

Clinical Guideline for Pulmonary Embolism (PE)

Use Pulmonary Embolism Rule Out Criteria (PERC) rule to determine whether patient requires work-up for PE

PERC RULE
 Further diagnostic testing is not needed if:
 1. Physician has a low clinical gestalt for pulmonary embolism ($\leq 15\%$)
 2. All of the following are present:
 a. Age ≤ 50
 b. HR ≤ 100
 c. O2 sat $\geq 94\%$
 d. No Prior history of DVT/PE
 e. No Recent Trauma or Surgery
 f. No Hemoptysis
 g. No Exogenous Estrogen
 h. No Clinical Signs suggesting DVT

Well's Score
 3.0 Suspected DVT
 3.0 Alternative Dx less likely than PE
 1.5 Heart rate ≥ 100
 1.5 Immobilization or surgery ≤ 4 wks
 1.5 Previous DVT/PE
 1.0 Hemoptysis
 1.0 Malignancy (treated last 6 mos., or palliative)

Determine pretest probability

Wells score ≤ 4

Wells score > 4

D-dimer

> 500

< 500

Abort work up

Imaging

Contraindications to C/T?

Yes

No

Appropriate for V/Q

CTA-CTV or CTA

No

Yes

pos

neg

Treat as PE or consider angio if high risk for anti-coag

V/Q Scan

Treat for PE

Abort work up unless high clinical suspicion for PE*

Int or high prob + Wells ≤ 4

Low prob + Wells ≤ 4

Low, int or high prob + Wells ≥ 4

Normal

Treat as PE or consider formal angiography if high risk for anticoagulation

No Treatment

Treat as PE or consider formal angiography if high risk for anticoagulation

No Treatment

*If patient has a high pretest probability and poor quality or no lower extremity imaging for deep venous thrombosis, consider obtaining lower extremity doppler. If negative, discharge patient and consider repeat lower extremity doppler within 7 days

This guideline was ratified by the emergency department faculty at Maine Medical Center in August 2010. It reflects our expert opinion and is not necessarily applicable to all institutions. It is intended to be a reference for clinicians caring for patients and is not intended to replace providers' clinical judgment.