

Expectations for Medical Student Rotation in IR at TGH/USF

1. Clarify your goals and expectations the first couple days on the rotation to help us assist in your goals.
2. Cases start in the IR labs between 7am – 8am. Plan to be available for the first case unless attending conferences/lectures. Fellows are expected to be ready to perform cases at 7:30am which is a good target to assure you can help assist in the first round of cases.
3. There are no call requirements for students. The days can end between 5-8:30pm. After hour cases (after 6:30pm) are considered optional for student involvement.
4. **Students are expected to attend the following lectures/programs:**
 - a. Liver tumor/transplant conference every Tuesday 7-8am in 3k conference room.
 - b. Fellow lecture about every Wed at 7-8am in IR office (J342). Ask fellows or faculty for schedule on particular dates.
 - c. GI Tumor Conference held every Thursday at 7am in either Conf Rm. B-301 OR Doctors's Lounge Conf Rm. H-127 – Rotating location every other week Check with IR
5. **Students are expected to:**
 - a. Attend IR clinic at least twice during the month rotation and assist in HPI, PE and ROS.
 - b. Perform 1-2 consults per day. The notes and requirements will be discussed during the first day of the rotation.
 - c. Give a 10-15 minute power point presentation on an IR related topic of your choosing (recommend discussing with Dr. Davis/Hoots prior to starting the presentation) every other week of the month rotation (twice in 4 week rotation).
This is optional for students on the 1 week Introduction to IR Elective
 - d. Assist in cases in the IR suites. We prefer students to be involved and not watch from the control room.
6. We strongly recommend reading about complex procedures which are scheduled in the upcoming day/week to better understand the discussion of the procedure and techniques.
 - a. Three IR textbooks are available in the IR reading room. All of the texts are available in digital format and sign-in information is available on the first page of the textbooks.
 - b. If you are serious about IR in your future we suggest purchasing the "*Handbook of Interventional Radiologic Procedures*" by Kandarpa. This is an excellent text to describe procedures, risks and benefits and possible complications in a concise manner.
 - c. We recommend reviewing the IR schedule for the following day prior to leaving, this will guide you for what to read about in the evening and next morning.
7. We do not expect medical students to understand the majority of IR techniques and procedures but we do expect students to read and be engaged to learn these techniques during their rotation.
8. Medical students have the option of attending any journal clubs or M&M discussions which are typically in the evening. Journal club is generally held at local restaurants.
 - a. If students attend they are expected to present an article related to IR. Dr. Hoots is responsible for selecting articles for Journal Club discussion and you will be able to select from articles with the fellows/residents.

The Interventional Radiology Suites

1. Prior to requesting to assist in a procedure, assure you know the patient, what the planned procedure is and why we are performing the procedure. It is understandable not to be able to perform the procedure but it is not acceptable to have no knowledge about the procedure being performed in the room.
2. Try to learn about the procedure before attempting to assist. Obviously, this is difficult in the beginning of the rotation but your knowledge will grow with reading.
3. If the patient is awake, introduce yourself to the patient and the team in the room.
4. It is recommended that you do not sit in the control room looking at your phone. This lack of interest will likely be met by a similar lack of interest toward you by the techs/nurses and faculty. We love our specialty and do not feel the need to force it on students, they must be engaged to warrant teaching.
5. There are generally two technologists (techs) in each room. Technologists understand the techniques and the operation of the fluoroscopy but may have limited patient care knowledge. Please show them respect as they are valuable members of our patient care team.
6. The nurses take vitals and sedate the patient during the procedure but do not generally understand the technical aspects of the procedure. Nurses are generally sitting in the corner of the room at a computer station. Please show them respect as they are valuable members of our patient care team.
7. Try to find "lead" in the beginning of the rotation and each day that will fit you. You should not enter a room with active fluoroscopy without lead on. If scrubbing in a procedure, leaded glasses (preferred) and/or eye protection is mandatory. Disposable eye protection is available at every scrub sink in the department. Technologists and nurses may not wear lead under their own risk as they are explained the risks and taught the dangers of radiation.
8. It is acceptable and expected for the student to be scrubbed in before the fellow and attending. Some procedures only take 10 minutes and if the attending is waiting for you then they may proceed without you.
9. Learn where the gloves and gowns are stored and ask the techs to open them for you.
10. Ask if you do not remember sterile technique for putting on gowns/gloves. We recommend double gloving due to the high number of hepatitis patients in our population.
11. Ask how to assist the technologist. Even simple things such as how to hold the wire, coil it and inflate the balloon are not intuitive. In addition, consider assisting by transporting, transferring to the table and back to stretcher.
12. Ask questions but not when there are tense moments in patient care which can be distracting to attendings/fellows.
13. Do not let wires or any piece of IR equipment drop below waist level. We consider this level the non-sterile and will often discard items that drop to this level. IR devices are VERY expensive and we don't like to throw away money.
14. The door to the room is considered the sterile barrier where every person should have on a mask and hat. These are located by the door over the sink at every room.

15. Radiation exposure is not a serious concern for a month rotation but over a lifetime it does add up. We try to be mindful of our own and your exposure.
 - a. The distance between you and the source (floor portion of C-arm under patient) and your body exponentially reduces exposure. Just taking one step back during fluoroscopy reduces exposure by 4-fold.
 - b. The majority of radiation dose to personnel is from being very close to the c-arm and/or during "DSA runs". During DSA runs, most people in the room will take a few steps back or leave the room to reduce exposure.

Consults

1. The IR section receives about 30-40 consults daily, most are handled by the APRNs. Rarely is the consult list empty. Performing consults is always welcome and encouraged.
2. Notify the team (Fellows and APRNs) prior to starting a consult, as there are some that have already been seen or discussed with another attending. In addition, we can discuss the labs/exam/questions that should be clarified prior to the particular procedure.
3. To view the consult list:
 - a. Login to epic
 - b. Under "available lists" in the left hand column click "Consults – Provider Groups"
 - c. Click "Interventional Radiology"
 - d. Click "IR Catch All"
4. To complete a consult, you will need a consent form. These can be found in the filing cabinets next to the entrance of most IR suite rooms.
5. For the first few consults, work with a fellow to fill out the form.
6. The form will require three patient stickers: at the top of the form under name, bottom right of the form, and back of the first page at the bottom right. You can obtain these from the patient folders located on the floor; just ask patient's nurse if you're unsure.
7. **Consenting the patient involves knowing the procedure being performed, indications, contraindications, and risks. The patient must be informed of the risks but also reassured about the rate at which such complications occur.**
8. Two notes need to be completed for each consult usually.
 - a. The H&P (there are templates which fellows can share) templates are in EPIC. The notes are "IRCONSULT2" and "IRCONSULT2SHORT." IRCONSULT2 gets used most often.
 - i. Click a note, and then add yourself as the author.
 - b. The ASA risk stratification note:
 - i. Under notes tab, click "new note"
 - ii. Under "type" enter "Operative Risk Stratification"
 - iii. The "ASAIR" template will be used for the body of the note
 - iv. You will need to enter yes or no questions on the template that appears, these should be generally answered by the patients

- v. As a general rule, everyone in the hospital is an ASA 3. The sedation used in IR suites is Fentanyl and Versed. The big question is if the patient will need anesthesia (only certain IR rooms have this capability, this is important for scheduling rooms).
 - vi. If a patient clearly needs anesthesia involvement in the procedure the ASA does not need to be performed, however, this should be stated at the bottom of the consult note and reason anesthesia assistance is needed. (i.e. "Patient is morbidly obese and requires prone position for nephrostomy tube placement", "Patient hypotensive on pressures in ICU", "Patient requires CPAP every night due to significant CPAP")
9. After completing the two notes, you can share/sign them to allow one of the fellows to edit the note and officially sign it. Prior to doing so, for your first few consults, you should present the patient to an attending to determine if appropriate questions were addressed with the patient.
 10. Try and go into cases that you completed the consult on.
 11. Only fellows and IR attendings can "order" a procedure to get it added to the daily schedule. After presenting the patient to the attendings request that they order the procedure and assure the patient is NPO and no additional labs are necessary (coags, pregnancy test)
 12. Generally any woman that is premenopausal over the age of 16 requires a pregnancy test prior to an IR procedure given the risks of radiation to fetus.
 13. NPO guidelines are available in the department and provided by the anesthesiology department. NPO guidelines are different for clear liquids, solid foods, tube feeds and post pyloric feeds.

Clinic

1. Clinic is held on Tuesday, Wednesday, and Friday from 8am-12pm. There is usually one attending and one fellow per clinic.
2. Clinic is located at the Harborside building (next to McDonalds) room 820.
3. Consider asking to see the patient first and perform a quick HPI. Depending on the attending, you will either see your own patient or follow the fellow or attending. Ask questions before and after the patient encounter. All attendings will show you imaging prior to going in, be familiar with it and ask questions.
4. After clinic is over, grab lunch and head back over to the IR suite to see if you can scrub in on some cases!
5. Try to be involved in patient procedures that you were involved with in clinic.
6. Scrubs are acceptable attire given we often go from IR suites to clinic, then back to IR suites.

Attendings

Dr. Cliff Davis



Dr. Shane Grundy



Dr. Glenn Hoots



Dr. Kamal Massis



Dr. Shawn Meader



Dr. Samuel Shube



Dr. Bruce Zwiebel



PGY 6 IR Independent 2019 - 2020:

Lowell Dawson, MD

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Jackie Walsh (Inpatient consults, post procedure follow-up) – +1 (813) 777-9522

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