



# 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.
- <https://www.brit-thoracic.org.uk/standards-of-care/guidelines/bts-pleural-disease-guideline/>