First and foremost, congratulations on completing your first two years of medical school. The third and fourth years of medical school are both challenging and rewarding. Third year is an excellent transition from the classroom to learning from your clinical experiences and your patient encounters to acting as a healthcare provider and decision maker. With that transition comes both highs and lows. Over the course of the next year, you will experience stress, exhilaration, emotion, loss, satisfaction, frustration, joy and fatigue. In the face of the highs and lows that typify the third year of medical school, I want to encourage each of you to foster the ideas of altruism and compassion that drew you to a career in medicine. The hope is that this booklet may help with some of the uncertainty, at least logistically, you may encounter as you navigate the next phase of your medical training.

Before diving into the book, here is some history on AOA. The National Alpha Omega Alpha was established in 1902 at the College of Physicians and Surgeons in Chicago, with the Kansas Alpha Chapter receiving its charter in 1931. Its raison d’etre can be expressed in a phrase: to recognize and to perpetuate excellence in the medical profession.

Election to Alpha Omega Alpha is a distinction that accompanies a physician throughout his or her career. Especially for the younger physician, the society provides a forum for the exchange of ideas as well as a source of valuable contacts. Members can be elected as students, house officers, alumni, or faculty of an affiliated institution or by virtue of distinguished achievement in any field related to medicine, on an honorary basis.

Chapters elect medical students in their last two years of medical school. Scholastic excellence is a key criterion, but not the only one; integrity, capacity for leadership, compassion and fairness in dealing with one’s colleagues are also to be considered. Students who are in the top academic quartile of their class are eligible for election. The Alpha Chapter at the University of Kansas has two separate elections in which undergraduates may be voted into Alpha Omega Alpha. The first opportunity is the end of junior clinical clerkships when the top 12.5% of students are eligible, and the second opportunity for election is in the fall of 4th year clerkships when the top 25% is eligible. A total of one sixth of the class may be elected into the society per class. The students elected to the society are men and women who have compiled the requisite high academic standing and who, in the judgment of the members of the local chapter, have shown promise of becoming leaders in their profession. They are also dedicated to fostering mentorship and an environment of scholastic excellence within their institutions.

Congratulations on making it through Step 1! Best of luck with your future endeavors!

:)

- Laura E. Stevens
  Alpha Omega Alpha Kansas Chapter President, 2018-2019
CLINICAL STUDENT ORIENTATION
MANUAL 2018-2019

SPONSORED BY:

THE UNIVERSITY OF KANSAS ALPHA CHAPTER
ALPHA OMEGA ALPHA NATIONAL HONOR MEDICAL SOCIETY

Original Author:
Curtis R. Maslen, M.D., 1985
With contributions from the classes of 1990-2019

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INTRODUCTION

Welcome to your clinical years! This orientation manual represents an attempt to assist in the transition from basic sciences to the wards and to make that transition as painless as possible. Since each person’s medical school experience is unique, it does not pretend to foresee everything that will be encountered on the clinical wards. It does, however, present the kind of information that we would have liked to have seen before we suffixed our names with MS3 for the first time, and we believe that it will be useful to most of you as you “learn the ropes.”

It is our hope that this manual will prove to be useful, and not only that it will be continued from year to year, but also that it will be improved upon through your experiences. We ask you, therefore, to critically evaluate the information provided in this manual as you progress through the first several months of clinics, make note of important topics which were omitted as well as information which was unnecessarily included, and use that evaluation to modify this orientation manual so that it will be of even greater benefit to the class of 2019.

THE STUDENT

The following is a discussion of how the clinical student fits into the picture. Since much of the transition from basic science student to clinical student concerns itself with figuring out just exactly what it is that one is supposed to be doing on the wards, this section concerns itself with outlining some of the basic responsibilities and expectations placed on the clinical student. It should be noted first of all that student responsibilities vary tremendously from clerkship to clerkship, service to service, and attending to attending. Therefore, clinical students are well advised to define, as clearly as possible, their responsibilities early on in each rotation by consulting with the residents and attending physician. When new situations arise, “it never hurts to ask.”

More specifically, a list of clinical students’ responsibilities usually includes charting progress notes, doing admission H&P’s, writing orders on the chart, attending rounds, lectures, and conferences, presenting patients to residents and attendings, studying when they have time, and, of course, “scut work.” Order writing is the most variable of these since on some services you will be expected to write virtually all of the patient care orders, while on other services your attempt to do so may result in the loss of life or limb. The specifics of writing orders, charting progress notes, and a few basic items of scut work are discussed later on in this manual. Scut work, as we’re sure you’ve already heard, includes such things as filling out requisitions, consults, and a multitude of other paperwork, inserting foley catheters, starting IV’s, placing NG tubes, and virtually anything else that residents or attendings insist that you do as they wave your clinical evaluation form over your head. For virtually all clerkships, demonstrating a commitment to your patient, showing interest along with
being enthusiastic, helpful and hardworking is the single most important thing one can do to maximize learning and enjoyment on the service.

**Pearls**

**Important Phone Numbers:**

<table>
<thead>
<tr>
<th>Service</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>KU Pathology</td>
<td>x1180</td>
</tr>
<tr>
<td>KU Laboratory</td>
<td>x1700</td>
</tr>
<tr>
<td>KU Radiology</td>
<td>x7551</td>
</tr>
<tr>
<td>KU PACU</td>
<td>x2100</td>
</tr>
<tr>
<td>KU Pharmacy</td>
<td>x2820</td>
</tr>
<tr>
<td>VA Radiology</td>
<td>52715</td>
</tr>
<tr>
<td>KU paging system</td>
<td>9917, then number</td>
</tr>
<tr>
<td>VA paging system</td>
<td>5BEEP and then</td>
</tr>
<tr>
<td></td>
<td>follow</td>
</tr>
<tr>
<td>KU operator</td>
<td>0, or x5000 KU</td>
</tr>
<tr>
<td>page operator</td>
<td>x5155</td>
</tr>
<tr>
<td>KU medical records</td>
<td>x2454</td>
</tr>
<tr>
<td>KCVA</td>
<td>8168614700</td>
</tr>
<tr>
<td>KU Cancer Center</td>
<td>x7750</td>
</tr>
<tr>
<td>KU IR</td>
<td>x6875</td>
</tr>
<tr>
<td>KU Medwest</td>
<td>x8400</td>
</tr>
<tr>
<td>Landon Center</td>
<td>x1203</td>
</tr>
</tbody>
</table>

* For KU extensions, always dial an 8

(some newer numbers a 5)

**Uploading Outside Imaging onto O2:** Take copy of CD to Radiology on the 2nd floor of the main hospital. Make sure to have the patient's MRN#. They will get in contact with your department when they are finished uploading the imaging so that you can pick up the CD and return it to the patient.

**Cafeteria**

KU: 6:30am to 8:00pm M-F  
7:00am to 6:30pm on weekends  
VA: 8:00am to 2:30pm
LIST OF BOOKS

As you will find, reading time is valuable during a clinical rotation. You will need to select textbooks which are both accurate and complete yet readable in the relatively short time in which a clerkship lasts. The following list of books and comments is compiled to help you make a selection as well as to inform you about what is available.

Some resources that might help you save money: clerkship coordinators (for certain rotations), counseling center, other classmates/big sib’s who’ve completed the rotation already.

HELPFUL HINTS on books and studying:

1. Select books you feel you can read cover-to-cover during the one to two months of a rotation. It is important to get an overall view of a particular clinical rotation. Focus on the big picture.
2. Once you have selected a book, read it. Don’t attempt to read several different books on specialized areas. Basically, pick one book.
3. Use major textbooks (Harrison’s, etc.) when it is necessary to have more detail. When you want to read about a specific problem on one of your patients Uptodate is a fantastic reference tool. You may access Uptodate on your personal computer off campus if you log into O2 and follow the link (once you have “wrenched” it in). Or you can download the app and create an account so you can quickly access Uptodate on the wards. Other reference texts such as Harrison’s can be utilized through Access Medicine.
4. NMS review books as well as other review books are available to check out from the Student Counseling and Educational Support Services Office, Room G012 Dykes Library (5886580), at no charge.
5. Use the library. Many excellent reference books and atlases can be found there or online on AccessMedicine. Many of them can be checked out. If a desired book is not there, encourage the department to place one on reserve.
6. Read about your patients. Know their problems.
7. Do Questions to prepare for the shelf exam. Many students now use Pretest books with questions which are meant to be significantly harder than the shelf, but are a good learning tool. Online question banks include USMLEasy which you can access through Access medicine. You can select out different areas, but the disadvantage is that it does not remember the questions that have been asked previously unless you subscribe to the website. Some students use USMLEworld.com which is the question bank most of you will use for Step 2.
GENERAL ESSENTIALS – These are a helpful to have.

1. EpocratesRx Clinical Drug Reference: Over 2,600 drugs and tables, including adult and peds indications and dosing, contraindications/cautions, adverse reactions, mechanism of action, formularies, black box safety information and pricing. One can run a multidrug check for up to 30 drugs (www.epocrates.com). FREE. Not pertinent to get Epocrates, but it is a must to have some sort of drug reference.

2. Quick Medical Reference, Maxwell: Easy place to get common things everything from note writing and drug levels to dermatomes and mental status exam. Can fit in the front pocket of your white coat.
Clerkship: Family Medicine
Course Directors: Hannah Maxfield, MD 9174628, hmaxfield@kumc.edu
Course Coordinator: Stephanie Carter, 5881996, scarter6@kumc.edu

Grading Breakdown:

Family Medicine:
Clinical Evaluation
Community Preceptor……………………… 25%
Student Clinic Eval………………………… 25%
Resident On call Eval………………… Pass/Fail
OSCE. …………………………………….… 10%

Projects and Participation
Case Presentation……………………………15%
Participation……………………………………5%

Written Exams
Shelf Exam……………………………………20%
Patient Encounter Log………………… Pass/Fail
fmCases………………………………… Pass/Fail

* To obtain a Superior in the course (90-100%):
  Minimum CPR eval score of 85% Minimum raw shelf exam score of 68%
  Satisfactory completion of all required assignments

High Sat (80 to < 90%)
Meets all requirements for “satisfactory”

Satisfactory (65 to < 80)
  Minimum CPR evaluation score of 65% Minimum raw shelf exam score of 58
  Satisfactory completion of all required assignments

* OSCE Exam: standardized patient experience during the Family Medicine clerkship. This will occur in Week 8. This OSCE will be used to assess your grasp of several key family medicine clinical skills. These skills include clinical reasoning, management of chronic disease, preventative care and health
maintenance, specific physical examinations skills, and physician-patient communication skills.

*Case Presentation: You will spend one half day per week at a clinical setting serving a vulnerable or underserved population (e.g. Kansas City Free Clinic, Sunflower House, etc.). At the end of the 8 weeks, you will prepare a PowerPoint presentation with all other students who worked at the same clinic.

General Overview:
Each week as a student you may have a variety of responsibilities. Generally you spend 2 to 2.5 days a week with a community preceptor somewhere other than KU this is an excellent opportunity to learn how general medicine is practiced in the community and not in an academic center. Take advantage of your experience. These clinics can be anywhere around the city or as far away as Lawrence. One half day a week is spent at an underserved clinic. The underserved clinic can be a similar experience to working at Jaydocs. The other main area you work in is the Student Clinic. This clinic is in the MOB and students are paired with pharmacy and nursing students.

Patients are seen with a team of students who then collaborate to formulate a plan for the patient. Normally people spend anywhere from a one half day to several days a week in student clinic depending on your community preceptor (you will spend more time in the student clinic if your “community preceptor” is actually a KU faculty instead of in the community this will be the case for a few students). There are didactic lectures on Friday afternoons and students are given ½ day a week off for shelf preparation. Miscellaneous responsibilities include a Case presentation that you put together with one or two other students who worked at the same underserved clinic. More information will be given during the rotation about the case presentation generally a low stress project in which you share your experiences at the underserved clinics. The OSCE is an exam taken during the final week of the rotation in which you are tested with standardized patients on history taking, physical exam skills and note writing. The test has ten sections including: one standardized patient, one joint musculoskeletal exam, two x-ray readings, two dermatology pictures, a mock acute visit on the computer, a mock follow-up visit on the computer, and multiple short answer questions regarding preventative medicine.

Duty Hours:
Students generally work 4 and ½ days a week without any weekend work. One 24 hour inpatient call is required and is Pass/Fail. By far the least number of required hours during any of the 8 week rotations, so take advantage of the free time by studying, catching up with friends/family, research, working on your CV/personal statement, etc.

Exam Advice:
The way this shelf is graded is unique to the other clerkships because it is not graded on a curve. The raw score you receive or your percentile (whichever is greater) is your
grade for the shelf. This makes it much harder to get a good grade on the shelf score as
compared to other rotations. This makes it even more important to be prepared.
Additionally, most of the topics in Family Medicine overlap with Internal Medicine but
with a larger focus on outpatient care, preventive medicine, and musculoskeletal
pathology.

**Books:** Blueprints Family Medicine and Case Files Family Medicine are the two
most commonly used reference books, but not everyone finds them useful. Many of
the topics in Family Medicine overlap with Internal Medicine so having the
knowledge of Internal Medicine first will be helpful. If you have already had Internal,
referring to your Internal Medicine resources may be the most useful. If you have not
had Internal Medicine, you may benefit by going ahead and purchasing an Internal
Medicine resource, which will be helpful for both rotations. Particularly, the
“Ambulatory Medicine” chapter in the “Step Up to Medicine” book (see Internal
Medicine clerkship) is helpful. Some of your colleagues will also likely
pass around Shelf “study guides” that goes through the list of topics that the
clerkship gives you and answers each one. These are a good “quickhit.”

**Question Bank:** USMLEasy is one resource, but a very helpful bank of questions is
found on the American Academy of Family Practice website. Some students find
the questions helpful. Others, not at all. In most students opinion the AAFP
questions are of higher value compared to USMLEasy for this shelf. Sign up for a
free account on AAFP website and they will send you a login username and
password and you can access the board review questions there.

Uworld does not have a category for Family Medicine. The Internal Medicine
questions will be most helpful.

**Current USPSTF Screening recommendations at**
http://www.uspreventiveservicestaskforce.org/uspstocomments.htm. You can also
download the AHRQ ePSS app for smart phones and tablet devices for use in clinic.
Know these recommendations cold for the OSCE and the shelf.
Memorizing USPSTF A&B recommendations is high yield and below is the direct
link to the A & B recommendations only.
https://www.uspreventiveservicestaskforce.org/Page/Name/uspsf-a-and-b-recommendation

**Practical Advice**
Because of the grading breakdown (shelf not curved, student clinic as a large portion
of your grade, etc), it is difficult to obtain high marks in this clerkship. It seems that
many people are on the verge of a high satisfactory and superior and I have never
heard of anyone’s grade being moved up. In general the community preceptor
evaluations are very good, and since it is hard to get a Superior the other aspects of
the module are graded difficulty. The best advice I have is to study a lot and do really
well on the shelf exam. The people who do well on this rotation have all been very
successful on the shelf. Also, if you have a preceptor in mind who would be a good community preceptor I would definitely request to have them. I believe it is relatively easy to request and work with someone you know or have worked with in the past as long as you do it in a timely manner. Some students have great experiences with a preceptor they are paired with randomly, but I have heard many students unhappy with whom they were paired with for multiple reasons. So the best way to avoid this is if you know someone then try and get with them. Also, work hard and be a “team player” in the student clinic. It is not only a good experience in working with both nursing and pharmacy students, but it is also a significant portion of your grade (25%) and there are limited student clinic days.

Those students willing to go rural for the rotation greatly increase their chances at earning a ‘superior’. Students who choose to go rural are largely able to establish a stronger relationship with their preceptor and typically receive higher marks. The potential for learning opportunities is arguably much better at a rural rotation where students are often the ‘first line’ of defense seeing patients in the community ER and/or clinic. Rural rotations have long been highly recommended by all students who complete the rotation. For students concerned about their GPA and attempting to match into a competitive residency, rural is the way to go for family.

**Wichita Campus**
Clerkship Director: Laura Mayans, MD (lmayans@kumc.edu)
Clerkship Coordinator: Mary Hursey (mhursey@kumc.edu)

The majority of this 8 week rotation is spent with a community preceptor in their private practice. Each student will have their own preceptor and will attend clinic based on the doctor’s clinic schedule (typically around 8 am – 5 pm). Students will participate in history taking, physical exams, note writing, and procedures - dependent on each physician’s preference for the student’s level of involvement. Prior to the start of the rotation, students will also be given the opportunity to sign up to do the whole rotation with a rural physician.

Didactics occur during the first week of the rotation, for several days in the middle of the rotation, and during the last week of the rotation; students with rural preceptors are expected to return for didactics. Students are scheduled to do two day calls and two overnight calls with family medicine residents at Wesley and St Joe hospitals. In addition, students are assigned to two community experiences at the JayDoc outreach clinic (Thursday evening or Saturday morning). Students on rural rotations will not be expected to do calls or JayDoc clinic but may be expected to do calls with their own physician in the rural community.

Grading: 50% clinical evaluation, 10% Biophysical Care in Challenging Conditions paper, 10% OSCE (standardized patients, note writing), 30% NBME
Clerkship: Internal Medicine

Kansas City:
Course Director: Isaac Opole, M.D. iopole@kumc.edu
Course Co-Director: David Becker, M.D., x86005, dbecker@kumc.edu
Course Coordinator: Marcia Pressly, x8-6002, Office 4032 Delp, mpressly@kumc.edu
VA Student Coordinator: Aundria Nitz, aundria.nitz@va.gov

Wichita:
Clerkship Director: Dr. Jahansooz (ajahansooz@kumc.edu)
Clerkship Coordinator: Jaime Schadegg (jschadegg@kumc.edu)
VA Student Coordinator: Linda Hankerson (linda.hankerson@va.gov)

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First day

Meet: Site is variable, so watch your e-mail. First day is typically just orientation without clinical duties (with breakfast provided).
Bring: White coat, stethoscope, penlight, ID badge, notepad

Helpful stuff:
- Blank note cards are a great way to keep track of patient information, and many students also found downloads at www.medfools.com useful as well. At KU, papers can easily accumulate and some find it useful to use a clipboard.
- If you are assigned to the VA for a portion of your rotation (about 1/3 of students from KC campus are assigned to the VA each month), make sure that you have completed the necessary registration/training/ID activation as instructed by either the clerkship director or by VA staff via email.
- Dress: Professional attire is required. Some allow scrubs for the weekend, but it’s best to check with your residents first.
Study Materials

- **Books provided by the clerkship:**
  - American College of Physicians IM Essentials Text (MKSAP)
  - American College of Physicians IM Essentials Questions (MKSAP)
  - **Wichita only:** Rapid Interpretation of EKG’s by Dubin

- **Books most commonly used to study:**
  - Step Up to Medicine, Agabeb
    - A thorough review book in bullet format with many good illustrations, charts, algorithms and mnemonics. Great resource for wards and shelf.
  - PreTest- Medicine
    - PreTest is a question only book (~400-600 questions) with detailed answers included. There is a PreTest for every discipline you encounter 3rd year. Many students feel PreTest questions are more similar to the style of the “Shelf exam” or NBME questions than Uworld is.
  - MKSAP for Students
    - Question series for medical students provided by the clerkship. Excellent bank of questions that are very similar to shelf questions.
  - Blueprints in Medicine
    - A shorter review book that covers basics on most of the general topics.
  - Case Files Internal Medicine
    - Presents ~60 clinical cases/scenarios followed by discussion of work ups, diagnosis, differential diagnosis and a few questions. Very popular series of books for 3rd year medical students (although not as popular for Internal Medicine or for Surgery as for other rotations)
  - Medicine Recall

- **Other helpful references/books to consider:**
  - Pocket Medicine, M. Sabatine from Mass General
    - Excellent, concise pocket--sized reference manual. You will see this used by many residents, but as students this is very useful for quick reference/learning on the rounds and while on the go. Fits nicely in white coat pocket.**
  - Medical Manual of Therapeutics (aka The Wash manual)
    - The classic reference book for the wards, a thorough book well-liked by residents; helpful but not essential for medical students.
  - Maxwell’s Quick Medical Reference
    - A pocket sized guide with essential basics for everyday medical practice. Very helpful for any service. It’s smaller than pocket medicine but will give you the nuts and bolts you need.
• Practical Guide to the Care of Medical Patient, by Fred Ferri
  ■ Another pocket-sized handbook like Wash Manual, but with more procedures. Helpful but not essential for students.
• Companion Handbook to Harrison’s
  ■ Contains a lot of information in a short, concise, readable form; nice to have with you at the morning lectures.
• Rapid Interpretation of EKG’s by Dubin
  ■ Great for learning EKG’s which you will definitely do while on the service.
• Qbanks: UWorld is the best Qbank for preparing for the Shelf. The more questions you can get through, the better! Many students end up buying a subscription. Other options would be Kaplan, or USMLEasy, but these are much less frequently used simply due to the superior quality of the UWorld Qbank.
• Free Online Videos:
  ○ http://som.uthscsa.edu/StudentAffairs/thirdyear.asp:
    ■ This is an excellent final review and has more than just Internal Medicine. You definitely want to watch this a few times the final week of the clerkship.
  ○ http://www.onlinemeded.org/
    ■ These videos are good for basic understanding and review. They offer clear explanations of nearly every topic for third year.
• Reference Texts:
  ○ Harrison’s Principles of Internal Medicine
    ■ An excellent reference, the Gold Standard. It is big and expensive, but you will be able to use it during many rotations. Often available in residents’ rooms, and always in the library. A worthwhile purchase if you can afford it.
  ○ Cecil’s Textbook of Medicine
    ■ Similar to Harrisons, but some say easier to read.
  ○ DynaMed online database
  ○ Uptodate online database - you can sign up for free through the school, do so if you haven’t already!
• Aquifer Internal Medicine (formerly SIMPLE) Cases (only for Kansas City) (http://www.med-u.org/)
  ● These may be a required component of the curriculum or may be optional - consult your syllabus
  ● Online interactive virtual patient cases split into 2 blocks of 9 (total of 18 cases to be completed over the 8-week rotation) - syllabus will specify which cases correspond to which block.
  ● There are quizzes at the end of the cases
    ○ Make sure to interact thoroughly enough (i.e. type something in the text fields when prompted) to earn a green dot for adequate interaction at the end of each case
• Some students chose to complete all 18 during the first half to get them out of the way and allow for more study time as the shelf exam approached.
• Some students find these to be a helpful resource for shelf studying, others find them to be a slow and inefficient way to cover the material.

**Kansas City Nuts & Bolts**

**Hours:** Expect hours to be about 6:00 a.m. to 6:00 p.m., with occasional earlier days. Students at the KCVA will often be dismissed early as these services tend to have fewer and less complex patients. Take advantage of shorter days for studying. Students are expected to be at the hospital 6 days per week. Follow schedule provided in syllabus on first day (also can be found on Sharepoint) for dates and times of Grand Rounds and Morning Report - *attendance strongly encouraged*. Attendance for resident noon conference is not required but for student noon conference is mandatory. There will also be weekly lectures/PBL/FSI that will be listed in the schedule, which are mandatory for both KC and VA students.

**Weekends:** Students are required to work 6 days per week. Students are usually allowed to leave the hospital on weekends after rounding and writing notes/orders (typically around noon, but this depends on your residents and attendings). Discuss a weekend plan with your residents and the other students at the beginning of each month - some teams prefer that both students come in on the same weekend day and others prefer that one student come on Saturday and the other on Sunday. Typically scrubs are allowed on weekends, but check with your resident first.

**Call Schedule:** Students are required to take “short call” approximately one time per week (only lasts until 7pm typically). ALL students are **REQUIRED** to do one overnight call shift (which will be scheduled individually for all students at the beginning of the clerkship).

**Overnight call:** every medical student will have one overnight call experience. It will be during one of your KU months and will take place on either Friday or Saturday night. There will be a *work product to turn in* (either an H&P of a patient you helped to admit or a one-page paper describing a clinical encounter during that shift). All information regarding the call shift requirement will be detailed in your clerkship syllabus.

**Units:** At KUMC, medicine floors are on 4th, 5th and 6th floor of the hospital; you may have patients in the heart hospital as well. At the VA, there are teams (green, red, blue, silver) with designated rooms on either the 11th floor or the 8th floor of the main hospital - all codes and locations will be provided in the syllabus.
**Grading System:** Your grade will be based on the following: Clinical evals: 60 % (30 for each service) + Shelf Exam 30% + Final Standardized Patient Presentation 5% + Professionalism 5%= Total of 100%

- **Superior is 90% or higher.** 80-89.99 is HS, 70-79.99 is SAT, 69.9 or less is UNSAT. Minimum passing raw score for NBME exam is 57.
- Not for a specific portion of the grade but must be completed
  - Students are required to perform an observed H & P. Only an attending can sign off that you have completed this task*, and the form must be turned in to the clerkship coordinator. There is a deadline to have this form turned in early on in the clerkship (check the syllabus*). This is meant to be formative i.e. it is not for a grade, so be proactive and get it done as early as you can that way you can use the remainder of the clerkship to work on your weaknesses. Also if you wait till the last day you will likely run into issues with patient and attending availability.
  - Mid-Clerkship Evaluation with Clerkship Faculty - will be scheduled for you
  - SIMPLE Cases - as detailed above. There are 18 total to complete with 2 required deadlines for each block of 9 cases.
  - Procedure logs - log patients as for all clerkships

**Wichita Nuts & Bolts**

**Clinical Responsibilities**

- There will be **four** 2-week blocks
  - 3 of the blocks will be in general internal medicine at Via Christi St. Francis, Wesley, or the V.A.
  - 1 block will be spent with a specialist (nephrology, cardiology, pulmonology etc.)
    - Work with Jaime Schadegg (jschadegg@kumc.edu) if you have a specific specialty you’re interested in
- Each day, you will be expected to carry 2-3 patients
  - You will present and write a note for each patient
- During the clerkship, you will be required to write 12 H&Ps that will be turned in to your attending
  - Start on these as soon as possible
  - When your team is admitting, offer to take the initial H&P on patients
  - The weeks fly by and 12 H&Ps take a while so don’t procrastinate
  - **Step up to Medicine is a great resource for the differential diagnosis**

**Daily Schedule**

- The expectation is that you round an average of 6 days out of the week
  - If you need to take a full weekend off, you can work both Saturday and Sunday of one weekend, then take the next weekend off.
- **6-6:30 am:** Arrive at hospital
  - Record lab values, read nursing notes from overnight
- **7:15-8:00 am:** Round on your patients
  - Find your patient’s nurse and ask them how the night went.
Don’t forget to record I&O’s

- **8:00-8:30 am**: Morning conference
  - Residents lead discussions on various IM topics

- **8:30-noon**: rounding with attending

- **12-1 pm**: noon conference (often with food provided)

- **1:00-5:00 pm**: admission of new patients
  - This is when you can get new H&P’s completed
  - Each hospital has two IM “teams” and you will be assigned to one of those teams
  - Each team admits every other afternoon, so you’ll have some free time if your team is not admitting that day.

**Additional activities:**

- **Integrated student-led simulations**
  - This will be similar to standardized patients but typically in a team setting
  - Example: Running a code with a patient simulation robot

- **Oral exam**
  - There is a list of 10-12 oral exam topics ranging from atrial fibrillation to delirium.
    - You will be tested on two of those topics
  - The oral exam is graded by an attending and a resident.
    - Before each topic, they present 2 potential options from which you can decide the topic you want to discuss.
    - For example, “Your first options are hyponatremia and metabolic acidosis”
    - Following your first case, they present two new topics to choose from.
  - You will be expected to identify pertinent HPI questions, important history questions (FH, SH), and appropriate lab tests. There will also be questions regarding pathophysiology of the disease process.
  - Dr. Jahansooz provides laminated oral exam notecards with the pertinent information
    - Know these cards and you will do great.
    - *Practice discussing these topics out loud with a classmate.*
  - The oral exams sound intimidating, but you will be well prepared.
    - It’s just a discussion, and they just want to see if you can critically think through a case.

- **Optional review sessions**
  - Cover salient internal medicine topics, led by Dr. Jahansooz
    - These are held in the evenings and on weekends
  - Great review for the shelf as well as the oral exam
  - Totally optional, but a great resource for doing well in the clerkship

- **Observed H&P**
  - You will be assigned an attending and a time for this H&P
    - The attending picks a patient for you to see in the hospital
○ This is an opportunity to demonstrate your history-taking skills as well as a focused physical exam.
○ Low-stress, pass-fail activity

Tips/Advice
● Take responsibility for your patients
  ○ A good goal is to present your patient without the resident needing to supplement with information at the end (this will seldom happen, the residents often chime in)
  ○ Attendings also notice if you have a plan for your patient. It doesn’t have to be perfect, but it should show you’ve critically thought about your patient.
● Some attendings prefer you present without notes
  ○ If this is the case, identify the most important information (lab values, medications) while omitting extraneous details
  ○ You won’t be able to memorize every single detail
● Stay interested
  ○ Attendings and residents notice if you are involved/interested.
  ○ Even if you don’t want to go into IM:
    ■ Pay attention during rounds – each patient is a learning opportunity
    ■ Ask questions
● Advice from Dr. Jahansooz:
  ○ “Stay positive!! Becoming a medical doctor is difficult. As a third-year medical student, he or she is right in the middle of that struggle. But I can guarantee as a recent graduate of residency that being a physician is one of the foremost and enjoyable professions. If a student is struggling with a clerkship or if a student has ANY concerns, I strongly encourage him or her to let a faculty member know.”
● Dr. Jahansooz is a phenomenal resource for Wichita students in Internal Medicine.
  ○ Reach out if you are struggling with a topic or have questions about the rotation

Patient Presentations

Pre-rounding/Morning: This is when you prepare for rounds. Different attendings round at different times but not many start before 8:30. Ask your residents what time your particular attending rounds in the morning, as well as how many patients you are expected to pick up. Generally, students are given 1-2 patients on their first or second day and titrated up to 3 (and sometimes 4 max) over the following weeks. You should arrive to the hospital early enough to read up on AND see all of your assigned patients (~6am at least the first few days while you’re figuring out your flow, and can potentially move it to 630 once you become more comfortable). Check O2 to see new lab values, read any notes from consults, check the orders that the resident placed the day before so you are up to date with what is happening with your patient, check to see if any medication changes were made, check if there is any imaging to follow up on, etc. When the night team is checking out, PAY ATTENTION. If anything happened
overnight, that should be what you lead off with in your presentation. After you have checked up on these things and picked up any new patients, you will go see your patients. See how they are doing, perform an exam, and then go back to the workroom and continue preparing your presentation for rounds.

**Rounds and Patient Presentations:** One of the biggest skills you will build upon during Medicine is your ability to present a patient in a concise manner. MOST attending physicians will want your presentations in a SOAP format unless it is a brand new patient - in that case, most (but not all) typically expect a full H&P. A good rule of thumb is to be more detailed and to include more information when presenting on the first day that you work with a new attending; once you gauge his/her style, you will know how to tailor your presentations from there on out, but it is better to initially include more rather than less.

- ** Overnight events:** first state anything important that happened overnight.
- ** Subjective:**
  - This is what the patient tells you. Some attendings can be very specific about this. For example, this is NOT where you tell them their vitals or exam findings.
- ** Objective:**
  - This is where vitals, physical exam findings, and finally lab values go. Some attendings will want you to report ALL the physical exam findings and lab values but many will find it more impressive if you can figure out which ones are important to report. You would probably always want to report any big changes. **Be aware how the values are trending from the day or so before.** Select the lab values that are important to report for the patient’s admission (e.g. if they are admitted for COPD exacerbation, you should definitely report %sat and how much O2 they are requiring, as well as if they have a fever; if they are in for AKI, you should probably mention their Cr & electrolytes). If you are unsure why a lab value has changed, try to figure it out, then ask your resident in the morning if you can’t.
- ** Assessment & Plan:** This is where you give your one-liner to summarize the patient (“Mr. Smith is a 45 yo male admitted for COPD exacerbation”). and then a problem list with a plan for each problem – the more clear you are with your problem list, the better. You might say: “His number 1 problem is COPD, the PLAN is to treat with steroids, antibiotics, etc, → his number 2 problem is Diabetes and the PLAN is to …. ”. A very important point is to keep the big picture in mind – why are they hospitalized? Do they still need to be there? These are questions you should be thinking about when developing your plan. Any new problems that have come up on that day/in the last 24 hrs should typically be within your top 3 problems.
  - Always have a differential for each problem, especially when the diagnosis is unclear. Stating your differential during your assessment & plan will demonstrate your knowledge and will help you to understand which diagnostic studies are needed in your plan and how these support
the diagnosis. Pocket Medicine (discussed above) and UpToDate can help with forming a differential. Using these resources to create a differential will also help maximize the amount of learning you get out of each patient and will better prepare you for the shelf exam.

- Start asking yourself: “what would I do?? This forces you to think like a resident physician and it will drastically improve your assessments and plans. The more you take this view, the more you will learn and the better your plans will become. But, don't get down on yourself if your plan is wrong or not performed – this will likely be the case most of the time, especially at the beginning. But most physicians will appreciate the fact that you are really trying to develop a plan.

- Again, this can vary between attendings but most will like a simple problem list, with a plan for each problem. If they want something different, they will tell you.

- Always include at the end of your plan the patient disposition (e.g. continue inpatient admission, discharge, potential discharge tomorrow, etc) and what criteria the should be meeting prior to discharge (e.g. on room air, adequate pain control, etc). In other words, what is keeping the patient in the hospital? Also be thinking about what kind of care they will need upon discharge (e.g. long-term care, skilled nursing facility (SNF), home with follow up in clinic, etc)

- **If the attending has never seen the patient before or it is a new patient, then you will likely be presenting a full H&P. Follow the standard order and be very clear – CC, HPI, PMHx, etc. When it gets to assessment and plan, the same as above follows.

**Keep the BIG PICTURE in mind when making your presentation. Always answer “Why is the patient here?” Don’t just be a robot regurgitating lab values. A major goal of the clerkship (& 3rd year) is to start understanding what labs are important & why, and what tests you should order to gather more information to make better decisions about the management of the patient.**

Oftentimes students end up inadvertently copying every aspect of their assessment & plan from the admission H&P and carrying this work forward in an attempt to be thorough and prepared for rounds. You can get by doing this, but it is not the best way to maximize learning and is less likely to result in a superior grade. Superior students will make an effort to complete an H&P on new admissions in the afternoons (often admitted from the ED) and will attempt to develop their own differential diagnosis and an appropriate plan. This is challenging to do, especially early on in the clerkship, but should be your goal for the end of the clerkship.

**Notes**

**Writing Notes:** If you get done pre-rounding and have some time, you can start writing your notes. When you get back from rounds, you will finish them. Try to write your own
note and then at the end, check the resident’s note if you want to confirm the plan. Do NOT copy and paste the residents' notes. Internal Medicine is a great opportunity to practice writing quality notes. Also, keep in mind that some (not all) of your notes will be read! Most attendings will read at least a few of your notes – maybe not ALL of them, but they WILL read a few and judge you off the quality of those few. That means every note you write needs to be the best quality you can write. Do not get lazy at the end of the day and think your note doesn’t matter – pride yourself in writing great notes. One of the best compliments would be if the resident was able to copy and paste YOUR note!

You should write an H&P on all new patients, and a SOAP Progress Note on each patient every day. Many students use the “KU IP General Progress Note” as the “favorite” on the EMR system. Many students find it helpful to create a new note daily – this forces you to think about each problem and each physical exam item and what needs to change rather than just copy your previous note (which most of your residents will do). Many of your patients will be on many medications and these usually deserve a spot in the plan somewhere. E.g., if the person is diabetic and you are treating their diabetes in the hospital (even though that may not be the reason they are in the hospital) – then maybe their #5 or 6 problem should be “Diabetes” and the “Plan” would be whatever meds they are on.

**Orders (KC only):** Medical Students are allowed to pend orders. This can be great practice, but often things are too busy or happening too fast. If there is a slower afternoon or you see a good opportunity, ask the resident if you could try placing an order.

**Shelf Exam**

This is a tough shelf exam. It covers a lot of material. There are a lot of resources out there, but do not get bogged down by attempting to use too many. Choose one book to get through in its entirety (whether that be the provided MKSAP vs Step Up to Medicine vs Case Files, etc.), and do questions on top of that. Many people choose to buy a UWorld Step 2 CK subscription for the entire 3rd year and these questions seem to mirror the Shelf exam very closely.

- Note that there are over 1300 questions for the Internal Medicine section, so it may be wise to save some of these for Family Med or Surgery.
- Some consider that working through the MKSAP question book (provided by the clerkship) is a “must” and many students do this – this is something to start working on early in the clerkship if you choose to use it; some students chose to focus solely on UWorld for questions instead.
- Not very many people were able to successfully get through all of the questions from MKSAP and UWorld, but the more questions you can get through, the better! Once you get closer to the shelf, another “must” is to watch the following review produced by a once 4th-year student:
- http://som.uthscsa.edu/StudentAffairs/thirdyear.asp.
  - Many students would suggest watching this internal medicine review multiple times before the shelf – she does an exceptional job at hitting the high yield points for the shelf in a very short amount of time.
• Note: Some students substituted reading a textbook with watching onlinemeded videos and were successful; if these videos are more helpful for you than textbooks, feel free to go that route instead - but make sure to still do questions!
• **Choose one book to finish entirely (or watch onlinemeded videos instead), do lots of questions, and watch the review video as noted above.**

**Bottom Line**

Internal Medicine is one of the most demanding clerkships of your third year. The best thing you can do is show up early, read as much as you can about your patients and their conditions, and be ready to give clear, organized presentations of your patients on rounds. You will make mistakes and be incorrect often, but try not to make the same mistake twice. If an attending/resident tells you to look something up or change the way you present, make an honest effort to do so. Attendings notice improvement/progress and your evaluations will reflect this. Be enthusiastic and never say anything negative about anyone or anything. Always jump to help the residents in any way that you can. Show a genuine interest in learning and be a fun person to teach. Don’t be annoying to your residents – don’t ask them something you could easily look up yourself. ALWAYS see your patients every morning and see how they are doing. Use your time efficiently – if you are done with your notes in the early afternoon, ask the residents if there is anything you can help with or try to study. If you show up with a good attitude and prepared, you will likely be graded fairly. The shelf is tough so start studying early.
**Clerkship: Neuropsychiatry**

**Introduction:** This year the neurology and psychiatry clerkships will be combined into one 8-week module. It sounds like the directors are going to keep the clinical sites and grading rubrics the same as previous years. They will be dividing the total grade evenly between psychiatry and neurology. Combined didactic lectures will be given Wednesday afternoon for all students on the neuropsych rotation. Our understanding of the shelf examination is that a shelf for psychiatry and a shelf for neurology will be taken at the end of the 8 weeks with one being taken on Thursday and the second taken on Friday.

**First day:** It is our understanding that the first day will be a combined orientation day for all students on neuropsych. In the past when the rotations were separate students met with the respective clerkship directors and coordinators the morning of the first day of rotation and then reported to their clinical assignments that afternoon. In the event that this ends up being the case we have left the individual “first day” headings under both psych and neuro that have the estimated time and room number that has been used in the past. Regardless, be on the lookout for an email the week prior to this rotation, which will have specifics for the first day.

**Grade Breakdown:** Formal evaluation of student performance will involve the following components (and their relative weight) and assignment of clerkship grade will be based upon the aggregate (sum) of these scores: 90/80/70/60 for Sup/High Sat/Sat/Fail.

<table>
<thead>
<tr>
<th>Evaluation Component</th>
<th>Relative Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Psychiatry Clinical Performance</td>
<td>30%</td>
</tr>
<tr>
<td>Psychiatry Selective I</td>
<td>15%</td>
</tr>
<tr>
<td>Psychiatry Selective II</td>
<td>15%</td>
</tr>
<tr>
<td>National Board Subject Examination</td>
<td>30%</td>
</tr>
<tr>
<td>Patient Case Presentation</td>
<td>10%</td>
</tr>
<tr>
<td>Total Psychiatry</td>
<td>100%</td>
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<table>
<thead>
<tr>
<th>Evaluation Component</th>
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</thead>
<tbody>
<tr>
<td>Neurology Clinical Performance – Inpatient</td>
<td>35%</td>
</tr>
<tr>
<td>Neurology Clinical Performance – Outpatient</td>
<td>15%</td>
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<tr>
<td>National Board Subject Examination</td>
<td>30%</td>
</tr>
<tr>
<td>Mid-Rotation Case Discussion</td>
<td>7%</td>
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<tr>
<td>Attendance and Professionalism</td>
<td>3%</td>
</tr>
<tr>
<td>Neurological Examination</td>
<td>10%</td>
</tr>
<tr>
<td>Total Neurology</td>
<td>100%</td>
</tr>
</tbody>
</table>
Separate Psychiatry and Neurology scores will be provided for your reference but the clerkship grade is based upon the average of your Neurology and Psychiatry scores.

Psychiatry Component:

Course Director:  William Gabrielli, MD,PhD, x8-6401, wgabriel@kumc.edu
Course Coordinator:  Lesley Leive, x8-6401, office: 1st floor Olathe Pavilion-1006, lleive@kumc.edu

Past Psych “first day”: Meet in Room 1020 Olathe Pavilion around 0730. (Olathe is down the main corridor past Delp; it’s the section of the hospital across the street from Kirmayer).

Before the rotation begins, you will be asked to select rotations at KUMC or the KCVA.

KUMC Rotations:
1. Inpatient: Two weeks of Adult psychiatry - Considered by most students to be the best and most worthwhile learning experience of the clerkship. You will encounter core psychiatric diseases such as severe depression, substance abuse/withdrawal, bipolar disorder, psychotic disorders, etc. An excellent opportunity to spend a lot of time with these patients. Two different teams with two different attendings. May have time to study in the afternoons depending on number of patients.
2. Selectives: One week each
   - Child Psychiatry Inpatient at Marillac - considered by most students to be an excellent experience. The faculty there are very student-oriented and focused on teaching.
   - Adult and Child Psychiatry Outpatient - lots of time to study but very little to no one on one contact with patients. A glorified shadowing experience that can be fairly boring. Try to arrange to work with a resident first thing in the morning otherwise they forget you are there and you won’t see patients.
   - Consult Liaison - just like any consult service - you see inpatients on other services. Good opportunity to see patients on your own and formulate your own differential diagnosis. Usually a fairly busy service and on your feet most of the day so wear comfortable shoes. Good chance to see patients with general medical issues in addition to psychiatric and mental status changes.

KCVA Rotations
1. Inpatient: Two weeks of Adult Psychiatry You may have downtime in the afternoon at the VA-bring things to study.
2. Selectives: Listed Above

Site Locations:
- KU Adult Inpatient Psychiatry: 3rd floor Olathe Pavilion. Don’t forget your student ID – it is your key for access to the ward.
- KCVA Adult Inpatient Psychiatry: 10th floor at KCVA (but go to office on 9th floor). This is a locked unit (half of entire 10th floor). There is a student room to store your stuff outside of the unit (where everyone works and meets).
- **Child Psych:** Marillac Children’s Psychiatric Hospital – 8000 West 127th Street, Overland Park, KS.
- **KC Outpatient clinics (adult and child):** Located on the 6th floor of the MOB. Bring study materials as you will most likely have time to study in between patients and no-shows. You will not be assigned a resident or attending, you need to find the cases that interest you and ask the resident to join in.
- **Consult Liaison Service:** This is the consult service for psychiatry. At KU, meet in the resident lounge located on the 1st floor of Olathe. You will get a key to this room during your orientation on the first day of the clerkship.

**Hours:**
- **Rounds:** Will vary depending on if you are at the VA or KU. At the VA, the three teams usually round at different times, such as 8:30 a.m., 11 a.m. or even 1 p.m. depending on the attending. You usually need to allot 45 minutes to see your patients before rounds. At the VA, beware of patients using their “elevator pass” and going outside to smoke for extended periods of time. KU rounds are usually not before 8:00 a.m. Allow 20-30 mins for pre-rounding on these patients.
- **Typical Day:** Usually about 8:00 a.m. (roughly, maybe earlier) until about 4 or 5 p.m. Rounds usually start around 8:30 or 9:00 and can be longer or shorter on inpatient Psych at KU based on patient load. Psych consult service at KU typically longer hours from ~7 am to 6pm but varies based on residents/attendings.
- **Weekends:** If you are at the VA you can be almost sure you won’t have any weekends. Students on KU Adult inpatient psychiatry are expected to come in on one weekend day during the rotation. Rounding time on weekends depends on the attending, but most students will be done by noon.

**Mental Status Exam Components:**
1. Appearance
2. Behavior
3. Speech
4. Thought Process
5. Thought Content
6. Mood
7. Affect
8. Intellectual Functioning - Memory, Cognition, Language, Concentration
9. Insight
10. Judgement

**Top Study Resources:**
1. **First Aid for Psychiatry Clerkship:** succinct diagnostic criteria for each disorder with common treatments and tips on how to differentiate between similar disorders.
2. **UWorld**
3. Review your pharmacology notes from Integration & Consolidation on psychiatric drugs (anti-depressants, anti-convulsants, stimulants, narcotics, alcohol, drugs of abuse). There is an emphasis on pharmacology on the shelf and notes from 2nd year are just as beneficial as any 3rd year study book.
4. **Case Files Psychiatry:** Short cases, high yield for shelf.
5. **Pretest Psychiatry/USMLEasy** question banks: Not the best question bank, but unless you want to spend for USMLE World Q bank, is the best option.
6. **Blueprints Psychiatry** by Murphy, Cowan, Sederer- LWW: Easy read and well organized.
7. **High Yield Psychiatry** by Fadem & Simring- Williams & Wilkins: Quick read and covers most of the material (all you really need according to some).
8. I recommend against OnlineMedEd for this clerkship. The modules are too basic for the shelf exam.

**Oral Exam (Patient Case Presentation):** accounts for 10% of the psychiatry portion of your grade. Basically, you choose a patient that you have had during the 4 weeks and present the patient as a formal case presentation. You are expected to have a subjective, a detailed psychiatric examination, differential diagnosis including epidemiology, diagnosis, and treatment plans. Most attendings are laid back, usually the presentation is in their office. Not a powerpoint presentation, just an oral presentation/discussion.

**Shelf Exam:** Generally considered one of the easier shelf examinations of 3rd year. It accounts for 30% of the psychiatry portion and is curved. It focuses heavily on general psychiatry (mood disorders, anxiety), definitions/diagnostic criteria, (ie schizoaffective vs schizophreniform vs schizophrenia), psychiatric pharmacology and side effect profiles, and “med-psych” (medical diseases that can mimic psychiatric diseases). **Knowing psychiatric medications, side effects, and illicit drugs/withdrawal symptoms remains extremely high yield.**

**Neurology Component:**

**Course Director:** Yunxia Wang, MD, ywang@kumc.edu  
**Assistant Course Director:** Nida Faheem, MD  
**Course Coordinator:** Paula Mengel, x86996, Support Services  
Building, pmengel@kumc.edu

**Past Neuro “First Day”:** Students met in Room 5114A Cambridge Hospital @0745. It is located on the SW corner of the 5th floor of Cambridge. Students will be taught the neuro exam and will be introduced to educational objectives, as well as, the syllabus.

**Required educational activities (week days subject to change)**
- Monday morning @0730: Morning report that is mandatory for KU wards, consults, and stroke  
- Wednesday afternoons: Combined Neuropsych educational lectures  
- Thursday @1630: Bedside patient interview and exam that is mandatory for KU ward, consults, stroke, and ICU.  
- Friday @0700: Neurology/Neurosurgery Grand Rounds in Clendening  
- Second Friday of the Neurology portion of the clerkship you will do a standardized patient  
- Beginning of third week of the Neurology you will meet with Dr. Wang for your mid-clerkship feedback (make sure you’re updating your Jaylogs).
Services:
4 weeks of Neurology with clinical locations including: KU Neuro ICU, KU wards (inpatient neurology), KU Neuro Consult Service, KU Stroke Service, Kansas City VA, North Kansas

Typical Day:
1. Neurology ICU:
   Rounds typically begin around 0800h. Students can wear scrubs in Neuro ICU. Most students begin the clerkship arriving around 0600h. Give yourself extra time in the beginning, as the patients are often complex and the mode of presenting and writing notes is systems based, rather than problem based (which is different from most inpatient rotations). Most days are complete between 1400h and 1600h. Can be a good opportunity to try your hand at some procedures if you feel up to it and the residents are cool with it (eg arterial lines, LPs, central lines). Touch base with residents regarding patient load, but the general consensus is to carry 2-4 patients. You write notes on each patient and present during rounds. Evaluate your comatose patients with Glasgow Coma Scale and Four Score. Remember, systems based. There are sheets to help you with presentations. Ask your residents where these are on the first day. It would help to know the basics on strokes and the different types of brain hemorrhage in the first few days as these will be the majority of what you get pimped on. Students on Neuro ICU appreciated the opportunity to gain exposure to the field of Anesthesiology as you will work with Anesthesia attendings in this setting. This may be a good choice of rotation for students interested in Anesthesiology.

2. KUMC Inpatient Ward:
   Wards offers excellent opportunities to practice all parts of your neuro exam. Students tend to carry 2-4 patients with a lower number as you start out. You are expected to write notes on your patient and may be asked to write discharge summaries. Ask your resident when you should be there in the morning, but expect to show up around 0700h. The resident room is located on the 6th floor of Cambridge and the door code is 1234 (subject to change). Rounding typically starts at about 1000h after a brief table rounds consisting of nursing, physicians, PT/OT, and speech at 0930h. Students are expected to attend at 0930 so give yourself enough time to look up, round, and prepare your presentations prior to this. Make sure you know your patients and make sure to stay on top of any lab results or imaging studies done in the past 24 hours. You will be expected to give a full presentation to the attending for new patients and a somewhat limited presentation for existing patients that the attending has seen or already knows about. This can be a busy service so taking work off your residents (writing discharge summaries, calling people, and giving them a heads up about things that can get lost in the shuffle like dysuria may help you shine). As with any rotation, it is always a good idea to help your Residents out plus they often have input into your final grade and may sway an attendings idea of you when grading. Days usually end around 1600 to 1700h but may go longer. If it’s a slow day and the residents haven’t dismissed you by 5pm, make sure to ask if there is anything else you can help with because this will usually remind them to let you go home if they are busy. This is one of the better rotations to prep for your shelf.

3. Consults:
   This can be a very busy and rewarding service. Ask your resident when you should be there in the morning, but expect to show up around 0700h. The resident
room is the same as wards above. Your patients are scattered around the hospital so wear comfortable dress shoes because you will definitely get your steps in on this service. Each morning the team will have new consults to see and you will also follow up on patients that are already being followed by neurology. You may be able to see new consults on your own, or you may go with the resident depending on time constraints. See your patients in the morning. Rounds are generally in the late morning into the afternoon and are dependent on patient load. Similar to inpatient, you will be expected to write notes on your patient. Days usually end around 0500 with shift change, but can go much longer. This is a great rotation to gain exposure to a wide variety of neurological disorders- you will see a little bit of everything.

4. Stroke
This is a great rotation for those that are interested in Neuro or Emergency medicine. Students are expected to arrive at 0700 and round on their patients before table rounds at 0930 and stroke rounds at 1000 (much like KU inpatient wards above). Students are expected to carry 1-2 patients the first week and 2-3 the second week. Learning opportunities include learning the ins and outs of stroke activations including workup and management. This rotation also has the chance to provide an opportunity to head up to the helicopter landing pad if a stroke activation is necessary for somebody being flown in to KU. From my experience, this service was slightly less busy than inpatient or consults, but that may not always be true. Students are expected to write notes on their patients and participate in educational activities. Students will typically be let go at 1600 or 1630.

5. KCVA:
The VA is mainly outpatient. The first patient of the day is typically seen at 0830 plan to get there 15 minutes prior. The neurology clinic is located on the 6th floor. On the first day you will see the patients with the residents to get a feel for what is expected and then each subsequent day you will be expected to go in and see patients on your own. You will typically see 3 patients in the morning and 3 in the afternoon. You are expected to write notes on each patient and your note will be utilized by the resident and physician for billing. The last patient of the day is seen around 1500 and students typically head home by 1600. Students will see a lot of outpatient neurology cases such as headache, tremor, weakness, etc.

6. North Kansas City Hospital:
This is a unique opportunity to work one on one with several community physicians in the Meritas Health Group at North Kansas City Hospital. You will work with a different attending each day. Usually clinic hours run from 8:00-4:30. Each attending provided a different experience. Some days are more shadowing days, others will have you see and evaluate patients first and present to them. You will not have access to their EMR and will not be required to write notes. All of the attendings were extremely personable, laid back, and happy to have you there. They care about your learning!! You will see a lot of migraine management, dementia, seizure disorders, neurodegenerative disorders, neuromuscular disorders, movement disorders, nerve pain, fibromyalgia, etc. The clinic will have you attend procedures, including injections, EMG, skin biopsies. They will invite you to daily catered lunches with pharmaceutical reps and again, if you ethics allow you may partake. A very relaxed environment to learn neurology if you don’t mind the drive.
Weekends and Call:
No weekends on the Neurology portion. Enjoy

Each student will participate in one short call from ~1630-1930. Short call room is the same as the 6th floor resident room in Cambridge where consults and KU wards hang out.

Study Materials (by no means an exhaustive list; use what works for you):
1. Case Files: Neurology
2. Pretest: Neurology
3. NBME Neurology Practice Exam
4. USMLEasy or USMLE World Questions
5. BluePrints Neurology (Dr. Wang recommends reading this through at least once)

Most people feel that the NBMEs are the most high yield study materials. BluePrints is also good because each chapter is 10 pages and it is easy to do a chapter a night. However, the questions in BluePrints are not like the shelf questions at all.

Neuro Exam: As stated above, this rotation is an excellent opportunity to become skilled in the neurology examination. Many students included the entire examination in each of their notes in order to have better practice. Be sure to practice the neuro exam on all of your patients as this will help you for the standardized patient grade noted above, as well as, your Step 2 CS and beyond (as residents and physicians). **You are required to have your own reflex hammer for this rotation.** Do not attempt to get by with your stethoscope or borrowing anothers as this could reflect poorly on you as a student. You can purchase reflex hammers (albeit not the best quality and you may hear that several times on rotation) at the book store in Orr Major for anywhere from $5-$30. Amazon is also another useful source to find good deals on a reflex hammer if you want to be ahead of the game.

1. Mental Status
   a. Level of alertness
   b. Appropriateness of response
   c. Orientation to person, place, time, and situation

2. Cranial Nerve Exam
   a. Pupillary reflex, accommodation, and fundoscopic exam (II, III)
   b. Visual fields & Snellen (II)
   c. Htest (III, IV, VI)
   d. Rub face and clench jaw (V)
   e. Raise eyebrows, close eyes (try to open), puff out cheeks, smile (VII)
   f. Finger rub (VIII)
   g. Gag, ahhhh, stick out tongue and move it around (IX, X, XII)
   h. Shrug shoulders, turn chin against resistance (XI)

3. Fundoscopic exam
   - You can typically find Ophthalmoscopes in the resident rooms
4. Reflexes
   a. Biceps (C5,C6)
   b. Brachioradialis (C5,C6)
   c. Triceps (C6,C7)
   d. Knee (L3,4)
   e. Ankle (S1)
   f. Plantar aka Babinski (Upper motor neuron)

5. Sensory
   a. Light touch (and extinction) DCML and to a lesser extent Spinothalamic
   b. Pain (sharp vs dull) Spinothalamic
   c. Temperature Spinothalamic
   d. Vibration (distal interphalangeal on pts finger and big toe) DCML
   e. Proprioception (start distally, i.e., big toe) DCML
   f. Discriminative sensations Sensory Cortex
      i. Stereognosis (Key in hand)
      ii. Graphesthesia (draw number on hand)
      iii. Two point discrimination
      iv. Point localization (w/ closed eyes, then open eyes and point)
      v. Extinction (light touch on symmetrical sides concurrently)

6. Muscle/Motor
   - Bulk
   - Strength:
     a. Shoulder strength (chicken wings) and ROM
     b. Arm flexion/extension
     c. Wrist flexion/extension
     d. Finger abduction/flexion/extension
     e. Thumb opposition
     f. Hip flexion/extension/abduction/adduction
     g. Knee flexion/extension
     h. Foot dorsiflexion/plantarflexion
   - Tone:
     - Spastic vs Rigid
       *Remember that spasticity is velocity dependent
   - Pronator Drift
     - If abnormal can indicate upper motor neuron disorder

7. Coordination (checking cerebellar, motor, vestibular and proprioception)
   a. Rapid alternating movements checks cerebellar fxn
   b. Finger to nose cerebellar
   c. Heeltoshin cerebellar and proprioception
   d. Romberg Test tests proprioception

8. Gait:
   a. Rising from seated position
   b. Walk across room (tandem, toes, heels)
**Psychiatry**
Will be assigned to either Geriatric Psychiatry, In-patient psychiatry, Consult, or Adolescent psychiatry.

**General Tips:** Master the Mental status exam (MSE) from day 1, they will give you multiple handouts on questions to ask to test each MSE domain, so try to keep the handouts with you and bring them to each patient room and keep practicing your MSE. This will also be a good way to learn the vocabulary associated with psychiatry. Thus, learn as much psych vocabulary as you can and use them in your patient presentations in the morning to impress attendings. Also when presenting I suggest giving out the dosage of each psych med your patient is on. In psychiatry dosages are especially important because they can be increased or decreased based on if they are working or not.

Also-work on giving concise presentations, don’t get bogged down too much presenting “medicine” details (ie if the patient has uncontrolled HTN going on as well), because frequently there will also be a medicine team rounding on the patient that will take care of it. Presentations should start by introducing the patient's name and age/sex first, and then followed by significant psych past medical hx, what you are treating the patient for (ie major depressive disorder with psychosis), and what are the target sx you are trying to treat (ie delusions, low mood, mania, etc). Then begin with the SOAP format presentation.

**Neuro Clerkship Director:** Jon Schrage (jschrage@kumc.edu)
**Neuro Clerkship Coordinator:** Jaime Schadegg (jschadegg@kumc.edu)

**Neurology:**
Divided into in-patient psych vs outpatient psych.

**General Tips:** Study early and hard. Neurology is a “cerebral” field/specialty and many attendings here will especially be impressed by a student’s fund of knowledge. Learn the cranial nerve exam, and how to quickly localize a lesion, (ie brain gray matter/brainstem/spinal cord/peripheral nerve). Ask the attending to show you how they like to do the neuro physical exam, every attending is different. Otherwise inpatient psych is comparable to internal medicine, and outpatient psych is comparable to family medicine. This means when you are in inpatient neuro know everything about your patient, and give well organized presentations, and when you are in outpatient neuro you should be able to quickly present a patient, many times in under a minute.
Clerkship: Obstetrics and Gynecology

Course Director: Kimberly Swan, MD, 9139457447, kswan@kumc.edu
Course Co-Director: John Calkins, MD, x86257, jcalkins@kumc.edu
Course Coordinator: Lorraine Helm, x83244, office: 3025 Wescoe, lhelm@kumc.edu

Orientation (Day 1)

Bring: White coat, paper and pen, your ID badge. L&D access through your ID badge. Scrubs are available in the basement of the hospital or you can throw them in your backpack.

Important: you should not do any sensitive exams (breast, pelvic) without a resident or attending supervising.

Helpful stuff: Try to buy/find an OB wheel. OB wheels also can be downloaded to your smartphone. Epocrates and Calculate by QxMD have them.

Structure: 6 individual weeks on different services. 1 week labor and delivery (aka low risk, nights or days), 1 week specialty, 1 week general ambulatory, 1 week benign gyn surgery, 1 week gyn onc surgery, 1 week MFM (maternal fetal medicine, aka high risk). You may contact Lorraine Helm prior to your clerkship if you are interested in doing a rural or offsite rotation. Some are only available to female students, unfortunately. Overland Park, Olathe, and Shawnee Mission have been offsite locations available in the past.

The additional 2 weeks on the clerkship will be an additional week of OB (L&D or MFM) and an additional week of Gynecology (Ambulatory or Flexible between Benign Gyn and Gyn Onc). There is additional the potential for various week long clinical activities that will be offered based on availability.

Rural sites: if you are interested in going rural, contact Lorraine early. Student’s that have gone to Chanute and Pittsburg have had excellent experiences.

Community Preceptors: Similarly, there are several community preceptors who volunteer to take students. Contact Lorraine early. Students have had excellent experiences. Community preceptor assignments will replace the 2-4 weeks on campus. Additionally one student on each MFM week will be assigned to the Topeka MFM clinic for 3 clinical days.
Books:

Books recommended by the clerkship:

1. **Essentials of Obstetrics and Gynecology** by Hacker Moore: Excellent basic textbook; can read the entire text in six weeks; gives an overall picture. Questions at back of book.

Books/references most of the group used to study in addition to above:

1. Go to [www.apgo.org](http://www.apgo.org) for Ob/Gyn clerkship guide to success. This site also has an excellent Qbank for free via KU. If you click on “Student Resources” on the right side, then “Uwise” it will take you to the login. Follows closely with concepts from Beckmann Obstetrics and Gynecology (recommended by clerkship). Many find this more helpful than Uworld for the OB/Gyn shelf. 500-600 questions divided into 10 question blocks by topic or can be taken 50-100 at a time.
2. **Case Files:** This book provides clinical vignettes for a variety of high yield topics and then provides a concise overview of the topic with directed questions. This is one of the most highly used and recommended books. Even if you typically don’t like the Case Files series, this one is definitely worth giving a shot.
3. **Stanford OB/Gyn:** Little red pocket sized book. Excellent reference. Used by all of the residents.
4. **Kaplan:** Excellent and concise reference for shelf prep.
5. **Pretest book for OB/Gyn:** Good question book with great explanations of the answers. They are the same questions for USMLEEasy (available free through the library website).
6. Access Medicine has [Williams Obstetrics](http://www.onlinemeded.org) online via Dykes library
7. Consider going to library for atlas on pelvic surgery.
8. **QBank:** UWorld is likely going to provide the best practice questions and to both learn the material, and prepare for the shelf.
9. **Online Med Ed:** Quick videos on high-yield topics that are very clinically oriented. I would recommend these for early in the clerkship to give you a foundation to build on. 10 hours of videos total, but can be watched at 2x speed. [http://www.onlinemeded.org/](http://www.onlinemeded.org/)

10. For a quick review of the abdominal/pelvic anatomy before your Benign Gyn and GynOnc rotations, here’s a quick youtube video of a laparoscopic view of the structures with labels: [https://www.youtube.com/watch?v=h3mUMhItZ_A](https://www.youtube.com/watch?v=h3mUMhItZ_A).
*Probably best to select one textbook and read it through and then choose one or more question books. Casefiles has a reputation for being the highest yield for shelf performance and contains most of the information that you will need for the shelf exam and rounds. If you have previously used Blueprints or another textbook with success, you can continue using that resource as they all are comparable for the shelf.

**Grading System: 90/80/70**

10% department exam

40% Shelf exam (MUST get at least a 57 to pass the course)

50% Clinical Performance (2 parts)

1. Evaluations are done as a team of faculty and residents to give a fair overview, so be prepared for every individual interaction. There is a designated person for each week who will fill out the evaluation, but they discuss your performance with the other members of the team. There are no evaluations for specialty week. You will usually be graded by 2 attendings on your general ambulatory week. Grading system is set up where 85% is the default, but points can be given or taken away if you perform well in certain categories. This will be explained in orientation.

2. 5 points can be deducted for lapse in professionalism or projects. Projects:

   - Hidden Curriculum Reflection Essay x 1 = 2 points
   - Formative H&P Feedback x 1 = 2 points
   - Logging patient procedures/encounters = 2 points UWise Quiz (APGO) x 1 = 2 points
   - Clinical Skills validation form = 2 points

**Weekends:** Yes. Students are expected to round and write notes during their 24 hour call. You are only expected to come in the weekend of your 24 hour call. This will be included in your schedule.

**Call schedule:** 24 hour call on one weekend only if you do not do nights. This will either be a Saturday from 8am to Sunday at 8am or Friday from 5pm (after attending your service that day) to 8am Saturday AND Sunday from 8am-5pm. You will mostly be covering Labor and Delivery/Low risk during this time but might see consults from high risk, benign gyn and onc if your residents are covering those services.

**Lecture:** Varies, but usually from 12:00 pm to 3:00 pm on Fridays. Attendance is “required” unless you are on night shift or busy on L&D (so it is very flexible).
Additional lectures and shelf reviews are scheduled throughout the rotation; dates and times are posted on Jaydocs.

**OB**

1. **Low Risk/Labor and Delivery:** 6am to 6pm. You will cover Labor & Delivery. For rounds, see below. Wear scrubs. Place your belongings in one of the back rooms on the right rather than in the main area as it gets super cramped with people and everyone’s stuff during the day. There is a “med student toy box” near the nurse’s station that contains all materials to practice knot tying.

2. **Nights:** 5:30pm to the end of rounds the next day (around 9am). You cover L&D floor at night and also see low risk patients for rounds in the morning. Wear scrubs. You will update the handoff in O2. At midnight, you can start changing some dates (e.g. if a woman is 37w4d → 37w5d). Also, around 4am, you should start dividing up the list for the night team and the day team that will come in. Divide it so you all have roughly the same number of patients. If there is an odd number, take the extra patient yourself so the day team isn’t scrambling to cover more patients than you, when you’ve been there all night. This is courteous to your colleagues.

3. **High Risk/Maternal Fetal Medicine:** 6am until the end of clinic. You will see the high risk patients for rounds in the morning, then go to the clinic. Wear dress clothes. There is no clinic on Friday so you will just show up to round.

4. **Outpatient:** You will be given your scheduled time and locations ahead of time. Usually 8am-5pm. Arrive around 7:30 to review records on the patients. Wear dress clothes. You can measure fundal height and get fetal heart tones on OB patients (usually >20 weeks gestation) along with interval OB history. Near the end of a pregnancy it is important to ask about breastfeeding and birth control in addition to your four basic questions (vaginal bleeding, leakage of fluid, contractions, fetal movement). If you are working with a generalist, you will see both OB and gyn in the same clinic. Some will be scheduled at the health department (Johnson County, Wyandotte or Leavenworth). They are aware of travel time and will allow you to leave in time if you remind them. These clinics are very relaxed and similar to KU ambulatory except you cannot access the EMR. You will be given a paper chart with some information before seeing the patients.

**Rounding.** If you are on nights, you can go start seeing your patients whenever (~5am?), if you are on day team, you should definitely get there no later than 6am. Postpartum patients are split between the students on low risk/nights (try to follow the patients in whose deliveries you participated) and you will be expected to see your patient **AND** write a note (**ask a resident for a template**) prior to rounds at 7am. The same is expected of the students on high risk and these patients can be MUCH more complicated so if it is your first day, it is a good idea to read up on your patient the night before. Rounds are actually “table rounds” in the back of L&D. You go down the
list and students are responsible for presenting their patient. This should be FAST. The faster you are at presenting your patient, the better. Have your presentation completely prepared with the template and read it fast. Don’t stop because you think they aren’t paying attention. If they are post C section, they are a postop (surgical) patient and you should include things like pain and if they are ambulating/having bowel movements, etc. in your presentation. If they were a vaginal delivery, you should not include these things and they will get on you if you do.

**How to present a patient:** Ms. ( ) is a ( ) year old G( ) P( ) LC (race) female with an EDC of (date) based on (LMP or Sono).

Example: Ms. Jones is a 34 yo G5P4 LC4 white female with an EDC of June 3, 2011 by a 12 week sono.

*There is a template sheet in the L&D specifically for students* you essentially just read that sheet. It should be located in the file cabinet next to the computers the students sit at. If you can’t find it, ask the resident they should know what you are talking about.

*Some attendings might reprimand you for saying “female” at the beginning of your presentations like you would on other services because most of their patients are female.

**Questions to ask Antepartum Patients**


**OB notes:** You will be provided with examples of many different types of notes such as H&Ps, Delivery Notes, and Postpartum Notes during orientation. Ask your resident for a template. However, here are some important things to know about notes.

**Vaginal Delivery**

**Postpartum Day #1** *Pt may go home if>24 hours post delivery and if she is afebrile.

- Check Hgb for postpartum anemia.

*Check and report:

  * Birth control plan
  * Breast or bottle feeding
  * Postpartum Hgb/Hct
*Rubella immune status: if nonimmune, pt needs Rubella vaccine prior to discharge

*VDRL

*Blood Type: if Rh, Aby screen, and infant Rh+ pt needs Rhogam injection prior to discharge

*Any culture results or pending

**Postpartum Day #2** Pt goes home if afebrile. During rounds you will present all of the same lab information as stated in PPD#1

**Discharge orders**  
*Follow up: in clinic in 6 weeks

*Activity: no tampons, douching or intercourse x 6 weeks

*Diet: regular

*RTC: if temp>101, foul smelling discharge, severe abdominal pain, bleeding more than a pad an hour

**Discharge Meds**  
*Motrin 800 mg 1 po q 8 hrs prn pain, #30; no refills

*Colace 100 mg 1 po BID #60; no refills

*If Hgb<10.0, FeSO4 6 weeks’ worth; no refills Hgb9.010.0, FeSO4 325mg 1po q day with meals Hgb<9.0, FeSO4 325mg 1 po BID with meals

*If breast feeding, PNV 1 po q day #100; 5 refills

*Birth control method (i.e. minipill)

**CSection**

**Postop Day #1**

*Remove surgical bandage before rounds (if on > 6 hrs)

*Orders:

*Ambulate QID
*D/C Foley & PCA
*Heplock IV
*When good PO intake Regular diet
*Check CBC

*Meds

*D/C IM/IV pain meds

*Start Motrin 600 mg 1po q6 hrs prn pain (do not exceed 4 in 24 hrs), start 6 hrs after Toradol
*Percocet 5/325 12 tabs po q 46 hrs prn pain

Post op Day #2/3

*Remove staples and steristrip just prior to discharge

*Ask about plans for birth control, breast or bottle feeding

*Pt to go home

Discharge Orders

*Follow up in ( ) clinic in 4 weeks

*Activity: no tampons, douching, or intercourse x 4 weeks

*Diet: regular

*RTC: if temp > 101, foul smelling discharge, severe abdominal pain, or bleeding > 1 pad per hour

Discharge Meds

*Percocet 5/325 12 po q 46 hrs prn pain #30, no refills

*Motrin 600 mg 2 po q 46 hrs prn pain #30, no refills

*Colace 100 mg 1 po BIC #60, no refills

*If Hgb <10.0, FeSO4 6 weeks' worth; no refills

    Hgb 9.0-10.0, FeSO4 325 mg 1 po BID with meals Hgb
    Hgb <9.0, FeSO4 325 mg 1 po BID with meals

*If breast feeding, PNV 1 po q day #100; 5 refills

*Birth control method
(These are just examples. Residents will go over everything with you during your OB orientation for further information).

**GYN**

You will be sent a schedule by email with the surgeries you will participate in before you start the service (usually Friday or during the weekend). Hours depend largely on the service and attending if/when they round before surgery. You are expected to round the patients whose surgery you participated in and follow them throughout their hospital stay. You may present them to your attending, residents, or just write notes so (as in all of 3rd year) be prepared to do any of them. Ask your residents what the expectations are on the first day. Often, afternoons on Gyn you may either leave early once surgeries are done or be free to study elsewhere in the hospital if your resident is doing consults and agrees to text you if they need you. Much of students’ study time on this rotation is afternoons on Gyn service.

**Benign:** Arrive in time to meet your patient in pre-op if you have an early case (anything before 8:30). You shouldn’t have to do an exam or get a history, but read the patient’s chart to know their indication for surgery and risk of complications. Round on any patients who are still hospitalized from previous surgeries you participated in. Patients often go home the same day of their surgery, so you might not have anyone to present. They will ask you to give a 5-7 min presentation on a topic of their choosing at the end of the week. One student on the service is expected to stay until 5pm each day for consults. You can be anywhere within 10 min of the ER and they will text you if a consult comes in. This is usually the student with fewer surgeries that day.

**Onc:** similar to benign. You might have 1-2 half days in clinic.

**Outpatient:** Will be part of your general ambulatory week (attendings see both OB and gyn). For well woman exams, ask about routine screening (pap, mammogram, colonoscopy, lipids, depression, ect.), periods, sexual activity, birth control, and do a basic physical exam (heart, lungs, abdomen). Social history should include safety and abuse. Many attendings like recommending Bedsider as a resource for patients to learn about contraception.

**GYN Notes:** Ask your resident for guidance and expectations, as it varies. You may follow the format in Maxwell or ask your resident for a template. Look up your patient in O2 and read about the case to get the appropriate information (i.e. preop diagnosis and the planned procedure). If all else fails, come early before the scheduled surgery, maybe 1.5 hours before. Otherwise, plan to be in same day surgery one hour before the scheduled surgery.
**Specialty Services:** Specialty week consists of 1 day on REI or urogyn, 1 day on lactation, 1 day on genetics and 2 study days. There are no evaluations for specialty week.

**REI:** Reproductive endocrinology and infertility. Usually 7:30am-3:30pm but schedules vary. Consists of seeing patients and some procedures (egg retrieval, intrauterine insemination, ect.) You can wear scrubs.

**Urogyn:** Expected to read 2 articles prior to arrival (can be accessed in Supplemental Material on Jaydocs).

**Lactation:** Usually 8am-12pm (will receive a schedule with your start time). Wear dress clothes. You will follow a lactation specialist for the day. They will give you a document to read in your own time either by email or paper copy. You are not expected to read this before your shift or by the end of your shift.

**Genetics:** 8:20am to late morning/early afternoon. You will shadow a genetic counselor for several appointments. Wear dress clothes.

***General tips for the OR:*** Sometimes your residents will have you sit in pre-op to keep an eye on your patient and let them know when they go back. Make sure you have the resident's number or know how to text page. Try to keep a snack in your white coat in the locker room for between cases because you might not have time to go to the cafeteria between cases. When you get to the OR, write your name and year on the board where it says Medical student. Introduce yourself to the circulator and scrub tech. Get your gown and gloves from the cabinet. Ask before you throw them on the sterile field (some scrub techs prefer to throw them to reduce risk of contamination). If there is a sterile field in the OR, you should be wearing a mask. Help them transfer the patient to the bed, take the linens off the other bed and place it in the hall. Help set up the bed (patient placement, remove armrests, place SCD tubing). Most attendings want you to scrub first so you can be out of the way when they are getting gowned and gloved. Know your patient's basic history, their indication for the procedure, the anatomy involved in the case, other indications for the procedure and potential complications. Most attendings do not ask questions. You might be asked to help close incisions. OB/Gyns tend to like subcuticular stitches and one or two-handed ties. Watching videos online is probably the best way to learn these. After the case, help take down drapes, clean up and move the patient back to the other bed. You can go get blankets from the blanket warmer (there are several scattered between the ORs, they look like big stainless steel refrigerators with black handles) to put on the patient when they are waking up. Then walk with the patient to their post-op bay and help connect their pulse ox, BP cuff and ECG to the monitor. Some OR staff likes you to be helpful and others would prefer to do things themselves so feel free to ask what they would like help with.
Wichita Campus

Clerkship Director: Laura Tatpati, MD

Clerkship Coordinator: Stacey Wright (swright4@kumc.edu)

The OB/GYN rotation involves a variety of inpatient and outpatient experiences. The first and last weeks of the rotation will be spent on didactics, simulations, clinical skills development, and shelf exam preparation. Time for the remaining 6 weeks will be split with 1 week on Labor & Delivery, 1 week on subspecialty experiences, and 4 weeks on general OB/GYN panels.

During Labor & Delivery week, students will have the option to work a 12 hr day shift, 12 hr evening shift, or 10 hr night shift. During subspecialty week, students will be assigned to various subspecialty clinics and surgeries throughout the week, including Gyn-Onc, REI, Maternal Fetal Medicine, and Female Pelvic Medicine & Reconstruction. The remaining weeks will be spent with one day of clinic each week and the remainder of the week covering surgeries and rounding on patients for the student’s assigned panel. All students are required to work one weekend Labor & Delivery call shift during the rotation.

Grading: 50% clinical evaluation, 10% Midterm Exam (based on online APGO quizzes), 40% NBME
Clerkship: Pediatrics

Title of Course: Pediatrics

Course Director: Lore Nelson, MD, Inelson1@kumc.edu, x56544, office: 4008 Miller Bldg. Course CoDirector: Grace Brouillette, MD, gbrouillette@kumc.edu, x86329, 2010 HC Miller Course Coordinator: Patricia Cook, pcook@kumc.edu, x86310, office: 4008 Miller Building.

Critical Info Before You Read Any Further: YOU NEED TO HAVE YOUR BADGE WITH YOU AT ALL TIMES DURING THIS ROTATION. You can't get on any peds floor in the hospital without one that includes the general peds unit, mom-baby, labor and delivery, the PICU, and the NICU. Any stranger off the street can go hang out with adult patients, but our kids are locked down tight!

Rotation Overview: Peds is one of the rotations moving from 6 to 8 weeks with the new curriculum but the format won't change much from previous years. They’ll be adding 2 weeks of didactics (Week 1 and Week 8), while weeks 2-7 will be clinical comprised of 3 two week blocks. Everyone will do at least two weeks inpatient and two weeks outpatient. Inpatient can be done at KU or Children’s Mercy, however the CMH spots are competitive so make sure to send your preferences in early. There is also the option to do your full 6 weeks in Topeka.

Patricia tends to send out the preference lists early (four weeks early in my case). They send out pre-scheduled combinations of 3 services and you rank your preference for which track you want. If you’re dead set on a certain rotation I recommend talking to friends who have had peds before you and knowing what you want to rank before you get the email. Thank Patricia for her hard work in your reply - there’s no guarantee this will get you your first choice, but she was very grateful in her reply to me and I got my first choice so it can't hurt. A pro-tip for all rotations is to be very nice to the coordinators.

Grading Breakdown: The Sup/HS/Sat breakdown is your basic 90/80/70 system:

- 35% of your grade is your adjusted shelf score (see syllabus).
- 7.5% is your midterm exam.
- 7.5% is your Graded H&P
- 5% is Professionalism
- 45% is your evaluations.
**Clerkship Didactics:** Historically there have been a number of noon lectures you will be required to attend if you are on service at KU (CMH, Topeka, Prairie Village etc. not required to attend). Some will be lectures, others will go over the required CLIPP cases which saves you the time of doing them all on your own. Most of the lecturers do hit on high yield info for the shelf. These lectures are podcasted for those who are off-campus if you want to review them. They’re helpful to review but it won’t necessarily hurt you if you miss a few. These may all be scheduled into the first and last week of the clerkship and you may have less required while you are on service.

Depending on what service you are on, you may be expected to go to Morning Teaching Conference at 7:30 with the residents. This is typically an evidence-based case discussion of an interesting patient, and is usually pretty informative. You’ll also attend Grand Rounds weekly with your residents. Unless the budget changes they usually have bagels and coffee for ground rounds!

**Midterm:** Monday afternoon of week 4. The test is based entirely off the required CLIPP cases noted in the syllabus. The cases are online cases that walk you through a common pediatric patient encounter. They can tend to be on the longer side and the quizzes embedded in them are NOT graded so don’t spend too much time writing responses and clicking boxes. What you really need for the midterm is the summary PDF at the end which highlights the high yield info. Save these and study them well and you should be fine for the midterm. It’s rare that anyone gets a perfect score on this exam, but as long as no one in your rotation hits 30/30, the scale the exam.

**H&Ps:** You’ll have an assigned H&P that you need to complete while being observed by an attending. Typically you will complete this on an inpatient service, but Dr. Nelson and Ms. Cook will help you find the correct template and let you know at orientation which service you should complete this on. Try to schedule those with the attendings early in the week so you aren’t scrambling at the end. The attendings will appreciate if you bring it up early.

**Dress Code:** Ask your residents, but you can generally wear scrubs in the nursery, NICU, Peds ED, and on weekend. Professional attire for general peds inpatient, Heme/Onc, PICU, and clinic. Guys, remember that ties scare kids...and we don’t like to scare kids on this rotation. You can generally get by without the white coat on most services (those scare kids, too), but have it with you and check with your residents about when/where you are expected to wear it. Again, ALWAYS HAVE YOUR BADGE!
**Hours:** Outpatient clinics are usually 8:00 to 5 and you don’t work weekends. For inpatient services, plan on arriving by 6 am to get checkout on your patients and then do your pre-rounds. On the inpatient side, you work 1 weekend day per week, during which you will round, write your notes, and then generally go home (but that’s up to your residents).

**Service Breakdown:**

**Inpatient Peds:** This is very similar to rounding on Internal Medicine, except it doesn’t typically take all day, and it has a little more relaxed feel. Ask your residents, but you should get there a little before 6 to get checkout on your patients from the night resident and have time to pre-round on your patients. You’ll split up patients among the students and present them on rounds, like any other inpatient service. Present new patients with a full H&P (CC, HPI, PMH and birth history, SH, FH, ROS, Vitals, PE, Labs, A/P) and present follow-ups in a SOAP format (overnight events, subjective, vitals, PE, new labs, A/P). You’re expected to know everything about your patients, so read up on them and their diseases. It’s a good idea to organize your assessment and plan in a problem list format, although if you have Dr. Lewis on service he likes systems based plans similar to how the ICU does (if you are confused, it never hurts to ask what the attending prefers). Once you are done with rounds, you finish up your notes on your patients and then help the team with any work that needs to be done in the afternoon which typically includes scheduling appointments for patients, following up on labs, etc. And you will look really awesome if you go spend time with the kiddos if there is free time! Show your interest in peds and try to form some relationships with these kids! There is a game room with all sorts of fun stuff you can do with the kids. Or just stop by and see how they’re doing during the day! Expect to be there until about 5 or so, but occasionally your residents will let you go a bit earlier.

**Full term nursery:** This is the best week of med school you get to spend the week taking care of babies! This is also a fairly relaxed week, but you learn a lot. You typically should show up about 7 in the morning, but your residents will direct you on that. On the first day, you’ll get an orientation of how the unit works and how to evaluate newborns. There is a handy worksheet that covers all of the pertinent information you need to gather for rounds which tend to be fairly relaxed. You’ll have time to read and the residents typically do a good job of teaching about some high yield Shelf topics. You don’t have to write notes on this service, however helping out with discharge summaries and setting up outpatient appointments can earn you some brownie points on this service. This is the week where having a kid helps you parents will be able to wow your residents with your diaper changing skills. If you’ve never changed a diaper before, prepare to learn. The rule in the nursery is “if you find it, you change it.” But make sure to document wet and dirty diapers on the sheet attached to their cradle so the nurses can update their output in the computer.
**PICU/NICU**: PICU and NICU are similar to covering the floor or full term nursery, respectively, but you take care of sicker patients. The hours are similar to the above inpatient times. Notes in the ICU setting tend to be systems-based instead of problem based, and your residents should be able to set you up with a note template to help keep that straight. Arrive by 6 am to get checkout from the night resident and usually stay until around 5 or earlier if your resident lets you out. The NICU has a handy worksheet that you fill out and follow when you present each patient, the NICU doc-flowsheet is where you’ll find most of the information. There’s a lot of formulas and calculating in the ICU that you’re not necessarily expected to know but it shows good initiative if you do. Of note in the NICU - there’s ‘hands on’ time with each patient, figure out when that is for your patients and try to pre-round on them during that time. These kiddo’s need their rest so nurses are pretty particular about when you examine them. From personal experience in the ICU, the docs tended to like when we read and brought up journal articles. I read more articles in these two weeks then in most other clerkships and it translated into a solid grade.

**Same Day Sick**: This is the pediatric outpatient urgent care clinic. This is a good week to hone your clinic skills. It’s essentially a teaching clinic run by residents and students and staffed by one attending. The clinic usually starts around 8:00 and goes until 5. As patients come in, students alternate in picking them up. Typically a student will see that patient first, present to a resident, then the student and resident see the patient together. The resident will check out to the attending. You don’t typically write notes on the patients (you can if you want), and on a busy day you should see a good number of patients. If you are on during cold and flu season, expect to see A LOT of viral upper respiratory infections. Always remember your hand hygiene and clean your stethoscope often. You’ll also periodically admit a patient from same day sick, so don’t get your “common cold” blinders on. BE FAST in this clinic! Do a focused history, these are acute care visits and you should not be taking more than five or ten minutes in the patient room (unless something serious is going on with the kiddo)! The attendings and residents will appreciate you being brief.

**Community Outpatient**: You will all be assigned a preceptor to work with in an outpatient clinic away from KUMC. Clinic times are usually around 8:30 to 5, but can vary by site. There are a number of different sites, and most of them are positive experiences. Some preceptors are more into letting students see patients on their own, others have you primarily shadow if you get stuck shadowing, you might tactfully ask if you can see some patients on your own, as preceptors sometimes aren’t aware that you are supposed to do that. A lot of these patient encounters are well child visits, so it pays to brush up on your developmental milestones. Well child visits are another area where you parents will do well, as you’ll have a handle on what kids typically start doing at what ages.
**Subspecialty Peds:** Hours and duties vary with each service. Some days aren’t as busy so make sure to check the schedule the day before and clarify what time your attending will be there. You will see patients in clinic and you may see consults in the hospital.

**Cardio:** Brush up on your murmurs, congenital heart conditions and failure to thrive. Just show interest and a willingness to try and you’ll have a good experience.

**GI:** Students LOVE Dr. Almadhoun, as do patients so his clinic tends to be pretty full. He’ll You’ll do both clinic and procedures with him - make sure to wear scrubs on procedure days.

**Allergy/Rheumatology/Endocrine/Renal:** This rotation can be a bit of a blur since you’re constantly swapping and spend no more than 3 full days with any one rotation. Allergy and Rheumatology will allow you to see patients on your own and do a full exam so take advantage of this and read up on diseases. For Allergy, asthma is a biggy so know your therapies and when to step up. Also know the classic questions to ask during the asthma check up (Attacks/week, night-time awakenings, steroid courses, ED visits etc). Dr. Jones on Rheum will have you write one note but will go over it in detail with you. Endo and renal mostly have you shadow but you do learn a lot - also their clinics tend to be light so always double check before you show up.

**HemeOnc:** On this service, you work on inpatient hematology and oncology. You likely will not pick up your own patients but rather spend time shadowing. You make rounds in the mornings on the pediatric inpatient unit. You may or may not be expected to present patients during rounds, just ask. The residents are the same residents that cover the general pediatric inpatient service so feel free to talk to them if you have questions. You will spend most of your time with the attending on service. There is A LOT of time to study on this service so take advantage of it.

**CMH South:** This service has no residents which can be a nice change of pace. You will work one-on-one with the attending. Most of the attendings are nice and very engaging and eager to teach students. This is the bread and butter of pediatrics where you will see common pathology and learn a lot. Expect to show up at 0630 for morning checkout. You will receive your patients to pre-round on. Similar to inpatient peds above. Expect to work weekends and leave at 1630 most days.

**CMH Main:** You will be on Silver Team which has no residents. This allows you to really take charge with seeing your patients and making a plan. This can be overwhelming but it’s also an awesome opportunity to show the attending what you’re capable of and learn how to function at the level of a resident. Make sure to show up early the first day to get a feel for the timing of the shuttle system and find your way to your unit.
CMH South ED: This is a pretty relaxed service but it is a TON of fun. It’s the only chance you have to get exposure to EM during your 3rd year so those of you thinking about going into EM should take advantage of it (Be warned, it is a popular service so send in your preferences early). You’ll work with a different doctor almost every shift and your eval will be an aggregate score so work hard and show interest every shift. Shifts are usually 8 hours long but they’ll sometimes let you go early if you’re working overnight and it’s dead. The latest shift they typically give you is the 6pm-2am shift. There are lots of opportunities for procedures on this rotation so show interest and willingness to learn. You’ll have the opportunity to do everything from I&D’s, suturing, reductions, and if you’re lucky they even might let you do an LP. If you’re interested in EM learn how to suture before this rotation and always have a small ruler on you (the back of maxwell’s or swipe one from the suture kits) this will be helpful when estimating the size of lacerations. You do not have to write notes on this service so take advantage of the time to see more patients.

Shelf Prep & Study Resources: The peds Shelf is one of the more challenging of the year, especially if you haven’t had Internal First. It covers a lot of material and is graded on less of a curve than many other rotations, but fortunately the teaching that happens during the clerkship prepares you well. Below is a list of resources that you may want to use for your independent reading.

Pretest Pediatrics: Good question book. Many of the questions are vignette based (similar to those appearing on the shelf). A few questions have out of date info but most are solid. Easier to get through than the Appleton & Lange question book.

Nelson’s Essentials Textbook: 6th edition, Marcdante and Kliegman – the clerkship provides a copy for you to use during the rotation and a list of recommended chapters to read. Though too large to read through in 6 weeks, it remains the standard textbook for pediatrics and is an excellent resource.

BRS Pediatrics: 2005: Lots of high-yield information in outline format. Covers a broad scope of information. Only the first edition is currently available and has some outdated information, though the vast majority is still accurate. A lot of people find this to be very helpful for the shelf. Questions are not vignettes but good review of material.

Blueprints in Pediatrics: 5th edition, 2009: The Cards chapter is a nightmare to get through but the rest of the book is simply written with lots of good information. Blueprints alone is NOT enough for the shelf.

Case Files: 4th edition, 2012: Similar to Blueprints but presented in a case report style. Easy to read, especially when you are tired at night. Probably not all you need to know for the Shelf, but it’s a good start. Most people find this to be a key resource.
Harriet Lane Handbook: Excellent handbook, especially for PICU. You can often borrow a resident’s copy. Consider buying if you are going into Peds or Fam Medicine.


USMLEasy: Over 700 questions, free through the KUMC Library website. Some questions are taken directly from Pretest. [http://guides.library.kumc.edu/exams](http://guides.library.kumc.edu/exams)

USMLE World Q Bank: Although the official administrative line is to “save” the Q Bank for Step 2 prep, the peds questions are very good with great explanations. It can be expensive, but a lot of students think it’s worth it for Shelf prep. And using it early shouldn’t be a detriment to your Step 2 prep.

Free Online Videos:

1. [http://som.uthscsa.edu/StudentAffairs/thirdyear.as](http://som.uthscsa.edu/StudentAffairs/thirdyear.as)

This is an excellent final review and has more than just Pediatrics. You definitely want to watch this a few times the final week of the clerkship. Emma Holliday videos are high yield for many rotations. Great thing to watch the morning of the shelf. On point.


These videos are good place to start for basic understanding and review. They offer clear explanations of nearly every topic for third year.

Bottom Line: Pediatrics should be a fun rotation. The clerkship is incredibly well organized. When you are on your inpatient services and your community week, the same rules apply for every other service. Show up on time, be enthusiastic about learning, show you work well as part of a team and don’t be annoying. The best thing you can do is to be helpful to the residents. Start studying early.

One Last Comment: REMEMBER YOUR BADGE
**Wichita Pediatrics:**

**Clerkship Director:** Mark Harrison, M.D. (mharriso@kumc.edu)

**Clerkship Coordinator:** Donnita Pelser (dpelser@kumc.edu)

5 weeks of inpatient are at Wesley Children’s Hospital, 1 week in PICU and 2 weeks on the Pediatric Wards, 1 week of night call and 1 week on Newborn Service 1 week at KU Pediatric Faculty Clinic. 1 week participating with community agencies. 1 week with Subspecialty Clinic or community preceptor

**ICU:** Talk to Judy the nurse practitioner the first day, she will teach you everything you need to know. UO (urine output) is ml/kg/hr in ICU. Talk to nurses every morning as well, they are a good resource for “in and outs”, and for highlights of how you patient did overnight.

**Wards:** Sometimes if the floor is busy there will be two attending rounds at once. It helps if you purposefully select patients covered by the same attending, so you don’t have to run around/possibly miss presenting another one of your patients. Otherwise, treat pediatrics rounds like any other rotation with rounds, know your patients inside and out, and give concise presentations.

**Newborn:** Ask the chief resident the first day on how they will like you to present a “newborn” patient to the attending and how to use the newborn EMR (they use an additional one besides Meditech). Be helpful with the attending in each newborn room, ie put on gloves every time during the attending’s physical exam and help out when you can (ie putting your finger in the newborn’s mouth so the baby doesn't cry when the attending is listening to heart and lungs). Ask the resident or attending to show you how to do a newborn exam as well before they watch you do it for a grade.

**Community Preceptor:** Experience can vary depending on your preceptor/their preferences. This one is pretty relaxed. As usual, be friendly, engaged, and willing to learn. Give concise presentations, and throw in your own assessment and plan in for each patient you see.

**Faculty clinic:** Just be friendly and engaged. Outpatient is a very chill week. Hardest part is learning the EMR. The preceptors will usually have the student see the patient first to collect information on the laptop/computer. Try to do a physical exam on the babies as well, and ask for feedback. As per above, give concise presentations, and attempt to give your own assessment and plan in each short presentation.

The community agencies as well as the night call will be new for you guys, so that will be an unknown!

**Midterm:** A Midterm Exam covering pediatric CLIPP cases online will be given the 5th week. This exam reviews 15 cases done on the internet that students are assigned to do at the beginning of the clerkship. Do the assigned cases online, the case summaries provided at the each of each case are helpful. Unfortunately, general knowledge of
pediatrics was helpful for the midterm as well, so try to finish the Uworld Peds section. The midterm grading is curved and it is pretty generous as well.

**Clerkship: Surgery**

**Title of course:** Surgery

**Course Director:** Peter DiPasco, MD, x86065, pdipasco@kumc.edu

**Course Coordinator:** Nicole Crump, x83173 office: 5056 Sudler, Nikki05@kumc.edu

**Website:** [http://classes.kumc.edu/som/surg900/](http://classes.kumc.edu/som/surg900/)

**On the first day**

**Meet:** (Probably 5020 Eaton) – Look for an email from Nicole Crump

**Bring:** White coat, note pad, phone

**Preparation:** Read over the website and be familiar with orientation materials.

**Attire:** Professional attire (ties for men, slacks/dresses for women) is required in most clinics. Just ask your assigned resident what the attire will be for specific events. Scrubs can be worn in OR and in class. You must always wear a buttoned white coat over your scrubs unless you are in the OR, the locker room, or the PACU. Remember to wear a white coat during grand rounds. You must wear professional attire for the final presentation.

**Grading System; 90/80/70:** 50% Clinical Evals., 15% presentation and 35% Subject Exam.

**Locations:**

**5020 Eaton:** From the hospital cafeteria, take a left away from the main hospital elevators and follow the hallway to the first elevators (Sudler – a set of two elevators) on the right. Take these to the 5th floor. Exit the elevators, go straight through the hallway which ends in a T. Turn left and room is around corner. The room is at the intersection of Sudler and Delp beside the Department of Orthopedics. The code for the door is 4-2-1 Enter.

**OR Locker Room:** 2nd floor hospital, south side of building. Students should have card access. Lockers in the locker rooms can be used at own risk

**Surgery Clinics:** Varies on the specific surgical specialty (e.g. Vascular, ENT, Orthopedics, General). Again, ask your assigned resident for the specific location.
Swamp: (Surgery resident’s room) – Take the elevators to the 1st floor of the hospital. Facing the escalators, locate the Outpatient Laboratory to your right and walk past it. Follow the hallway to the end and turn right. You should pass the surgery resident call rooms before taking another right and quick left. At the end of this hallway, you will find a door and window through which you can see another door with a keypad. Knock and they’ll let you in. (*For several services you won’t really be welcome there—you’re expected to wait in the first floor waiting area at the top of the escalators, and watch for the resident team to come out.)

SICU: 2nd floor hospital, North side, badge access required

Same Day Surgery: Area in which patients are seen before surgery. Card access required. Double doors across from the surgery waiting rooms

Surgery Schedule: The schedule is on monitors in the North/South/Central pre/postop units. To access the schedule on the Epic, search for “Master Daily Schedule” and pick today’s main OR schedule from the list. If this fails, ask your intern for help. “Status Board” is useful to see where patients are at in the pre-op process.

Helpful stuff: At some point in the rotation, fill your pockets with the following: pen light, plastic tape, 4X4 gauze, note cards, and a snack. Code to supply room in the ED is 1234 where you may find suture material, basins, dressing supplies, etc. You can be helpful by figuring out when teams take down patient dressings—often day 2—and being ready with staple removers on morning rounds. More importantly, watch what tools your team continually uses and be sure to carry those with you for when they’re needed. Also, carry your phone, a pen, and Maxwell’s with you into the OR in case you have to write the postop note.

Books:

Loaned by the Surgery department: (Most students do not find these as helpful as the specific shelf study aids.)

1. Essentials of General Surgery and Essentials of Surgical Specialties by Lawrence: required text. Very dense and not very useful for the shelf examination but is useful for general surgery knowledge.

2. NMS Review: Good review and quick reference book. Information is laid out in outline format. Questions are too easy and not in shelf format. Book is now getting old (~10 years) and may be outdated.

Books most used to study:

1. Surgical Recall: Question/answer book that is excellent for pimping questions and for quick reference rounding or on the wards, but not as effective for shelf review. Highly recommended for looking prepared in the OR.

2. Kaplan Step 2 Surgery Lecture Notes book – Part of the Kaplan Step 2 series. The first 80 pages are an excellent overview of most of the topics that you are expected to
know for the shelf examination. The 2nd 200 pages of the Kaplan notes are cases, which I believe Dr. Pastana (below) does a much better job of summarizing.

3. **Pestana Notes** - well liked/known resource. Google “Pestana notes” and you will find them easily. This is about 75 pages of cases. The most useful and high yield resource. The lending library has multiple copies.

4. **Uworld questions** Always a great resource. Surgery and internal medicine questions are helpful. If you buy this at the beginning of 3rd year, I would recommend doing all of the surgery questions. The shelf has more medicine on it than you would expect so review electrolyte and acid-base questions as well.

5. Case Files: Gives typical presentation of most surgical cases and questions about them. Good high yield reference of typical cases you will see on the shelf.

6. NMS Casebook similar to CaseFiles but does not have questions. I would use one or the other but probably redundant to use both. Goes into more detail on the surgical procedures than needed on the shelf.

7. Step Up to Medicine if you have not had Internal Medicine yet, it may be worthwhile to buy this book and at least look over the fluids/electrolytes portion of it. Many of the shelf exam questions essentially ask if medical management (highlighted in this book) or surgery is the best option for the patient.

**Shelf Exam:** Typically a challenging examination that includes OB/GYN and internal medicine. There is more medicine on the shelf than surgery. If you have not yet had those clerkships, it will require more studying. Typically, vascular surgery, urology, trauma, ortho and general surgical diseases (appendicitis, bowel obstructions, hernias, gallbladder diseases) are high yield. Major advantage to have internal medicine before surgery. I would recommend watching Emma Holiday’s reviews on both internal medicine and surgery before this shelf. Review electrolyte disorders and medical management of potentially surgical conditions. Review ECG’s prior to the shelf. Much of the shelf is perioperative complications and care.

**Borrow / Check out in Library for those students especially interested in surgery:**

1. Sabiston: The Harrison’s of Surgery. Somewhat more physiologic than Schwartz and a little more difficult to read.

2. Atlas of Surgical Operations: by Zollinger: Excellent for understanding specific surgeries or for making drawings for Dr. Thomas. Expensive; look in the library (can be found in resident room on Unit 51)

3. Schwartz: A medicine textbook for surgeons; used by many; recommended by the Surgery department; a reference book.

4. Fluids and Electrolytes for the Surgical Patient by Pastana: Excellent book; lots of pictures, easy to interpret diagrams, explains well acid/base disorder well.
5. Manual of Surgical Therapeutics: The surgery version of the Wash manual; good information on fluid and electrolytes.


**Hours:** Expect to arrive at the hospital between 5:00 and 6:00 a.m. depending on service. Surgeries are usually scheduled to begin at 7:30 am. Be prepared to leave the hospital between 6:00 and 8:00 pm. Different services have highly variable hours. Keep in mind that some days you may have time for breakfast after rounds. However, it is hard to predict which days those will be, so eat breakfast before rounds. For those in McPherson, hours are normally 7am to 4pm (but highly variable) with trading nights and weekend days with other student.

**Rounds:** Most services round sometime between 6:00 and 7:00 a.m., but some will expect you to come see your patient before rounds. Allow 30-60 minutes for this “prerounding” time, especially at the beginning of the rotation. Afternoon postop rounds may be held by trauma or on general services (usually not on specialty services). Take the initiative to see your patients prior to postop rounds. Different services update their patient lists in different ways, but many use the Resident SharePoint. You should be given access to this before the rotation begins (we were not so you may need to ask) the link can be found under Hospital Links from most computer desktops.

**Weekends:** You will come for morning rounds and usually be done before noon. The on call team will handle emergency surgeries during the weekend. There are no elective surgeries on the weekends. Weekend duties for medical students are variable based on the subspecialty services.

**Call schedule:** No more call required. Students have the option to sign up for night call if they would like. If you take night call, you are free after morning rounds the next day. Neurosurgery requires 1 call night a week to get a Superior. Usually they let you leave by around 8pm and tell you that they will call you if anything interesting comes in.

**Call Room location/code:** At KUMC, KC VA, and Leavenworth VA. The call rooms are the same for every rotation. The clerkship coordinator will assign you a room.

**Services:** A word about the different services:

**General Surgery services** if you desire and there is space available, you can request to do 2 general surgery months.

**Trauma/SICU** This is more of an ICU/Critical care rotation than a surgical rotation. Generally, students are only in the OR 12 times per week or less. Hours are basic (above) but vary as some of the attendings tend to round very late. Plenty of time to study. Best choice if you do not want to be in the OR. There is a week of nights on this service. Night experience is notoriously variable but if you get a good week, scrub into as many cases as possible and help with floor work.
Surgical Oncology excellent opportunity to assist in surgeries that you will likely never see or do again (esophagectomies, gastrectomies, melanoma resections, breast surgeries, bowel resections, Whipple procedures, etc). Long hours (team rounds at 5:30 so you will show up around 4:45 AM to preround and leave anywhere between 5-9 PM). Excellent attendings (Drs. Mammen, AlKasspooles, DiPasco, Valentino and Ashcraft are the main surgeons). One day of clinic per week. Assist on 10-12 surgeries per week.

General/Acute Care Basic hours (above). Good experience in the bread/butter general surgery procedures (appendectomies, cholecystectomies, hernias). Good attendings. Since you will become familiar with the procedures, the attendings will usually let you drive the laparoscopic camera, suture laparoscopy sites, etc. Be prepared for variable days--some are very slow, others you'll be running around all day.

Vascular one of the more challenging but also worthwhile general surgery rotations. Drs. Hupp, Quint, and Vamanan are excellent surgeons that teach you a lot. Be prepared and read for each case. Be prepared to think on your feet but do not get down if you do not know every question. Longer hours than other general services.

Minimally Invasive/GI Very similar to General/Emergent service but more focused on laparoscopic and GI procedures. Basic hours. Both are high yield for the shelf exam.

Transplant also a fun but challenging service. Basic hours. Mainly focused on liver and kidney transplantation. The surgeons can be eclectic but are also nice and fun to work with.

Specialty services:

Urology considered by most students to be very laid back and fun service. No weekend hours. Many surgeons on the service with a wide variety of procedures. Read the NMS chapter a few times before you begin. There are books (Pocket Urology is a great resource) in the resident room on the 5th floor to help you with basic urologic problems and procedures. Resident room is located between Units 51 and 52. Expect to preround on your patients and present at rounds. Conferences are Mon, Tue, Fri mornings. Morning rounds at 0600.

Orthopaedics also a fairly laid back service. A little more handson than most of the other specialty services; you will be asked to help out in surgeries a bit more than other services (but this is also very resident/attending specific). Be ready to assist in holding an extremity during prep and drape and during dressing placement. Hours vary widely based on services (Trauma you arrive at 6am and are done around 5p (often later), Total Joints and Sports are a little less time demanding). Weekend hours vary some residents will expect it but others will not. Communicate with them each week. The residents typically do not make you take call but some might, 1 call night was expected per the rotation coordinator.

Plastic Surgery/Burn lumped together because most of the surgeons are plastic surgeons. Good opportunity to learn especially if interested in plastic surgery, but a little less handson (less opportunity to stitch, etc). Burn has excellent hours (no weekends,
much less OR time) but Plastic surgery generally requires weekend hours and longer days.

**Neurosurgery** also a very laid back service. Even more handoff than Plastic Surgery. In the past, many students only scrubbed in on a few surgeries per week and observed most surgeries however, most recently we scrubbed for every surgery except for endoscopic ones. The residents and attendings are very nice and fun to work with. No weekend hours required however if you want to Sup they require that you do 2 weekends and do a night of call every week. Daily conference at 4:30 PM and generally done after checkout that follows conference. Interesting surgeries. Fridays are didactic days so you still arrive at 6am but then you have Neuro Grand Rounds from 7-9am and then didactics from 9-10:30am. Usually less surgeries scheduled on Fridays because of this.

**Breast** consists mainly of breast reconstructions after mastectomy for breast cancer.

**ENT** very wide diversity of procedures based on what attending you work with. Typically one week benign/ear/sinus/palate/plastics, the other head and neck cancers/reconstruction. Many of the surgeries can be very long (up to 12 hours) but are very interesting cases; on the head and neck week you’re often with only one resident and the attending and can be pretty involved in the case. Generally low yield for the shelf exam. Generally go home after evening rounds around 5:30p.

**Pediatric** Dr. Schropp is the only pediatric surgeon at KUMC and he is also the KU Residency Director. He is very fun to work with and an excellent attending; most students split cases with another student and are typically not as involved in the surgeries. Dr. Schropp covers multiple hospitals in the KC area. Rounding differs from day to day and is resident dependent. Teaching rounds on Friday mornings. Less time demanding than other services.

**McPherson** a rural experience for 4 weeks of the clerkship; considered a general surgery month. Excellent experience for vast majority of students much more 1 on 1 with attendings, no residents, 1st assist on many surgeries; a bit longer work hours (but more study time as you won’t have any distractions). Free room and board while you are there. Free meals (3 per day) and gym in the hospital.

**Daily Notes:**

1. Be concise.
2. Include post-op day number (ie POD#3) and what procedure they had done
3. Include the number of days on Antibiotics (ciprofloxacin #5)
4. Vitals including intake/output (I/O) and drain output (JP drains are often pulled when they’ve put out < 30mL over 24hrs; figure out what drains your team commonly uses and when they should be pulled, etc.)
PreOp Note:

As a surgery student, it may be your responsibility to write preop notes before a patient goes to surgery. The preop note provides a brief yet concise description of what is wrong with your patient, what surgical procedure is planned, who plans to do it, and any historical information or findings that are pertinent to the surgical procedure.

Notes should be completed the day before a patient is scheduled to go to the OR; alternatively, they may be completed in the morning before the surgery starts. Ask your resident if he or she would like you to write preop notes.

PreOp Note

Hx: This 48yo WF c NIDDM presented 3/24/84 c 2 day Hx of RUQ pain. Outpatient sono revealed nonvisualized gall bladder, and HIDA scan was c/w cholecystitis.

Pre Op Dx: Cholecystitis

Planned Procedure: Cholecystectomy

Surgeons: Dr. Smith(attending)/Dr. Jones(resident)/Yours Labs: (List preop CBC, Platelet Count, PT/PTT, ASTRA, etc.)

CXR: Normal chest

EKG: NSR, rate 80, nonspecific STT change Current Meds: Tavist1 prn

Blood: 2 U PRBCs typed, crossed, and available

Consent: Signed and on chart

PostOp Note: May offer to write for resident (in general, students do not do this)

You may also be responsible for writing post op notes on your patients immediately following surgery. Post op note is written while the patient is still in the recovery room. The following sample post op note is self explanatory.

Post Op Note

Pre Op Dx: Cholecystitis Post Op Dx: Same

Procedure: Cholecystectomy

Surgeons: Dr. Smith/Dr. Jones/Yours Truly MS3

Findings: Cholelithiasis, cholecystitis

Anesthesia: GETA(General endotracheal, spinal, local, epidural, etc.)
Fluids: 500cc D5LR (list here the amount and type of fluids given during the procedure, eg. NS, blood, albumin, etc. You can find this by looking on the anesthesiology record or by asking the anesthesiologist or surgical nurse.)

EBL: 50cc (This is the estimated blood loss during the procedure, as shown on the anesthesiologist’s record.)

Tubes/Drains: NG to low intermittent sxn, JP drain in RUQ Specimens: Gall bladder sent to surgical pathology Complications: None

Condition: To PACU in (good, fair, stable, poor, critical) condition

*There is a good template in the EMR for both preoperative and postoperative notes. They are generally very basic.

**PostOp Orders:**

Often consists of writing scripts for patients who are going home that same day. The EMR at the VA does allow medical students to write orders that must be cosigned by a resident or attending, and you may have the opportunity to write orders if you are on a rural rotation.

Some services still use paper forms for postop pt instructions which you may be able to help fill out.

PostOp Orders

1) Procedure: (eg. S/P cholecystectomy)

2) Allergies: (eg. NKA )

3) Disposition: (eg. Return to 5120 when stable, admit to ICU, etc.)

4) Vital Signs: (This determines how often vitals will be taken after the patient leaves the RR, eg. Vitals Q15 min x 8, Q30 min x4, Q4 hrs x 6, then Q shift.)

5) Diet: (eg. NPO, advance diet as tolerated, etc.)

6) Activity: (eg. Bedrest, bedrest c BRP, etc.)

7) Tubes/Drains: (eg. NG to low intermittent Gomco, foley to DD, etc)

8) Resp. Care: (eg.TC&DB Q2 hrs x 24 hrs, incentive spirometry, 02, etc.)

9) Meds: (eg. Reorder patient’s pre op meds if appropriate, Antibiotics, IV fluids, etc.)

10) Call HO if: (eg. Call HO for temp >38.5)

**Remarks:** Residents and staff appreciate initiative. This means being an active seeker of knowledge. Recognize that the flow of information is from you to the intern, intern to the chief resident, and chief to the attendings. Do not say you have lecture when you do not. If you have broken scrub on a case to attend lecture, it is considerate to return to
the OR after lecture to make sure the surgery has ended or you are excused to go home. In general, however, do not break scrub unless you have a required event. During your first couple of surgeries get a feel for the general flow. A resident once said 'anticipation is participation', anticipate team needs in the OR and on the floor (which comes with time). Lastly, medical students should be in the OR as the patient arrives. They should help transfers of the patient, prepping and draping, and help after the surgery with breakdown of sterile field. Follow the patient back to the PACU.

Advice:

- On your first day, talk to your chief resident about what duties he/she expects you to perform.
- One of the keys to a good clinical performance evaluation is teamwork and helping things run smoothly for the residents.
- If you know you are going to scrub out of a case early for class, let it be known at the start of the case.
- Keep the patient list up to date – ask your resident about this on the first day as this is vital to rounding/chief resident.
- Always have an up to date list copied for all team members when rounds begin.
- Be interested and helpful, but be genuine – most attendings and chiefs can tell if you are not sincere.
- Know the anatomy of the procedure you’re about to perform – most pimping questions stem from anatomical structures encountered during the course of an operation.
- It is helpful to practice knot tying (two handed, one hand, and instrument tie) prior to starting this rotation. There are plenty of helpful videos on the internet, and interns are often happy to show you if they have time.
- If you prescrub in the morning before your first case, the scrub nurses will be happier with you.

Wichita Campus:

Clerkship Director: Therese Cusick, MD (breast surgeon)

Clerkship Coordinator: Katie Flessner (Katie.Flessner@ascension.org)

Grading:

Case Presentations – 5%
Oral Exam – 10%
You will be responsible for learning the oral topics in the link above. This is your best resource for learning the material. More information will be provided on the day of orientation.

Evaluations (completed by faculty and residents) – 50%

NBME exam – 35% (your converted score is entered in for the final grade)

**On the first day**-

**Meet:** Look for an email from Katie Flessner, Room 2082 at St. Francis Hospital is your home base. You will keep your book bags, etc there and you will be there in between cases.

**Bring:** White coat, book bag, scrubs will be provided to you on the day of orientation

**Preparation:** Read over any material sent to you by Katie Flessner or the Surgery Department

**Attire:** Professional attire (ties for men, slacks/dresses for women) is required for most conferences. Scrubs can be worn in OR and in class.

**Locations:**

**Via Christi-St. Francis:** Room 2082 is your home base, you will be in this room in between cases and for most lectures

**Wesley:** some students will rotate at this hospital

**Responsibilities:**

You will be assigned to a specific panel of surgeons during the clerkship. There are 5 different Panels (A, B, C, D, or E). There are usually 2 medical students per panel. You will be responsible for dividing up the surgeries and making sure at least one medical student is present at each surgery (unless there is a lecture). After 4 weeks, you will switch to a different panel of surgeons. Some of the different panels include:

**Vascular:** General surgery, vascular surgery, and dialysis support (i.e. central lines, vascular access, and declots).

**Trauma:** A great intro to critical care. Take advantage of the opportunity to get familiar with ventilators, fluid management, TPN, and the SICU. If you are on the trauma service let the residents know when you have class so they know why you aren’t able to come to the trauma.
General and Sub-Specialties: General surgery, colorectal surgery, hepatobiliary, and minimally invasive surgery.

A Typical Week:
The times are highly dependent on your panel. Generally M-F looks like this:
5 a.m. or before: Pre-round on your assigned patients
6 - 7 a.m.: Round with residents and/or faculty
7 a.m. - 5 p.m.: Surgery, lectures, conferences
Tuesday 5-6 p.m.: Conference at Wesley
Wednesday 7-9 a.m.: Morbidity and Mortality conference with following Surgery Grand Rounds conference. Dress clothes are required for Tuesday and Wednesday conferences (no scrubs).
Weekends: The weekends also vary considerably between panels. You will have to round Saturday, but have Sunday off. You will have the weekend entirely off between the 4th and 5th week.

Shelf Exam:
Study when you can throughout the rotation. Oral exam preparation helps. Lots of Internal Medicine on the shelf, which can be difficult if Surgery is one of your first rotations. I would recommend all of the Surgery UWORLD questions and the Internal Medicine GI questions. I also used Surgery by De Virgilo which was helpful.

Advice:
You will be working closely with a chief resident and intern on the panel you are assigned
The residents do most of the evaluations for the rotation, so do your best to impress them.
Don’t worry if you miss some of the “pimping” questions during cases.
Do your best to read about the patient and procedure before surgery (basic anatomy, etc)
Make an effort to pre-op your patients (more information given at orientation)
Get to the OR when the patient is getting set up with anesthesia
The department gets medical students very involved on cases, so take advantage of it! Students will almost always help close incision wounds, etc.
HISTORY AND PHYSICAL

Maxwell’s pocket manual is an extremely valuable resource for H & Ps, SOAP, pre & postop notes, etc. We consider this a requirement for the third year!

A topic not discussed elsewhere in the manual is the responsibility of presenting patients to residents and attendings. The verbal presentation of a patient proceeds in the same order as the admission H&P: CC, HPI, PMHx (including medications and allergies), PSHx, FHx, SHx, ROS, physical exam, labs, and finally, clinical impression and plan. The object of presenting a patient is to communicate enough pertinent information about the patient that someone who does not know the patient will be adequately informed and satisfied. The plan should be organized by problem (CHF, HTN, etc.) unless you’re in an ICU setting. In the ICU, organize your plan by system (cardio, pulm, etc.).

An example of beginning a presentation: “Mr. Doe is a 45 year old white male with a history of COPD, angina and an inferior MI in the past, who now presents with angina of increasing severity and duration.” The first statement of the presentation is the most important and including the pertinent past history gives the attending and others present a brief synopsis of the patient’s status. In general, it is wise to present only the pertinent findings in the H&P — laboratory work, x-rays, EKG, etc. Nevertheless, the most important piece of your presentation is the assessment and plan for the patient. This is where the attending will be able to assess your clinical expertise.

Attending physicians will vary in their expectations. It is always acceptable to ask residents or the attending how they expect patients to be presented. For example, some attendings will want ranges for vitals over the past 24 hours as well as current vitals (i.e., systolic 110/135/diastolic 82/90 with current BP 133/85), while others will want only current vitals. It’s important to note significant changes/trends in vitals/labs over the past 24 hours or since last check (i.e., significant drop in hemoglobin postop or spike in temperature). Always remember the important phrase “one value is a point, two is a line, and three is a trend.

S.O.A.P. NOTES
Subjective:
This part of the S.O.A.P. note should briefly describe how the patient feels and any complaints he/she might have. It should also contain, when pertinent, your own subjective observations about the patient, for example, his/her general mental state or appearance. This is also where you can include any pertinent nursing comments.

Objective:
This part of the S.O.A.P. note lists objective data including current vital signs, inputs/outputs, pertinent physical exam findings (which always includes cardiovascular, pulmonary and abdominal exam and only the other physical findings which are pertinent to that patient), and laboratory/imaging results.

Assessment:
In this part of the S.O.A.P. note, each of the patient’s medical problems is listed, generally in descending order of importance, and basically conforming to the list which you generated in your admission H&P with the addition, of course, of those problems which have developed or have been discovered since the patient was admitted. Each listed problem is updated according to evaluation of the current objective data that you listed under “Objective”. In this problem-oriented format, the number of each problem is retained throughout the patient’s hospitalization, with new problems added to the list as they arise and problems deleted from the list as they are resolved. As noted above, for critically ill patients or those with many problems, it may better serve you to divide your assessment into the various systems: CNS/NEURO, RESPIRATORY, CARDIOVASCULAR, GI, GU, HEME, etc. This will help you to formulate a plan that addresses the different systems.

Plan:
Many combine the assessment and plan by stating the problem followed by the plan for that particular problem. In this part of the S.O.A.P. note, diagnostic and therapeutic plans are listed as they apply to the patient’s current problems and in the same order. Included are any new medications or diagnostic procedures that are added to the patient’s plan of care, any changes or additions to nursing orders, and plans for discharge or transfer. Your responsibilities as a clinical student will include knowing your patient’s current problem list, gathering and knowing the results of all diagnostic procedures, knowing the current status of all therapeutic interventions, and compiling all of this information into a problem-oriented progress note in the S.O.A.P. note format. Whether you come up with the correct plan is not as important as showing your attending that you are thinking through the process and formulating what you would like to do.

The following is an example of such a progress note:

S. Mr. H is a 66 yo M who presented with an acute GI bleed & COPD exacerbation, admitted May 6 and on hospital day #5. There were no acute events overnight. He states, “I feel just great today.” The patient is without complaints this morning and appears much less SOB. He denies pain and reports last BM as normal yesterday.

O. VITALS: Tmax 37.5, T 37.0, BP 136/82 w/ no orthostatic change, P80, RR18
P/E: HEENT: Unchanged.
NECK: No JVD.
CARDIO: RRR, no murmurs, rubs or gallops.
RESP: Fine insp. rales in post. bases, scattered insp. rhonchi., exp. phase prolonged, but decreased use of accessory muscles.
ABD: Obese, BS present, nontender to palpation, no HSM or masses.
NEURO: CN IIXII intact; sensory, cerebellar, and motor exams WNL; DTRs 2+ bilat. No tremors, seizure activity, or asterixis. Patient is AOx3 w/ intact shortterm memory.
EXTR: No clubbing, cyanosis or edema.
LABS:
   Sputum culture
   neg. @ 24 hrs.
   Stools occult
   blood positive
   ABG: 7.37/42/84
   on 2L/NC
IMAGING:Upper GI endoscopy 5/7 revealed diffuse, erosive gastritis

A/P.
1. GI bleed.
   - Stable. Slowed blood loss; stools remain heme positive.
   - EGD: erosive gastritis as probable source of blood loss.
   - Continue Tagamet and antacids.
   - Monitor the patient’s Hgb and continue Guiac stool testing.
   - Four units PRBCs typed and crossed. Two units received on admission.
2. COPD.
   - Improved. Pt currently on 2LO2 via nasal cannula.
   - ABG improved.
   - Sputum culture: no growth x 2 days.
   - Continue pulmonary toilet of Ipratropium, Albuterol neb & RT.
   - Solumedrol taper.
   - Continue to monitor ABGs.
3. Suspected alcoholism.
   - Stable, no signs of withdrawal.
   - Thiamine IM; continue to monitor for sx of withdrawal with Librium PRN.
ORDER WRITING

Order writing refers to the instructions given by a patient's attending medical team. These include instructions for the patient's nursing staff, consultation of other medical services (eg Infectious Disease or Psychiatry), imaging, therapy like RT or PT, diet and, of course, daily medications. In short, order writing is the instrument for implementing formal medical therapies for the patient while in the hospital. In November 2010, order writing at KUMC became exclusively electronic on O. Medical students are able to "Pend orders" for their residents/faculty to sign. Ask your residents/interns at the beginning of each rotation/week how they would like this to run. It will likely be very different depending on the resident/faculty member. Run through orders with your residents or watch them place orders. Don’t be surprised if most residents don’t end up utilizing this option, but during busy rotations this can be very helpful to the team during or after rounds. Always remember to remind your resident to sign your pended orders because often times they will forget and the orders will remain pended and inactive.

Admission Orders (ADC VAAN DISSEL): Maxwell has a great (short) example. We all must learn the content of admission orders. The following format is useful for writing admission orders and is easy to remember using the mnemonic ADC VAAN DISSEL. With some minor alterations, it is also useful for writing transfer and postoperative orders. Many physicians and residents have their own system for order writing. Find one that works best for you, is easy to remember and includes all of the important information/orders.

- **Admit**: Floor, team, house officer, attending, etc. For instance, admit to 44C ICU, Med Service, Dr. Smith H.O., Beeper #2222
- **Diagnosis**: The diagnosis may be specific, for example acute appendicitis, or may be a symptomatic diagnosis if a specific diagnosis is not yet known, for instance, abdominal pain. For postoperative orders, include the surgical procedure which was performed, for instance, appendectomy. Always include under diagnosis the patient's allergies or lack of known allergies, for instance NKDA or allergic to penicillin. Note: “R/O”…is NOT a diagnosis!
- **Condition**: The patient's condition on admission, transfer, or postoperatively is noted here as stable, critical, etc. Vital signs: This is technically part of nursing procedures, but is written separately by convention.
- **Vitals**: Refers to the frequency with which the nursing staff will monitor and record the temperature, blood pressure, pulse, respirations and pulse ox of
the patient. Other specific monitoring, such as weight, CVP, PCWP, CO, neurologic signs, etc. should also be listed here. For instance, Vitals: Q2hr., daily weights, SwanGanz measurements Q shift, neurochecks Q4hr.

**Activity:** This describes the activities allowed for the patient, for instance, up ad lib, bed rest, bathroom privileges, bedside commode, ambulate TID, up in chair QID, limited visitation, etc.

**Allergies:** List any drug allergies, and what reaction accompanies each (i.e. rash).

**Nursing procedures:** This consists of a variety of items including, but not limited to the following:

- **Bed position:** For instance, elevate HOB 30 degrees, Trendelenburg position, etc.
- **Preps:** This generally refers to preoperative patients and may include bowel preps, surgical preps, showers, etc.
- **Dressing changes and wound care**
- **Respiratory care:** Although respiratory care is generally provided by Respiratory Therapy rather than nursing, Respiratory Therapy orders that do not include medications are often included here, for instance, PD&C (percussion and postural drainage), TC&DB (turn cough and deep breathe), incentive spirometry, nasotracheal suctioning, etc.
- **Notify house officer if:** This establishes parameters in vital signs beyond which nursing will notify the patient's resident for further orders, for instance, notify HO for temp>38, systolic BP<90, PCWP>20, etc.

**Diet:** NPO, regular, mechanical soft, clear liquid, 1600 cal ADA, 2 gm sodium restriction, tube feedings, protein restricted, etc.

**Intake and output:** This includes the frequency with which nursing will monitor and record I&O as well as any tubes, drains, or lines the patient might have, for instance:

- Record hourly I&O
- NG tube to low intermittent suction
- Foley catheter to dependent drainage Hemovac, surgical drains, chest tubes
- Endotracheal tubes, arterial lines, central venous lines
Specific drugs: This includes all medications to be given on a specific schedule, for instance, antibiotics, diuretics, cardiovascular, drugs, etc. Also include allergies to medications. IV orders include simply the type of IV solution and the rate at which it is to be infused, for instance, D5 1/2NS TRA 50 cc/hr. When the patient has both central and peripheral lines, these are specified separately, for example, D5 1/2NS TRA TKO via peripheral line and D5 1/2NS TRA 100 cc/hr via central line. Inpatient medication orders are written with the name of the drug, dosage, route of administration, and frequency of administration specified, for instance, Digoxin 0.125 mg PO Qday.

Symptomatic drugs: This includes all drugs to be given on a PRN basis, for instance, pain meds, laxatives, sedatives, etc.

Extras: This includes any diagnostic procedures to be performed, for instance, EKG, chest x-ray, CT scan, sonogram, etc.

Labs: CBC w/ diff, urinalysis, etc. These can be one time orders for admission lab work or can be for standing orders for continuous monitoring, for example, daily INR.

Discharge Orders:
On a busy service discharging patients as soon as they are medically stable is of utmost importance but often times all physicians are busy attending to current patients' needs, so if you are able to learn how to write discharge orders efficiently and accurately this can be incredibly helpful. In O2 you use the same order form for discharges as you do for your other orders. Discharge orders should include the following basic information. (Note: most of the discharge paperwork will now be completed on the computer, but the information provided here still holds).

1. **Discharge**: Give location patient will be going after leaving hospital (i.e. home, nursing home). Specify what date and time.
2. **Follow-up Care**: Include with whom, when and what time. (i.e. Patient to followup with Dr. Meyer in Family Practice outpatient clinic, on Tuesday 7/23/11 at 1:00). You will usually need to call to set these up.
3. **Discharge medications**: When you are writing discharge orders, medication orders are written like outpatient prescriptions, and therefore include the name of the drug, form in which it is to be dispensed, amount to be dispensed, patient instructions, and number of refills, for instance:
Ampicillin
n 250 mg capsules
Disp: #40
Sig: 1 cap PO QID until gone
Refills: 0

ABBREVIATIONS
Below are some of the more commonly encountered abbreviations. Some abbreviations are not approved by the University of Kansas Medical Center regulations for use in the body of a patient's chart. These abbreviations, nevertheless, show up quite frequently on the charts, and it is nice to know what they mean. (The KUMC Formulary is published annually and has a complete listing of approved abbreviations, which clinicians are to use in charts.) These are free to medical students in the inpatient pharmacy. (Also, see list at end of this section of some abbreviations to avoid). As a general rule for abbreviations, when in doubt, write it out. Many rotations have their own list of common abbreviations, but these are rarely appropriate for use in the chart. Some will provide a list of common abbreviations during orientation.

INSTRUCTIONS
a (with a line over it) before
ac before meals
ad lib as often as desired
ASAP as soon as possible
bid twice a day
BRP bathroom privileges
c (with a line over it) with
FSBS finger stick blood sugar
gtts drops
HOB head of bed
qhs at bedtime
IM intramuscular, given intramuscularly
IV intravenous, given intravenously
KOR keep open rate
KVO keep vein open
mmol millimole
NPO  nothing by mouth
OOB  out of bed
Pc  after meals
pg  picogram

po  by mouth, given orally
pr  by rectum, given rectally
prn  as needed
q  every
qd  every day  *DO NOT USE – “Q Day” instead
qh  every hour
qhs  at bedtime
qid  four times a day
qod  every other day
q6h  every six hours
s  without
sig  label
SL  sublingual
s/p  status post
SQ  subcutaneous, given subcutaneously
STAT  immediately
tid  three times a day
TKO  to keep open
v.o.  verbal order
wnl  within normal limits
TRO  to run over
TRA  to run at

DESCRIPTION AND DIAGNOSIS

AAA  abdominal aortic aneurysm
A&B  apnea and bradycardia
AaDO2  Aa gradient
Aa gradient  alveolar to arterial gradient
AAS  acute abdominal series
AB  antibody, abortion, or antibiotic
A/BI  ankle brachial index
ABD  abdomen
ABG  arterial blood gas
ACLS  advanced cardiac life support
ACTH  adrenocorticotropic hormone
ADC VANDALISM  mnemonic for Admit, Diagnosis, Condition, Vitals, Activity, Nursing
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADH</td>
<td>antidiuretic hormone</td>
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<tr>
<td>AEIOU TIPS</td>
<td>mnemonic for Alcohol, Encephalopathy, Insulin, Opiates, Uremia, Trauma, Infection, Psychiatric Syncope</td>
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<tr>
<td>AF</td>
<td>afebrile, aortofemoral, or atrial fibrillation</td>
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<tr>
<td>AFB</td>
<td>acidfast bacilli</td>
</tr>
<tr>
<td>AFP</td>
<td>alphafetoprotein</td>
</tr>
<tr>
<td>AI</td>
<td>aortic insufficiency</td>
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<tr>
<td>AKA</td>
<td>above the knee amputation</td>
</tr>
<tr>
<td>ALL</td>
<td>acute lymphocytic leukemia</td>
</tr>
<tr>
<td>AML</td>
<td>acute myelogenous leukemia</td>
</tr>
<tr>
<td>AOB</td>
<td>alcohol on breath</td>
</tr>
<tr>
<td>AP</td>
<td>anteroposterior, abdominalperineal</td>
</tr>
<tr>
<td>ARDS</td>
<td>adult respiratory distress syndrome</td>
</tr>
<tr>
<td>AS</td>
<td>aortic stenosis</td>
</tr>
<tr>
<td>ASCVD</td>
<td>atherosclerotic cardiovascular disease</td>
</tr>
<tr>
<td>ASD</td>
<td>atrial septal defect</td>
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<tr>
<td>ASO</td>
<td>antistreptolysin O</td>
</tr>
<tr>
<td>AV</td>
<td>atrioventricular</td>
</tr>
<tr>
<td>AV</td>
<td>arteriovenous</td>
</tr>
<tr>
<td>AVO2</td>
<td>arteriovenous oxygen</td>
</tr>
<tr>
<td>BI&amp;II</td>
<td>Billroth I and II</td>
</tr>
<tr>
<td>BBB</td>
<td>bundle branch block</td>
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<tr>
<td>BE</td>
<td>barium enema</td>
</tr>
<tr>
<td>BKA</td>
<td>below the knee amputation</td>
</tr>
<tr>
<td>BSO</td>
<td>bilateral salpingooophorectomy</td>
</tr>
<tr>
<td>BUN</td>
<td>blood urea nitrogen</td>
</tr>
<tr>
<td>BW</td>
<td>body weight</td>
</tr>
<tr>
<td>bx</td>
<td>biopsy</td>
</tr>
<tr>
<td>CA</td>
<td>cancer</td>
</tr>
<tr>
<td>CABG</td>
<td>coronary artery bypass graft</td>
</tr>
<tr>
<td>CAD</td>
<td>coronary artery disease</td>
</tr>
<tr>
<td>CT</td>
<td>computerized tomography</td>
</tr>
<tr>
<td>C&amp;S</td>
<td>culture and sensitivity</td>
</tr>
<tr>
<td>CBC</td>
<td>complete blood count</td>
</tr>
<tr>
<td>CBC</td>
<td>procedures, Diet, Allergies, Labs, IV Fluids, Studies, Medications</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>--------------</td>
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<tr>
<td>CC</td>
<td>chief complaint</td>
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<tr>
<td>CCU</td>
<td>clean catch urine or cardiac care unit</td>
</tr>
<tr>
<td>CEA</td>
<td>carcinoembryonic antigen</td>
</tr>
<tr>
<td>CHF</td>
<td>congestive heart failure</td>
</tr>
<tr>
<td>CHO</td>
<td>complex carbohydrate</td>
</tr>
<tr>
<td>CI</td>
<td>cardiac index</td>
</tr>
<tr>
<td>CML</td>
<td>chronic myelogenous leukemia</td>
</tr>
<tr>
<td>CMV</td>
<td>cytomegalovirus</td>
</tr>
<tr>
<td>CN</td>
<td>cranial nerves</td>
</tr>
<tr>
<td>CNS</td>
<td>central nervous system</td>
</tr>
<tr>
<td>CO</td>
<td>cardiac output</td>
</tr>
<tr>
<td>C/O</td>
<td>complaining of</td>
</tr>
<tr>
<td>COPD</td>
<td>chronic obstructive pulmonary disease</td>
</tr>
<tr>
<td>CPAP</td>
<td>continuous positive airway pressure</td>
</tr>
<tr>
<td>CPK</td>
<td>creatine phosphokinase</td>
</tr>
<tr>
<td>CPR</td>
<td>cardiopulmonary resuscitation</td>
</tr>
<tr>
<td>CrCl</td>
<td>creatinine clearance</td>
</tr>
<tr>
<td>CRP</td>
<td>C reactive protein</td>
</tr>
<tr>
<td>CSF</td>
<td>cerebrospinal fluid</td>
</tr>
<tr>
<td>CTA</td>
<td>clear to auscultation</td>
</tr>
<tr>
<td>CVA</td>
<td>cerebrovascular accident or costovertebral angle</td>
</tr>
<tr>
<td>CVP</td>
<td>central venous pressure</td>
</tr>
<tr>
<td>CXR</td>
<td>chest x-ray</td>
</tr>
<tr>
<td>DC</td>
<td>discontinue, discharge</td>
</tr>
<tr>
<td>D&amp;C</td>
<td>dilation and curettage</td>
</tr>
<tr>
<td>DDX</td>
<td>differential diagnosis</td>
</tr>
<tr>
<td>D5LR</td>
<td>5% dextrose in lactated Ringer's solution</td>
</tr>
<tr>
<td>D5W</td>
<td>5% dextrose in water</td>
</tr>
<tr>
<td>DIC</td>
<td>disseminated intravascular coagulation</td>
</tr>
<tr>
<td>DKA</td>
<td>diabetic ketoacidosis</td>
</tr>
<tr>
<td>DOA</td>
<td>dead on arrival</td>
</tr>
<tr>
<td>DOE</td>
<td>dyspnea on exertion</td>
</tr>
<tr>
<td>DOE</td>
<td>dyspnea on exertion</td>
</tr>
<tr>
<td>DPL</td>
<td>diagnostic peritoneal lavage</td>
</tr>
<tr>
<td>DPT</td>
<td>diphtheria, pertussis, tetanus</td>
</tr>
<tr>
<td>DTR</td>
<td>deep tendon reflexes</td>
</tr>
<tr>
<td>DVT</td>
<td>deep venous thrombosis</td>
</tr>
<tr>
<td>DX</td>
<td>diagnosis</td>
</tr>
<tr>
<td>EBL</td>
<td>estimated blood loss</td>
</tr>
<tr>
<td>ECG/EKG</td>
<td>electrocardiogram</td>
</tr>
<tr>
<td>ECT</td>
<td>electroconvulsive therapy</td>
</tr>
<tr>
<td>EDC</td>
<td>estimated date of confinement</td>
</tr>
<tr>
<td>EOMI</td>
<td>extraocular muscles intact</td>
</tr>
<tr>
<td>ESR</td>
<td>erythrocyte sedimentation rate</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------</td>
</tr>
<tr>
<td>ET</td>
<td>endotracheal</td>
</tr>
<tr>
<td>ETOH</td>
<td>ethanol</td>
</tr>
<tr>
<td>EUA</td>
<td>examination under anesthesia</td>
</tr>
<tr>
<td>FBS</td>
<td>fasting blood sugar</td>
</tr>
<tr>
<td>FEV1</td>
<td>forced expiratory volume in 1+ second</td>
</tr>
<tr>
<td>FHT</td>
<td>fetal heart tones</td>
</tr>
<tr>
<td>FFP</td>
<td>fresh frozen plasma</td>
</tr>
<tr>
<td>FRC</td>
<td>functional residual capacity</td>
</tr>
<tr>
<td>FTAABS</td>
<td>fluorescent treponemal antibodyabsorbed</td>
</tr>
<tr>
<td>F/U</td>
<td>followup</td>
</tr>
<tr>
<td>FUO</td>
<td>fever of unknown origin</td>
</tr>
<tr>
<td>FVC</td>
<td>forced vital capacity</td>
</tr>
<tr>
<td>Fx</td>
<td>fracture</td>
</tr>
<tr>
<td>G</td>
<td>gravida</td>
</tr>
<tr>
<td>GC</td>
<td>gonorrhea (gonococcus)</td>
</tr>
<tr>
<td>GFR</td>
<td>glomerular filtration rate</td>
</tr>
<tr>
<td>GI</td>
<td>gastrointestinal</td>
</tr>
<tr>
<td>GSW</td>
<td>gunshot wound</td>
</tr>
<tr>
<td>GTT</td>
<td>glucose tolerance test</td>
</tr>
<tr>
<td>GU</td>
<td>genitourinary</td>
</tr>
<tr>
<td>GXT</td>
<td>graded exercise tolerance (cardiac stress test)</td>
</tr>
<tr>
<td>HAA</td>
<td>hepatitisassociated antigen</td>
</tr>
<tr>
<td>HBsAg</td>
<td>hepatitis B surface antigen</td>
</tr>
<tr>
<td>HCG</td>
<td>human chorionic gonadotropin</td>
</tr>
<tr>
<td>HCT</td>
<td>hematocrit</td>
</tr>
<tr>
<td>HEENT</td>
<td>head, ears, eyes, nose and throat</td>
</tr>
<tr>
<td>Hgb/Hb</td>
<td>hemoglobin</td>
</tr>
<tr>
<td>H/H</td>
<td>hemoglobin/hematocrit</td>
</tr>
<tr>
<td>HIAAA</td>
<td>5hydroxyidoaceous acid</td>
</tr>
<tr>
<td>HJR</td>
<td>hepatojugular reflux</td>
</tr>
<tr>
<td>HPF</td>
<td>high power field</td>
</tr>
<tr>
<td>HPI</td>
<td>history of present illness</td>
</tr>
<tr>
<td>HR</td>
<td>heart rate</td>
</tr>
<tr>
<td>Hx</td>
<td>history</td>
</tr>
<tr>
<td>I&amp;D</td>
<td>incision and drainage</td>
</tr>
<tr>
<td>I&amp;O</td>
<td>intake and output</td>
</tr>
<tr>
<td>ICU</td>
<td>intensive care unit</td>
</tr>
<tr>
<td>ID</td>
<td>identification. Infectious disease</td>
</tr>
<tr>
<td>IDDM</td>
<td>insulin dependent diabetes mellitus</td>
</tr>
<tr>
<td>IHSS</td>
<td>idiopathic hypertrophic subaortic stenosis</td>
</tr>
<tr>
<td>IM</td>
<td>intramuscular</td>
</tr>
<tr>
<td>IMV</td>
<td>intermittent mandatory ventilation</td>
</tr>
<tr>
<td>IPPB</td>
<td>intermittent positive pressure breathing</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>--------------</td>
<td>-----------</td>
</tr>
<tr>
<td>ITP</td>
<td>idiopathic thrombocytopenic purpura</td>
</tr>
<tr>
<td>IUP</td>
<td>intrauterine pregnancy</td>
</tr>
<tr>
<td>IVC</td>
<td>intravenous cholangiogram, inferior vena cava</td>
</tr>
<tr>
<td>IVP</td>
<td>intravenous pyelogram</td>
</tr>
<tr>
<td>JVD</td>
<td>jugular venous distention</td>
</tr>
<tr>
<td>KUB</td>
<td>kidneys, ureters, and bladder (abdominal x-ray)</td>
</tr>
<tr>
<td>LAD</td>
<td>left axis deviation or left anterior descending</td>
</tr>
<tr>
<td>LAE</td>
<td>left atrial enlargement</td>
</tr>
<tr>
<td>LAP</td>
<td>left atrial pressure or leukocyte alkaline phosphatase</td>
</tr>
<tr>
<td>LC</td>
<td>living children</td>
</tr>
<tr>
<td>LDH</td>
<td>lactate dehydrogenase</td>
</tr>
<tr>
<td>LLL</td>
<td>left lower lobe</td>
</tr>
<tr>
<td>LMP</td>
<td>last menstrual period</td>
</tr>
<tr>
<td>LP</td>
<td>lumbar puncture</td>
</tr>
<tr>
<td>LPN</td>
<td>licensed practical nurse</td>
</tr>
<tr>
<td>LUL</td>
<td>left upper lobe</td>
</tr>
<tr>
<td>LUQ</td>
<td>left upper quadrant</td>
</tr>
<tr>
<td>LVEDP</td>
<td>left ventricular end diastolic pressure</td>
</tr>
<tr>
<td>LVH</td>
<td>left ventricular hypertrophy</td>
</tr>
<tr>
<td>MAO</td>
<td>monoamine oxidase</td>
</tr>
<tr>
<td>MAP</td>
<td>mean arterial blood pressure</td>
</tr>
<tr>
<td>MAST</td>
<td>military (medical) antishock trousers</td>
</tr>
<tr>
<td>MBT</td>
<td>maternal blood type</td>
</tr>
<tr>
<td>MCH</td>
<td>mean cell hemoglobin</td>
</tr>
<tr>
<td>MCHC</td>
<td>mean cell hemoglobin concentration</td>
</tr>
<tr>
<td>MCV</td>
<td>mean corpuscular volume</td>
</tr>
<tr>
<td>MI</td>
<td>myocardial infarction or mitral insufficiency</td>
</tr>
<tr>
<td>MLE</td>
<td>midline episiotomy</td>
</tr>
<tr>
<td>MMM</td>
<td>mucous membranes moist</td>
</tr>
<tr>
<td>MMR</td>
<td>measles, mumps, rubella</td>
</tr>
<tr>
<td>MVC/MVA</td>
<td>motor vehicle collision, motor vehicle accident</td>
</tr>
<tr>
<td>MVI</td>
<td>multivitamin injection</td>
</tr>
<tr>
<td>NAACP</td>
<td>mnemonic for Neoplasm, Allergy, Adison's disease, Collagenvascular diseases, Parasites</td>
</tr>
<tr>
<td>NABS</td>
<td>Normal Active Bowel Sounds</td>
</tr>
<tr>
<td>NAD</td>
<td>no active disease/no acute distress</td>
</tr>
<tr>
<td>NADEL</td>
<td>mnemonic for Nerve, Artery, Vein, Empty space, Lymphatics</td>
</tr>
</tbody>
</table>
NC/AT  normocephalic/atraumatic
NED  no evidence of disease
NERD  no evidence of return disease
NG  nasogastric
NIDDM  noninsulin dependent diabetes mellitus
NKA  no known allergies
NKDA  no known drug allergies
NRM  no regular medicines
NS  normal saline or neurosurgery
NSR  normal sinus rhythm
NT  nasotracheal
OB  obstetrics
OCG  oral cholecystogram
OD  oculus dextra  right eye, overdose
OM  otitis media
OP  oropharynx
OPV  oral polio vaccine
OR  operating room
ORIF  open reduction internal fixation
OS  left eye
OU  both eyes
P  para
PA  posteroanterior
PAC  premature article contraction
pAO2  alveolar oxygen
paO2  peripheral arterial oxygen content
PAP  pulmonary artery pressure
PAT  paroxysmal atrial tachycardia
P&PD  percussion and postural drainage
P&C  panendoscopy and cystoscopy
PCWP  pulmonary capillary wedge pressure
PDA  patent ductus arteriosis
PDR  Physicians Desk Reference
PE  pulmonary embolus
PEEP  positive end expiratory pressure
PERRLA  pupils equal, round, and reactive to light/accommodation
PFT  pulmonary function tests
PI  pulmonic insufficiency
PID  pelvic inflammatory disease
PKU  phenylketonuria
PMH  past medical history
PMN  polymorphonuclear leukocyte (neutrophil)
PND  paroxysmal nocturnal dyspnea
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>POD</td>
<td>post op day</td>
</tr>
<tr>
<td>PP</td>
<td>postprandial</td>
</tr>
<tr>
<td>PPD</td>
<td>purified protein derivative</td>
</tr>
<tr>
<td>PRBC</td>
<td>packed red blood cells</td>
</tr>
<tr>
<td>PS</td>
<td>pulmonic stenosis</td>
</tr>
<tr>
<td>PT</td>
<td>prothrombin time, physical therapy</td>
</tr>
<tr>
<td>Pt</td>
<td>patient</td>
</tr>
<tr>
<td>PTH</td>
<td>parathyroid hormone</td>
</tr>
<tr>
<td>PTHC</td>
<td>percutaneous transhepatic cholangiogram</td>
</tr>
<tr>
<td>PTT</td>
<td>partial thromboplastin time</td>
</tr>
<tr>
<td>PUD</td>
<td>peptic ulcer disease</td>
</tr>
<tr>
<td>PVC</td>
<td>premature ventricular contraction</td>
</tr>
<tr>
<td>PVD</td>
<td>peripheral vascular disease</td>
</tr>
<tr>
<td>PZI</td>
<td>protamine zinc insulin</td>
</tr>
<tr>
<td>Q</td>
<td>mathematical symbol for flow</td>
</tr>
<tr>
<td>RA</td>
<td>rheumatoid arthritis</td>
</tr>
<tr>
<td>RAD</td>
<td>right axis deviation</td>
</tr>
<tr>
<td>RAE</td>
<td>right atrial enlargement</td>
</tr>
<tr>
<td>RAP</td>
<td>right atrial pressure</td>
</tr>
<tr>
<td>RBBB</td>
<td>right bundle branch block</td>
</tr>
<tr>
<td>RBC</td>
<td>red blood cell (erythrocyte)</td>
</tr>
<tr>
<td>RDA</td>
<td>recommended dietary allowance</td>
</tr>
<tr>
<td>RDW</td>
<td>red cell distribution width</td>
</tr>
<tr>
<td>RIA</td>
<td>radioimmunoassay</td>
</tr>
<tr>
<td>RLL</td>
<td>right lower lobe</td>
</tr>
<tr>
<td>RLQ</td>
<td>right lower quadrant</td>
</tr>
<tr>
<td>RML</td>
<td>right middle lobe</td>
</tr>
<tr>
<td>RNA</td>
<td>ribonucleic acid</td>
</tr>
<tr>
<td>R/O</td>
<td>rule out</td>
</tr>
<tr>
<td>ROM</td>
<td>range of motion</td>
</tr>
<tr>
<td>ROS</td>
<td>review of systems</td>
</tr>
<tr>
<td>RRR</td>
<td>regular rate and rhythm</td>
</tr>
<tr>
<td>RT</td>
<td>rubella titer, respiratory therapy</td>
</tr>
<tr>
<td>RTA</td>
<td>renal tubular acidosis</td>
</tr>
<tr>
<td>RTC</td>
<td>return to clinic</td>
</tr>
<tr>
<td>RU</td>
<td>resin uptake</td>
</tr>
<tr>
<td>RUG</td>
<td>retrograde urethrogram</td>
</tr>
<tr>
<td>RUL</td>
<td>right upper lobe</td>
</tr>
<tr>
<td>RUQ</td>
<td>right upper quadrant</td>
</tr>
<tr>
<td>RV</td>
<td>residual volume</td>
</tr>
<tr>
<td>RVH</td>
<td>right ventricular hypertrophy</td>
</tr>
<tr>
<td>Rx</td>
<td>prescription, treatment</td>
</tr>
<tr>
<td>SA</td>
<td>sinoatrial</td>
</tr>
<tr>
<td>Sab</td>
<td>spontaneous abortion</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>--------------</td>
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</tr>
<tr>
<td>SBE</td>
<td>subacute bacterial endocarditis</td>
</tr>
<tr>
<td>SBFT</td>
<td>small bowel followthrough</td>
</tr>
<tr>
<td>SBS</td>
<td>short bowel syndrome</td>
</tr>
<tr>
<td>SCr</td>
<td>serum creatinine</td>
</tr>
<tr>
<td>SG</td>
<td>SwanGanz</td>
</tr>
<tr>
<td>SGGT (AST)</td>
<td>serum gamma glutamyl transaminase</td>
</tr>
<tr>
<td>SGOT (ALT)</td>
<td>serum glutamicoxaloacetic transaminase</td>
</tr>
<tr>
<td>SGPT</td>
<td>serum glutamicpyruvic transaminase</td>
</tr>
<tr>
<td>SIADH</td>
<td>syndrome of inappropriate ADH</td>
</tr>
<tr>
<td>SIMV</td>
<td>synchronous intermittent mandatory ventilation</td>
</tr>
<tr>
<td>SLE</td>
<td>systemic lupus erythematosis</td>
</tr>
<tr>
<td>SOAP</td>
<td>mnemonic for Subjective, Objective, Assessment, Plan</td>
</tr>
<tr>
<td>SOA/SOB</td>
<td>shortness of air, shortness of breath</td>
</tr>
<tr>
<td>SVD</td>
<td>spontaneous vaginal delivery</td>
</tr>
<tr>
<td>SQ</td>
<td>subcutaneous</td>
</tr>
<tr>
<td>SX</td>
<td>symptoms</td>
</tr>
<tr>
<td>Tab</td>
<td>therapeutic abortion</td>
</tr>
<tr>
<td>T&amp;C</td>
<td>type and cross</td>
</tr>
<tr>
<td>TAH</td>
<td>type and hold / Total Abdominal Hysterectomy</td>
</tr>
<tr>
<td>TB</td>
<td>tuberculosis</td>
</tr>
<tr>
<td>TBG</td>
<td>thyroid binding globulin</td>
</tr>
<tr>
<td>TBLC</td>
<td>term birth, living child</td>
</tr>
<tr>
<td>TC&amp;DB</td>
<td>turn, cough, and deep breath</td>
</tr>
<tr>
<td>TIA</td>
<td>transient ischemia attack</td>
</tr>
<tr>
<td>TIBC</td>
<td>total iron binding capacity</td>
</tr>
<tr>
<td>TKO</td>
<td>to keep open</td>
</tr>
<tr>
<td>TLC</td>
<td>total lung capacity</td>
</tr>
<tr>
<td>TNTC</td>
<td>too numerous to count</td>
</tr>
<tr>
<td>TORCH</td>
<td>toxoplasma, rubella, cytomegalovirus, herpes virus</td>
</tr>
<tr>
<td>TPN</td>
<td>total parenteral nutrition</td>
</tr>
<tr>
<td>TPR</td>
<td>total peripheral resistance</td>
</tr>
<tr>
<td>TSH</td>
<td>thyroid stimulating hormone</td>
</tr>
<tr>
<td>TTP</td>
<td>thrombotic thrombocytopenic purpura</td>
</tr>
<tr>
<td>TU</td>
<td>tuberculin units</td>
</tr>
<tr>
<td>TURBT</td>
<td>TUR bladder tumors</td>
</tr>
<tr>
<td>TURP</td>
<td>transurethral resection of the prostate</td>
</tr>
<tr>
<td>TV</td>
<td>tidal volume</td>
</tr>
<tr>
<td>TVH</td>
<td>total vaginal hysterectomy</td>
</tr>
<tr>
<td>Abbreviation/ Dose Expression</td>
<td>Intended Meaning</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>cc</td>
<td>milliliter</td>
</tr>
<tr>
<td>“o”</td>
<td>Hour(s), i.e. “q1º”</td>
</tr>
<tr>
<td>MgSo4</td>
<td>Magnesium Sulfate (MSO4)</td>
</tr>
<tr>
<td>MSO4</td>
<td>Morphine Sulfate</td>
</tr>
<tr>
<td>------</td>
<td>------------------</td>
</tr>
<tr>
<td>ug, or μg</td>
<td>Micrograms</td>
</tr>
<tr>
<td>sq</td>
<td>Subcutaneous</td>
</tr>
<tr>
<td>SC</td>
<td>Subcutaneous</td>
</tr>
<tr>
<td>&quot;</td>
<td>Inch</td>
</tr>
</tbody>
</table>

**MISCELLANEOUS WARD SURVIVAL INFORMATION**

**Telephone Use:**
At the desk on every nursing unit, you will find a list of telephone extensions. This is a large sheet taped to the counter top next to at least one of the telephones. If you don’t find the number you need on this list, you can either ask the Unit Secretary or call the hospital operator (Dial “0”) and ask him/her. You probably already know that to reach an in-hospital number you need only to dial “8” (or “5” for some newer extensions) and the four-digit extension, and to reach an out-of-hospital number, you need to dial “9” followed by the outside telephone number. Not all lines in the hospital “dial out”, so if you can’t dial out on the line you are using, try another line or try another phone.

To call a **CODE BLUE**, dial extension 5656. Tell the code blue operator the nursing unit (and room number, assuming the code is in a room) of the code, the extension from which you are calling, your name, and whether the person is an adult or pediatric patient. It is a good idea to wait for the code blue operator to hang up before you do, so that if he/she needs further information, you will not have hung up on them in your haste.

To call a **CODE RED** (fire), dial extension 5656. Tell the code red operator the nursing unit and extension from which you are calling, your name, the nature of the fire, and its location as precisely as possible. It is important to tell the operator the nature of the fire, since if you just smell smoke or hear the alarm going off, he/she will take one course of action, whereas if you actually see flames, he/she will take an entirely different course of action. Again, wait for the operator to hang up before you do.

**Paging System:**
Most of the residents and attendings at KUMC carry text pagers. To page someone with a text pager by phone, dial “9” and then their pager number (9917xxxx) if you are calling from a hospital phone. Next, wait for the beep and dial in the extension number that you want the person you are paging to call. Press the # key and hang up the phone.
You can also text page either the residents or attendings at KUMC using a computer. Go to www.kumc.edu and search for the resident or attending you'd like to page using the phone directory search engine. It will then give you the option to text page only if you are using a computer at KUMC. Another option is that can go to www.myairmail.com to send text pages from any computer with an internet connection. You will need to type in the entire pager number including area code without dashes (913917xxxx). You can also text page using text messaging on your cell phone. Just send a text to the full pager number (913917xxxx).

To page VA pagers dial 52337, wait for a new dial tone and then dial in the 3digit pager number. Follow other instructions for voice pager as listed above. You can also text page at the VA. Opening the internet at the VA will take you to the VA website. From there, click on the text paging link and enter the 3digit pager number along with your text page.

Requisitions and Other Paperwork:
In addition to the chartwork outlined previously, you will find yourself responsible for filling out a variety of lab menus, medical release forms, consult forms, etc. The most common scenario is obtaining medical records from an outside institution. This is a simple form that requires patient consent and use of a fax machine. It would require more space than is available here to describe all of these forms and requisitions. Therefore, only a few comments on the subject will be made here and the rest can be left for you to discover as you go along. You can find almost all of these forms near the charge nurse’s station usually at the front/center of a unit.

The Unit Secretary is your best friend when it comes to paperwork of all kinds. He/she will be able to tell you which form needs to be filled out, how to fill it out, where to find it, where to send it when you’re done, which of the many requisitions, forms and menus are your responsibility, and which ones are his/her responsibility. Volunteering to fill out a lot of the paperwork will be helpful to the team. Everyone, including residents, appreciate you making their lives easier.

Breastfeeding Resources for Third Year Medical Student Moms

Start pumping well before you go back to clinics to build up your supply at home and to get used to the equipment. Also, start feeding your baby from a bottle before you return to work and have others feed your baby so that he/she will get used to it.

On the first day of any rotation, simply ask a resident if there is a room where you could pump. In general, don’t ask the clerkship director or coordinator because they usually are not involved in the day to day clinical duties for med students and likely would not be able to answer your question.
There are several places around campus for pumping. See [http://www.kumc.edu/human-resources/policies-and-procedures/lactation-support-policy.html](http://www.kumc.edu/human-resources/policies-and-procedures/lactation-support-policy.html) for more information and exact locations, as this may change periodically. Currently, there are lactation stations in 2001 Robinson, 4021 Miller, and 3070 SON, 1055A Hemenway and 2044 Wescoe. Each room has various availability and amenities, including a breast pump (you provide your attachments). You will use the Outlook calendar to schedule a time.

On each rotation there are different types of locations in which you might be pumping. These include call rooms, bathrooms, locker rooms, unoccupied patient rooms, etc. It is usually most convenient to bring your own pump and then find a quiet place where you can go every 46 hours. Let your resident know how many minutes you will be gone and make sure you return on time. In order for this to occur you will need to be assertive. The residents will not have a problem with you leaving to pump, but they will not remind you to go do it either. So, if you’re on a particularly busy service, you’ll just need to excuse yourself and return in a timely manner. If you don’t take this initiative, you might find yourself only pumping every 610 hrs. Remember to drink lots of water and take your prenatal vitamins.

### Telephone Directory

| KUMC9135885000 (operator).  
| Dial 8 before inhouse extension, or dial 9 for outside line. KCVA8168614700 |  
| Admissions5287 | GI Consult/Endo3945 |  
| Ambulatory Care/Fax3974/8389 | GI Office/Hepat6019 |  
| Anesthesiology 6670 | Hematology6077 |  
| Cancer Center7750 | Bone Marrow1731 |  
| CTS7743 | ID6035 |  
| Dermatology6028 | Clinic Appt3901 |  
| Dietary7681 | Oncology6029 |  
| EEG6970 | Pulmonary6044 |  
| ENT6701 | Renal6074 |  
| ER6504 | OT/PT6789/6790 |  
| Gen Surgery6100 | Ophthalmology6600 |  

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<tr>
<th>Department</th>
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<tr>
<td>Gen Surgery Consults</td>
<td>6161</td>
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<tr>
<td>Ortho Surgery</td>
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<td>Hearing/Speech</td>
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<td>Orthotics</td>
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<td>Page Operator</td>
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<td>IV team (pager)</td>
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<td>Pharmacy</td>
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<td>Plastic Surgery</td>
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<td>Lab</td>
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<td>5030/911</td>
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<td>Sono</td>
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Useful Websites:
1. [www.library.kumc.edu](http://www.library.kumc.edu) (dykes website access to MDconsult, Pubmed, access medicine)
2. [www.emedicine.com](http://www.emedicine.com)
3. [www.uptodate.com](http://www.uptodate.com)
4. [www.medfools.com](http://www.medfools.com) (for scut sheets, useful on Internal Medicine)

Mobile App Resources:
1. [http://guides.library.kumc.edu/mobileapps](http://guides.library.kumc.edu/mobileapps)
2. [www.handheld.com](http://www.handheld.com)
3. [www.epocrates.com](http://www.epocrates.com)

Outpatient Prescription Writing:
From time to time, you will be called upon to write outpatient prescriptions. The outpatient prescription includes the name of the drug, form in which it is to be dispensed, amount to be dispensed (Disp), patient instructions (Sig), number of refills, and signed by a resident or attending.

Outpatient Prescription Example:
Name
(Augmentin 875 mg) Disp
#(20)
Sig: (1 po BID x 10 days) Refills: 0