a scan cannot be done immediately (within 1hr), offer interim therapeutic anticoagulation Offer Apixaban, Rivaroxaban or Enoxaparin</p> <p style="font-size: 0.8em; margin: 0;"><b>Apixaban:</b> 10mg BD till scan</p> <p style="font-size: 0.8em; margin: 0;"><b>Rivaroxaban:</b> 15mg BD till scan</p> <p style="font-size: 0.8em; margin: 0;"><b>Enoxaparin:</b> dose is 1.5mg/kg SC OD for uncomplicated DVT with low risk of recurrence or 1mg/kg BD in all other patients e.g. those with obesity, symptomatic PE, cancer, recurrent VTE or proximal DVT. In renal impairment with a CrCl of 15-30ml/min use 1mg/kg SC OD.</p> <p style="font-size: 0.8em; margin: 0;">Enoxaparin is not licensed for patients with CrCl &lt; 15ml/min. Get consultant input when using.</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center; background-color: #d9e1f2; margin: 0;">SIMPLIFIED PESI (sPESI) SCORE</p> <table style="width: 100%; font-size: 0.8em;"> <tr><td>Age &gt; 80 y</td><td style="text-align: right;">+1</td></tr> <tr><td>History of cancer</td><td style="text-align: right;">+1</td></tr> <tr><td>History of heart failure OR Chronic lung disease</td><td style="text-align: right;">+1</td></tr> <tr><td>Pulse ≥ 110 beats /min</td><td style="text-align: right;">+1</td></tr> <tr><td>Systolic blood pressure &lt; 100 mm Hg</td><td style="text-align: right;">+1</td></tr> <tr><td>SpO2 &lt; 90% on air</td><td style="text-align: right;">+1</td></tr> <tr><td><b>TOTAL SCORE (DOCUMENT SCORE IN NOTES)</b></td><td style="text-align: right;"><div style="border: 1px solid black; width: 40px; height: 20px; margin: 0;"></div></td></tr> </table> </div> <div style="border: 2px solid red; padding: 5px;"> <p style="text-align: center; background-color: #fff2cc; margin: 0;">INPATIENT CARE</p> <p style="font-size: 0.8em; margin: 0;">Triage to AMU/Respiratory Ward Record the required NEWS frequency Follow Post Scan PE pathway overleaf</p> </div>	Clinical signs and symptoms of DVT	+3	Alternative diagnosis is less likely than PE	+3	Heart Rate > 100	+1.5	Immobilization (> 3/7 or Surgery < 4/52)	+1.5	Previous PE or DVT	+1.5	Haemoptysis	+1	Malignancy (on treatment, treated in the last 6 months, or palliative)	+1	<b>TOTAL SCORE (DOCUMENT SCORE IN NOTES)</b>	<div style="border: 1px solid black; width: 40px; height: 20px; margin: 0;"></div>	Age > 80 y	+1	History of cancer	+1	History of heart failure OR Chronic lung disease	+1	Pulse ≥ 110 beats /min	+1	Systolic blood pressure < 100 mm Hg	+1	SpO2 < 90% on air	+1	<b>TOTAL SCORE (DOCUMENT SCORE IN NOTES)</b>	<div style="border: 1px solid black; width: 40px; height: 20px; margin: 0;"></div>
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<b>POST SCAN PATHWAY</b> <small>If CTPA negative and DVT suspected, please consider proximal leg vein ultrasound doppler</small>			
<div style="border: 1px solid #0070c0; padding: 5px; margin-bottom: 10px;"> <div style="text-align: center; font-weight: bold; color: red;">PE with Haemodynamic Instability</div> <p>Consider systemic thrombolytic therapy for patients with PE and haemodynamic instability (BP &lt; 90mmHg systolic despite adequate resuscitation) as per NICE NG 158 Guidelines. Do not offer systemic thrombolytic therapy to patients with PE and haemodynamic stability with or without right ventricular dysfunction</p> </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p style="text-align: center;">No <input type="checkbox"/> ↓</p> <div style="border: 1px solid #0070c0; padding: 5px; margin-bottom: 10px;"> <div style="text-align: center; font-weight: bold; color: #0070c0;">High Bleeding Risk</div> <p style="text-align: center;">No <input type="checkbox"/> ↓</p> <p>Start <b>Anticoagulation</b> for at least 3 months Refer to the Anticoagulation team on CareFlow with body weight and CrCl. Patients will need review in anticoagulation clinic at 3 months to decide duration</p> </div> <div style="border: 1px solid #0070c0; padding: 5px; margin-bottom: 10px;"> <div style="text-align: center; font-weight: bold; color: #0070c0;">Pregnant Patient</div> <p style="text-align: center;">No <input type="checkbox"/> ↓</p> </div> <div style="border: 1px solid #0070c0; padding: 5px; margin-bottom: 10px;"> <div style="text-align: center; font-weight: bold; color: #0070c0;">Patient with active Malignancy</div> <p style="text-align: center;">No <input type="checkbox"/> ↓</p> </div> <div style="border: 1px solid #0070c0; padding: 5px;"> <div style="text-align: center; font-weight: bold; color: #0070c0;">Any Contraindications to Ambulatory Anticoagulation</div> <ul style="list-style-type: none"> <li><input type="checkbox"/> PESI &gt; 0 (Consider Hestia criteria if ass with cancer)</li> <li><input type="checkbox"/> Any Exclusion criteria present               <ul style="list-style-type: none"> <li><input type="checkbox"/> Chest Pain requiring Opiates</li> <li><input type="checkbox"/> Active bleeding</li> <li><input type="checkbox"/> High risk of Bleeding (Plts &lt; 75, GI Bleed &lt; 2/52)</li> <li><input type="checkbox"/> History of Intracranial bleed</li> <li><input type="checkbox"/> Co-existing major DVT (Above knee)</li> <li><input type="checkbox"/> Anticipated non-compliance</li> <li><input type="checkbox"/> History of HIT or Heparin Allergy</li> <li><input type="checkbox"/> Pregnant</li> </ul> </li> <li><input type="checkbox"/> Evidence of RV Dysfunction (↑ RV:LV ratio / ECHO if Q-Scan performed)</li> <li><input type="checkbox"/> Evidence of Myocardial ischaemia (↑ Tnl)</li> </ul> </div> </div> <div style="width: 50%;"> <p style="text-align: center;">Yes <input type="checkbox"/> →</p> <div style="border: 1px solid #0070c0; padding: 5px; margin-bottom: 10px;"> <p>Consider <b>UFH</b> or consider <b>temporary IVC Filter</b> (a plan for removal <b>MUST</b> be formulated at time of insertion). Document the strategy and review it if the clinical situation changes.</p> </div> <div style="border: 1px solid #0070c0; padding: 5px; margin-bottom: 10px;"> <div style="text-align: center; font-weight: bold; color: red;">Refer to Obstetric team for review post scan</div> <p>3E Gynaecology Ward if &lt;13 weeks gestation OR 2E Maternity Ward if &gt;13 weeks gestation DOACs or VKA should NOT be used</p> </div> <div style="border: 1px solid #0070c0; padding: 5px; margin-bottom: 10px;"> <p>Offer people with active cancer and confirmed proximal DVT or PE anticoagulation treatment for 6 months, then review the treatment.</p> </div> <div style="border: 1px solid black; padding: 5px;"> <div style="text-align: center; font-weight: bold;">ANTICOAGULATION ADVICE</div> <p><b>Refer to Anticoagulation team for counselling</b> Offer anticoagulation with either Apixaban or Rivaroxaban for at least 3 months. For people who had an <b>unprovoked PE</b>, consider continuing anticoagulation treatment after 3 months.</p> <p>If neither Apixaban nor rivaroxaban is suitable offer:</p> <ul style="list-style-type: none"> <li>low molecular weight heparin (LMWH) for 5 days followed by Dabigatran or Edoxaban or</li> <li>LMWH concurrently with a vitamin K antagonist (VKA) for at least 5 days, or until the INR is at least 2.0 in 2 consecutive readings, then a VKA alone.</li> </ul> <p><b>Renal Impairment:</b> CrCl 15-50 ml/min offer one of Apixaban, Rivaroxaban or LMWH. If CrCl &lt; 15 ml/min, offer one of LMWH, UFH or LMWH and a VKA for at least 5 days, or until the INR is at least 2.0 in 2 consecutive readings, then a VKA alone.</p> <p><b>Active Cancer:</b> Consider a DOAC. If DOAC not suitable, LMWH or LMWH &amp; VKA</p> </div> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 45%;"> <p style="text-align: center;">No <input type="checkbox"/> ↓</p> <div style="border: 2px solid green; padding: 5px;"> <div style="text-align: center; font-weight: bold; color: green;">SDEC CARE</div> <p>Arrange further investigations (see across) and follow up at 3 months in AMU clinic and complete ICE discharge with likely cause and whether provoked / unprovoked</p> </div> </div> <div style="width: 45%;"> <p style="text-align: center;">Yes <input type="checkbox"/> ↓</p> <div style="border: 2px solid red; padding: 5px;"> <div style="text-align: center; font-weight: bold; color: red;">INPATIENT CARE</div> <p>Arrange appropriate investigations and triage to appropriate inpatient ward</p> </div> </div> </div>			
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