

GOALS & OBJECTIVES

CORE CLERKSHIP IN SURGERY UNIVERSITY HOSPITALS CASE MEDICAL CENTER

INTRODUCTION

Welcome to your Surgical Clerkship at University Hospitals Case Medical Center. You are about to embark on an exciting and demanding learning experience. The goals and general objectives have been stated in your Curriculum Handbook; a copy of this is provided as the final page of this document. You will need to acquire a couple of textbooks. Current Surgical Diagnosis & Treatment by Gerard M. Doherty (Lange series, McGraw Hill) comes in paperback and includes not only general surgery but the major surgical subspecialties as well. Another option would be to acquire two books edited by Peter Lawrence, Essentials of General Surgery and Essentials of Surgical Subspecialties. In addition to these, we are requiring SURGERY, A Competency-Based Companion edited by Barry Mann (Saunders/Elsevier.) This book is problem/symptom-based and was written specifically for that transition all learners must make when presented with a clinical problem. Self-education cannot be emphasized too strongly. Good reading habits and the development of clinical thinking based on a strong fund of knowledge will serve you well the rest of your professional lives.

The Department of Surgery desires that each student's experience be a good one. The total educational experience during the clerkship is derived from many different types of activities.

I. CLINICAL ACTIVITIES

A. Inpatients

There are two major general surgery services at University Hospitals. The HOLDEN Service is comprised of 7 faculty members with a special interest in minimally invasive surgery (including bariatric surgery) and hernia surgery. The LENHART Service is comprised of 8 faculty members with an emphasis on oncologic surgery and endocrine surgery. The types of cases on these services will vary depending on the areas of interest and expertise of each individual surgeon.

The WOLKOFF Service (the transplant and hepatobiliary service) cares for both general surgery patients as well as all those patients requiring major organ transplantation and dialysis access.

The BARRY and HUBAY Services are comprised of 5 faculty members who deal almost exclusively with colorectal and inflammatory bowel disease.

The IZANT Service is the Pediatric Surgical Service and has 4 faculty members.

The CUTLER Service is the vascular surgery service and deals exclusively with patients who have vascular disease. There are 5 faculty.

Students are generally assigned to a General Surgery Service or the Pediatric Surgery service for four weeks. The remaining 4 weeks are set aside for a 2-week rotation in Emergency Medicine, a week with Anesthesiology/Surgical ICU/Pain Management services, and an elective in one of the surgical subspecialties: cardiothoracic surgery, vascular, colorectal surgery, ophthalmology, orthopaedics, otolaryngology, plastic and reconstructive surgery, transplant surgery and urology. Other options may sometimes include a prearranged elective in the Emergency Ward, the Trauma Service, or the Burn Service at Metro (space permitting). This schedule should afford exposure to a wide range of surgical diseases and procedures, as well as an opportunity to work with several different surgeons with a variety of interests. Different general surgery services will have different emphases (such as bariatric surgery, laparoscopic/minimally invasive surgery, endocrine surgery, and oncologic surgery). Each student is encouraged to gain exposure to a variety of surgical procedures; this may involve occasionally scrubbing on or observing cases with surgeons from another service.

As students you will work most closely with the surgical residents; much of what you learn will be from the residents as teachers. You should attempt to integrate yourself into the surgical team. Each service has its own particular characteristics, and you are encouraged to familiarize yourself with the specific needs of the service to which you are assigned.

Because surgery is a major discipline and a mandatory rotation, you are expected to become actively involved in the day-to-day activities of the surgical services. This involves making work rounds with the residents both in the morning and in the afternoon or evening. Student-gear ed lectures and conferences do take precedence over both ward and OR activities, except under special circumstances. An effort should be made on rounds to include the students as part of the team; the students should briefly present their patients' progress and be responsible for communicating the results of significant studies and lab work. Explanations for decisions made (such as removing drains, NG tubes, etc.) and guidance in writing orders (i.e. for IV fluids) are the teaching responsibilities of the housestaff. Rounds should begin and end at a reasonable hour. Routine work should be distributed at morning rounds and be performed by or under the supervision of a house officer (resident).

All patients admitted, both elective and emergent, should be seen by a student. You should check with your chief resident regarding elective cases and always be available (and reachable) for unexpected admissions, especially when you are on call.

History and physical write-ups (which should always include an assessment and plan as well as a discussion section) are an important aspect of your learning. The history and physical should be completed on the day of admission. You should have an absolute minimum of 2 thorough histories and physicals completed by the end of the rotation. Write-ups should include the patient's name, hospital number, and date. These are to be documented on your patient logs.

A copy of each write-up should be given to both your faculty preceptor and to the clerkship director, Dr. Persons. These copies should include an extensive discussion which should address diagnosis/evaluation, management, medical and surgical issues, and expected complications and/or prognoses. These discussions should reflect study and research but are not meant to simply be a summary of the subject from a surgical text or article. They should reflect your ability to integrate your fund of knowledge and clinical skills with the patient's clinical presentation/problems. Feedback on these will be from the residents, Dr. Persons, and your faculty preceptor. It is very important that these write-ups be turned in to Dr. Persons in a timely fashion so that students can receive feedback **BEFORE** the end of the rotation.

Daily progress notes, which contain written information about the salient points of the patient's progress, are your responsibility on your patients. You should follow, as your patients, 3-5 of the patients on your service. Preferably these would include all patients whom you admitted (wrote an H&P) and/or those cases on which you scrubbed. In addition to a thorough knowledge of your own patients, you should have a working knowledge of all other patients on your service as well.

Patient logs are required and will be turned in at mid-term and final evaluations. All patients with whom you were involved in any way should be listed, whether you performed an H&P, scrubbed on the case, or followed with daily progress notes. These cases are to be logged into CAS as well.

- B. **Ward Work:** As a student you should become proficient in several basic technical procedures such as starting IV's, placing nasogastric tubes, inserting Foley bladder catheters, suctioning patients, and drawing both venous and arterial blood. After you are familiar with the proper technique, you should continue to perform these procedures until

you are adept at each one, and then continue to do so when patient care requires it. You should become familiar with the procedures for insertion of central venous and peripheral arterial lines, debridement of wounds, and care of wounds and tubes. However, the student should not be called from conferences, lectures or the OR to do routine work.

- C. **Outpatients:** Seeing patients in the ambulatory setting is a part of almost any medical specialty. The surgeon's office (or clinic) affords experience in elective surgical consultation, preoperative evaluation, postoperative follow-up, and long term follow-up of both oncology patients and those with chronic disease. And, at least for a short time, the student is involved in continuity of care. Following wound healing and overall recovery outside of the hospital setting adds a whole new dimension to your surgical education. Many of the problems seen here will never reach the inpatient wards and are cared for exclusively in the outpatient setting. In addition to all this, it is here where the surgeon often first establishes a relationship with his or her patient; it is here where mutual understanding and trust begin.

Your ambulatory experience should take place both in the clinics and in the ambulatory surgery setting. **You should meet about one-half day a week in your preceptor's clinic to see patients with him or her. You will be given a clinic and OR schedule for each attending; it is your responsibility to attend clinic.**

- D. **Operating Room:** Students should be present in the OR to see the anatomy and pathology and to observe the surgical procedure itself, developing an understanding of the indications for the procedure and the possible complications that might ensue. You should make every effort to scrub on your patients' operations. You may often be needed as an assistant. (You do NOT, however, need to be scrubbed in on cases all day long. Much of your learning will take place outside of the OR, taking care of patients on the wards or in the ICU.)

You should also develop an understanding of how the OR functions, with particular attention paid to patient preparation, anesthesia, sterile technique and proper wound closure. In addition, the operating room is often a good place to develop skills in minor procedures such as IV and Foley insertion. There will be opportunities to develop some operative skills, but the development of surgical technical proficiency is not a primary objective of the clerkship.

Before going home each evening, you should review the OR schedule for the next day with your residents and find out on which cases you will be scrubbing. Make every effort to read something about the procedure and learn what you can about each particular patient before you scrub in. You are encouraged to scrub in on cases from other services so as to expand your exposure to a variety of cases. **You do not need to scrub on every case. Working on the wards and in ambulatory clinics is just as important as being present in the OR.**

It is imperative that you become proficient at writing operative notes and postoperative orders. The only way to do this is to write these on most cases on which you scrub. You are required to submit hand-written orders to Dr. Persons for her review on a weekly basis.

- E. **Night Call:** You will be expected to take night call once a week while on most services. This time in the hospital can prove to be invaluable, providing opportunities for involvement in evaluation and treatment of emergency cases and in the care of problems, which may arise on the wards, and in the ICUs. Make sure you contact the on-call chief resident and the junior resident assigned to ER consults that night so they have your pager number and can contact you. It is recommended that you take one 24-hour call on a Saturday during your 4-week general surgery block and then one weekday per week during that time. When possible, this call night would be on a date that your service is admitting. (Ideally, this would be on a night that your preceptor is on call, but that may not be realistic). You should stay at the hospital until 11 PM (9 PM on Thursdays) unless there are surgical procedures that will be taking place after that; in that case you should stay and scrub on those cases. You may then go home after morning rounds. **If you**

spend a night in the hospital and there are educational conferences scheduled the next day, you are expected to rest at home or in the hospital early in the day so you will be able to attend these conferences later in the day. You should give your call schedule to your chief resident (with a copy to Dr. Persons) during the first week of your service rotation. Information regarding call rooms can be obtained from the surgical education office (844-8030 or 844-7981).

- F. **Electives:** There will be an opportunity for each student to spend a short time on an elective rotation. You may choose from any of the following services: Transplant Surgery, Colorectal Surgery, Pediatric Surgery, Vascular Surgery, Cardiothoracic Surgery, Plastic Surgery, Orthopaedics, Ophthalmology, Otolaryngology and Urology. By prearrangement, if space permits, you may elect a week in the Emergency Ward, on the Burn Unit, or on the Trauma Service at Metro.

II. EDUCATIONAL ACTIVITIES

- A. **Lectures/Conferences and Case Presentations:** There is a series of regularly scheduled student lectures or conferences on major topics within the scope of general surgery and the major surgical subspecialties. These are specifically for the students and attendance should be a priority. At Case Presentation Conferences you will present cases to other students and Dr. Persons or another faculty member. You should be completely familiar with all aspects of the case and be prepared to review radiologic studies with the group when appropriate. You should have researched at least one aspect of the case and be able to teach your fellow students. Attendance at student lectures takes priority over most other clinical activities.

You will also be expected to attend resident conferences, departmental conferences such as weekly **Morbidity and Mortality Conference, Grand Rounds**, and at least 2 **tumor boards** (one G.I. Tumor Board and one Interdisciplinary Breast Cancer Conference.) Here you will be able to review pertinent radiologic imaging, pathology slides, and, more importantly, become familiar with the interdisciplinary and individualized approach to treatment plans.

- B. **Teaching Rounds:** Faculty teaching rounds should be attended whenever possible.
- C. **Preceptors:** Each student is assigned a faculty preceptor with whom you should meet on a weekly basis for about an hour. **It is imperative that you speak with your preceptor's secretary early in the rotation and prearrange a weekly meeting with her/him.** You may utilize this one-on-one learning situation to present cases, go over work-ups and discuss diagnosis, management and pathophysiology. You may want to make rounds with your preceptor and should spend clinic (office) time with her/him on a weekly basis.
- D. **Ambulatory clinic:** **You are encouraged to not only attend clinic with your preceptor, but also with other faculty members as many general surgeons have particular areas of interest and may have a majority of their patients with a specific focus.**
- E. **Self-study:** **You must supplement your clinical and conference learning with outside reading.** In addition, you should always read about the pathophysiology, diagnostic evaluation and therapy as it relates to your patients. **THERE IS NO SUBSTITUTE FOR READING.**

III. FEEDBACK AND EVALUATION

- A. **Written Evaluations**
Electronic feedback and evaluations will be obtained from your faculty preceptor and the faculty and residents with whom you worked. Your participation in rounds, in the OR, in

clinic, and in conferences will be taken into consideration. YOU MUST ENTER CASES INTO CAS on a regular basis. This affords feedback and provides a record of your clinical experience. Both at mid-term and at the end of the rotation each student will hand in a patient log and meet with Dr. Persons for a feedback and evaluation session.

Final evaluation is based on four components:

Clinical evaluations (55%), an **oral examination** (10%), the completion of online surgical education modules – **Wise-MD** (10%), and the results of your **shelf exam** (25%).

B. Criteria for Honors

1. The student clearly demonstrates that s/he has developed knowledge and skills surpassing what was brought to the clerkship, and has clearly grown beyond the level of performance evident in the first week.
2. Judgment, initiative, thoroughness, originality, independence and quality of relationships, etc. are exceptional for this stage of the clerkship year. Participation in conferences, on the wards and in the O.R. is exemplary. Work-ups exhibit thoroughness with cogent, thoughtful analyses demonstrating a clear understanding of the patient problems and of the pathophysiology.
3. There is clear evidence of independent study, an active pursuit of learning, along with practical applications of what has been learned.

C. Criteria for Pass

1. The student has met all clinical requirements of the rotation satisfactorily. These include an overall satisfactory clinical evaluation (by faculty, the clerkship director, and residents), achieving a minimum score on the written exam, and completion of all requirements as listed in the Goals and Objectives.
2. If the student fails to achieve satisfactory performance, remediation will be arranged after consultation with the clerkship director and the Society Dean.

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**CWRU SCHOOL OF MEDICINE
CORE CLERKSHIP IN SURGERY**

The goal of the Surgery Clerkship is to provide students with a broad clinical experience in which to develop and improve their skills for data collection, the organization, integration and presentation of data, procedural skills, recognition of treatment priorities, and management of emergencies. The emphasis in this clerkship is on problems unique to the surgical discipline and on participation in frequently used surgical therapeutic methods. At the same time it becomes clear that surgical judgment and technical approaches require broad background knowledge of the basic sciences as well as a firm clinical fund of knowledge from the non-surgical fields.

Objectives of the clerkship include acquainting students with surgery as a discipline giving them an appreciation for working with other members of a team. Students find this a useful time for review of basic anatomy and physiology and are expected to acquire a basic understanding of the pathophysiology of surgical disease and the rationale for surgical treatments. Students learn to formulate a differential diagnosis of surgical and surgically related diseases and to understand the correlation of the pathophysiology with disordered surgical anatomy, as well as to understand the metabolic and physiological alterations of trauma and infection. An additional objective of the clerkship is to emphasize the special aspects and consequences of a surgical decision.

During the clerkship students are an integral part of the surgical team. They are assigned patients, are responsible for the history, physical examination, differential diagnosis, and for formulation of a plan of action and follow-up for these patients. They are instructed in and participate in diagnostic and therapeutic procedures and other aspects of patient care. Didactic material is presented through student lectures, conferences, rounds, and self-education. The students are exposed to a broad-based general surgical service and have opportunities to rotate through the emergency room, intensive care unit, and various surgical specialties. The specialties will vary at the different clerkship sites.