

## HISTORY FINDINGS

- **Shortness of breath:** Sudden onset
- **Chest pain**
- **PMHx :** Underlying lung disease, especially bullous conditions such as emphysema, history of previous pneumothorax

## EXAMINATION FINDINGS

- **Appearance:** May have typical slim and tall phenotype
  - Associated with spontaneous pneumothorax
- **Physical observation:** High RR / reduced SaO<sub>2</sub> / +/- Tachycardia
- **Trachea:** +/- Deviated (Tension pneumothorax)
- **Auscultation:** Decreased air entry over affected side
- **Percussion:** Hyper-resonant over affected side

## INVESTIGATION FINDINGS

- **CXR:** Lung markings not extending to thoracic edges
  - Size of pneumothorax = interpleural distance at level of hilum
  - +/- tracheal / mediastinal deviation (Tension pneumothorax)
- **Bloods:** Ensure FBC / Clotting done as patient may require aspiration or drain

## MANAGEMENT

Call Senior for any patient with confirmed or suspected pneumothorax

Tension Pneumothorax

Non-tension Pneumothorax

CALL FOR HELP  
GET CRASH TROLLEY

Oxygen titration

- High flow

Oxygen titration

- High flow
- SaO<sub>2</sub> 88-92% CO<sub>2</sub> retainer

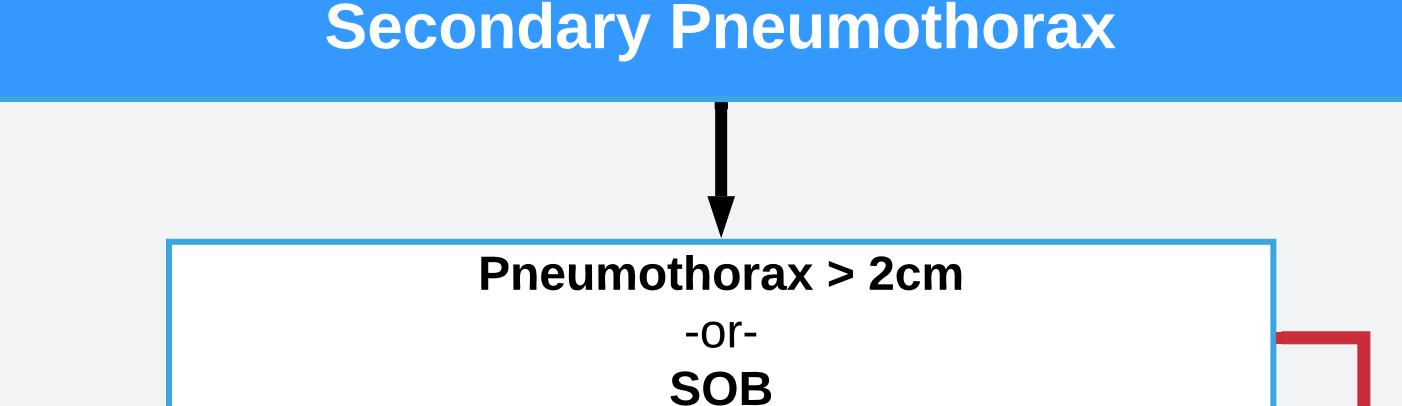
Aspiration

- Large bore cannula
- 2nd intercostal space
- Mid-clavicular line

Chest drain

+/- Aspiration  
+/- Chest drain

## CHEST DRAIN / ASPIRATION INDICATIONS



## Primary Pneumothorax

Pneumothorax > 2cm  
-or-  
SOB

YES

Aspirate

Pneumothorax reduced < 2cm  
-and-  
Breathing improved

NO

Monitor

NO

Chest drain

YES

↓

YES

Aspirate

Pneumothorax reduced < 1cm  
-and-  
No SOB

NO

YES

↓

YES

Monitor

NO

Chest drain

## Secondary Pneumothorax

Pneumothorax > 2cm  
-or-  
SOB

NO

Pneumothorax 1-2cm  
-and-  
No SOB

YES

Aspirate

Pneumothorax reduced < 1cm  
-and-  
No SOB

NO

YES

↓

YES

Monitor

NO

Chest drain

YES

↓