Approach to Pulmonary Embolism
7/2/2017

Pulmonary embolism (PE) results when an embolus (most commonly from leg veins) travels to the pulmonary vessels, become lodged, and cause infarct of lung tissue

**Symptoms:** Shortness of breath, chest pain, lightheadedness, syncope

**Signs:** tachycardia, tachypnea, hypotension, hypoxia, EKG changes

**PE Pathway** (Diagnostic Approach):

1) If a patient has **any** sign or symptom of PE, then it must be considered! (yes, this is like half of ED patients)
2) **Exclude people with clear alternate cause** of their manifestation
3) **Calculate the Well’s Score** (low, medium, high risk)
   a. **Low risk patients** -> **See if patient meets any PERC criteria**, if not, no further PE workup needed
4) **Get a D-Dimer if:**
   a. Low Well’s score and meet 1+ PERC criteria
   b. **Medium Well’s score**
5) **Get a CTA if:** elevated D-Dimer or high Well’s Score

**Quick Facts**

- PE is the most missed and over tested diagnosis in the ED
- A young healthy person may have SoB on exertion that improves with rest
- **Know the S1Q3T3 EKG pattern** (deep S in lead I, Q wave and T wave inversion in III)
- **Get the MD Calc phone app** and never forget a clinical tool criteria again!
- **Patient’s with PE need anticoagulation**! Type + duration depends on the cause of their PE’s and other medical history
- Bilateral leg ultrasound is NOT sensitive enough to rule out PE!