

## **UBC Internal Medicine Ultrasound and Procedures Rotation:**

### *Procedural Team Roles and Responsibilities*

#### **Background:**

As part of the Ultrasound and Procedures rotation, residents on the POCUS (Point-of-Care Ultrasound) team are provided with the opportunity to perform procedures to assist in the management of CTU patients. These are also learning opportunities for POCUS team residents.

Shared responsibility of patient care requires a clear understanding of the roles of all the services involved. Procedures have inherent risk of complications and the **identification and management of these complications** in particular emphasizes the need to clearly delineate the responsibilities of the POCUS and admitting teams to monitor and intervene when required. In order to ensure clear role delineation and responsibility for patients seen by the POCUS team, especially in the setting procedural complications, we have developed the following guidelines.

#### **Statement**

*The POCUS team will be responsible for all aspects of the procedure including consent, equipment gathering, performance of the procedure, documentation, recommendations for post-procedure management where applicable, and management of immediate intra-procedural complications. The POCUS team will provide timely handover to primary nursing staff and to the admitting team regarding the outcome of the procedure and any required post-procedural monitoring or follow-up. CTU will remain responsible for post-procedure management of the patient.*

*The US and Procedures rotation Attending will initially supervise all procedures at the beginning of the block. Residents on the procedures team will be able to perform procedures independently once the PoCUS Attending feels comfortable with the resident's performance. Regardless, the procedures team resident will inform the PoCUS Attending of all procedures once the patient has been assessed. The PoCUS Attending will be available to provide assistance if necessary. If the PoCUS Attending is unavailable, the procedures team resident may proceed with the procedure under the supervision of the Attending who is MRP for the patient.*

#### **Requests for Procedures:**

Request for procedures can be made by directly contacting the POCUS team via the numbers provided to the inpatient units or through the POCUS Attending. In the past, the creation of a group chat involving POCUS team and all current CTU Seniors for the block has been successful and is recommended. Please ensure that discussion of patients within the chat does not compromise patient privacy.

When requesting drains that will remain in-situ, or higher risk procedures, CTU residents must confirm with CTU staff before discussing with the POCUS team.

We request that the CTU team consider requests for procedures as a request for consultation, and be prepared to review the patient's history, the indication for the procedure, investigations required, and relevant labs (current platelet count, creatinine, and coagulation studies) with the POCUS team.

**Consent:**

It is expected that the admitting team will have informed the patient ahead of time that the POCUS team will be coming to see them regarding the procedure.

The POCUS team will obtain consent from patients, if they are able, in order to ensure a comprehensive review of the risks and benefits of the procedure by the team that will be performing it. With patients who are non-English speaking, consent will be sought using a telephone translator or in-person translator if necessary. In cases where competence is in question, the POCUS team will seek consent from substitute decision makers.

Phone Translation: (604) 297 8400                      Code:1404#

**Equipment:**

Equipment is located on inpatient units and in the emergency department. A procedure cart dedicated to the POCUS team is available in room 10150. Code 2+4, 3. If supplies are running low, take the cart to unit 10C and advise the unit clerk to contact the stock person.

**Procedure:**

The POCUS team will be responsible for determining the appropriateness and timing of procedures in conjunction with the primary team.

All residents participating on the PoCUS rotation will must have at least 1 of each procedure observed by the PoCUS rotation Attending. Otherwise, for routine procedures, the POCUS team will inform the POCUS Attending via phone call, page, or text. For higher risk procedures, e.g. thoracentesis in high-risk patients, thoracic pigtail insertion, or in cases with uncertain imaging findings, the POCUS team will review directly with the POCUS attending prior to attempting the procedure, and the attending will supervise the procedure directly at their discretion.

For higher risk procedures that are elective, (e.g. thoracentesis in complex patients, insertion of chest pigtail catheter [all patients]) it is recommended that these procedures be completed in the morning and no later than 2PM to ensure adequate post-procedure monitoring.

Specific procedural considerations:

- Therapeutic thoracentesis/chest pigtail: For patients at risk for lung entrapment, or in cases where the procedure is anticipated to be difficult, the POCUS team should proceed as follows:
  - I. Review case with Ultrasound Attending
  - II. Potentially request the admitting service review the case with the Pleural Disease Service or General Respiriology or undertake this discussion themselves

**Investigations/Procedure related Orders:**

The POCUS team will confirm which investigations are required on samples obtained with the admitting team. The POCUS team will enter orders and ensure samples are sent appropriately. They will also enter post- procedure orders, e.g. post thoracentesis x-ray, drain orders, etc. The admitting teams will be responsible for following up the results.

The POCUS team will order temporarily increased vital signs as part of post-procedure monitoring (see post procedure monitoring).

**Documentation:**

For inpatients admitted to the CTU, the POCUS team will be responsible for completion of a “limited-consult” that includes a pre-procedure note, a post-procedure note and recommendations for post-procedural monitoring, and where applicable, post procedure management (e.g. drain management). They will enter appropriate orders.

The PoCUS team will record specific information about any device left in situ, including location, type, indication, and what it is draining to e.g. “8.5 Fr pigtail catheter, inserted into left posterior chest to drain pleural effusion, draining to Pleur-Evac.”

For patients in the emergency department who will not be admitted and not seen by the Triage team, e.g. those presenting for therapeutic paracentesis, POCUS residents/US attending will be responsible for dictating a consult note and reviewing with US attending or Triage attending.

**Post-procedure monitoring and handover:**

During and immediately post-procedure, the POCUS Team will be responsible for initiating management of any immediate complications. The PoCUS team will contact the admitting team and notify them as to what immediate management they have undertaken, and what future management the patient may require. In patients where there is concern of delayed complications, the POCUS team will notify nursing and the admitting team of parameters under which the POCUS team should be contacted to return for re-evaluation of the patient.

After the procedure is completed, the POCUS team will contact a member of the admitting team to handover on the success of the procedure, intra-procedure challenges encountered, and to communicate plans for ongoing monitoring for delayed complications, and management of drains left in situ.

Following the procedure and handover, the admitting team will resume care for the patient to assess for complications and follow-up on all test results. In specific circumstances, as a courtesy to the admitting teams, the POCUS Team will perform reassessments based on the guidelines below.

The PoCUS team will inform the primary or covering nurse prior to and after performing a procedure. This includes informing the nurse of any catheters left in situ as well as reporting the removal of tubes in order to ensure the timely initiation of specific nursing procedure related protocols.

Specific monitoring recommendations:

- Paracentesis: if a complication is suspected or if there are other reasons for concern, the POCUS team will reassess **1 hour post-procedure AND order q1h vitals for 2 hours post-procedure.**
- Thoracentesis: POCUS team will reassess all thoracentesis patients **1 hour post-procedure**, including consideration for US assessment for pneumothorax.
- Pigtail insertion: POCUS team will be responsible for reassessment of all patients **1 hour post** pigtail insertion (whether chest or abdomen, **and 24 hours later to assess/troubleshoot drainage.**
- Thoracentesis: For all thoracentesis, **q1h vitals for 2 hours post-procedure**
- Catheter insertion: For all pigtail and straight catheters (whether chest or abdomen), **vital checks as per nursing protocols while catheter is in situ.**
- PoCUS team may recommend involvement of the pleural service in the context of complicated pleural disease and for help with pigtail management.

For patients in the emergency department who will not be admitted, e.g. those presenting for therapeutic paracentesis, POCUS residents and the Ultrasound attending will be responsible for following the results of investigations sent from samples collected during procedure. This may include designating another physician to follow up on results as an outpatient.

In the case of immediate and short-term post-procedural complications, the POCUS team will contact the admitting team and involve subspecialty, interventional, or surgical services as required to help manage complications.