# Thoracocentesis and Intercostal Drain (ICD) Insertion Checklist

**Sign In**
To be completed by the individual conducting the procedure prior to scrubbing

- Confirm all individuals have introduced themselves.
- Confirm patient identity and procedure.
- Confirm side of procedure marked.

**Time Out**
To be read out loud by the assistant before invasive part of procedure is commenced

- Confirm the operator is maintaining the sterile environment including the use of sterile gown and gloves for intercostal drain insertion.

**Sign Out**
To be read out loud by the assistant before anyone leaves the procedural area

- Confirm guidewire (if used) removed and intact.
- Sharps disposed of by operator.
- Appropriate dressing applied (see over page).

### Clinical Setting
- Elective
- Emergency*

### Written Consent
- Yes
- Patient lacks capacity, best interest decision documented:
- No, give reason:

### Does the Patient Have a Known Allergy?
- Yes, specify:

### Confirm Operator Appropriately
- Trained
- OR
- Supervised by:

### Is the Patient on Any Anticoagulant/Antiplatelet?
- Yes, specify:
- Number of days stopped:

### Confirm Recent Blood Results (Date):
- Platelets:
- PT:
- APTT:

### Need for Intravenous Access Considered:

### Indication for Thoracocentesis or ICD Insertion
- Pneumothorax
- Haemothorax
- Effusion (diagnostic)
- Effusion (therapeutic)

### Bedside Ultrasound Confirmation of Insertion Site?
- Yes
- No, specify:

### CXR or CT Scan Confirmed Insertion Side
- Left
- Right

### Checked by Second Observer?
- No
- Yes, name:

### Confirm Lidocaine Infiltrated
- 1%
- 2%
- Volume:

### Confirm Technique
- 21G (green) needle and syringe
- Rocket Seldinger
- Turkel 8FG
- Surgical
- Other, specify:

### Analysis
- pH: __________
- Biochemistry: alb/prot/LDH/gluc
- Microbiology: MC&S, AAFB
- Cytology
- Other:

### Complication?
- Yes, describe:

### Procedure Documented in Patient’s Notes
- Yes
- No

### Chest X-Ray Requested if Indicated?
- Yes (e.g. therapeutic procedure or complication suspected).
- Not indicated.

### Additional Instructions for Thoracocentesis Procedure
- Stop/withhold procedure if the patient is in distress.
- Maximum two litres aspirated at one attempt.
- To continue to aspirate further by operator judgement only.

### Signatures (Print Name)
- Operator:
- Assistant:
- Supervisor:
- Date:
- Time:
- Location:

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THORACOCENTESIS AND INTERCOSTAL DRAIN (ICD) INSERTION CHECKLIST

This LocSSIP applies to all thoracocentesis procedures and intercostal drains inserted in the respiratory/general medical/surgical wards, emergency department, critical care, medical day unit and ambulatory care. *Professional judgement should be utilised as to whether the LocSSIP is applied during a major trauma scenario.

**Must-do procedural steps:**

1. To ensure compliance with best practice:
   a. CDDFT’s thoracocentesis and intercostal drain insertion pathway and procedural checklist **must** be used.
   b. The **operator** **must** dispose of all sharps before leaving the procedural area.
   c. The point of a trocar **must never** be used to introduce an intercostal drain when an open approach is used.

2. To eliminate the risk of ‘wrong site’ (A NEVER EVENT):
   a. The operator **must** confirm patient identity, procedure and consent and **must** have viewed available imaging (unless time precludes in a true emergency setting).
   b. Unless time precludes, the operator **must** identify a suitable site using an ultrasound probe (for pleural effusion only).
   c. The operator **must** mark the intended procedure side with a mark that remains visible once the sterile drapes are in place.

3. To eliminate the risk of guidewire retention (A NEVER EVENT):
   a. If a guidewire has been inserted into a patient, one end **must** remain visible and be held by the individual performing the procedure.
   b. Confirmation of guidewire removal **must** take place and be recorded.

4. To reduce the risk of site/drain-related infections:
   a. The operator **must** maintain a sterile environment and **must** use sterile gloves and gown when inserting an intercostal drain.
   b. The insertion site **must** be cleaned with 2% chloraprep in 70% alcohol or betadine. Sterile drapes **must** be used.
   c. A ‘drainfix’ dressing (or alternative for larger ICDs) **must** cover an intercostal drain at the insertion site.
   d. An occlusive dressing **must** cover a thoracocentesis insertion site post procedure.

5. To reduce the risk of arterial puncture and other sources of bleeding:
   a. Unless time precludes, blood results **must** be checked and abnormalities in clotting corrected prior to the procedure.
   b. Unless clinical urgency precludes, an ultrasound guided method **should** be used to visualise the regional anatomy (for pleural effusion only).
   c. **Ideally**, intercostal drains should be inserted in the ‘triangle of safety’. Anteriorly: lateral border of pectoralis major. Posteriorly: anterior border of latissimus dorsi. Inferiorly: 5th rib. In pregnant women, an intercostal drain should be inserted 1-2 intercostal spaces higher due to diaphragmatic displacement.

6. To reduce the risk of a pneumothorax re-accumulating or tensioning:
   a. An intercostal drain **must never** be clamped unless instructed by a respiratory medicine consultant/registrar or consultant in intensive care.

**Associated guidelines:**

- Acute and Emergency Care Group Area LocSSIPs describing all NatSSIP principals which apply to this invasive procedure and checklist.