

**Making a Mark
Question Template**

Grid ItemName and Number: Airway 1

Type: Emergent / Urgent / Elective

Brief Title of Question: A 73-year-old male with a recent tracheal tear and acute respiratory failure.

Objective(s) of the question:

1. To demonstrate an understanding of the principles involved in dealing with a recent tracheal injury.
2. To deal with a difficult airway and outline a range of options.
3. To take measures to minimize the stress of securing the airway in a patient with a recent MI and CHF.

Opening Scenario:

A 73-year-old male had an MI and cardiac arrest 5 days ago. When he was resuscitated he suffered a tracheal tear from a traumatic intubation. The tear was repaired by a thoracic surgeon. The patient is now in CCU and was extubated this morning. The CCU resident calls you as she thinks the patient is not doing well and requires reintubation. "What would you do?"

If applicable, Critical Features for the response to Opening Scenario (i.e. Initial assessment of patient)

Must recognize the urgency of the situation.
Should outline the concerns re: acute respiratory failure in a patient with an acute MI.
Should consider the potential difficulties associated with securing this airway if required.

Major points of additional information to be provided to the candidate: Hx, Px, Labs, X-ray, consults etc.

The patient had an anterior MI complicated by pulmonary edema that is now resolving. Rx furosemide, enalapril.
The tracheal tear was in the posterior tracheal membrane 2 cm below the cords and was 2 cm in length.
He appears diaphoretic, fatigued and in respiratory distress with stridor.
SpO2 92% on O2 8 litres/min. By mask; HR 96, RR 24, BP 160/85; bibasilar creps.
EKG - acute anterior MI; CXR - cardiomegaly, increased vascular markings and residual subcutaneous emphysema.
"Why do you think this patient has respiratory distress and what are you going to do?"

Airway 1

Major decision points (decision points or options which must be recognized by the candidate for the question to proceed)	
1.	Should have appropriate DDX for the respiratory failure including upper airway edema, tracheal narrowing (edema, repair, tear).
2.	Must recognize that intubation is required.
3.	Must recognize that 'blind' intubation is contraindicated in this patient.

<i>If applicable, Critical Features for the response to Major Decision Points (i.e. Problem Solving Ability or Application of Knowledge)</i>	
(Problem Solving Ability)	
Ability to come up with a plan of action:	
1.	Must choose an intubation technique that avoids further tracheal injury.
2.	Should consider having a thoracic or ENT surgeon available.
Ability to prioritize conflicting problems:	
1.	Must recognize the importance of maintaining an awake, spontaneously-breathing patient while trying to minimize the risk of further myocardial ischemia.
(Application of Knowledge)	
Ability to justify plan:	
1.	Must recognize the risk of inducing further tracheal injury. (Candidate fails if first option is direct laryngoscopy and 'blind' insertion of ETT.)
Ability to apply pharmacology:	
N/A	

Any follow-up information required to lead to the end of the question
Attempts at securing the airway by either direct laryngoscopy or FOB fail and the patient's condition worsens. Visualization of the glottis (by whatever means) reveals significant supraglottic edema.
"What do you do now?"

<i>If applicable, Critical Features for the response to Follow-up Information</i>
1. Must outline additional options for securing the airway including a surgical airway.

Complexity of question				
Too simple <input type="checkbox"/>	Low complexity <input type="checkbox"/>	Moderate complexity <input type="checkbox"/>	High complexity <input type="checkbox"/>	Too complex <input type="checkbox"/>