

MANAGEMENT OF SUSPECTED PULMONARY EMBOLISM IN ADULTS ON INITIAL PRESENTATION IN THE EMERGENCY DEPARTMENT

Ref No: 2704

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- Keywords** : PE, Pulmonary Embolism, Tinzaparin, SDEC, AMA, Well's score, sPESI, D-Dimer
- Comments** : **ABBREVIATIONS:**
sPESI: Simplified Pulmonary Embolism Severity Index
PE: Pulmonary embolism
SDEC: Same day emergency care
AMA: Ambulatory medical assessment

MANAGEMENT OF SUSPECTED PE IN ADULTS ON INITIAL PRESENTATION TO ED
(Children <18 years, pregnant/6 weeks post-partum and IVDU are excluded) *

Date:

Time:

Clinician:

Patient details:

Weight: <input style="width: 150px; height: 20px;" type="text"/>

Clinical Feature	Points	Patient Score
Clinical signs and symptoms of DVT (minimum of leg swelling and pain on palpating deep veins)	3	
An alternative diagnosis is less likely than PE	3	
Heart Rate >100bpm	1.5	
Immobilisation for more than 3 days or surgery in the last 4 weeks	1.5	
Previous DVT / PE	1.5	
Haemoptysis	1	
Malignancy (on treatment, treatment in the last 6 months or palliative)	1	
Clinical Probability Simplified Score	Total score:	
PE Likely	>4	Proceed Step 2
PE Unlikely	4 or less	D-Dimer test

STEP: 1

Clinically suspected PE (Two-level PE well's score)

D-Dimer <500: not for PE pathway. Evaluate for alternative diagnosis

D-Dimer >500: proceed to **step 2**

STEP: 2

Simplified PE Severity Index (PESI) Score

	Yes=1/No=0	Score
Age >80 years	1/0	
History of cancer	1/0	
History of chronic cardiopulmonary disease	1/0	
Heart rate >= 110/mint.	1/0	
Systolic BP <100 mm Hg	1/0	
O2 Saturation <90%	1/0	
		Total Score:
Patients with a score of 0 are determined to be LOW risk		Proceed to Step 3
Patients with a score of >0 are determined to be HIGH risk		Admit Medics

sPESI>0: Refer to **medical team/AMA** for admission as appropriate.

sPESI= 0 and no **EXCLUSION** criteria (page 2): proceed to **STEP 3**

Exclusion criteria: *

- Active bleeding or risk of major bleeding (eg, recent gastrointestinal bleed or surgery within last 14 days, Stroke within the preceding 10 days, Platelet < 75, previous intracranial bleeding, angiodysplasia, uncontrolled hypertension).
- On full-dose anticoagulation (INR 2 or above) at the time of the PE.
- Severe chest pain (eg, requiring opiates).
- Obesity (weight > 150kg) or other medical comorbidities requiring hospital admission.
- Chronic kidney disease stages 4 or 5 (eGFR < 30 mL/min) or severe liver disease.
- Heparin-induced thrombocytopenia within the last year.
- Social reasons which may include inability to return home, inadequate care at home, lack of telephone communication, concerns over compliance etc.

STEP: 3

- a) Referral for SDEC 9am to 9pm (Monday to Saturday)
- b) Ref to AMU co-ordinator for next day SDEC (Mon to Sat: 9pm to 9am and Sunday) appointment.
- c) ECG and CXR
- d) FBC, U+E, LFT, COAG
- e) Tinzaparin treatment dose s/c stat in ED and TTO as applicable.
- f) Analgesics prescription if needed
- g) Advice to return to ED if shortness of breath or increasing pain
- h) Information leaflet to be given to patient on discharge from ED

***Ref:** British Thoracic Society Guideline for the initial outpatient management of pulmonary embolism. Luke S Howard et al. BMJ Open Res 2018;5:e000281.

Pre-discharge checklist: please tick the box

1. Tinzaparin treatment dose administered in ED
2. AMU/SDEC co-ordinator informed and documented
3. Completed signed pathway and copy of notes to be kept in ED PE folder.
4. Information leaflet to be given to the patient
5. Telephone no of the patient to be recorded in patient details

Plan reviewed

Doctor (reg/MG/consultant)

Signature:

Name:

Checklist reviewed

Nurse Co-ordinator

Signature:

Name:

TINZAPARIN DOSE SCHEDULE

This can be found on the intranet – [Tinzaparin RSH only – Ref: 3685](#)

PATIENT INFORMATION ADVICE FOR SUSPECTED PE, FOR ASSESSMENT IN SDEC :

1. Your assessment today in emergency department suggests the possibility of having blood clot in your lung. However, you need further assessment to confirm or exclude the diagnosis.
2. You need to attend **SDEC** on _____ for further assessment and management of your current clinical condition.
3. You have been given injection of single dose of Tinzaparin ----- - iu to thin your blood.
4. Should you have any queries, please call switchboard and ask for extension to SDEC (RSH 01743261000 ext. 2692 / PRH 01952641222 ext. 4856).
5. **Call 999/attend ED if you experience shortness of breath /feeling dizziness or faint like / worsening chest pain/coughing up blood or unwell.**