

Tension Pneumothorax

v1.1

Manage all patients on 100% oxygen

START: IMMEDIATELY NOTIFY DRIVER, STOP SAFELY

1 Immediate actions

- Follow Key Basic Plan
- Deliver 100% oxygen

2 Confirm diagnosis (Box B)

3 Consider alternative diagnoses (Box C)

4 Treat tension pneumothorax

- Positively confirm affected side and state this to team
- Remove cannulation and thoracostomy pouches from Primary Bag
- Perform needle decompression:
 - 14G cannula
 - 2nd intercostal space
 - Mid-clavicular line
- Perform finger thoracostomy:
 - Optimise patient position (arm out/hand behind head)
 - Identify landmarks
 - 5th intercostal space
 - Point between mid- and anterior axillary line
 - Clean skin with Chloraprep
 - Make skin incision (2cm) along line of rib
 - Blunt dissection to pleural cavity with Spencer Wells
 - Perform finger sweep
- Re-evaluate patient
- Remember thoracostomies can become obstructed with arm in normal position / large body habitus

5 Next steps

- Consider arterial blood gas
- Key Basic Plan

Box A: CRITICAL CHANGES

- If problem worsens significantly, or a new problem arises, go back to **START** of Key Basic Plan
- If Transfer Practitioner or Transfer Doctor transfer, contact Remote Duty Consultant
- Consider contacting Leadership SPOC for support, if required

Box B: CONFIRM DIAGNOSIS

- High airway pressure
- Progressive desaturation
- Chest movement asymmetry
- Hypotension
- Reduced/absent breath sounds
- Absence of lung sliding/B-lines/lung pulse on ultrasound

Box C: ALTERNATIVE DIAGNOSES

- Endobronchial intubation
- Mucus plugging
- Anaphylaxis
- Obstruction / kinking of existing intercostal chest drain
- Severe bronchospasm
- Inadequate muscle relaxation
- Cardiac tamponade
- Haemothorax