

# 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

Total /16

## 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)  | [ ] | · Uses adequate volume of LA - 3 mg/kg (1 point)                               | [ ] |
| · Determines insertion site  |     | (lignocaine 1% - 20 ml / 70 kg)  |     |
| - mentions use of ultrasound. May have mentioned in pre-procedural checks (4 points) | [ ] | · Inserts needle over superior border of rib (2 points)                        | [ ] |
| - identifies triangle of safety using anatomical landmarks (2 points)                | [ ] | · Aspirates pleural space to confirm correct location and diagnosis (4 points) | [ ] |
| · Uses strict aseptic technique (2 points)   | [ ] | · Infiltrates all layers esp skin, pleura ± periosteum (3 points)              | [ ] |

Overall performance:



Total /28

## 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)  | [ ] | · Inserts wound closure suture mid-wound (1 point)              | [ ] |
| · Makes skin incision along and parallel to the superior margin of the rib (2 points)                | [ ] | · Inserts chest tube with forceps (2 points)                    | [ ] |
| · Blunt dissects with artery forceps (or similar), to spread subcutaneous fat and muscles (4 points) | [ ] | · Does not use excessive force (4 points)                       | [ ] |
| · Punctures parietal pleura with tip of forceps (2 points)   | [ ] | · Ensures all side holes of tube in pleural cavity (2 points)   | [ ] |
| · Ensures dissected track adequate width for tube (1 point)  | [ ] | · Attaches tube to drain or clamps while suturing (2 points)    | [ ] |
|  |     | · Confirms pleural placement (swing, fluid drainage) (2 points) | [ ] |

Overall performance:



Total /35

Name.....

**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."**

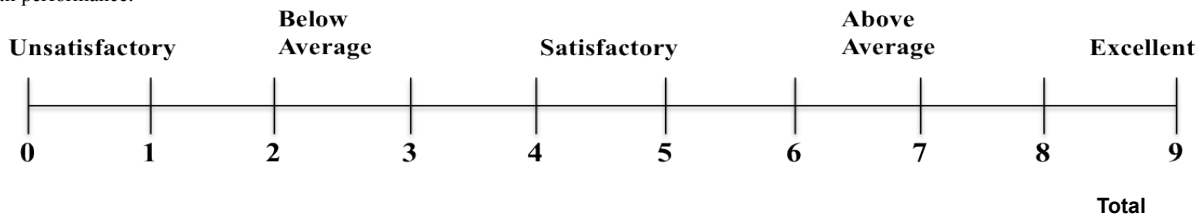
**While candidate is inserting wire, ask "What would you do if resistance is felt on passing the guide wire?"**

**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)

Overall performance:



**5. Suturing, drain connection and dressing**

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

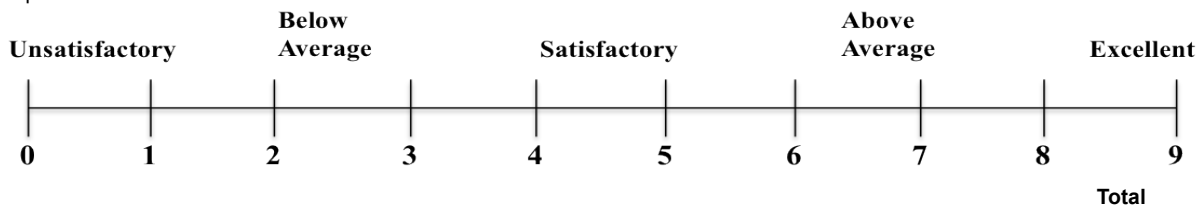
**(or describe how you would if drain/dressings not available)**

**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)

Overall performance:



**Total**

**Blunt dissection technique**

- 1. Pre-procedural checks /16
- 2. Patient Positioning and Local Anaesthetic /28
- 3. Blunt dissection skills /35
- 5. Suturing, drain connection and dressing /21

**/100**

**Seldinger technique**

- 1. Pre-procedural checks /16
- 2. Patient Positioning and Local Anaesthetic /28
- 4. Seldinger skills /35
- 5. Suturing, drain connection and dressing /21

**/100**