Alabama College of Osteopathic Medicine

GENERAL SURGERY
DO CLIN 805
2017-2018

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Office Hours: By Appointment (via email only)

Grading: Credit Hours: 4
Final letter grades will be determined in accordance with the ACOM Student Handbook.

I. PRE-REQUISITES:

Beginning the Surgery Clerkship Rotation requires the successful completion of Year 2 AND COMLEX Part 1. Students must have current training in BLS, ACLS, OSHA, HIPAA, Universal Precautions and Sterile Technique.

II. CLERKSHIP ROTATION DESCRIPTION:

The surgery clerkship rotation consists of a four-week time period during which students will actively participate in the evaluation and management of patients with common surgical disorders. The overall objective is to bring to the student the opportunity to gain expertise in ambulatory and hospital surgical care and to train a "generalist" physician in surgical management of adult diseases. The student will witness the process by which surgeons determine the difference between urgent, emergent, and elective surgical conditions. Student familiarity with common problems in the surgical subspecialties (thoracic and cardiovascular, orthopedics, urology, otolaryngology, and neurosurgery) will be encouraged. The service should be organized to provide the maximum degree of practical clinical exposure and learning in the areas of diagnosis, management, and therapy in surgery, which is consistent with a third year osteopathic medical student’s level of knowledge. The expected opportunities for learning will be lectures, reading, consult history, physical examinations, and clinical experiences in the operating room and ambulatory clinic. The majority of the time that the student spends on the surgery clerkship will be spent as an apprentice to a surgeon from the clerkship rotation faculty. This contact will provide the student with an appreciation of what a practicing community surgeon does, both in the operating room and in outpatient settings. Students will take night call and be assigned weekend(s) as agreed upon by all parties involved. Students will be expected to follow the same “work rule” guidelines as other house staff.
The surgery curriculum forms the framework of the clerkship rotation’s activities. This core curriculum is composed of the following general topics:

- The Abdomen
- The GI – Hepatobiliary System
- Oncology, including breast and colon cancers
- Trauma and Shock
- The Vascular System
- The Musculoskeletal System
- Surgical Pre-op Assessment
- Post-operative Complications

This syllabus and the service guidelines it contains are designed to provide an overview of the general surgery clerkship rotation. You can anticipate some variations from service to service, site to site, attending to attending, and from house officer to house officer on a particular patient-care team; however, if the reality of your day-to-day experience is materially different from what is written in the syllabus and guidelines, and your ability to achieve the expectations for you is thereby compromised, you should make your concerns known. Your first point of contact should be the attending physician or senior resident. If satisfactory resolution cannot be achieved at this level, the clerkship director and/or department chair at ACOM is always available.

The keys to success during this clerkship rotation lie principally in two areas: (1) enthusiastic attendance in all clinical functions, and (2) a daily text reading program covering not only the clinical encounters of the day, but also that daily amount of text necessary to complete the core material by the end of the clerkship rotation.

When first confronted by surgery, many students see only the technical side, i.e. the procedures done in the operating room. While surgical technique is unquestionably important, of equal importance to the success from surgery are preoperative preparation (including diagnosis and workup) and postoperative care.

- Note well: The clinical subject exam does not test your knowledge of surgical technique! Much of the exam is in clinical vignette form, in which you will be given data and expected to come to a diagnosis, order additional tests, or pick a therapy. Many students have seen only the drama of the operating room, failing to see this “medical” side of surgery. Don’t make the same mistake. The best surgeons are “internists with operating privileges.”

**III. CLERKSHIP ROTATION GOALS AND OBJECTIVES:**

**Goals**

The surgery clerkship rotation is designed to give students a broad introduction to the practice of surgery. Upon completion of the clerkship rotation, students should have an understanding of the role of surgery within the multidisciplinary approach to patient care. The goals of the surgery clerkship rotation are as follows:

- Promote the student’s attainment of a fundamental surgical knowledge base
- Introduce the student to basic surgical procedures
- Facilitate understanding of a surgical approach to clinical problem solving
- Promote acquisition of basic surgical diagnosis and management capabilities
- Promote the continued development of the students professional attitudes and behavior

**Specific Learning Objectives (see Appendix C for detailed listing by domain):**

- Assess, assimilate, and use medical and research literature to enhance clinical decision making.
- Appropriately use and apply osteopathic principles as well as Osteopathic Manipulative Treatment (OMT) to the patient-care setting.
- Build productive relationships with patients, families, and other health-care professionals regardless of their backgrounds.
- Demonstrate knowledge and understanding of biomedical concepts, patient-care practices, and basic clinical techniques.
- Demonstrate knowledge of the business side of medical practice, especially billing, scheduling, and referring.
- Effectively and compassionately communicate relevant medical information, both oral and in written, with patients, families, and other health-care professionals.
- Effectively counsel and instruct patients and their families regarding specific diagnosis, treatment plans, and broader health maintenance.
- Evaluate the risks, benefits, limitations, and costs of different diagnostic and treatment options associated with healthcare.
- Formulate and document appropriate initial diagnoses and treatment plans based on patient histories, symptoms, examination findings, lab tests, and imaging studies.
- Perform and document a complete history and physical examination appropriate for patient care.
- Perform routine basic clinical procedures using appropriate methods/instruments and common clinical rating scales.

IV. FORMAT AND PROCEDURES:

Attendance at the clerkship rotation site is required at all times designated by the attending. This will include hospital, meetings, and/or other responsibilities. Students will be expected to attend hospital based educational forums, such as journal club and house staff presentations. Students will be available for any activities, such as night call, if asked by the preceptor. If the preceptor makes house calls, the student is expected to accompany him/her. Students are strongly encouraged to update their portfolios in E*Value daily. Students are expected to complete all assignments in a timely manner and participate in all scheduled interactive didactic sessions, including but not limited to discussion boards, journal clubs, case studies and write-ups, live group discussions via video conferencing, watching lectures, reading articles, and taking post-rotation exams.

V. APPROVAL OF PRECEPTORS WILL BE IN ACCORDANCE WITH ACOM CREDENTIALING POLICY

Approval of preceptors will be by the Clerkship Chair. MD or DO board certified physicians with an ACOM core site are preferred. MD or DO board certified physicians outside a core area may be used if no approved core site physician is available, as determined by the clinical education office.

VI. CLERKSHIP ROTATION REQUIREMENTS:

1. Attendance & Participation:
   - 100% attendance is required to all events defined by the preceptor and as listed below.
   - Absence excused by the preceptor is required to be reported to clerkship chair.
   - Participation in surgical rounds on both new and postoperative patients are required.
   - Participation in operative cases with emphasis on seeing and evaluating the patient both pre- and post-operatively is also required.
   - Students are expected to complete all reading assignments.
   - It is the responsibility of the student to contact the clerkship rotation site in ample time prior to arrival to learn the expectations for the first day of the clerkship rotation.
   - The extent of student involvement in patient care activities will be determined by the preceptor.
   - Hours of duty, night and weekend coverage, and holiday assignments are at the discretion of the preceptor. The work week is limited to a minimum of 45 hours per week and maximum of 80 hours per week, averaged over the four-week duration of the clerkship rotation.
   - Students are expected to participate in on-call coverage, with no more than one in three nights on call averaged over a four-week period.
Students are to receive one day in seven free from clinical activities averaged over a four-week period.

Any absence during scheduled clerkship rotation work hours, for any reason, must be approved by the Preceptor

An absence from a clerkship rotation will be excused only under extreme circumstances. Students cannot be absent from any clerkship rotation experience without permission from the supervising physician. Absence from a clerkship rotation in excess of three days or any unexcused absence will be reviewed by the Associate Dean of Clinical Sciences and may result in repetition or failure of the clerkship rotation.

2. **Required Textbook(s) & Equipment:**


Reading Assignments:

- Students are expected to complete the required text and to have reviewed relevant anatomy prior to any operation which they will attend. The first chapter in *Essentials of General Surgery* deals with survival skills for a surgery clerkship rotation. Learn these skills. Pages 3-5 specifically address the subject of finding time to read. Time management and self-discipline are essential to success on this clerkship rotation, and for that matter, any other clerkship rotation!

- Recommended Additional Resources
    Mastery of the material contained herein will remove all mystery from the diagnosis of abdominal pain.
  - *WeBSurg World Electronic Book of Surgery* – link is listed surgery section of the osteopathic medicine program resources section of the medical library website ([http://www.acomedu.org/library/](http://www.acomedu.org/library/)) Direct link: [www.websurg.com](http://www.websurg.com)
    Free registration allows one to view surgical intervention videos, operative technique chapters, lectures, experts’ interviews, and debates between experts.

- Sphygmomanometer, stethoscope, and a diagnostic kit which includes an ophthalmoscope and otoscope, reflex hammer, and tuning fork at 512 decibels.

- **ACOM issued Apple iPad Mini**, fully functional.

3. **Assignments & Clinical Skills:**

- **Learning Agreements**
  - Students are required to meet with their preceptors on the first or second day of the clerkship rotation to complete a learning agreement (see Appendix A). This procedure is designed to help students and preceptors come to an agreement regarding what needs to be accomplished in each specific clerkship rotation. An electronic copy of this form is available on SEAMed. Use this syllabus and/or Appendix B to select the learning objectives that will be used for each specific clerkship rotation. An electronic copy of this list is located on SEAMed. Once the learning agreement is completed and signed by both parties, students are required to upload it to the appropriate software platform. They should also retain a signed copy for their own records.

- Descriptions and requirements for participation in ACOM didactics specific to this clerkship rotation are described in the course shell on SEAMed. It is the student’s responsibility to review and follow all didactics requirements.
  - See Appendix B for Core Problems Necessary for Graduation
  - See Appendix C for Specific Required Skills
4. Post-Rotation Exam

The COMAT subject examination in Surgery will be administered on-line on the last day of the clerkship rotation. The Clinical Site Coordinator or their designee at the core rotation site will proctor the exam in accordance with guidelines set by the NBOME. Students will receive instruction from the Site Coordinator regarding the time and place to report for the exam.

- Examination structure, content outline and practice examinations for COMAT exams can be found at [http://www.nbome.org/comatmain.asp?m=coll](http://www.nbome.org/comatmain.asp?m=coll)

5. Evaluations:

- **Student Evaluation of Site; Student Evaluation of Preceptor:** Must be completed on-line and submitted at the end of the clerkship rotation.

- **Mid-Rotation Evaluation:** At approximately two weeks into the clerkship rotation, the student should ask for an informal mid-rotation evaluation. The student should review the mid-rotation evaluation form with the preceptor, discuss areas of competency that will be evaluated at the conclusion of the clerkship rotation and ask for input on his or her performance to date and specific recommendations for improvement. This is not intended to be a formal evaluation and the student is not required to submit the mid-rotation evaluation form to ACOM. The student is encouraged to make notes, ask for the preceptor's signature and keep the form for his or her records.

- **Preceptor Evaluation of Student:** It is the responsibility of the student to ensure that evaluation forms are completed and submitted online or turned into the Site Coordinator or the Office of Clinical Sciences at the completion of the clerkship rotation. Students should inform the Office of Clinical Resources of any difficulty in obtaining an evaluation by the preceptor at the end of that clerkship rotation.

VII. GRADING PROCEDURES:

The grade for this clerkship rotation will be assigned by the ACOM Clerkship Chair, based on the following grading elements. Students must score 70% or higher on each grading element to pass the clerkship rotation.

- Evaluation from preceptor and staff (50%)
- COMAT Exam (30%)
- ACOM Rotation Didactics (20%)

**Note well:**

- A student who scores below 70% on an evaluation completed by his or her preceptor will fail the clerkship rotation and will be required to repeat the clerkship rotation.

- COMAT exam: Students who are not successful in passing the COMAT exam will receive a failing grade and must take the COMAT again. Students who require subsequent COMAT attempts will receive a score of 70% for that exam and may be required to remediate the clerkship rotation at the discretion of the Clerkship Chair.

- The cost of the COMAT subject exam will be covered by ACOM for each initial exam. If a student must retake the examination, he or she may be responsible for the cost ($35.00 per examination). To schedule a retake, students must contact the Clinical Sciences Coordinator.

- You must complete and pass the Rotation Didactics element of the clerkship rotation. If you fail Rotation Didactics, you will be offered one attempt to remediate the activities through assignments given by the clerkship chair.

- Successful remediation of clerkship rotation didactics failing grade will be reported as a 70% for that part of the overall course grade. Unsuccessful remediation results in a failing grade for the course and referral to SPC for disposition.
VIII. PROFESSIONALISM

ACOM students are expected to demonstrate high ethical standards with empathy, compassion, honesty, academic, clinical, and personal professionalism at all times. Clerkship physicians and clinical team members will be required to identify these behaviors as part of the ACOM student’s final grade on their respective service. Also, unless otherwise indicated by the preceptor, the student should wear a clean, wrinkle-free white ACOM clinic jacket and identification badge. The ID badge should be worn above the waist and visible at all times.

IX. VIDEO CONFERENCES

Virtual conference days and times are listed in SEAMed. Although attendance at the video conferences is strongly encouraged, patient care is more important. If you are unable to attend a video conference due to patient care responsibilities, you are required to email the Clerkship Chair (and CC Amanda Gant) prior to the video conference, as soon as you realize that you will not be able to attend.

You must also send a scanned copy of a written statement from your preceptor saying your presence was required. If your service experiences an emergency, you may send the email the following morning. **Failure to send the email and written statement will result in 5% taken off the didactic portion of your score in this course.**

If you do notify the Clerkship Chair following the above guidelines, you will receive a makeup assignment. This makeup assignment should take you about 3-4 hours to complete, and will include watching the recorded session, writing a 1 page report on what you learned, and writing up a de-identified case presentation for the patient you saw during your scheduled video conference time. Failure to submit a satisfactory makeup assignment by the deadline given will also result in 5% taken off the didactic portion of your score in this course.

The recorded video conferences will be available within 24 hours of the event.

X. ACADEMIC INTEGRITY

Each student on this clerkship rotation is expected to abide by the student conduct information as outlined in the ACOM Student Handbook. During examinations you must do your own work. Talking or discussion about the examination contents is not permitted during or after the examinations, nor can you compare papers, copy from others, or collaborate in any way. Any collaborative behavior during the examinations will result in failure of the exam, and may lead to failure of the course and disciplinary action.

Each student on this clerkship rotation is expected to abide by the rules established by the Health Insurance Portability and Accountability Act (HIPAA) with a focus on maintaining privacy of Protected Health Information (PHI), which includes discussing patient information in an inappropriate manner or inappropriate setting.

XI. COPYRIGHT STATEMENT

The materials on this course website are only for the use by students enrolled in this course for purposes associated with this course and may not be retained or further disseminated. (Title 17, US Code) For more information, see [http://libguides.acomedu.org/copyright/copyright](http://libguides.acomedu.org/copyright/copyright)

XII. ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

In compliance with the ACOM policy and equal access laws, students requesting appropriate academic accommodations should meet with the ACOM Associate Dean of Student Services.

XIII. CHANGES TO THE SYLLABUS

This syllabus is subject to change without advance notification to students.
ACOM Learning Agreement for General Surgery Clerkship Rotations

To develop a set of mutually-agreed-upon learning objectives, students and preceptors should discuss the questions below on the first or second day of the clerkship rotation.

Student: ________________________________  Preceptor: ________________________________

Rotation Discipline: ___________________________  Site: ________________________________

Rotation Period or Specific Dates: ________________________________

I. What skills or knowledge does the student hope to learn in this clerkship rotation?  
(This section may be completed prior to meeting.)
1. _____________________________________________________________________________
2. _____________________________________________________________________________
3. _____________________________________________________________________________

II. What skills or knowledge does the preceptor think the student most needs to learn in this clerkship rotation?
1. _____________________________________________________________________________
2. _____________________________________________________________________________
3. _____________________________________________________________________________

III. Based on the two sets of goals above, what specific learning objectives* do the student and preceptor agree should be accomplished in this clerkship rotation? (Please list at least three)
1. _____________________________________________________________________________
2. _____________________________________________________________________________
3. _____________________________________________________________________________

*Please note that learning objectives need to describe what the student will be able to do on completing the clerkship rotation. Please use objectives within this clerkship rotation syllabus.

IV. What activities will most help the student accomplish the above learning objectives?  
(rounds, pre-rounds, day start, day end, grand rounds, expected readings, journal clubs, etc.)
1. _____________________________________________________________________________
2. _____________________________________________________________________________
3. _____________________________________________________________________________

SIGNATURES

Student: ________________________________
Preceptor: ________________________________
Date: ________________________________

Students are required to submit this document electronically on the appropriate software platform and strongly encouraged to keep the signed learning agreement for their records.
APPENDIX B: CORE PROBLEMS NECESSARY FOR GRADUATION

CORE PROBLEMS NECESSARY FOR GRADUATION

Core Problems/Diagnoses: Students should diagnose, treat, and record the following health concerns in their E*Value portfolios.

1. Abdominal Distension
   1.1. Bowel Distention
   1.2. Ascites
   1.3. Other Causes
2. Abdominal Pain/Mass
   2.1. Acute – Diffuse
   2.2. Acute – Localized
   2.3. Acute -- Pediatric
   2.4. Chronic – Constant
   2.5. Chronic – Crampy/Fleeting
   2.6. Chronic – Post-Prandial
3. Abnormal ECG
4. Abnormal Genital Bleeding
5. Abnormal Serum Lipid Profile
   5.1. Combined and Decreased HDL
   5.2. Increased LDL and Increased Triglycerides
6. Abnormal Serum TSH
7. Acid Base Disorders
8. Apparent Life Threatening Event (Pediatric)
   8.1. Acute Illness
   8.2. Witnessed Choking Spell
   8.3. Injury
   8.4. Apnea
9. Adrenal Mass
   9.1. Benign
   9.2. Malignant
10. Allergic Reactions
11. Altered Level of Consciousness
    11.1. Overall Approach to Altered Level of Consciousness
    11.2. GCS ≤ 7
12. Anemia/Pallor
    12.1. Overall Approach to Anemia
    12.2. Anemia with Elevated MCV
    12.3. Anemia with Normal MCV
    12.4. Anemia with Low MCV
13. Anorectal Pain
14. Autoimmune Diseases
    14.1. Infectious
    14.2. Congenital
15. Back Pain
16. Benign Prostatic Hypertrophy
17. Bleeding/Branding
   17.1. Coagulation Proteins
   17.2. Platelets and Vascular System
18. Bone Lesion
19. Breast Discharge
20. Breast Disorders
   20.1. Infection
   20.2. Mass
   20.3. Gynecomastia
      20.3.1. Increased Estrogen and Increased HCG
      20.3.2. Increased LH and Decreased Testosterone
21. Burns
22. Chest Discomfort
22.1. Cardiovascular (Angina Pectoris)
22.2. Pulmonary/Mediastinal
      22.2.1. Pulmonary Embolus
      22.2.2. Pulmonary Hypertension
      22.2.3. Pleural Effusion
22.3. Other
23. Chest Trauma
24. Cognitive Impairment
   24.1. Dementias
25. Congenital Abnormalities/Deformities/Limps
26. Cough
   26.1. Chronic (Adult)
   26.2. Dyspnea and Fever
   26.3. Acute (Pediatric)
   26.4. Chronic (Pediatric)
27. Deep Vein Thrombosis
28. Dialysis
29. Diarrhea/Constipation
   29.1. Acute Diarrhea (Adult)
   29.2. Chronic Diarrhea (Adult): Small Bowel
   29.3. Chronic Diarrhea (Adult): Steatorrhea and Large Bowel
   29.4. Diarrhea (Pediatric)
   29.5. Constipation (Adult): Altered Bowel Function and Idiopathic
   29.6. Constipation (Adult): Secondary Causes
   29.7. Constipation (Pediatric)
   29.8. Stool Incontinence
30. Difficulty Swallowing (Deglutition Disorders)
31. Dizziness/Vertigo
32. Domestic Violence
33. Dypsnea/Breathlessness
   33.1. Acute
   33.2. Chronic – Cardiac
33.3. Chronic – Pulmonary/Other
33.4. Pediatric
34. Ear Pain, Hearing Loss, Deafness
  34.1. Hearing Loss
    34.1.1. Conductive
    34.1.2. Sensorineural
  34.2. Otalgia
  34.3. Tinnitus
    34.3.1. Objective
    34.3.2. Subjective
35. Electrolyte Disorders
  35.1. Hypercalcemia
    35.1.1. Low PTH
    35.1.2. Normal/High PTH
  35.2. Hypocalcemia
    35.2.1. High Phosphate
    35.2.2. Low Phosphate
    35.2.3. High/Low PTH
  35.3. Hyperkalemia
    35.3.1. Intracellular Shift
    35.3.2. Reduced Excretion
  35.4. Hypokalemia
  35.5. Hypernatremia
  35.6. Hyponatremia
  35.7. Hyperphosphatemia
  35.8. Hypophosphatemia
36. Elevated Liver Enzymes
37. End-of-Life/Palliative Care
38. Excessive Daytime Sleepiness
39. Eyes/Vision
  39.1. Acute Vision Loss
    39.1.1. Bilateral
    39.1.2. Unilateral
  39.2. Chronic Vision Loss
    39.2.1. Anatomic
  39.3. Amblyopia
  39.4. Diplopia
  39.5. Pupillary Abnormalities
    39.5.1. Isocoria
    39.5.2. Anisocoria
  39.6. Red Eye
    39.6.1. Atraumatic
    39.6.2. Traumatic
  39.7. Strabismus
    39.7.1. Ocular Misalignment
    39.8.1. Visual Field Defects
40. Falls in the Elderly
41. Fatigue
42. Fever/Chills
  42.1. Acute Fever
  42.2. Fever of Unknown Origin/Chronic Fever
43. Fractures
  43.1. Pathologic/Fragility Fractures
  43.2. Fracture Healing
  43.3. Pediatric Fractures
    43.3.1. Salter Harris Physeal Injury Classification System
44. Gait Disturbance
45. Gastrointestinal Bleeding
  45.1. Upper Gastrointestinal Bleed (Hematemesis/Melena)
  45.2. Lower Gastrointestinal Bleed
46. Genetic Disorders
47. Genital Lesion
48. Hair Loss (Alopecia)
  48.1. Diffuse
  48.2. Localized (focal)
49. Headache
  49.1. Primary
  49.2. Secondary with Red Flag Symptoms
  49.3. Secondary without Red Flag Symptoms
50. Heart Failure
  50.1. Left-Sided
  50.2. Right-Sided
51. Hematuria
52. Hemiplegia
  52.1. Upper Motor Neuron Weakness
53. Hemoptyis
54. Hepatomegaly
55. Hirsutism
  55.1. Hirsutism and Virilization
    55.1.1. Androgen Excess
    55.1.2. Hypertrichosis
56. Hyperglycemia/Diabetes Mellitus
57. Hypertension
  57.1. Pulmonary
  57.2. In Pregnancy
58. Hyperthyroidism
59. Hypoglycemia
60. Hypothyroidism
61. Hypoxemia
62. Immunocompromised/Immunodificiency
  62.1. Fever in the Immunocompromised Host
63. Infertility and Contraception
  63.1. Female
  63.2. Male
64. Jaundice
  64.1. Adult
  64.2. Infant and Neonatal
65. Joint Pain
   65.1. Acute Joint Pain – Vitamin CD
   65.2. Chronic/Degenerative Change
   65.3. Infectious Joint Pain
   65.4. Inflammatory Joint Pain
   65.5. Vascular Joint Pain

66. Kidney Disease/Injury
   66.1. Chronic
   66.2. Acute

67. Leukocytosis/Leukopenia

68. Liver Mass

69. Lung Nodule

70. Lymphadenopathy
   70.1. Diffuse
   70.2. Localized

71. Mechanisms of Pain

72. Mediastinal Mass

73. Menorrhea
   73.1. Amenorrhea
      73.1.1. Primary
      73.1.2. Secondary
   73.2. Dysmenorrhea
   73.3. Altered Menses
   73.4. Abnormal Vaginal Bleeding

74. Metabolic Acidosis
   74.1. Elevated Anion Gap
   74.2. Normal Anion Gap

75. Metabolic Alkalosis

76. Mood/Neurobehavioral Disorders/Anger/Depression
   76.1. Anxiety Disorders
      76.1.1. Associated with Panic
      76.1.2. Recurrent Anxious Thoughts
   76.2. Trauma- and Stressor-Related Disorders
   76.3. Obsessive-Compulsive and Related Disorders
   76.4. Personality Disorders
   76.5. Elevated Mood
   76.6. Depressed Mood
   76.7. Psychotic Disorders
   76.8. Somatoform Disorders
   76.9. Pediatric Mood and Anxiety Disorders (ADHD, autism, learning disorders)

77. Mouth Disorders
   77.1. Adult and Elderly
   77.2. Mucous Membrane Disorder (Oral Cavity)
   77.3. Pediatric

78. Movement Disorders
   78.1. Hyperkinetic
   78.2. Tremor

79. Murmur/Abnormal Heart Sounds
   79.1. Abnormal Rhythm
      79.1.1. Abnormal Rhythm 1 (Types of Arrhythmia)
      79.1.2. Abnormal Rhythm 2 (Causes of Arrhythmia)
   79.2. Diastolic Murmur
   79.3. Systolic Murmur
      79.3.1. Benign and Stenotic
      79.3.2. Valvular and Other

80. Nail Disorders
   80.1. Primary Dermatologic Disease
   80.2. Systemic Disease
      80.2.1. Clubbing

81. Nausea and Vomiting
   81.1. Gastrointestinal Disease (Adult and Pediatric)
   81.2. Other Systemic Disease (Adult and Pediatric)

82. Neck Mass

83. Nephrolithiasis

84. Neutrophilia

85. Neutropenia
   85.1. Decreased Neutrophils Only
   85.2. Bicytopenia and Pancytopenia

86. Numbness/Tingling/Paresthesia/Painful Limb

87. Osteoporosis

88. Ovarian Mass

89. Pap Abnormality

90. Pelvic Mass/Pain
   90.1. Acute
   90.2. Chronic

91. Pelvic Organ Prolapse

92. Peripheral Weakness
   92.1. Weakness
   92.2. Sensory Changes
      92.2.1. Objective Lower Motor Neuron Weakness

93. Pigmentation Disorders
   93.1. Hyperpigmentation
   93.2. Hypopigmentation

94. Pleural Effusion

95. Polycythemia

96. Pregnancy/Delivery/Newborns
   96.1. Antenatal Care
   96.2. Bleeding in Pregnancy
      96.2.1. < 20 weeks
      96.2.2. 2nd and 3rd Trimesters
   96.3. Growth Discrepancy
96.3.1. Small for Gestational Age/Intrauterine Growth Restriction

96.3.2. Large for Gestational Age

96.4. Intrapartum Factors that may affect Fetal Oxygenation

96.5. Intrapartum Abnormal Fetal Heart Rate Tracing

96.5.1. Variability and Decelerations

96.5.2. Baseline

96.6. Postpartum Hemorrhage

96.7. Recurrent Pregnancy Loss

96.8. Dermatoses in Pregnancy

96.8.1. Physiologic Changes

96.8.2. Specific Skin Conditions

96.9. Preterm Infant Complications

96.10. Failure to Thrive

96.10.1. Adequate Calorie Consumption

96.10.2. Inadequate Calorie Consumption

96.11. Hypotonic Infant (Floppy Newborn)

96.12. Depressed/Lethargic Newborn

96.13. Cyanosis in the Newborn

96.13.1. Respiratory

96.13.2. Non-Respiratory

96.14. Respiratory Distress in the Newborn

96.15. Sudden Unexpected Death in Infancy (SUDI)

97. Preventive Health Care

97.1. Vaccinations

97.2. Cancer Screening

97.3. STI Screening

98. Prolonged PT (INR)

98.1. Prolonged PTT

98.2. Normal PTT

99. Prolonged PTT, Normal PT (INR)

99.1. Bleeding Tendency

99.2. No Bleeding Tendency

100. Proteinuria

101. Pruritus

101.1. Primary Skin Lesion

101.2. No Primary Skin Lesion

102. Pulmonary Disorders

102.1. Spirometry

103. Pulmonary Embolus

104. Pulse Abnormalities

105. Renal Cancer

106. Renal Failure

106.1. Acute

106.2. Chronic

107. Renal Mass

107.1. Solid

107.2. Cystic

108. Respiratory Sounds

108.1. Noisy Breathing

108.1.1. Wheezing (Pediatric)

108.1.2. Stridor (Pediatric)

109. Scrotal Mass/Pain

110. Seizures/Spells

110.1. Epileptic Seizure

110.2. Secondary Organic Seizure

110.3. Other

110.4. Pediatric Seizure

110.4.1. Unprovoked

110.4.2. Provoked

110.4.3. Spells

111. Sellar/Pituitary Mass

112. Sexual Dysfunction

112.1. Erectile Dysfunction

113. Shock/Hypotension

114. Skin Lesions

114.1. Primary Skin Lesion

114.2. Secondary Skin Lesion

115. Skin Rash

115.1. Eczematous

115.2. Papulosquamous

115.3. Pustular

115.4. Reactive

115.5. Vesiculobullous

116. Skin Ulcer by Etiology

116.1. Physical

116.2. Vascular

116.3. Hematologic

116.4. Neoplastic

116.5. Neurological

116.6. Infectious

116.7. Metabolic

116.8. Drugs

117. Skin Ulcer by Location

117.1. Genitals

117.2. Head and Neck

117.3. Lower Legs/Feet

117.4. Oral Ulcers

117.5. Trunk/Sacral Region

118. Smell Dysfunction

119. Soft Tissue

119.1. Septic

119.2. Aseptic

120. Sore Throat/Rhinorrhea/Sinus and Nasal Congestion

121. Speech/Language Abnormalities

121.1. Dysarthria

121.2. Aphasia
| 121.2.1. | Fluent |
| 121.2.2. | Non-Fluent |
| 121.3. | Hoarseness |
| 121.3.1. | Acute |
| 121.3.2. | Non-Acute |
| 122. | Stature |
| 122.1. | Short |
| 122.2. | Tall |
| 123. | Stroke |
| 123.1. | Intracerebral Hemorrhage |
| 123.2. | Ischemia |
| 123.3. | Subarachnoid Hemorrhage |
| 124. | Substance Abuse/Drug Addiction/Withdrawal |
| 125. | Syncope |
| 126. | Thrombocytopenia |
| 127. | Thrombocytosis |
| 128. | Tumor |
| 128.1. | Metastatic |
| 128.2. | Primary |
| 129. | Urinary |
| 129.1. | Urinary Incontinence |
| 129.2. | Increased Urinary Frequency |
| 129.3. | Dysuria |
| 129.4. | Urinary Tract Obstruction |
| 129.5. | Enuresis (Pediatric) |
| 130. | Vaginal Discharge |
| 131. | Vascular Lesions |
| 132. | Weight Gain/Loss |

**The Portfolio Process:** Each of the health concerns listed above has several core entrustable professional activities (EPAs) that students must self-check. The more problems/diagnoses logged using EPAs, the better a student’s MSPE will be.

1. Gather a history and perform a physical examination
2. Develop a prioritized differential diagnosis and select a working diagnosis following a patient encounter
3. Recommend and interpret common diagnostic and screening tests
4. Enter and discuss patient orders/prescriptions
5. Provide documentation of a clinical encounter in written or electronic format
6. Provide an oral presentation/summary of a patient encounter
7. Form clinical questions and retrieve evidence to advance patient care
8. Give or receive a patient handover to transition care responsibility to another health care provider or team
9. Participate as a contributing and integrated member of an interprofessional team
10. Recognize a patient requiring urgent or emergent care, initiate evaluation and treatment, and seek help
11. Obtain informed consent for tests and/or procedures
12. Perform general procedures of a physician
13. Identify system failures and contribute to a culture of safety and improvement

**Procedures:** Students should record procedures into their E*Value portfolios.

- Airway Management (specify type in notes section, i.e. nasotracheal, oropharyngeal, etc.)
- APGAR and Dubowitz/Ballard Assessment
- Arterial puncture – for blood gases (ABG)
- Arthrocentesis
- Breast Exam
- Caesarean Section
- Calculate medication dosage by weight and write a prescription; signed by physician
- Cardiac ultrasound and Doppler studies
- Casting/Splinting, Elbow
- Casting/Splinting, Elbow
- Casting/Splinting, Knee/Ankle
- Casting/Splinting, Lower Extremity
- Casting/Splinting, Other (Specify in Notes Section)
- Casting/Splinting, Shoulder
- Casting/Splinting, Thumb Spica
Casting/Splinting, Upper Extremity
Casting/Splinting, Wrist/Hand
Circumcision
Colposcopy
Digital Rectal Exam
Ear, Evaluation and Treatment – Cerumen Removal
Ear, Evaluation and Treatment, EAC foreign body removal/wick insertion
Echocardiography
EKG Interpretation
Electroencephalogram
Endoscopy (specify type in notes section)
Episiotomy and repair
Eye, Evaluation and Treatment – Evaluation of Corneal Abrasion
Eye, Evaluation and Treatment – Evaluation of foreign body with lid eversion
Eye, Evaluation and Treatment – slip lamp use
Eye, Evaluation and Treatment – Tonometry
Eye, Evaluation and Treatment of conjunctival foreign body
Eye, Evaluation and Treatment of corneal foreign body
Female Pelvic Exam, Bimanual Exam (enter specific pathology found in notes section)
Female Pelvic Exam, PAP Smear (enter specific pathology found in notes section)
H&P Prevention / Health Maintenance
Hernia examination
History and Physical – Complete/Comprehensive
Injection – Sub-Q/Intradermal, IM (specify in notes section)
Intravascular Access, Central Line (specify location in notes section)
Intravascular Access, Central Line/Subclavian
Intravascular Access, Intraosseous
Intravascular Access, Peripheral
Lumbar Puncture
Male Genital Exam
Mental Status Exam
Mouth/Dental Evaluation and Treatment – regional Dental Block
Mouth/Dental Evaluation and Treatment – Treatment of Aphthous Ulcers
Mouth/Dental Evaluation and Treatment – treatment of Dry Socket S/P Extraction
Nasogastric Tube Placement
Newborn Management, Uncomplicated Delivery
Newborn Management – Newborn Resuscitation
Nose, Evaluation and Treatment – foreign body removal
Nose, Evaluation and Treatment, Epistaxis Control (specify method used in notes section)
Office Encounter, Chronic Complex Care
Office Encounter, Routine Acute Problem
Osteopathic Manipulation Treatment (OMT)
Osteopathic Structural Exam
Other Procedures (specify in notes section)
Paracentesis
Perform OPP autonomics
Perform OPP lymphatics
Peritoneal Lavage, Diagnostic
Pre-Natal Care
Provide Health Promotion / Disease Prevention
Psychiatric Assessment (describe in notes section)
Pulmonary Function Tests
- Remove sutures or staples
- Resuscitation Team Member (specify role in notes section, i.e. Leader, Compressor, etc.)
- Skin Lesion Excision
- Stress Testing
- Surgical Assist (specify type in notes section)
- Suturing, extremities (indicate type of anesthesia in notes section)
- Suturing, Face (indicate type of anesthesia in notes section)
- Suturing, Hand/digits (specify type of anesthesia in notes section)
- Thoracentesis
- Thoracostomy, Tube or Needle (specify in notes section)
- Ultrasound, bedside – FAST (Focused Assessment with Sonography for Trauma)
- Ultrasound, Other than FAST (specify in comments section)
- Urinalysis by Dipstick
- Urinary Catheter Insertion
- Vaginal Delivery – Spontaneous / Induced / Vacuum Extraction / Forceps (specify in notes section)
- Vaginal Delivery, Spontaneous
- Venipuncture
- Vision Screening
- Well Child Development Exam
- X-Ray Studies (specify type in notes section, i.e. chest, abdominal series, etc.)
APPENDIX C: SPECIFIC SKILLS REQUIRED

LEARNING DOMAINS

I. KNOWLEDGE (cognitive)

By the end of the surgery clerkship rotation, the student is expected to have achieved an understanding of the following objectives through reading, discussion / presentations, and hands-on experience. Included within each general topic are several subtopics that have proved to be of frequent interest to test writers. Given a patient scenario in a hospital / clinical setting, students should be able to do the following with accuracy:

- **Acute Abdomen**
  - Discuss the history and physical exam of the abdomen
  - Analyze the common causes of an acute abdomen
  - Compare and contrast the relationship of location and etiology of acute abdominal pain
  - VENUE: surgeon’s clinical office; in-patient setting (rounds)

- **Postoperative Complications**
  - Discuss common postoperative complications (fever, atelectasis, wound failure, site infection)
  - Analyze the various etiology, presentation, evaluation, and treatment of malignant hyperthermia
  - VENUE: in-patient setting (rounds)

- **Fluids and Electrolytes**
  - Identify normal electrolyte and pH values
  - Discuss sources of operative and postoperative fluid losses and replacement
  - Analyze the presentation and evaluation of Syndrome of Inappropriate Secretion of ADH and electrolyte imbalance and discuss treatment
  - Compare diagnosis, presentation, and treatment of Acid-Base Imbalance
  - VENUE: lectures; in-patient setting (rounds)

- **Nutritional Support**
  - Discuss the assessment of nutritional status and basic nutritional needs
  - Discuss indications and techniques of nutritional support
  - VENUE: in-patient and ambulatory clinic setting

- **Coagulation and Transfusion**
  - Be able to diagram and explain the coagulation pathways
  - Discuss the evaluation and treatment of bleeding and clotting disorders
  - Discuss the evaluation and treatment of a bleeding patient
  - Analyze component blood therapy and its complications
  - VENUE: in-patient (rounds) and ambulatory clinic setting; “pocket lectures”

- **Shock**
  - Describe the primary mechanisms of shock and their etiology
  - Discuss the evaluation and treatment of the primary mechanisms of shock
  - VENUE: in-patient (rounds) and ambulatory clinic settings; “pocket lectures”

- **Wound and Wound Healing**
  - Distinguish between the types and treatments of skin ulcers
  - Compare and contrast the various types of suture material and their advantages and disadvantages
  - Compare and contrast the various types of local anesthetics and their dosages
  - Discuss the process of wound healing
  - VENUE: in-patient and ambulatory clinic setting

- **Antibiotic Therapy**
  - Analyze the difference between prophylactic use and the treatment of infection
  - Discuss the bacteriology of common surgical infections
  - VENUE: in-patient setting (rounds); “pocket lectures”

- **Trauma**
  - Rank the steps and priorities of evaluating a patient with multiple injuries
Discuss the Glasgow Coma Scale
VENUE: in-patient setting (rounds); “pocket lectures”

- Burns
  - Classify the various depths of burn injuries
  - Discuss the principles of burn care including fluid replacement
  - Be able to calculate Body Surface Area
  - Discuss the types and treatment of inhalation injury
  - VENUE: ambulatory clinic; “pocket lectures”

- Hernia
  - Discuss the layers of the abdominal wall and assess how they pertain to abdominal wall hernias
  - Distinguish between the various types of abdominal wall hernias and their repairs
  - VENUE: ambulatory clinic

- Esophagus
  - Differentiate the anatomy and physiology of the esophagus relative to its functional disorders
  - Compare and contrast between the different types and treatments of benign and malignant esophageal neoplasms
  - VENUE: ambulatory clinic; “pocket lectures”

- Peptic Ulcer Disease
  - Discuss the physiology of gastric acid production
  - Explain the various complications of peptic ulcer disease
  - VENUE:

- Small Bowel and Appendix
  - Discuss Meckel’s diverticulum and its indications for resection
  - Discuss the presentation and evaluation of appendicitis
  - Compare and contrast the benign and malignant lesions of the small bowel and appendix
  - Discuss the presentation evaluation, and etiology of small bowel obstruction
  - VENUE: ambulatory clinic; “pocket lectures”

- Colon and Rectum
  - Discuss the anatomy of the colon to include its divisions, arterial, and lymphatic supply
  - Compare inflammatory bowel disease and its complications
  - Analyze possible complications and treatment of diverticular disease
  - Discuss the etiology and evaluation trans rectal bleeding
  - Analyze the various premalignant conditions of the colon
  - Discuss the staging and metastatic pattern of colon cancer
  - Discuss the evaluation and treatment of hemorrhoids and perirectal abscesses
  - Discuss the staging and treatment of rectal cancer
  - VENUE: ambulatory clinic; “pocket lecture”

- Gall Bladder
  - Analyze the anatomic structures associated with the gall bladder
  - Analyze the presentation and evaluation of cholecystitis
  - Discuss the bacteriology of cholecystitis
  - Discuss cholelithiasis and its many possible layers of complications
  - VENUE: in-patient (rounds) and ambulatory clinic setting

- Pancreas
  - Discuss the presentation, etiology, and evaluation of pancreatitis
  - Discuss the difference between acute and chronic pancreatitis
  - Discuss the complications of pancreatitis
  - Discuss the presentation, evaluation, and treatment of pancreatic cancer
  - VENUE: in-patient (rounds) and ambulatory clinic setting

- Liver
  - Distinguish between and describe the three common benign tumors of the liver and their treatments
  - Discuss the various acute and chronic forms of hepatitis
o Explain the testing guidelines for the various types of hepatitis
o Discuss the difference in presentation of primary and metastatic liver cancer
o VENUE: ambulatory clinic; “pocket lectures”

o Breast Tumors
  o Categorize the more common forms of benign and malignant breast disease
  o Demonstrate the evaluation of a breast mass
  o Discuss the staging of breast cancer and the signs of advanced disease
  o VENUE: in-patient (rounds) and ambulatory clinic

o Surgical Endocrinology
  o Analyze the relationship anatomy of the thyroid gland
  o Discuss the pathology of the thyroid gland and its functional abnormalities
  o Categorize the benign and malignant forms of thyroid nodules
  o Discuss the evaluation of the thyroid nodule
  o Discuss the function of the adrenal glands
  o Discuss the presentation of benign and malignant adrenal tumors
  o VENUE: ambulatory clinic; “pocket lectures”

o Spleen
  o Discuss the examination of the spleen
  o Discuss the etiology and treatment of splenomegaly
  o Discuss the effect of splenectomy on the immune status of children and adults
  o VENUE: in-patient (rounds) and ambulatory clinic setting

o Skin Cancer
  o Discuss the presentation and treatment of the three most common skin cancers
  o Discuss the staging of malignant melanoma
  o VENUE: ambulatory clinic; “pocket lectures”

II. CLINICAL SKILLS (psychomotor)

While it is difficult to require a finite minimal number, the student is expected by the conclusion of the clerkship rotation experience to have satisfactorily performed at least five each of the skills and procedures listed below. The student is expected to understand the indications and contraindications as well as the technique. The VENUE for the majority of these skills would most likely be in the in-patient setting, i.e. “floors,” ER, OR.

  o Perform physical examination of the acute abdomen
  o Perform a surgical hand scrub and understand a sterile field
  o Gown and glove
  o Prep and drape a surgical field
  o Administer local anesthetic
  o Tie surgical knots, wearing surgical gloves
  o Perform one-handed surgical ties
  o Perform instrument ties
  o Suture/staple skin incision
  o Peripheral IV insertion
  o Nasogastric tube insertion
  o Foley catheter insertion
  o OMT e.g. lymphatic pump, mesenteric lift
  o Obtain an appropriate informed consent

III. PROBLEM-SOLVING AND PROFESSIONAL DEVELOPMENT

By the end of the surgery clerkship rotation, the student is expected to have achieved a satisfactory level of performance and development in the areas listed on the Surgical Clinical Evaluation.
Specifically, the student should demonstrate acceptable levels of achievement in his/her ability to complete the following:

- Take a history from a surgical patient
- Conduct a physical examination on a surgical patient
- Interpret clinical findings, logically and concisely, to arrive at a surgical diagnosis and management plan
- Develop and maintain complete and concise record of patient problems, including history and physical examination reports, preoperative and postoperative orders, and progress notes
- Develop and give accurate and concise case presentations
- Follow operating room protocol
- Develop rapport with patients by talking in a calm, confident approach, using appropriate language, listening and showing courtesy and concern for the patient's well-being
- Show evidence of continued professional development by interacting effectively with peers and other health care personnel, taking responsibility for patient care and showing a degree of self-confidence appropriate to his/her level of knowledge
- Show motivation for learning achievement by taking responsibility for his/her own learning (reading and other responsibilities), being available and prepared, and showing a consistent warm and caring attitude towards patients and health care personnel.

The emphasis of the clerkship rotation should be to learn how to obtain a history and physical to create a differential diagnosis and then appropriate workup and care plan. The top problems solved by general surgeons, in order, are breast, hernias, gall bladder, and colorectal. If you REALLY want to be prepared and impress your preceptor, I would suggest you think about and develop a thirty minute presentation, or "pocket lecture," on the following topics (Don't be surprised if your preceptor asks you to do this anyhow!):

- Assessment of abdominal pain and examination of the abdomen.
  - History = OPQRST of pain: onset, palliation, quality, radiation, severity, timing.
  - Exam = Inspection, auscultation, percussion (the most sensitive sign of peritoneal irritation), then palpation. Then a finger in every orifice. Make a differential diagnosis before “CT and belly labs.” Role of acute abdominal series.
- Breast: nipple discharge, breast pain, palpable masses, abnormal mammogram, ACS guidelines for mammography and risk factors for breast cancer. Treatment by breast conservation vs. mastectomy.
- Hernias: Definitions, locations, anatomy (what is the myopectineal orifice). Most common types. Incarceration, strangulation and obstruction. Laparoscopic and open repairs.
- Small and large bowel obstruction: diagnosis and treatment. When to temporize and when to operate.
APPENDIX D: NEEDLE-STICK AND BLOOD-BORNE PATHOGEN EXPOSURE PROCEDURE

NEEDLE-STICK AND BLOOD-BORNE PATHOGEN EXPOSURE

A separate, badge-sized card for needle-stick protocol is required to be worn by all students when in a clinical environment. If a student experiences a needle stick, puncture wound, accident, or sharp injury, or is otherwise exposed to bodily fluids of a patient while on a clinical clerkship, the student should:

1. **Immediately** wash the area, scrubbing skin with soap and water. Then,
2. **Immediately** report the incident to the attending physician or other appropriate supervising physician. Then,
3. **Immediately report to the facility’s emergency room for evaluation and treatment:**
   a. Prompt evaluation and treatment is essential. Post-exposure prophylaxis and other treatment may be indicated and should be started ideally within an hour of exposure.
   b. You will present yourself to the facility’s emergency room as a patient for purposes of consent to treat and billing. Your health insurance will be the primary form of insurance used for any such incident(s).
4. **Contact your regional coordinator and the Associate Dean of Clinical Sciences.**

Students should also consult the Needle-Stick Policies & Procedures libguide, which provides helpful information regarding site-specific protocols. Students may also access the CDC guide for Post-Exposure Prophylaxis (PEP) as needed.