

Procedure Rotation Orientation Guide

Introduction

Welcome to the procedure rotation, where you will be joining the Procedure Service. Procedures are part of the practice of internal medicine, ranging from low risk, such as placement of peripheral IVs and arterial blood draws, to higher risk, such as thoracentesis and lumbar punctures. The American Board of Internal Medicine (ABIM) has published guidelines for procedural competencies, which include cognitive (i.e., understanding the indications and contraindications of procedures) and technical (i.e., the act of performing procedures) components.

This procedural rotation was designed to offer medical students formal training, resources, and an increased opportunity to acquire skills and perform procedures with formally trained faculty supervisors. The rotation includes access to an online curriculum, which covers all of ABIM's cognitive requirements (indications, contraindications, complications, etc.). It also includes standardized approaches to each procedure, standardized videos on procedures (from New England Journal of Medicine), and supply checklists.

In addition to access to the online curriculum, medical students will be given opportunities to perform procedures, including paracentesis, lumbar puncture, thoracentesis, joint aspiration/injection, and peripheral IV placement. Typically, the procedure pager goes directly to the intern on the team. When the intern is jeopardized (called in to cover on another team), the procedure pager will be forwarded to your pager. You will be emailed ahead of time if you are to oversee the pager. Once the service is consulted via the procedure pager, medical students and housestaff are responsible for consenting the patient, gathering equipment, and then performing and documenting the procedure under supervision. Prior to performing a given procedure, you are expected to review the relevant sections of the online curriculum. Supervising faculty members have reviewed the online curriculum and were internally trained in the use of ultrasound.

Rotation Requirements

This rotation is pass/fail but there are a few documented requirements that we ask you to complete.

1. Procedure Team Pre-Elective Questionnaire – to be completed before starting the elective.
 - a. https://ohsu.ca1.qualtrics.com/jfe/form/SV_8vvSXdnGEdfjYqi
2. Procedure Team Pre-Elective Cognitive Assessment – to be completed before starting the elective.
 - a. https://ohsu.ca1.qualtrics.com/jfe/form/SV_00Xk172WAFdumVw
3. Procedure Team Post-Elective Questionnaire – to be completed after finishing the elective.
 - a. https://ohsu.ca1.qualtrics.com/jfe/form/SV_ahZIL61HsHZ9MQ6
4. Procedure Team Post-Elective Cognitive Assessment - to be completed after finishing the elective.
 - a. https://ohsu.ca1.qualtrics.com/jfe/form/SV_6Y8ze6zpXjvKaQC
5. Complete the procedure log (found in MedHub) and submit by the end of the rotation.
6. Review online curriculum as described below.
7. Complete faculty evaluations assigned in MedHub.

In addition to the requirements above, students must have an OHSU pager for this rotation. If you do not have one, please contact Tomo Ito, itot@ohsu.edu to obtain one before the rotation starts.

General Information

Sources of Procedures:

The Procedure Service is responsible for inpatient procedures at OHSU. The sources of procedures include the general medicine teams, the clinical hospitalist service, and other non-medicine services (e.g., emergency department, orthopedic surgery, family medicine, etc.).

Curriculum study:

When you are not busy performing procedures, you should be reviewing and studying the online curriculum located on the OHSU Internal Medicine Residency Program, website, www.imrespdx.com/procedures-main.

Questionnaires and Cognitive Assessments:

There is a pre- and post-elective questionnaire and cognitive assessment. These are required activities for this rotation. More details outlined below.

1. Procedure Team Pre-Elective Questionnaire
 - a. This is required and is to be done before starting the elective. It does not factor into your final grade.
 - b. https://ohsu.ca1.qualtrics.com/jfe/form/SV_8vvSXdnGEdfYqi
2. Procedure Team Pre-Elective Cognitive Assessment
 - a. This is required and is to be done before starting the elective. Although required, your score will not factor directly into your final grade. You are not expected to study at all before taking this cognitive assessment as it is meant to gauge your understanding of common bedside procedures prior to completing the procedure team elective. It is 24 questions, closed book, closed internet, and to be taken alone.
 - b. https://ohsu.ca1.qualtrics.com/jfe/form/SV_00Xk172WAFdumVw
3. Procedure Team Post-Elective Questionnaire
 - a. This is required and is to be done after completing the elective. It does not factor into your final grade.
 - b. https://ohsu.ca1.qualtrics.com/jfe/form/SV_ahZIL61HsHZ9MQ6
4. Procedure Team Post-Elective Cognitive Assessment
 - a. This is required and is to be done after completing the elective. Although required, your score will not factor directly into your final grade. It is meant to gauge your understanding of common bedside procedures now that you have completed the procedure team elective. It is 24 questions, closed book, closed internet, and to be taken alone.
 - b. https://ohsu.ca1.qualtrics.com/jfe/form/SV_6Y8ze6zpXJvKaQC

Procedure Service pager:

The Procedure Service pager is a virtual pager (17269). It will always be forwarded to the Procedure Service intern Mon-Fri from 8:00 am – 5:00 pm. If the intern is jeopardized (called to cover for another intern) then the pager will be forwarded to you, the medical student on the team.

- You will be notified ahead of time of any scheduled dates when you will be covering the procedure pager.
 - You will be notified via email
 - You will be notified at least one week prior to the rotation start date.
 - You **MUST** reply to this email stating that you understand the virtual pager will be forwarded to your pager.
- There may be times during the rotation when you are notified the day before or the morning of that the pager will be forwarded to you, please watch your email for these notifications.
 - You will be notified via email
 - You **MUST** reply to this email stating that you understand the virtual pager will be forwarded to your pager.

If you are unable to cover the pager due to an approved absence please notify: Your team, Jessica Tilford, deatley@ohsu.edu (assigns the pager), and Marcie Evans, evanma@ohsu.edu.

Procedure Cart:

There is a procedure cart that sits in the 14C Medicine room (across from rooms 20-26). It is black and located next to the monitor on the back wall. Feel free to use the cart during the week. It should be fully stocked with all your equipment needs. Please restock the cart after you use it.

Ultrasound (US) Machines:

There are three US machines available to the procedure team, they are located in the following places: GM1 team room (UH 14D91), GM4 team room (UH 14C29) and the 5A Resident Room (UH 5A915).

OHSU Supervisor:

Please determine the preferred form of contact with your intern and attending for the week. This may be through pages, text, calling, email, etc.

Peripheral IV placement: Experience on hold due to COVID restrictions at the VA

At your convenience during the rotation, go to the VA ED and inform the charge nurse that you are there to learn how to place peripheral IVs. The nurses there are good at teaching them. Your goal in terms of numbers of PIV insertions should really be as many as it takes until you feel comfortable with the procedure, but this usually occurs after 6-8 PIVs. If you do not achieve this goal after your initial visit there, feel free to go again another time during the week. While at the VA, please be sure to wear your VA PIV badge.

Expectations

Medical students are paired with an intern, resident, and faculty supervisor to form the inpatient Procedure Service. The names of the intern and faculty supervisor are located at www.amion.com (password ohsu im). Select the date equal to the Monday of your procedure week, and then scroll to the middle of the page, looking for the section heading "1st Jeopardy – Procedure Rotation". Listed there will be the name of the intern, resident, and faculty assigned to the rotation. It would be a good idea to look at Tues-Fri assignments as well, since faculty can sometimes vary day-to-day.

At the request of any inpatient team, the Procedure Service is available to perform four inpatient bedside procedures: thoracentesis, paracentesis, lumbar puncture, and knee arthrocentesis.

When the Procedure Service evaluates a non-medicine patient (a patient being managed by a non-medicine primary team, such as orthopedic surgery, general surgery, etc.), the intern or medical student (whomever will do the procedure) is expected to:

1. Write an initial consult note in addition to the procedure note.
 - a. Consult note templates can be obtained from the faculty supervisor or www.imrespdx.com/procedures-main.
2. Document a follow-up visit the day after the procedure.
 - a. Follow-up note templates can be obtained from the faculty supervisor or www.imrespdx.com/procedures-main.

The Procedure Service pager (17269) will be forwarded to the intern or medical student (if the intern is jeopardized), who will receive the relevant information about the patient (medical problems, indications for procedure, etc.) by calling the referring team. At that point, the intern/medical student should inform the faculty supervisor of the request so that the team can plan the timing of the procedure and discuss any other pertinent information. The intern/medical student is expected to consent the patient for the procedure, gather the appropriate equipment for the procedure, and review the relevant procedure guide located on www.imrespdx.com/procedures-main. Once these things have been completed, the intern/medical student should meet with the faculty supervisor for discussion, review, and supervision of the procedure.

Following the procedure, the intern/medical student should complete the appropriate documentation for the procedure within the electronic medical record. Below you will find step-by-step instructions on how to complete the procedure note. The intern/medical student should then notify the primary team that the procedure has been completed and should inform them of any complications or potential issues related to the procedure.

If the intern is not jeopardized, the medical student will be expected to work with the intern to prepare for the procedures, gather consents, stock the cart, etc. Make sure to exchange contact information with the intern so you can distribute the work and make a plan.

Here are the steps involved using an example scenario for a Medicine Service Patient:

1. A patient on GM3 requires a paracentesis.
2. GM3 team member pages the Procedure Service at 17269.
3. Intern/medical student calls GM3 back and receives relevant information about the patient and the procedure that is needed. Intern/Medical student should remind the requesting team to place any diagnostic orders that are necessary.
4. Intern/medical student contacts faculty supervisor to make them aware of the procedure request and arranges for a time to meet.
5. Intern/medical student does some additional chart review.
6. Intern/medical student reviews the curriculum on www.imrespdx.com/procedures-main, including the paracentesis procedure guide and related video.
7. Intern/medical student introduces them self to the patient and obtains consent for the procedure.
8. Intern/medical student gathers the appropriate equipment (remember the procedure cart is on 14C). Make sure the cart is stocked with the appropriate kits and materials. Check out the material check-lists on www.imrespdx.com/procedures-main. Now is a good time to ask the nurse to print the labels for any diagnostic studies that are necessary.

9. The intern/medical student and faculty supervisor meet and discuss for as long as is necessary before the procedure begins.
10. Procedure Service completes the procedure (intern, medical student, or resident performs the procedure, faculty supervises).
11. Intern/medical student documents the procedure, using the notewriter (more information below) feature in Epic, and adds the faculty supervisor as a co-signer.
 - ➔ If the patient is on a non-medicine service, Intern/medical student documents an “initial consult” note.
12. Intern/medical student closes the loop with the GM3, describing any issues related to the procedure and reviewing the orders that were placed.
13. Intern/medical student logs this procedure in MedHub.
 - ➔ If the patient is on a non-medicine service, Intern/medical student follows up with Patient the following day and documents a “follow-up” consult note.

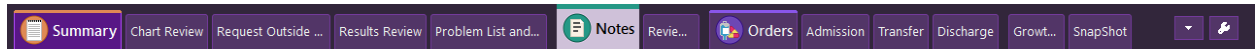
In the event the team is not comfortable performing a procedure that is asked of them, the primary team will need to pursue an alternative plan, as they would have before implementation of this procedure rotation (either perform the procedure themselves or ask another service like radiology/neuro/rheum to perform the procedure).

If the intern on the procedure rotation has been jeopardized and is unavailable to perform procedures, then the Procedure Service pager will be forwarded to the medical student. If there is no medical student on the rotation or the student is unavailable, the pager will be forwarded to the jeopardy resident, who will assume responsibility of inpatient procedures. If neither the intern nor the resident is available, then the pager will be forwarded to the faculty supervisor who will either find another learner to perform the procedure or perform the procedure independently.

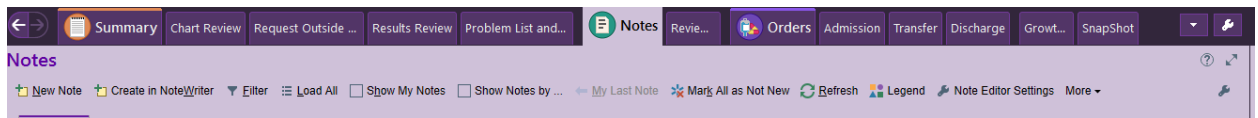
How to use NoteWriter to write procedure notes:

Below you will find nine (9) step-by-step instructions and screen shots to assist you in writing and signing a procedure note.

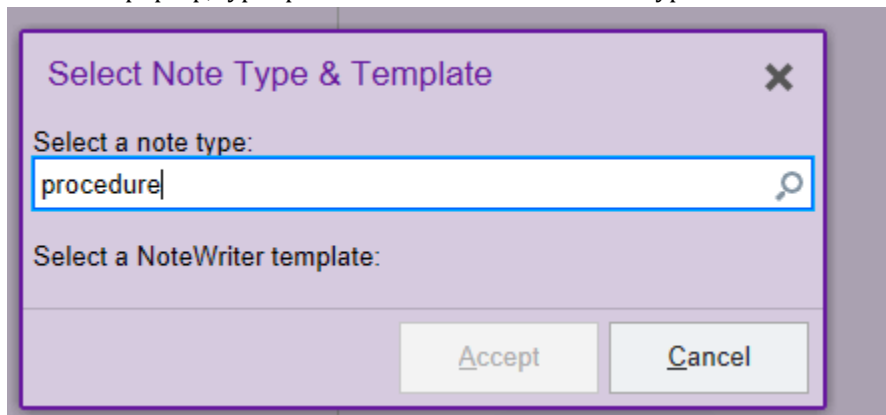
1. In the patient's chart encounter for the admission, click on the Notes tab.



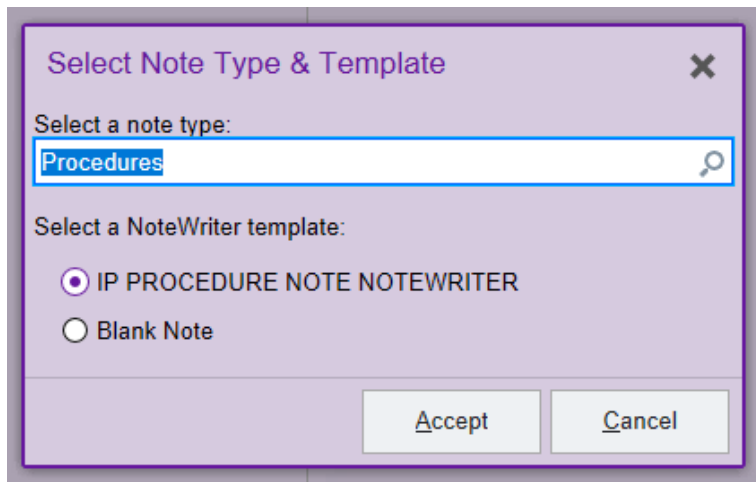
2. Click "Create in NoteWriter"



3. A box will pop-up, type "procedure" in the "select a note type:" box.



4. Make sure "IP PROCEDURE NOTE NOTEWRITER" is selected. Click accept.



- This screen will pop-up. The “Performing provider” and “Authorizing provider” will often be auto-filled. You will be the performing provider and the authorizing provider will be the attending on the primary team.

NoteWriter Procedures

Select Procedures

New Procedures

Performing provider:

Authorizing provider:

CENTRAL LINE	ARTERIAL LINE	INTUBATION	ECMO INSERTION	ECMO REPOSITION	ECMO REMOVAL
PICC LINE	PICC DECLLOT	BRONCHOSCOPY	PARACENTESIS	THORACENTESIS	LUMBAR PUNCTURE
POCUS	JOINT ASPIRATION	1 STAGE HYPOSPADI...	AAA ENDOVASCULAR ...	AAA REPAIR	AAA REPAIR WITH G...
AAA REPAIR, OPEN					

Current Orders

There are no existing procedures to document.

My Note Procedures

Service: Internal Medicine Date of Service: 3/8/2021 2126

Consign Required Cosigner:

Procedures

Jessica A Blank

End Sign Cancel

- Once those are filled in, the Procedure buttons will be active. Click which procedure you performed. We will use paracentesis as an example.

NoteWriter Procedures

Add Another Procedure

PARACENTESIS Performed by Jessica A Blank. Authorized by Andre M Mansoor, MD

Medications documented here as part of the note will not automatically update the medication list or the MAR. Please ensure that any necessary medications given are appropriately ordered and/or documented in the medication list or on the MAR.

Procedure: PARACENTESIS

Date/Time: 3/8/2021 2129 Now

Operators

Attending:

APP:

Fellow:

Resident:

Student:

Pre-Procedure

Written consent obtained? ☐ Yes ☒ No ☐ Emergent situation

Consent given by: Patient Parent Legal guardian Next of kin Power of attorney Other

Patient identity confirmed per policy? ☐ Yes ☒ No

Procedural pause ☐ Immediately prior to the procedure a pause per universal protocol was called.

A pause verifies correct patient, procedure, equipment, support staff and site/side marked as required. With questions refer to CVC policy

Indications

Initial or subsequent exam: ☐ initial ☒ subsequent

Procedure purpose: ☐ diagnostic ☒ therapeutic

Pre-Procedure Diagnosis: ***

Site Preparation

Skin Preparation: Betadine ChlorPrep Chlorhexadine Other

My Note Procedures

Service: Internal Medicine Date of Service: 3/8/2021 2126

Consign Required Cosigner:

PARACENTESIS

Date/Time: 3/8/2021 9:29 PM

Performed by: Jessica A Blank

Authorized by: Andre M Mansoor, MD

Indications: Pre-Procedure Diagnosis: ***

Jessica A Blank

End Sign Cancel

- Then start to fill out the information prompted by NoteWriter. As you fill it out, it will populate the note on the right. You might not fill out every part of the NoteWriter form. There are also different

sections depending on the procedure. You can always ask your intern or faculty if you don't know what information to include.

NoteWriter

Procedures

Add Another Procedure

PARACENTESIS Performed by Jessica A Blank, Authorized by Andre M Mansoor, MD

Medications documented here as part of the note will not automatically update the medication list or the MAR. Please ensure that any necessary medications given are appropriately ordered and/or documented in the medication list or on the MAR.

Procedure: PARACENTESIS

Date/Time: 3/8/2021 2129

Operators

Attending: David Harmon

APP:

Fellow:

Resident:

Student: Jessica Blank

Pre-Procedure

Written consent obtained? ☒ Yes ☐ No ☐ Emergent situation

Consent given by: Patient Parent Legal guardian Next of kin Power of attorney Other

Patient identity confirmed per policy? ☒ Yes ☐ No

Procedural pause: ☒ Immediately prior to the procedure a pause per universal protocol was called.

A pause verifies correct patient, procedure, equipment, support staff and site/side marked as required. With questions refer to CVC policy

Indications

Initial or subsequent exam: ☒ initial ☐ subsequent

Procedure purpose: ☒ diagnostic ☐ therapeutic

Pre-Procedure Diagnosis: ascites 2/2 cirrhosis

Site Preparation

Skin Preparation: Betadine ChloraPrep Chlorhexadine Other

My Note Procedures

Service: Internal Medicine Date of Service: 3/8/2021 2126

Consign Required Cosigner:

PARACENTESIS

Date/Time: 3/8/2021 9:29 PM

Performed by: Jessica A Blank

Authorized by: Andre M Mansoor, MD

David Harmon

Written consent obtained? ☒ Yes

Consent given by: Patient

Patient identity confirmed per policy? ☒ Yes

Procedural pause: Immediately prior to the procedure a pause per universal protocol was called.

Indications:

Initial or subsequent exam: Initial

Procedure purpose: Diagnostic and therapeutic

Pre-Procedure Diagnosis: Ascites 2/2 cirrhosis

Skin Preparation: ChloraPrep

Jessica A Blank

NoteWriter

Procedures

Add Another Procedure

PARACENTESIS Performed by Jessica A Blank, Authorized by Andre M Mansoor, MD

Skin Prep Other:

Anesthesia

Anesthesia: bolus analgesia bolus sedation conscious sedation local infiltration muscle relaxant nerve block none opioid sedation topical application

Local anesthetic: Lidocaine 1% w/ epinephrine Lidocaine 1% w/o epinephrine Lidocaine 2% w/ epinephrine Lidocaine 2% w/o epinephrine

Anesthetic total (ml): 10

Procedure details

Preparation: ☒ Patient was prepped and draped in usual sterile fashion

Needle gauge: ☒ 18 ☐ 20 ☐ 22

Ultrasound guided: ☒ Yes ☐ No

Images Saved: ☒ Yes ☐ No

Puncture site: ☒ midline suprapubic ☐ midline infraumbilical ☒ right lower quadrant ☐ left lower quadrant

Fluid removed (ml): ☒ 3000

Fluid appearance: ☒ bilious ☐ bloody ☐ clear ☐ chylous ☐ cloudy ☐ feculent ☐ purulent ☒ serosanguinous ☐ serous

Dressing: ☒ 4x4 sterile gauze ☐ antibiotic ointment ☐ gauze packing ☐ gauze roll ☐ pressure dressing ☐ tube gauze

☒ patient tolerated the procedure well with no immediate complications

Comments

My Note Procedures

Service: Internal Medicine Date of Service: 3/8/2021 2126

Consign Required Cosigner:

PARACENTESIS

Date/Time: 3/8/2021 9:29 PM

Performed by: Jessica A Blank

Authorized by: Andre M Mansoor, MD

David Harmon

Written consent obtained? ☒ Yes

Consent given by: Patient

Patient identity confirmed per policy? ☒ Yes

Procedural pause: Immediately prior to the procedure a pause per universal protocol was called.

Indications:

Initial or subsequent exam: Initial

Procedure purpose: Diagnostic and therapeutic

Pre-Procedure Diagnosis: Ascites 2/2 cirrhosis

Skin Preparation: ChloraPrep

Local anesthetic: Lidocaine 1% w/o epinephrine

Anesthetic total (ml): 10

Procedure details:

Preparation: Patient was prepped and draped in usual sterile fashion

Needle gauge: 18

Ultrasound guided: Yes

Images Saved: Yes

Puncture site: Right lower quadrant

Fluid removed (ml): 3000

Fluid appearance: Serosanguinous

Dressing: 4x4 sterile gauze

Patient tolerance: Patient tolerated the procedure well with no immediate complications

- Review your note. Put in your supervising faculty as the cosigner. This is the faculty on the procedure team with you, NOT the ordering faculty from the primary team.

My Note
Procedures

Procedures

Service: Date of Service:

☒ Cosign Required Cosigner:

★ B

Password: ohsu im

- Here you will find each procedure listed with associated links:
 - o PROCEDURE GUIDE: Contains all relevant cognitive information about the procedure, including technique and approach
 - o PROCEDURE VIDEO: NEJM video guide for the procedure

Frequently Asked Questions:

Question: Do I need my own OHSU pager for this rotation?

Answer: Yes. If you do not have one, please contact Tomo Ito, itot@ohsu.edu.

Question: What happens if the intern gets jeopardized?

Answer: You will be notified via email if the intern is jeopardized and if you will be covering the procedure pager. You will then take over the role of the intern and perform all necessary steps as outlined above.

Question: What happens if the intern does not get jeopardized?

Answer: You are still an important part of the team! You will connect with the intern and faculty each day on the rotation and discuss the procedures for the day. You will also assist with preparing and performing the procedures. You may also be the primary operator of a procedure if the intern and attending feel that the intern is ready to assume a supervisory role. This is not guaranteed and will vary from intern to intern.

Question: What if I cannot cover the pager on a day the intern is jeopardized (I have an approved time-off request for a doctor's appointment, an interview, etc.)?

Answer: Please notify: Your team, Jessica Tilford, deatley@ohsu.edu (assigns the pager), and Marcie Evans, evanma@ohsu.edu.

Question: How do I find out who my supervising intern, resident, and faculty are on the Procedure Service?

Answer: It will be listed on www.amion.com, password: ohsu im

Question: Why should I learn how to place peripheral IVs?

Answer: The ability to perform peripheral IV insertion is an ABIM requirement and a valuable skill to learn.

Question: What if the Procedure Service is uncomfortable performing a procedure that is asked of us?

Answer: You will communicate with the requesting team that you will be unable to fulfill their request. They should pursue alternative plans to perform the procedure (either perform it themselves or ask another service).

Question: Which attending should be documented in my procedure note: the supervising faculty on the Procedure Service or the attending on the primary team?

Answer: The supervising faculty on the Procedure Service.

Question: Will I be expected to perform procedures in the UH CVICU, UH MICU, or for other services (like surgery)?

Answer: Yes. The Procedure Service officially covers the entire hospital.

Procedure Rotation Contact

If there are additional questions or concerns about this rotation, please contact Dr. André Mansoor.

mansooan@ohsu.edu, Pager: 12770