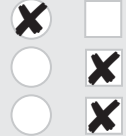


# Pulmonary Embolism Evaluation Guidelines

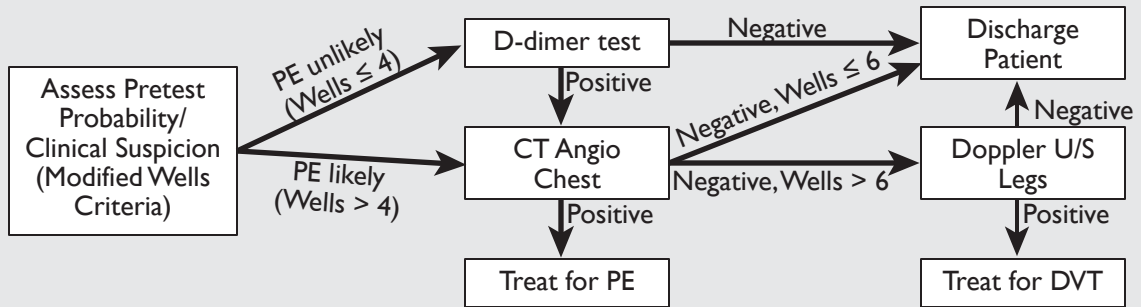
not part of medical record

Circles: mark one and only one.  
Squares: mark one, many, or none.



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## Overview



## I. Assess Pretest Probability for Pulmonary Embolism

Modified Wells Criteria

### Points

<input type="checkbox"/>	+3
<input type="checkbox"/>	+1.5
<input type="checkbox"/>	+1.5
<input type="checkbox"/>	+1.5
<input type="checkbox"/>	+1
<input type="checkbox"/>	+1
<input type="checkbox"/>	+3

- +3 Clinical deep venous thrombosis (DVT): objective tenderness or swelling**
- +1.5 Heart rate >100 beats/min**
- +1.5 Immobilization >3 days or major surgery within 4 weeks**
- +1.5 Previous DVT or pulmonary embolism (PE)**
- +1 Hemoptysis**
- +1 Malignancy**
- +3 PE as likely, or more likely than alternative diagnosis**

>6: PE highly probable

>4: PE likely

≤4: PE unlikely

**Modified Wells Score Total**

## II. Testing Strategy

Wells Score ≤ 4  
order D-dimer

Negative D-dimer  Discharge patient

Positive D-dimer  CT angiogram of chest (CTA)\*

Wells Score > 4  
order CT angiogram of chest (CTA)\*

Positive CTA  Treat for PE

Wells Score ≤ 6  Discharge patient

Negative CTA  Lower extremity ultrasound (US)

Positive US  Treat for DVT  
Negative US  Discharge patient

\*A standard radiology emergency dye allergy protocol is hydrocortisone (Solu-Cortef) 200 mg 4 hours prior and diphenhydramine (Benadryl) 50 mg 1 hour prior to contrast.

**Pregnant women** of all gestational ages:

- may screen with US prior to CTA
- perform CTA instead of VQ scan unless other reason to perform VQ scan (e.g., elevated creatinine)
- if CTA done in first trimester, have patient inform obstetrician about risk of neonatal hypothyroidism.

\*\*For pregnant patients in first trimester, Wells Score ≤4, negative d-dimer still reliably excludes PE. In second or third trimester, go directly to CTA.

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Kline JA, Williams GW, Hernandez-Nino J. D-dimer concentrations in normal pregnancy: new diagnostic thresholds are needed. Clin Chem 2005;51:825-9.

Matthews S. Short communication: imaging pulmonary embolism in pregnancy: what is the most appropriate imaging protocol? Br J Radiol 2006;79:441-4.