General Surgery – Student Student Expectations

- Ultimately a lot boils down to the three 'A's cliché: availability, affability, and ability
- Be early, especially to the OR (i.e. before the patient arrives, or as they are arriving at the latest)
- Know literally everything about your patients
    - #1 source of information is the patient (not Epic)
    - #2 source of information is the patient's nurse, and you have the chance to talk to the night shift nurse before they leave!
- Be an active participant on rounds
    - Speak up/remind team that you need to present your patients
    - Write plans on multidisciplinary communication sheet for UC SICU ICU-status patients
    - Prepare dressing change supplies in advance
    - Have supplies ready for flushing decompressing nasogastric (Salem sump) tubes
    - Make sure all patients have incentive spirometers and are using them
- Review personally all imaging (before reading the radiologist's interpretation!)
- Be an advocate for yourself as a highly trained advanced adult learner
    - Find educational opportunities, speak up, ask questions, get to know OR staff and anesthesia teams and find ways to help/learn from them
        - Ask to place all the Foleys, place IVs, occasionally maybe even to intubate
    - Choose/ask which scheduled cases to scrub days in advance and prepare
    - Own your post-operative patients, pre-round on them, present them on rounds
        - Strict SOAP format: don't mix subjective and objective, one-liner assessment, plans should address treatment choices for problems/diagnoses and barriers to discharge
- Take care of your patients during the day and know everything about them: walk with patients, work with them on pulmonary toilet (incentive spirometry, cough), make sure they have SCDs on, make sure their orders are correct and updated (and tell the residents if you find errors), follow-up on consults/imaging/labs/I&O/PT-OT/etc....
- Pre-operative preparation: understand the underlying pathophysiology and indications for surgery as well as rudimentary/broad strokes anatomy and procedure steps
- Operative skills: the more you know and have practiced, the more you get to do
    - Know the steps/technique of placing a Foley catheter
    - Be able to visualize metric lengths, especially for cutting suture. Ideal length varies based on sutured tissue and suture material. e.g.:
        - 0 PDS on fascia – 7 mm long tails
        - Silk sutures/ties in an open abdomen – 2-3 mm tail
        - 3-0 Vicryl deep dermals – no tail/1 mm
    - Know how to perform interrupted buried deep dermal suturing
    - Know how to perform subcuticular running suturing
    - Two-handed knot tying (must be proficient in OR)

- One-handed knot tying (for your UCCOM exam, not necessarily expected in the OR)
- Instrument tying (especially important for outside of the OR, e.g. laceration repairs)

ALTEMEIER GENERAL SURGERY SERVICE EXPECTATIONS

Tasks and Learning Objectives for 3rd Year Medical Students on Altemeier Service

Altemeier = Colorectal Surgery + Bariatrics/MIS @ UCMC

Colorectal Surgery (Ian Paquette, MD and Carla Justiniano, MD regularly operate at UCMC; Earl Thompson, MD sometimes; Jonathan Snyder, MD rarely)

Pre-operative Care

1. Be able to recognize the indications for surgery in diverticulitis and IBD.
2. Be able to recognize when surgery is done upfront for colon, rectal and anal cancer versus chemo/radiation.
3. Understand dietary implications of an ileostomy versus a colostomy

Anatomy

1. Understand, and recognize the anatomy of the perineum, the small bowel, colon, and rectum.
2. Recognize the key vascular relationships of the small bowel and colon. Know the watershed areas of the colon where there is vulnerability to ischemia.

Patient Care

1. Observe/Follow/Present a patient with the following conditions during your rotation
    a. Inflammatory Bowel Disease (Crohns or Ulcerative Colitis)
    b. Small Bowel Obstruction
    c. Colon/Rectal Cancer
2. Perform Each of the Following
    a. Digital Rectal Exam, Anal Exam
    b. Nasogastric Tube Insertion
    c. Pouching an ostomy (can perform with the wound care team)
    d. Close skin incisions (also on Bariatrics)
3. Read/Present on the management of the following topics (can be a small presentation once/week)
    a. Colon/Rectal Cancer
    b. Hemorrhoids, Anal Fistula, or Anal Fissure
    c. Crohn's or Ulcerative Colitis
    d. Anal Cancer

Activities/Observation

1. Observe/scrub each of the following cases/procedures

a. Colonoscopy
b. Hemorrhoidectomy, Seton Placement/Fistulotomy,
c. Colectomy
d. Abdominal Perineal Resection and/or Low Anterior Resection
e. Ostomy Creation (in any case)

Bariatric Surgery (Bobby Johnson, MD regularly operates at UCMC; Jen Colvin, MD and Joseph Imbus, MD sometimes operate at UCMC; Jonathan Thompson rarely)

Pre-operative Care

1. Be able to recognize the indications for bariatric surgery or anti-reflux procedures.
2. Understand the necessary diet and vitamin supplementation for patients undergoing bariatric surgery.

Anatomy

1. Understand and recognize the key layers of the abdominal wall.
2. Understand and recognize the anatomy of the stomach, small intestine, esophagus and key anatomic features of the diaphragm (central tendon, crura, etc.)
3. Recognize the key vascular relationships of the stomach, esophagus and small bowel

Patient Care

1. Read/Present on the management of the following topics (can be a small presentation once/week)
    a. The indications for surgical weight loss
    b. The diagnosis and management of gastroesophageal reflux disease
    c. The long-term management and potential complications of bariatric surgery
    d. The management of internal hernia.

Activities/Observation

2. Observe/Follow/Present a patient who has undergone the following:
    a. Sleeve Gastrectomy
    b. Roux-En-Y Gastric Bypass
    c. Complex Hernia Repair

Esophagogastroduodenoscopy

TRAUMA SERVICE - STUDENT EXPECTATIONS

How the trauma service works

The list is split into three teams for rounds, each led by a senior resident. Admissions are added during each team's call shifts. Resident-led team rounds start around 6am every day, followed by attending table rounds at 7:30am (every day except Wednesdays). This starts with the SICU team joining for the beginning as we present ICU status patients and then moves through the rest of the list. The on-call team then goes on walk rounds with the attending, the post-call team goes home, and the pre-call team works on tasks generated during rounds. This includes calling consults, working on discharges, performing tertiary exams, and pulling drains/chest tubes. During rounds the pre-call team typically sees trauma stats, and alerts/consults are typically handled by an APP and a student. The on-call team sees all trauma activations after rounds and covers scheduled operations. Clinic is on Fridays starting at 8am in the MAB on the 7th floor, 1-2 students should attend.

Trauma activations

Alerts and stats ideally (but not necessarily exclusively) take place in one of the SRU bays and consist of many parallel moving pieces. Depending on your interest level and skill set, as well as the availability of other team members, you may be called upon to participate in a variety of ways. Things you must know:

- Know where to find ultrasound machines, bring them to the bay for each activation, and know how to perform a FAST exam
- Be available to assist in patient exposure (removing/cutting off clothes, taking off shoes), and getting warm blankets to cover them with after
- Must be familiar with how to maintain cervical and thoracic/lumbar spine precautions and assist in cervical collar application, manually holding c-spines, and in log-rolling patients

- Know where to find/how to call x-ray techs and ask them to come to the bay, and obtain paperclips/tape for externally marking penetrating entrance wounds
- Know where to find hand-held Doppler machines and manual sphygmomanometers, and how to use them to obtain an Arterial Perfusion Index (e.g. ankle-brachial index) for assessing potential vascular injuries in extremity trauma
- Know the blood bank phone number and where the blood bank is if a runner is needed for MTP coolers
- Be familiar with the technique of aseptic preparation for sterile procedures, and know the steps of common procedures including laceration repair, nasogastric tube placement, central venous access, arterial line placement, chest tube placement, and Foley placement
- Know how to quickly call consults for common surgical specialties: ortho, neuro, face (alternating coverage between ENT, OMFS, and PRS), hand (alternating coverage between ortho and PRS), and spine (alternating coverage between ortho and neuro)

WEST CHESTER GENERAL SURGERY SERVICE

West Chester student expectations

1. Follow 1-2 patients. Ideally a patient the student is involved in their preop care or operative care.
    a. Keep in mind with lap/robo elective cases, patients may only stay 1-2 nights in the hospital. Turnover is high. You will need to continually pick new patients to follow
2. Preround and present patient on rounds (time permitting).
    a. If the census is lower, there will be more time to present
    b. If higher census, you may not have time to present on rounds. You can present at any time during the day. There is always downtime at the beginning of case between patient(s) getting in room and being ready to drape. This or while at scrub sink or good opportunities to present your patients
3. Help with floor work
    a. Getting patients to use IS, checking on PO intake throughout the day, etc.
    b. For the bari patients especially, PO intake and nausea control is limiting factor for dc. This is an area where you can be very helpful and follow up on how much patient drank as it is rarely recorded accurately in I/O
    c. Can also help follow up on any tests patients are getting and report back to resident team when CT scan, ultrasounds, procedures, etc get done
    d. Dressing changes, drains, chest tube removals. These are floor procedures you can help with
4. Clinic is another opportunity to see and present patients if you would like more practice (ok for Imbus and Colvin)
5. Prepare for OR cases. Because cases are mostly elective, you should work out case assignments ahead of time. If the residents don't assign you, then work out an equitable schedule between you and other students on service
    a. Read/prep for cases. Know the patient's history, why we are doing the operation, basic steps of the operation, anatomy. Youtube videos can be super helpful to prepare (especially for lap and robo cases) as you can find narrated intraop videos of real cases