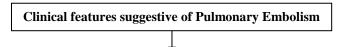
15. Pulmonary Embolism Algorithm

This clinical pathway is intended to supplement, rather than substitute for, professional judgment and may be changed depending upon a patient's individual needs. Failure to comply with this pathway does not represent a breach of the standard of care.

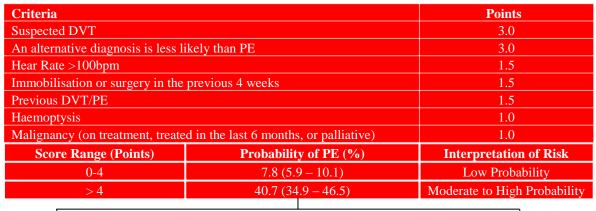


- Monitor, support ABCs in **Resuscitation room** (ER). Be prepared to provide CPR, Defibrillation and ?Thrombolysis¹
- Obtain/review 12-lead ECG Consider ACS See 12. STEMI Algorithm

Features of PE on ECG; Sinus Tachycardia, T wave inversion in III & V1, V3 or S1, Q3, T3 pattern. A normal ECG can be seen in 30% of patients

- Check vital signs (BP, PR, RR, SPO₂, T°C, **RBS**)
- Start Oxygen IF SPO₂ < 94% or if patient is dyspnoeic. Maintain SPO₂ ≥ 94%
- Establish IV Access and send blood samples for FBC, UEC, VBG, Coagulation screen & hsTroponin T (See 13. NSTEMI/UA Algorithm for interpretation)
- Perform brief, targeted history, physical exam

Clinical Gestalt or Validated clinical decision support tool (Wells score)



• Begin anticoagulation

• Admit to ICU

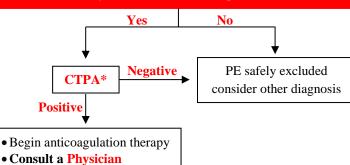
Consider Thrombolysis¹

Haemodynamically stable, Low Probability for PE

Pulmonary Embolism Rule-Out Criteria (PERC)

- 1. Is the patient > 49 years of age?
- 2. Is the pulse rate > 99 beats per minute?
- 3. Is the pulse oximetry reading < 95% while the patient breathes room air?
- 4. Is there a present history of haemoptysis?
- 5. Is the patient receiving exogenous oestrogen?
- 6. Does the patient have a prior diagnosis of venous thromboembolism?
- 7. Has the patient had recent surgery or trauma requiring endotracheal intubation or hospitalization in the previous 4 weeks?
- 8. Does the patient have unilateral leg swelling (visual observation of asymmetry of the calves)?

Any of the above criteria present?



- ¹Indications for Thrombolysis in PE (rule out contraindication to Thrombolysis)
- Cardiac Arrest
- SBP <90 mmHg for >15 minutes, if not caused by new-onset arrhythmia, hypovolaemia, or sepsis

Streptokinase	250 000 IU over 30 minutes then 100 000 IU/h over 12–24 hours
	Accelerated regimen: 1.5 million IU over 2 hours
Alteplase	100 mg over 2 hours; or
	Cardiac Arrest: 50mg IV bolus

* Compression ultrasound of lower extremities can be performed as the initial diagnostic imaging modality in any of the following situations;

PE safely

excluded

consider

diagnosis

other

Negative

Begin anticoagulation therapyAdmit to ICU or floor as indicated

CTPA*

Positive

Moderate to High Probability for PE

Shock or Hypotension?

Administer IV fluids

& resuscitate. Shock

corrected following

initial resuscitation?

or Hypotension

- patients with obvious signs of deep vein thrombosis (DVT) for whom venous ultrasound is readily available
- patients with relative contraindications for CT scan (e.g., borderline renal insufficiency, CT contrast agent allergy)
- in pregnant patients

Bedside Echocardiogram

Presence of RV dilatation, septal

shift, or right heart thrombus?

 patients with a moderate to high clinical risk of PE with a negative or inconclusive CTPA or an inconclusive V/Q scan.

A **positive finding** in a patient with symptoms consistent with PE can be considered evidence for diagnosis of VTE disease and potentially eliminate the need to expose the patient to the radiation from either a CTPA or V/Q scan.