TUBE-iCOMPT

Name...............................................
Date ............
Examiner...............................................

Position...............................................
Experience: Instructional course ☑ Yes ☐ No

# Chest tubes inserted:
- Seldinger ..... 
- Blunt dissection ..... 

Ensure all equipment is available on bed, including a range of suture types/sizes.

Please read instructions in red below. Do NOT give any extra prompting or ask additional questions, unless the required equipment is not available.
Place a tick in square brackets beside each assessment point for each correct answer/action.
If participant requires prompting, score zero for that point. No partial marks given.

1. Pre-procedural checks - to be performed as a quiz

2. Patient Positioning and Local Anaesthetic

"Describe how you prepare the area to start the procedure"  "What position would you put the patient in?"
"What location would you ideally insert a chest tube and how would you locate this point?"

"Now please put in the L.A. Talk through what you are doing." When candidate starts injecting L.A., ask "what volume would you give."

- Positions patient appropriately (1 point)
- Determines insertion site
  - mentions use of ultrasound. May have mentioned in pre-procedural checks (4 points)
  - identifies triangle of safety using anatomical landmarks (2 points)
- Uses strict aseptic technique (2 points)

"Now please put in the L.A. Talk through what you are doing." When candidate starts injecting L.A., ask "what volume would you give."

- Determines insertion site
  - mentions use of ultrasound. May have mentioned in pre-procedural checks (4 points)
  - identifies triangle of safety using anatomical landmarks (2 points)
- Uses strict aseptic technique (2 points)

Overall performance:

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Total /16

3. Blunt dissection skills

"Now could you please insert a chest tube for a haemothorax using blunt dissection, connect it to the drain and secure to the skin. Talk through what you are doing"
As inserts chest tube ask "How far would you insert the chest tube?"
Once chest tube is inserted, ask "How would you confirm the tube is in the pleural space?"

- Removes trocar (4 points)
- Makes skin incision along and parallel to the superior margin of the rib (2 points)
- Blunt dissects with artery forceps (or similar), to spread subcutaneous fat and muscles (4 points)
- Punctures parietal pleura with tip of forceps (2 points)
- Ensures dissected track adequate width for tube (1 point)

- Inserts wound closure suture mid-wound (1 point)
- Inserts chest tube with forceps (2 points)
- Ensures all side holes of tube in pleural cavity (2 points)
- Confirms pleural placement (swing, fluid drainage)
- Attaches tube to drain or clamps while suturing (2 points)
- Ensures tube is secure to skin

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4. Seldinger skills

"Now could you please insert a chest tube for a parapneumonic effusion using the Seldinger technique. Talk through what you are doing."

While candidate is inserting wire, ask "What would you do if resistance is felt on passing the guide wire?"

As inserts chest tube ask "How far would you insert the chest tube?"

Once chest tube is inserted, ask "How would you confirm the tube is in the pleural space?"

- Introducer needle passed over top margin of rib (3 points)
- Aspirates pleural space to confirm intra-pleural placement of the introducer needle (4 points)
- Notes depth of chest wall with introducer needle (2 points)
- Confirms guide wire moves freely on insertion (1 point)
- Explains what to do if resistance is felt on passing the guide wire (1 point)
- Skin incision with scalpel to allow dilators to be passed (1 point)
- Dilators not passed >1cm past pleura (4 points)
- Guide wire not kinked or contaminated (2 points)
- Equipment all inserted in the same plane (2 points)
- Chest tube inserted without excessive force (1 point)
- Ensures all side holes of tube are in the pleural space (1 point)
- Attaches tube to drain, clamps or turns off 3-way tap while suturing and dressing (2 points)
- Confirms pleural placement (Swing, air leak, fluid drainage) (2 points)

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5. Suturing, drain connection and dressing

"Now could you connect the chest tube to the drain, secure to the skin and dress"

(or describe how you would if drain/dressings not available)

If doesn't volunteer information, ask "Where would you apply tape?"

When finished ask "Is there anything else you would like to do?"

- Uses stout, non-absorbable suture material (eg Mersilene 0 or silk 0/1) (2 points)
- Secures chest tube with stay or anchoring suture without compressing tube (3 points)
- Connects drain/removes chest tube clamps (2 points)
- Uses appropriate dressing (1 point)
- Secures tubing to skin e.g. mesenteric tape tag (1 point)
- Tapes junction of chest tube and drainage tube (1 point)
- Orders CXR to confirm chest tube placement (2 points)

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Total

Blunt dissection technique /16

Seldinger technique /100