

HONG KONG COLLEGE OF EMERGENCY MEDICINE 香港急症科醫學院	Document No.	EC/TG/EPA 2/CD/v3
	Issue Date	01 Jan 2024
<u>Subject</u> HKCEM EPA 2 Procedure Skill 2 Chest Drain / Needle aspiration	Review Date	31 Mar 2026
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# Hong Kong College of Emergency Medicine

## Entrustable Professional Activity 2 Procedure Skill 2 Chest Drain / Needle Aspiration

Version	Effective date
1	01 July 2020
2	01 Jan 2022
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Document number	EC/TG/EPA 2/CD/v3
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Endorsed by	Education Committee
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Distribution List	Training Supervisors, Trainers and Trainees

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<b>HKCEM EPA (2)</b> Procedure Skill (2)	Chest Tube insertion / Aspiration of Pneumothorax
Case Inclusion Criteria	Patient with pneumothorax for drainage (either tube thoracostomy or aspiration)
Case Exclusion Criteria	Small pneumothorax suitable for conservative management.
Assessment start at:	After seeing CXR and before informed consent
Assessment end at:	Upon patient disposed from A&E (patient may be only admitted to EMW under EM)
Coverage of college core competency (please tick)	<input checked="" type="checkbox"/> Medical Knowledge and clinical skills <input checked="" type="checkbox"/> Patient Care <input checked="" type="checkbox"/> Professionalism, ethics and Legal issues <input type="checkbox"/> Education and Research <input checked="" type="checkbox"/> Communication, collaboration and interpersonal skills <input type="checkbox"/> Organization planning and management skills
Assessment Frequency before Exit	2 or more assessments over 12 months period
Exit Criteria	When cumulative THREE level 4 attained

Hospital:	Trainee:	Assessor:
Date:		
Procedure type (please tick)	<input type="checkbox"/> Chest tube insertion / <input type="checkbox"/> Aspiration	
Case AE number:		

Case difficulty (please tick)	<input type="checkbox"/> Ordinary / <input type="checkbox"/> moderately challenging / <input type="checkbox"/> very challenging
Level 1 <input type="checkbox"/>	Restricted to observe or assist the skill; Not entitled to do it due to significant knowledge or skill deficiency.
Level 2 <input type="checkbox"/>	Allowed to perform the skill under close or hands-on supervision as the skill is not to a competent level.
Level 3 <input type="checkbox"/>	Entrusted to perform the skill under hands-off supervision or just on-site supervision in uncomplicated cases.
Level 4 <input type="checkbox"/>	Fully competent and entrusted to complete the task totally independent even for complicated cases.
Level 5 <input type="checkbox"/>	Entitled to teach or supervise others by showing excellent performance and deep understanding of the background knowledge.
Assessor's comments: (to be entered by assessor) (optional)	

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Formative Assessment

(The contents should be entered by trainee into e-portfolio)

**What has been done well and to keep on:**

Trainee's comments on own performance:

Assessor's comments on trainee performance: (to be entered by trainee)

**What needs to improve or change**

Trainee's comments on own performance:

Assessor's comments on trainee performance: (to be entered by trainee)

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### Appendix 1: Narration of Core Competency

#### Medical knowledge and skill

- Chose the right patient with correct clinical indication for the procedure.
- Interpreted X-ray correctly.
- Provided oxygen (If appropriate)
- Performed strict aseptic technique with no potential contamination.
- Started the surgical procedure with desirable patient posture.
- Offered optimal analgesia: proper selection of drug, asked drug allergy, knew medical co-morbidity, infiltrated LA to skin and pleura, tested for pain before incision...
- Selected a safe site to put the drain: within safety triangle and above rib border
- Used blunt dissection to facilitate chest tube insertion.
- Offered hemostasis well.
- Ensured tip of the tube at apex.
- Fixed the tube properly
- Able to explain the functioning of drainage system and able to fill water in the drainage box properly (the old 3 bottle system with underwater drain).
- Ensured swing of water level with breathing (If applicable)
- Post-insertion CXR showed tip of the drain at optimal / satisfactory position

#### Patient care

- Performed time-out or other similar patient safety measures with the help of an assistant.
- Arranged patient monitoring equipment ready with assistant.
- Offered a running commentary to the patient intermittently to provide adequate information at every stage of the procedure (offering aseptic procedure, giving LA, make incision, put the tube in, fix the tube, ordering post-insertion XR, tell XR result...).
- Provided adequate analgesia and be attentive to the feelings of the patient.
- Acted attentively to patient's question and offered answers in a professional manner.
- Showed gesture that was sensitive to patient's feeling (such as comfortable posture and keep patient warm) and anxiety and promptly offered reassurance.
- Was attentive to patient's vitals throughout the procedure by checking vitals intermittently.
- If applicable, managed difficult situations properly (patient complaint pain or irritation, failed to expand after insertion, patient desaturation, wound bleeding...)
- If applicable, proper hemostasis for wound bleeding.
- Took the responsibility of patient disposal after the procedure.
- If applicable, prescribed post-procedure analgesic for pain

#### Professionalism, ethic and legal

- Offered a comprehensive informed consent to the patient (+/- relatives) before the procedure that must include (but not limited to) explanation of diagnosis, treatment options (+/- consequence if refuse treatment), alternatives with pros and cons, possible complication of the procedure, expected outcome and disposal after the procedure.
- If applicable, offered a shared decision making with patient/relatives.

#### Communication and interpersonal skill

- Talked friendly, politely and clearly with nurse/PCA assistant and other colleagues throughout the procedure.
- Ensured closed-loop communication with nurses when medication was involved

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in the procedure.

- If applicable, communicated and updated relatives timely with clear information and showed patience with inquiries raised by the relatives.

#### Appendix 2: Description of entrustment decision

##### Level 1:

- Trainee demonstrated poor in **basic medical knowledge** for the task.
- Trainee demonstrated **poor in skill**.
- Trainee demonstrated unfavorable professional **attitude** in the assessment process.
- Trainee omitted **vital safety** concern in the assessment.

##### Level 2:

- Trainee demonstrated **inadequate confidence in the skill**.
- Trainee demonstrated **over-confidence** or lack of self-awareness in skill that might potentially endanger the patients especially in complicated cases.
- Trainee demonstrated inadequacy on non-basic knowledge for the task that may or may not harm the patient.

##### Level 3:

- Trainee showed adequate background knowledge.
- Trainee demonstrated reasonable skill level but not to the extent of mastery.
- **Minor mistake or skill issue** identified that did not adversely affect the patient.
- The assessor is unclear if trainee can do well in a complicated case and uncomfortable to award level 4.

##### Level 4:

- Trainee showed perfect knowledge and skills with no challengeable shortcoming.
- Trainee did very well even in a complicated case.
- However it is unsure whether the trainee can teach or supervise other in the same mastery level.

##### Level 5:

- Trainee showed excellent performance in skill.
- Trainee either
  - offered a running commentary during the assessment or
  - carried out an in-depth discussion with the assessor after the procedure that demonstrated deep insight on the subject and competency in teaching.