**Success/stability**

**Worsening**

Small pneumothorax (<3 cm from chest apex to lung edge)

- Observation alone

- **Hour 2-6 re-evaluation**
  - CXR + clinical examination

  - **Worsening**
    - Drain + Valve ± discharge*

  - **Success/stability**
    - Observation pursued ± discharge*

- **Day 1-3 assessment**
  - CXR + clinical examination ± water seal device/Heimlich monitoring

  - **Success/stability**
    - Observation pursued or catheter withdrawal + discharge*

  - **Failure/worsening**
    - Consider 20-28 F catheter + suction + admission

- **Daily Follow-up**
  - Clinical evaluation + pleural drainage system/Heimlich monitoring

  - **Success**
    - Suction stopped after 24 h

  - **Failure after 48 h**
    - discuss surgery

Large pneumothorax (>3 cm from chest apex to lung edge)

- or breathlessness
- Small bore catheter + Heimlich valve

- **Observation pursued**

- **CXR & re-evaluation**

  - **Worsening**
    - Suction + admission

- **Success/stability**
  - Catheter + valve ± discharge*

- **Day 7-14 visit**
  - CXR + clinical examination

- **Healing**
  - Success confirmed

- **Early Relapse**
  - Thoracoscopic treatment

**Discharge criteria**

1. Patient stable
2. Lives within 1 hr travel time
3. Patient does not live alone
4. Patient understands & can implement instructions

**Primary Spontaneous Pneumothorax Management**

**Participants:** thoracic surgery, emergency medicine, thoracic radiology 4/16

**Principles:**
Avoid unnecessary pain/admission/procedures for patients  
Stable small pneumothoraces do not need chest tube  
If pt with questionable home situation, pain or anxiety, ok to admit even without chest tube  
Early identification of patients who would benefit from thoracoscopy

**Key References:**


