

# Podcast Questions – tPA in PE

## Pre-podcast questions

1. Which of the following is the proper dosing of tPA for use in pulmonary embolism?
  - a. 0.9mg/kg (max 90mg) over 2 hours
  - b. 60mg over 1 hour, then 20mg over the second hour, then 20mg over the third hour
  - c. 100mg over 2 hours
  - d. 15mg bolus, then 50mg over 30 minutes, then 35mg over 1 hour

**Answer:** C. 100mg infused over 2 hours

**Rationale:** 100mg infused over 2 hours is the proper dosing when tPA is being used for pulmonary embolism. Option A is dosing for use in stroke. Options B and D are dosing regimens for use in myocardial infarction.

**Objective:** Recommend proper dosing of tPA for a patient with pulmonary embolism.

2. Which of the following would be a contraindication to a patient receiving tPA?
  - a. History of spinal surgery 6 months prior
  - b. History of stroke 4 years prior
  - c. History of peptic ulcer disease, diagnosed and treated 3 months prior
  - d. History of severe, uncontrolled diabetes, last HbA1c 12.3%

**Answer:** b. History of stroke 4 years prior

**Rationale:** Using tPA for pulmonary embolism is contraindicated for patients with any history of CVA and is not dependent on the time since last incident. Answer A would be a contraindication if it were recent surgery, within 2 months. Answer C would be a contraindication if PUD is currently active only. Presence or control of diabetes does not present any contraindications as in answer D.

**Objective:** Recognize contraindications to using tPA for pulmonary embolism

## Post-podcast questions

3. Which patient would benefit most from using tPA when presenting with pulmonary embolism (PE)?
- A history of recurrent PEs
  - Systolic BP <90mm Hg
  - PE seen bilaterally on CT scan
  - A history of heparin induced thrombocytopenia

**Answer:** b. Systolic BP <90mm Hg

**Rationale:** Patients with hemodynamic instability (systolic BP <90mm Hg) may benefit most from tPA. Answer A history of recurrence alone does not set a basis for treatment. Answer C (bilateral PEs) on its own is not an indication for tPA either. Answer D patients with a history of HIT alone does not necessitate treatment.

**Objective:** Select patients who may benefit from tPA use in pulmonary embolism.

4. Which of the following is the most appropriate monitoring parameter after 24 hours if a patient had been given tPA to treat a pulmonary embolism?
- Improvement of pain and shortness of breath
  - Normalization of D dimer
  - Improvement in left ventricular dysfunction on ECHO
  - Development of "Red Man Syndrome" during infusion

**Answer:** A. Improvement of pain and shortness of breath

**Rationale:** Improvement of pain and shortness of breath at 24 hours is a key monitoring parameter. Answer B normalization of D dimer would be unlikely to be seen at 24 hours and elevated D dimer is not necessarily indicative of PE resolution. Answer C improvement would be seen in right ventricular dysfunction, not left. Answer D Red Man Syndrome is not associated with tPA administration.

**Objective:** Suggest lab and clinical monitoring parameters for patients receiving tPA.