

Audit Tool for Insertion of Intercostal Catheter / Chest tube

As most Intercostal catheters are inserted out of hours, it may not be possible to observe the ICC insertion in real time.

Most of the information for this audit can be obtained from the Patient Record and by observation of the ICC and wound site.

CRITERIA	Patient			Patient			Patient			Patient			Total		Percentage (%)
	()		()		()		()		Number of 'No' responses	Number of possible responses	Number of 'No' x100 Number possible
Patient location for insertion (ie ward / unit) Observed (O) or chart review (R)	()		()		()		()				
1. What was indication for ICC insertion? Was it documented?	Y	N	N/a	Y	N	N/a	Y	N	N/a	Y	N	N/a			
2. Who inserted ICC? Intern/RMO/Reg/Consultant															
3. Were sterile procedures followed?	Y	N	N/a	Y	N	N/a	Y	N	N/a	Y	N	N/a			
4. Was personal protective equipment used?	Y	N	N/a	Y	N	N/a	Y	N	N/a	Y	N	N/a			
5. Was the relevant consent form completed?	Y	N		Y	N		Y	N		Y	N				
6. Was ICC insertion documented, signed and dated in patient record by doctor who inserted it?	Y	N		Y	N		Y	N		Y	N				
7. Was local anaesthetic documented?	Y	N		Y	N		Y	N		Y	N				
8. Was analgesia prescribed and given as required?	Y	N		Y	N		Y	N		Y	N				
9. Patient assessment of pain severity during insertion (scale 1 – 10)	___		N/a	___		N/a	___		N/a	___		N/a			
10. ICC - type															
- trocar Yes/ No. If yes, inserted Fully/ Partially	F	P	No	F	P	No	F	P	No	F	P	No			
- size															
11. Is a wound closure suture present?	Y	N	N/a	Y	N	N/a	Y	N	N/a	Y	N	N/a			
12. Is an adequate anchoring suture present?	Y	N	N/a	Y	N	N/a	Y	N	N/a	Y	N	N/a			
13. Is the drainage tubing braced appropriately to prevent drag?	Y	N		Y	N		Y	N		Y	N				
14. Is dressing in accordance with local policy for ICC?	Y	N		Y	N		Y	N		Y	N				
15. Are all tube connections visible and secured lengthwise (with non-stretch tape)?	Y	N		Y	N		Y	N		Y	N				
16. Was swinging, bubbling or drainage documented post - insertion?	Y	N		Y	N		Y	N		Y	N				
17. Was there nursing documentation of patient assessment after the procedure?	Y	N		Y	N		Y	N		Y	N				
18. Was a post insertion Chest Xray reviewed and results / report documented in patient record?	Y	N		Y	N		Y	N		Y	N				

Document any additional areas of concern over the page

Y = yes, N = no, N/a = not applicable or not available

01-06-04

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CRITERIA	Patient	Patient	Patient	Patient	Patient	Patient
Patient location for insertion (ie ward / unit) Observed (O) or chart review (R)	()	()	()	()	()	()
1. What was indication for ICC insertion? Was it documented?	Y N N/a	Y N N/a	Y N N/a	Y N N/a	Y N N/a	Y N N/a
2. Who inserted ICC? Intern/RMO/Reg/Consultant	Y N N/a	Y N N/a	Y N N/a	Y N N/a	Y N N/a	Y N N/a
3. Were sterile procedures followed?	Y N N/a	Y N N/a	Y N N/a	Y N N/a	Y N N/a	Y N N/a
4. Was personal protective equipment used?	Y N	Y N	Y N	Y N	Y N	Y N
5. Was the relevant consent form completed?	Y N	Y N	Y N	Y N	Y N	Y N
6. Was ICC insertion documented, signed and dated in patient record by doctor who inserted it?	Y N	Y N	Y N	Y N	Y N	Y N
7. Was local anaesthetic documented?	Y N	Y N	Y N	Y N	Y N	Y N
8. Was analgesia prescribed and given as required?	Y N	Y N	Y N	Y N	Y N	Y N
9. Patient assessment of pain severity during insertion (scale 1 – 10)	____ N/a	____ N/a	____ N/a	____ N/a	____ N/a	____ N/a
10. ICC - type						
- trocar Yes/ No. If yes, inserted Fully/ Partially	F P No	F P No	F P No	F P No	F P No	F P No
- size						
11. Is a wound closure suture present?	Y N N/a	Y N N/a	Y N N/a	Y N N/a	Y N N/a	Y N N/a
12. Is an adequate anchoring suture present?	Y N N/a	Y N N/a	Y N N/a	Y N N/a	Y N N/a	Y N N/a
13. Is the drainage tubing braced appropriately to prevent drag?	Y N	Y N	Y N	Y N	Y N	Y N
14. Is dressing in accordance with local policy for ICC?	Y N	Y N	Y N	Y N	Y N	Y N
15. Are all tube connections visible and secured lengthwise (with non-stretch tape)?	Y N	Y N	Y N	Y N	Y N	Y N
16. Was swinging, bubbling or drainage documented post - insertion?	Y N	Y N	Y N	Y N	Y N	Y N
17. Was there nursing documentation of patient assessment after the procedure?	Y N	Y N	Y N	Y N	Y N	Y N
18. Was a post insertion Chest Xray reviewed and results / report documented in patient record?	Y N	Y N	Y N	Y N	Y N	Y N

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Explanatory Notes for Insertion of ICC/chest tube:

The main area of interest for this audit tool is in patients who have ICCs inserted for drainage of a pneumothorax or pleural effusion **outside** an operating theatre eg in an ED or a ward.

Criteria:

Indicate whether the audit was performed by **O**bserving the ICC insertion or by **R**eview of the patient records.

For all questions with multiple components, **all** components must be present to score a 'Yes'.

1. Provide the indication so this can be correlated with chest tube size (Q10)
2. The seniority of the Medical Officer should be recorded, but not any identifying information. A question about previous experience has been deleted as nurse auditors found it difficult to ask. A questionnaire is available to administer to medical staff to assess their experience and confidence in ICC insertion and to identify areas to be addressed in training material (contact Helen_Ward@health.qld.gov.au).
- 3/4. As well as full sterile procedures, Queensland Health and Occupational Health and Safety guidelines indicate that personal protective equipment (including protective eyewear) should be worn for ICC insertion. Check your local guidelines.
5. In Queensland, informed consent for chest tube insertion can be downloaded from QHEPS. It should be completed for all patients unless urgent ICC insertion is required to "meet imminent risk to life or health". In the latter case the urgency should be documented in the patient record.

11,12 & 13 based on the BTS guidelines [Thorax 2003; 58 (suppl II): ii53-ii59]

14. Each unit has its own policy at present.

BTS guidelines state:

"Large amounts of tape and padding are unnecessary and may impair chest wall movement or increase moisture collection. A transparent dressing (eg op site) allows the wound site to be inspected by the nursing staff for leakage or infection." Aside from a transparent dressing the chest tube / intercostal catheter should not be taped to the dressing, due to the risk of dislodgment of the ICC when the dressing is changed.

15. Ideally non-stretch tape should be used

Summary statistics:

- The questions have been worded so that 'Yes' is the correct answer.
- If a question is not relevant for a patient, enter a N/a for "not applicable" or "not available". These responses do not count for the summary statistics.
- There is a guide to summarising the data from multiple patients to the right of the first page of the audit tool.
To calculate summary statistics, the number of "no" responses is expressed as a percentage of the number of patients audited in whom that question was relevant ie number of "possible" responses (equals the total number of patients minus number of N/a responses).

Audit tool devised by Queensland Intercostal Catheter Collaborative.

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