1. Wells Score:
- No better alternative dx (3 pts)
- Symptoms of DVT (3 pts)
- HR > 100 (1.5 pts)
- Immobilization > 3d or surgery in <4 wks (1.5 pts)
- Hx of DVT or PE (1.5 pts)
- Hemoptysis (1 pt)
- Malignancy (1 pt)

**PE risk: Unlikely ≤4, Likely >4**

2. PERC – negative if all true
- Age < 50
- HR < 100 bpm
- SpO2 > 95%
- No hemoptysis
- No estrogen use
- No h/o DVT/PE
- No unilateral leg swelling
- No surgery/trauma within last 4 weeks

3. Hemodynamically stable
- SBP >90mmHg

4. Age Adjusted D-Dimer if ≥ 50 yrs old
- Calculated as age*10
  Ex: 88 y/o threshold for excluding VTE is <880 ng/ml

5. CT-PA Candidate?
- If low eGFR or severe contrast allergy consider V/Q scan, LE duplex or MRE-PE

6. Anticoagulation
- Start IV heparin if patient is at risk for or meets submassive/massive PE criteria. If no evidence of submassive or massive PE, consider LMWH for patients with active malignancy and CrCl >30ml/min or DOAC for patients without active malignancy and CrCl >30ml/min

7. Pulmonary Embolism Severity Index (PESI)

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic characteristics</td>
<td>Age + 1 per year</td>
</tr>
<tr>
<td>Age &gt; 80 years</td>
<td>–</td>
</tr>
<tr>
<td>Male sex</td>
<td>10</td>
</tr>
<tr>
<td>Comorbid Illnesses</td>
<td></td>
</tr>
<tr>
<td>Cancer (active or history of)</td>
<td>30</td>
</tr>
<tr>
<td>Heart failure (systolic or diastolic)</td>
<td>10</td>
</tr>
<tr>
<td>Chronic lung disease (includes asthma)</td>
<td>10</td>
</tr>
<tr>
<td>Clinical findings</td>
<td></td>
</tr>
<tr>
<td>Pulse ≥ 110/min beats per min</td>
<td>20</td>
</tr>
<tr>
<td>Systolic blood pressure &lt; 100 mmHg</td>
<td>30</td>
</tr>
<tr>
<td>Respiratory rate ≥ 30 breaths per min</td>
<td>20</td>
</tr>
<tr>
<td>Temperature &lt; 36 °C</td>
<td>20</td>
</tr>
<tr>
<td>Altered mental status</td>
<td>60</td>
</tr>
<tr>
<td>Arterial oxygen saturation &lt; 90%f</td>
<td>20</td>
</tr>
</tbody>
</table>

Scoring: sum patient’s age in years and points for each prognostic variable. Scores and risk of 30-day mortality:
- Class I: Very Low ≤ 65
- Class II: Low 66 – 85
- Class III: Mod 86–105
- Class IV: Mod 106–125
- Class V: Very High > 125

**Patients with 85 points or less (Classes I and II) are considered low risk.**

8. Consider activation of Modified PERT (PE Response Team) prior to TTE
- To discuss if TTE can be delayed until business hours (M-F 8am-4:30pm) if the patient is clinically stable or low likelihood to give thrombolysis

9. STAT TTE
- Place order in ORCA
  AND
- Call Echo Lab at 8-7000 during business hours (M-F 8am-4:30pm) or page Echo Fellow during non-business hours
10. PERT (PE Response Team)

**Modified PERT Activation, Dial 222**

Phone Call with
- Primary Clinician
- Pulmonary Consult (Consult SCCA Pulm if SCCA patient with cancer. Consult Gen Pulm if not an SCCA patient)

**Full PERT Activation, Dial 222**

Bedside Meeting with:
- Primary Attending (may join by phone)
- MICU Attending/Nocturnist
- ECMO Consult (may join by phone)
- STAT Nurse
- IR Attending (may join by phone)
- ICU Pharmacist

11. Thrombolytics
- If patient has active malignancy, obtain head CT prior to giving thrombolytics

12. Massive PE
- In a rapidly decompensating patient, orders for alteplase (code dose 50mg IV x 3min or 100mg IV over 2hrs if pulse) should be written while enacting a Full PERT. Alteplase is not a contraindication to ECMO.

**Glossary**

CT PA – CT Pulmonary Angiogram
Trop I – Troponin I
BNP – Brain Natriuretic Peptide
POC US – Point-of-care Ultrasound
TTE – Transthoracic Echocardiogram
IV UFH - Intravenous Unfractionated Heparin
DOAC – Direct Oral Anticoagulant (e.g. Rivaroxaban, Dabigatran)
LMWH – Low Molecular Weight Heparin (e.g. Enoxaparin)
rtPA – Recombinant Tissue Plasminogen Activator
CDT – Catheter Directed Thrombolysis (mechanical or chemical)