ED Pathway for Suspected PE in Pregnancy/Puerperium*

*6 weeks post-partum

Symptoms and signs
- Dyspnoea (may be sudden onset)
- Pleuritic chest pain
- Haemoptysis
- Syncope*
- Tachypnoea (RR>20)
- Low grade fever
- Pleural rub
- Tachycardia (>100bpm)
- Hypoxia (sats <90% on air)*

Risk factors
- PMH and/or FH of VTE
- Obesity
- Immobility (bedridden ≥ 3 days)
- Increasing age
- Malignancy (treatment/palliation within last 6 months)
- Hyperviscosity syndromes (myeloma, polycythaemia vera, essential thrombocythaemia, CML)
- Thrombophilia
- Post orthopaedic/neurosurgery (within last 12 weeks)

Investigations

Bloods – FBC, U&E, LFT, PT/INR, aPTT, Fgn
CXR – *unless a DVT is suspected*
ECG – *sinus tachycardia, features of right heart failure/strain (S1Q3T3, new RBBB, RAD, p pulmonale)**
ABG – *if sats <90% on air**

***HIGH RISK FEATURES?**
- Haemodynamic instability (BP≤90 mmHg)
- Hypoxia
- Syncope
- Features of right heart failure or strain

YES → **Senior review in ED**

Contact medical take SpR on 2223

For acute obstetric concerns, contact on-call obs/gynae reg via BWH switchboard

NO

Is there also clinically suspected DVT?

YES

If clinical suspicion of DVT start anticoagulation immediately with enoxaparin BD dosing (see blue box to the left)

Follow the 'ED Pathway for suspected DVT'

NO

If clinical suspicion of PE, start anticoagulation immediately with enoxaparin BD dosing (see blue box to the left)

CXR normal or abnormal?

NORMAL

ABNORMAL

Sunday 1600 to Friday 1600

Friday 1600 to Sunday 1600

½ dose Q scan

CTPA

Out of hours i.e. Monday to Thursday after 1600

In working hours i.e. Monday to Friday between 0800-1600

Is patient safe to go home overnight for return next morning?

NO

Continue anticoagulation
- Ensure enoxaparin BD is prescribed on regular meds

YES

Submit PICS request for next-day V/Q scan
- Specify 'for next working day' and pregnancy gestation age/post-partum period
- The following clinical details **MUST** be included to meet vetting criteria by NM technicians:

1. **≥ 2 features in blue** *and*
2. **Explicit documentation of normal CXR within last 48 hours**

Book in SDEC returners book for next working day 08:45 (SDEC navigator 14293)
- Ensure CXR within last 48 hours, ECG and baseline bloods are complete and available

On discharge, provide patient with
- Letter specifying to return to SDEC next working day at 08:45
- TTO for enoxaparin BD to cover for interim period
- Safety net advice

Submit PICS request for V/Q scan
- Specify pregnancy gestation age/post-partum period
- The following clinical details **MUST** be included to meet vetting criteria by NM technicians:

1. **≥ 2 features in blue** *and*
2. **Explicit documentation of normal CXR within last 48 hours**

Arrange transfer to SDEC (SDEC navigator 14293)
- Ensure CXR within last 48 hours, ECG and baseline bloods are complete and available

Continue anticoagulation
- Ensure enoxaparin BD is prescribed on regular meds

Submit PICS request for CTPA
- Specify pregnancy gestation age/post-partum period
- Include justification for CTPA over V/Q scan:
  - **Out of hours, and/or**
  - **Abnormal CXR with explicit documentation of findings**

Arrange transfer to SDEC (SDEC navigator 14293)
- Ensure CXR within last 48 hours, ECG and baseline bloods are complete and available

Anticoagulation for VTE in pregnancy

•If high clinical suspicion of PE or DVT, start anticoagulation with enoxaparin immediately

• Do not wait for results of bloods to start

•Do **NOT** perform D-dimer testing or thrombophilia screen

Dose
- Based on **pre-pregnancy booking weight**, except if suspected significant weight change

Pre-pregnancy booking weight	Enoxaparin dose
≤ 50 kg	40mg BD
50-69kg	60mg BD
70-89kg	80mg BD
≥ 90kg	100mg BD

- Speak to on-call haematologist if ANY of the following:
  - Current weight > 126kg
  - GFR < 30ml/min or creatinine > 150
  - High risk e.g. mechanical heart valve, breakthrough thrombosis

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- Hyperviscosity syndromes (myeloma, polycythaemia vera, essential thrombocythaemia, CML)
- Thrombophilia

Investigations

Bloods – FBC, U&E, LFT, PT/INR, aPTT, Fgn

CXR – *unless a DVT is suspected*

ECG – *for features of right heart strain**

ABG – *if sats <90% on air**

***HIGH RISK FEATURES?**
- Haemodynamic instability or shock
- Hypoxia
- Syncope
- Features of right heart failure or strain

YES → **Senior review in ED**

Contact medical take SpR on 2223

For acute obstetric concerns, contact on-call obs/gynae reg via BWH switchboard

NO → **Calculate PE Well's score**

Alternative diagnoses for PE Wells score:

Consider based on clinical history, examination, investigations
Note in some cases, PE may still be present alongside alternative diagnosis – use clinical judgment.
- Pneumonia
- Pneumothorax
- Acute coronary syndromes
- Aortic dissection
- Cardiac tamponade
- Exacerbation of asthma/COPD
- Viral pneumonitis e.g. COVID
- Pleural effusion
- Collapse

Calculate PE Well's score

> 4

- Commence anticoagulation with **apixaban 10mg BD** if no contraindications
- Send D dimer prior to anticoagulation

Calculate sPESI score

≥ 1 → **Discuss with senior Admit under medicine if appropriate**

0 → Suitable for SDEC

Weekday after 1600, or weekend → **Arrange return to SDEC for CTPA next working day**
- Book in SDEC returners book for next working day 08:45 (SDEC navigator 14293)
- Ensure CXR, ECG and bloods are complete and available

Request CTPA on PICS
- Include 'for next/specified day CTPA'
- CXR within last 48 hours **must** be available

Weekday before 1600 → **Arrange transfer to SDEC**
- Ensure CXR, ECG and bloods are complete
- Ensure anticoagulation has been started
- Request CTPA on PICS

Discharge patient, providing:
- Letter specifying to return to SDEC next working day at 08:45
- TTO for apixaban 10mg BD for 7 days, 5mg BD thereafter – give enough cover for interim period
- Safety net advice

≤ 4

Estimate clinical suspicion of PE including likelihood of alternative DDx being equally or more likely

Moderate to high suspicion → **Send D dimer**

D dimer +ve → Commence anticoagulation with **apixaban 10mg BD** if no contraindications → **Calculate sPESI score**

0 → Suitable for SDEC

≥ 1 → **Discuss with senior Admit under medicine if appropriate**

D dimer -ve → **PE unlikely**
- Consider alternative DDx +/- suitability for discharge from ED

Low suspicion → **Use PERC rule out criteria**

PERC positive (≥ 1) → **Send D dimer**

PERC negative (0) → **PE unlikely**
- Consider alternative DDx +/- suitability for discharge from ED