



ICC-STAT

Intercostal Catheter Skills and Tasks Assessment Tool

Clinical research/validated assessment tool with instructions, quiz and quiz answers applicable to an international audience of health care providers.

Scoring Recommendations for ICC-STAT

The goal of the Intercostal Catheter Skills and Tasks Assessment Tool (ICC-STAT©) is to monitor progress along the learning curve from *novice* (Score <60) to *competent* (Score=100). By observing the learner's performance several times each year, instructors are able to ascertain that each of the TEN elements of the tool are addressed satisfactorily*.

Please note that items 1, 2 and 3, as well as items 8, 9, and 10 should be assessed regardless of the kind of chest tube being inserted. If assessing chest tube insertion skill using the blunt insertion technique, items 4 and 5 should be also be assessed (and items 6 and 7 may be ignored). To assess chest tube insertion skill using the Seldinger technique, items 6 and 7 should be assessed (and items 4 and 5 may be ignored).

The ICC-STAT Quiz© contains one single open question (ICC-STAT© item 10) that requires 20 separate answers. The ICC-STAT Quiz is the same regardless of which chest tube insertion technique is being tested. Its value is scored 20 points.

While instructors and training programs may choose their own achievement scores to determine minimum acceptable levels of competency, we recommend that a final PASS grade be achieved only with a score of 100. This recommendation is consistent with mastery learning educational methodologies for competency-based assessments.

ICC-STAT© is designed for a global audience. Users may modify instructional and testing techniques based on regional needs and variations in practice.

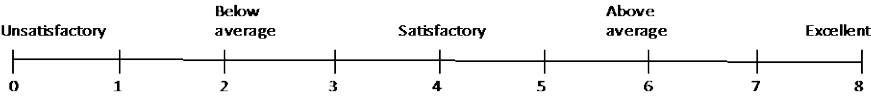
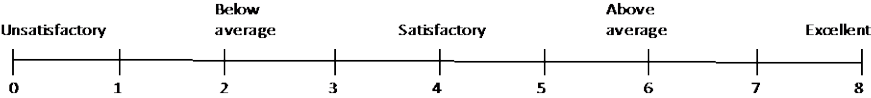
* ICC-STAT© has been validated and results published previously (previously referred to as TUBE-iCOMPT, by M. Salamonsen et al., published in Thorax, March 2014). Elements of the assessment tool were restructured to assure uniformity with other assessments designed and distributed by Bronchoscopy International® faculty. ICC-STAT can also be used in conjunction with The Chest Ultrasound-Guided Thoracentesis assessment tool (UG-STAT) available from www.Bronchoscopy.org.


INTERCOSTAL CATHETER SKILLS AND TASK ASSESSMENT TOOL

Student _____ Training Year _____

Faculty _____ Date _____

 Simulation Workshop Patient-based ScenarioMethod of insertion: Seldinger technique Blunt dissection technique

Educational Item* Items 1-10 scored as per bracketed instructions	Satisfactory Yes/No
1. Patient positioning and site selection (2 points each) <input type="checkbox"/> Time out (patient identification and informed consent <input type="checkbox"/> Patient positioned appropriately <input type="checkbox"/> Identifies triangle of safety using anatomical landmarks <input type="checkbox"/> Describes the benefits of using ultrasound	Yes / No Score____/8
2. Local anesthetic technique (2 points each) <input type="checkbox"/> Aseptic technique <input type="checkbox"/> Adequate volume <input type="checkbox"/> Knows maximum dose <input type="checkbox"/> Needle inserted over superior border of rib <input type="checkbox"/> Needle perpendicular to skin aiming for axial center of chest <input type="checkbox"/> Pleural space aspirated <input type="checkbox"/> Specifically infiltrates parietal pleura and skin <input type="checkbox"/> Notes depth to pleural space	Yes / No Score____/16
3. Local anesthetic: Overall fluidity of movement and skill 	Yes / No Score ____/8
4. Blunt Dissection Technique (3 points each) ** <input type="checkbox"/> Remove trocar from chest tube <input type="checkbox"/> Skin incision <input type="checkbox"/> Blunt dissection through chest wall <input type="checkbox"/> Uses nondominant hand to control forceps at skin <input type="checkbox"/> Punctures pleura <input type="checkbox"/> Assures adequate track size for tube <input type="checkbox"/> Inserts ICC with forceps without excessive force <input type="checkbox"/> Assures all catheter side holes are within pleural cavity and confirms drainage of pleural contents	Yes / No Score____/ 24
5. Blunt dissection: Overall fluidity of movement and skill** 	Yes / No Score ____/8
6. Seldinger Technique (2 points each)*** <input type="checkbox"/> Introducer needle over rib <input type="checkbox"/> Pleural space aspirated <input type="checkbox"/> Insertion of guidewire <input type="checkbox"/> Confirms guidewire moves freely <input type="checkbox"/> Guidewire not kinked or contaminated <input type="checkbox"/> Knows to start again if guidewire resistance is felt <input type="checkbox"/> Skin incision pre-dilatation <input type="checkbox"/> Needle track dilated making sure instruments are inserted in same plane <input type="checkbox"/> Dilators not passed greater than 1 cm past pleura <input type="checkbox"/> Chest tube inserted over wire without excessive force <input type="checkbox"/> Ensures all side-holes of chest tube within pleural cavity <input type="checkbox"/> Confirms drainage of pleural contents	Yes / No Score____/ 24

<p>7. Seldinger technique: Overall fluidity of movement and skill***</p> 	<p>Yes / No Score ___/8</p>
<p>8. Drain connection, Suturing, and Dressing techniques</p> <p><input type="checkbox"/> Attaches tube to drain or clamps/turns off 3-way tap <input type="checkbox"/> Uses non-absorbable suture <input type="checkbox"/> Secures and anchors chest tube <input type="checkbox"/> Chest tube not compressed <input type="checkbox"/> Sutures are tight (chest tube does not loosen with movement) <input type="checkbox"/> Applies appropriate dressing to tube insertion site <input type="checkbox"/> Secures or tapes junction of ICC to drain tube <input type="checkbox"/> Applies tape to secure chest tube/drain tube to patient</p>	<p>Yes / No Score___/ 8</p>
<p>9. Post-procedure Checks (2 points each)</p> <p><input type="checkbox"/> Confirms pleural placement (fluid fluctuation/swing in drainage device) <input type="checkbox"/> Examines drainage device for fluid or air leak <input type="checkbox"/> Orders chest x-ray <input type="checkbox"/> Considers ongoing analgesia</p>	<p>Yes / No Score___/ 8</p>
<p>10. ICC-STAT Quiz</p>	<p>Yes / No Score___/20</p>

* Each of the 10 items contains elements required by ACGME (patient care, medical knowledge, practice-based learning and improvement, interpersonal communication skills, professionalism, and systems-based practice).

** Use items 4 and 5 if assessing Blunt insertion technique (ignore items 6 and 7).

*** Use items 6 and 7 if assessing Seldinger technique (ignore items 4 and 5).

FINAL GRADE PASS_____ FAIL_____ **SCORE** _____/100

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ICC-STAT Quiz (20 points)

INSTRUCTIONS: Please list TWENTY major items that should be reviewed during the “time out” prior to inserting an intercostal catheter.

1. _____

11. _____

2. _____

12. _____

3. _____

13. _____

4. _____

14. _____

5. _____

15. _____

6. _____

16. _____

7. _____

17. _____

8. _____

18. _____

9. _____

19. _____

10. _____

20. _____

SCORE (# OF CORRECT ANSWERS) _____/20

ICC-STAT Quiz Answers (20 points)

The following TWENTY major items (listed here in alphabetical order) should be reviewed during a “time out” prior to inserting an intercostal catheter.

1. Assure equipment is available in case of complications
2. Assure intravenous access
3. Assure that oximetry is available
4. Assure that sharps precautions are adequate
5. Assure that systemic blood pressure monitoring is available
6. Assure that universal precautions are respected
7. Confirm correct patient (chart, self-declared name, name badge)
8. Confirm correct place
9. Confirm correct procedure
10. Confirm correct time
11. Confirm that a procedural assistant is present
12. Confirm that informed consent was obtained
13. Confirm pleural ultrasound results (if applicable)
14. Confirm the chest tube insertion site (side and anatomical location)
15. Review chest radiographic studies
16. Review coagulation studies
17. Review the patient’s medication list
18. Review premedication/sedation plan for the procedure
19. Review chest tube insertion, drainage, and sampling procedural plan
20. Review results of clinical examination and note any changes
