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.

I would like to introduce you to the history, mission, and election criteria for the Alpha Omega Alpha Medical Honor Society. 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. As stated in the society’s constitution, “Alpha Omega Alpha is organized for educational purposes exclusively and not for profit, and its aims shall be the promotion of scholarship and research in medical schools, the encouragement of a high standard of character and conduct among medical students and graduates, and recognition of high attainment in medical science, practice, and related fields.” Alpha Omega Alpha offers important national programs such as: Alpha Omega Alpha Visiting Professorships, a quarterly journal - The Pharos, Student Research Fellowships, and two Distinguished Teaching Awards in collaboration with the Association of American Medical Colleges. In addition, the Kansas Alpha Chapter has several local programs which include: The William Root Lecture Series, the KUMC Clinical Student Orientation Manual, and Residency Information programs.

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.

Best of luck throughout your future endeavors,
Brian Chalmers
Alpha Omega Alpha Kansas Chapter President, 2013-2014
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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 2015.

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 hard-working is the single most important thing one can do to maximize learning and enjoyment on the service.
**PEARLS**

**Important Phone Numbers:**

KU Pathology x1180
KU Laboratory x1700
KU Radiology x7551
KU PACU x2100
KU Pharmacy x2820
VA Radiology 52715

* For KU extensions, always dial an 8 (some newer numbers a 5)

KU paging system 9-917, then number
VA paging system 5-BEEP and then follow directions
KU operator 0, or x5000
KU page operator x5155
KU medical records x2454
KCVA 816-861-4700

KU Cancer Center x7750
KU IR x6875
KU Medwest x8400
Landon Center x1203

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**To put in consult at KU:** Fill out request form. Call operator and ask for the number to put in a consult for whatever service you need. Call the number and have available the pt’s name, age, room # and hospital #, attending, resident and pager #, and the reason for consult. All records are computerized at the VA, so this is done on the computer. At KU, the consulted service now completes the consult in O2.

**To find an old chart at KU:** Charts are supposed to come to the floors with the pts. Unfortunately, that doesn't always happen. Your best shot is to go to medical records yourself (ground floor, in the hall between cafeteria and main elevators) and request the chart. Be sure to take the pt’s medical record number (MRN)! If you are really nice to the med records people, your life will be much easier. Old charts are in the process of being scanned and stored in Chartmaxx. If you are unable to find patient information in O2, you should first check in Chartmaxx and then call medical records.

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**Cafeteria Hours**

KU - 6:30am to 8:00pm
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. 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 G116 Student Center (588-4688), 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 Pre-test books with questions which are meant to be significantly harder than the shelf, but are a good learning tool. On-line 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 prescribe 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 must 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 multi-drug 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.
INDIVIDUAL ROTATIONS

Title of Course:  Family Medicine

Course Directors:  Hannah Maxfield, MD  917-4628,  hmaxfield@kumc.edu

Course Coordinator:  Keisha Florez,  588-1996,  kflorez@kumc.edu

Grading Breakdown:

Family Medicine:
Clinical Evaluation
-Community Preceptor…………………………. 20%
-Student Clinic Eval…………………………… 20%
-Resident On-call Eval…………………. Pass/Fail
-OSCE. …………………………………………. 10%

Projects and Participation
-Case Presentation……………………………20%
-Clinical reasoning exercises…………..Pass/Fail
-Participation……………………………………5%

Written Exams
-Shelf Exam……………………………………15%
-Content Mastery Exam …………………….10%

Patient Encounter Log…………………Pass/Fail

* To obtain a Superior in the course:
Minimum CPR eval score of 85%
Minimum raw shelf exam score of 68%
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 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. Objectives will be clearly outlined in the syllabus.

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 your 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 in patient 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 is your grade for rotation. 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.

Books: Blueprints Family Medicine and Case Files Family Medicine are the two most commonly used reference books. Some students also found the “Ambulatory Medicine” chapter in the “Step Up to Medicine” book (see Internal Medicine clerkship) 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 “quick-hit.”

Question Bank: USMLEasy is one resource, but a very helpful bank of questions is found on the American Academy of Family Practice website. In most students opinion the AAFP questions are of higher value compared to USMLEasy for this shelf. Current USPSTF Screening recommendations at http://www.uspreventiveservicestaskforce.org/uspsttopics.htm. You can also download the AHRQ ePSS app for smart phones and tablet devices for use in clinic

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 difficultly. 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 who 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.
Geriatrics Full overview:

Course Director:  Dan Swagerty, MD, 220 LCOA, 8-1940, dswagert@kumc.edu

Course Coordinator:  Angela Gosserand, 220 LCOA, 8-1306, agosserand@kumc.edu

On the first day -  orientation in am, didactics/skills fair in pm
Meet:  check email notifications (orientation usually Monday at 9am at Landon Center on Aging room 200)
Bring:  white coat, stethoscope, and anything you might use in an outpatient med clinic
Helpful stuff:  Pharmacopia, Sanford's Guide to Antimicrobials, Maxwell’s, PDA drug programs
Website:  http://www2.kumc.edu/coa/Education/ed-UnderMedEduc.htm

Books used:
Study the web modules for the exam and weekly quizzes.  (All you really need to study)
Hours:  In general 8am-5pm Monday through Friday with some variation eg inpatient.  check your syllabus
Weekends: not required
Call:  not required

Main Services:
Outpatient clinics: Consult the syllabus for your location and your start time.  Generally you will do one half day at a time and be very involved with seeing patients, making assessments, and forming a plan.  See below for some attending specific details.

Nursing homes: Nursing homes are most similar to inpatient work.  You will be given 1-3 patients and be required to perform a full workup of a given patient.  Remember this may be the first time a patient has been seen in as many as 60 days so be thorough and patient.  The clerkship will do its best to provide you with one higher income nursing home and one lower income to add to your diversity of experience.

Inpatient: Duties will require working up assigned patients and presentations with assessment and plan to the best of your abilities, rounding with the team in morning and into afternoon, helping residents with miscellaneous tasks and performing H&Ps on new admits.  Generally carry 2 or 3 patients. Days typically start at 6:30AM and end at 3:30PM

Wound clinic: You will work with Dr. Wilkins who is great to work with.  You will assist with the assessment of wounds, clean up, and dressing as necessary.  Listen in while he assesses wounds because he’ll talk out loud and get you up to speed on the basics of wound assessment.

Other experiences
Osteoporosis clinic: You will work with Dr. Raj Bhattacharya who is laid back and easy to work with.  He will give you clear instructions on the information he wants you collect and present to him.  Generally, you will see most if not all of the patients for the clinic so the time typically goes quickly.  He will give you some papers to read and is an encyclopedia on osteoporosis; so ask questions.
Swallow Clinic: You will work with Dr. Kerrigan. You will observe swallow studies for one half day at the VA. She is very knowledgeable and will discuss the relevant aspects of these studies. Feel free to ask questions, but be aware that she has a reputation for talking excessively about things unrelated to medicine.

Hospice: You will work with various nurses. You will spend a day traveling with a hospice nurse to assess patients in various settings: home, assisted living, nursing home, etc. Experiences vary. Take the time to ask questions of the nurses about what they do; they are knowledgeable in their field. This is primarily a time to gain an understanding of what exactly it means to be on hospice care.

EMG clinic: Done with Dr. Varghese. You will be asked to interview patients who are undergoing EMG testing. Be sure to ask: cause and history of injury, other injury history, pain (quality, intensity, radiation, etc), sensation, and strength. Also with the physical exam inspect, assess strength, bulk, sensation, reflexes, range of motion (passive and active), and proprioception. You will then observe some EMG tests. It will help to know your dermatomes. All students agree this is a good experience and Dr. Varghese is a pleasure to work with.

KU Spine center
(Inpatient) - You will work on the Rehab floor with residents and an attending. You will assess patients during their inpatient rehab stay who are recovering from various injuries from stroke to surgery. A student interested in surgery said she greatly benefitted from working with Dr. Saben on the rehab service. She spent time discussing how to maximize the communication and workflow between surgeons and rehab physicians.

(Outpatient) - Patients are assessed for how they are doing with rehab and returning to their normal lives after leaving the hospital. Additionally, you may see pain management in this clinic.

Tallgrass Creek – Done with Dr. Welsh. This is an assisted living to nursing home community that focuses on the “Erickson living” model. You can read up here http://www.ericksonliving.com/. Basically, it is a wealthy retirement community that encourages healthy eating, exercise, and community involvement. Dr. Welsh will be happy to explain any and all details of the community. Best advice is probably to sit back and enjoy the experience you wont get too involved and at most this will be one day.

Geriasims modules – You will be given a link to complete online modules on geriatrics cases. You will be required to complete two modules per morning of geriasims assigned.

Skills card – There are 10 skills that they ask you to complete throughout the module. Different attendings may be more or less agreeable to sign for a given skill. Overall, they are not difficult to complete and add to the experience on the rotation. Skills include: MMSE, Urinary incontinence assessment, life expectancy estimate, gait assessment, capacity assessment, ulcer assessment, ADL/IADL assessment, geriatric depression scale, medication review, nutritional status assessment.

Attendings:

Dr. Birch – Generally you will see two patients per half day and then be released. To be successful be sure to review the chart thoroughly and note any past diagnoses, other encounters
since the last geri clinic encounter, abnormal lab results, and vital signs (including weight change). Perform a thorough interview and physical exam. Report with assessment and plan regardless of your skill level. (side note: if you deem it necessary to assess for orthostatic be sure to do so yourself).

**Dr. Raj Bhattacharya** - Raj Bhattacharya does diabetes/osteoporosis clinic, so it isn't limited to just the elderly population. He is easy to engage in conversation about endocrine disorders, and wants students to know everything there is to know about diabetes. Clinic runs at a good pace that you won't get bored, but you'll still learn. Students see the patient first to ask specific questions about how they are doing (he'll let the student know these questions on day 1). You'll present these findings to him while he does his note and then he'll go see them while you see the next patient. Students don't normally write notes because he is quick to close the encounter. He's really chill, but likes when students take an interest in learning.

**Dr. Shelly Bhattacharya** -
In clinic - Students are expected to show up at 7:45am to review patient charts. The clinic starts at 8am. You will usually 2 students so you can alternate seeing patients. Generally she will copy your HPI so always write it while in the room with the patient and be sure to do a thorough medication review. You will have ample opportunity to get your skills card complete with her. Generally speaking you should expect the clinic to run late so be aware that you will likely be late to your afternoon activities. She will be one of your graders so it is wiser to stay late with her than leave early to get to your afternoon activity on time.

In nursing home - You will be required to see 2 patients for follow up. You should see your patient and complete your note prior to rounds starting. You should be sure to do a full medication review. Generally speaking you will work at a much faster pace than Birch at the nursing home.

**Dr. Hayley** - She enjoys teaching students so feel free to ask questions. Presentations should be formal and concise. Try to avoid excessive descriptors (eg “patients potassium was normal at 4.1” should be “Potassium was 4.1.”) You should expect to see patients alone.

**Dr. Kalender-Rich** - Generally she is very laid back and easy to work with. She will assign you patients at the beginning of the day with the intent of you following the same patients as best as possible throughout the rotation. She is from an internal medicine residency so your presentations should be tailored as such. She is very up to date with evidence-based research and very approachable so don't hesitate to ask her questions. Also, she is a good preceptor if you are not interested in geriatrics because she will tailor your experience and discussions to your interests.

**Dr. Swaggerty** - Generally, pretty laid back and is easy to work with. He really loves working with Geriatric patients and is very thorough.

**Sharee Wiggins, NP** - A very experienced researcher and nurse practitioner with two masters degrees. Physical exam, adequate pain control, incontinence and medication reconciliation are her big hot topics. It's important to her that you know the patient's family, social, an occupational history. She's got high standards but she's a great teacher.
Dr. Zufer - She is nice, thorough, and patient. She has you see the patient on your own and then present to her, and she likes you to have an assessment and plan. She may give you better feedback verbally then she does on computerized evaluation, so ask for specific areas to work on rather than a general “you’re doing great.”

Grading System:

- Clinical Evaluation 50%.................................50 points
- *Final Exam 30%............................................30 points
- Participation/Professionalism 10%.....................10 points
- Quizzes 10%................................................10 points
- Total 100%....................................................100 points

Clinical Test (SP) Required
10 Essential Geriatrics Clinical Skills Card Required

92% - 100%  Superior
82% - 91.9%  High Satisfactory
70% - 81.9%  Satisfactory
<70%  Unsatisfactory

*Final Exam is not graded on the curve. Depending on what rotation you are in (obvious differences between your first and last rotations), the average is typically 78-85%.

Writing Notes:

Clinic Notes: Most are in the SOAP format. However, the student may have contact with multiple attendings, and should verify with each attending what format is preferred for the student notes. Notes at LCOA are written on Centricity, and you will become familiar with the new software during orientation.
Title of course: Internal Medicine

Course Director: Isaac Opole, M.D., x8-6005, iopole@kumc.edu

Course Coordinator: Marcia Pressly, x8-6002, mpressly@kumc.edu

On the first day –
Meet: site is variable, watch your e-mail
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.

Dress: Professional attire is required.

Books:
Books provided by the clerkship:
1. Medicine, Fishman
2. MKSAP 2 and 4 for Students
3. Internal Medicine Clerkship Guide, Paauw
Books most of the group used to study:
2. Blueprints in Medicine: A shorter review book that covers basics on most of the general topics.
3. 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.
4. MKSAP 4 for Students: Question series for medical students provided by the clerkship. Most popular question source used by students on this clerkship. Excellent bank of questions that are very similar to shelf questions.
5. Medicine Recall

Other helpful references:
1. 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.
4. 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.
5. Rapid Interpretation of EKG’s by Dubin: Great for learning EKG’s which you will definitely do while on the service.
Reference Texts:
1. 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.
2. Cecil’s Textbook of Medicine: Similar to Harrisons, but some say easier to read.
3. DynaMed online database
4. Uptodate online database

Hours: Expect hours to be about 6:00 a.m. to 6:00 p.m., with occasional earlier days. Morning report is in 4050 Wescoe or 3015 Sudler for Grand Rounds. Noon conference is also in 3015 Sudler. These will likely occur during the middle of rounds, so follow your residents, as they are required to attend as well. **Attendance is strongly encouraged.**

Rounds: **KNOW WHAT IS GOING ON WITH YOUR PATIENTS!**
Be sure to read about your patient’s diseases because that is where most of the questions during rounds will come from. For help formulating an assessment and plan, talk to your residents. Rounds usually occur in the morning and can frequently last most of the morning and extend into the afternoon at times. Most services require that you come in before rounds to see your patients (pre-rounding). Notes may or may not have to be written before rounds - just ask the residents on your team. Make sure you have all new data (labs, radiology reports, etc.) ready when in pt rooms-attendings will often ask for information when talking to patients.

Weekends: Students are required to see their patients every day. However, most services will provide you one day off a weekend, or allow one student to cover all the patients so the other students can be off. Students are usually allowed to leave the hospital on weekends after rounding and writing note/orders (typically around noon). Some students work out with their colleagues whole weekends to cover, then working all weekend every other week. Discuss a weekend plan with your residents and the other students at the beginning of each month.

Call Schedule: Students are required to take “short call” approximately one time per week (only lasts until 7pm typically). Students are not required to take overnight call since the medicine service has a night-float team. It is a good idea to ask about call responsibilities on the first or second day of a clerkship.

Units: Medicine floors are on 4th, 5th and 6th floor of the hospital. You may have patients in the heart hospital as well.

Grading System:
Your grade will be based on the following: Clinical evals 60 pts (30 for each service) 
Shelf Test 40 pts
Total 100 pts

**80% is a superior**, with grades falling at 70-79, 55-69 and below 55. Students are required to perform an observed H & P. Only an attending can sign off that you have completed this task (so do it early!). Standardized patients are also seen in the skills lab during this clerkship. The medicine department is very clear that they will review point totals and set new cutoffs if necessary, so the numbers are approximate.

Writing Notes: This clerkship offers a great opportunity to learn to write thorough notes, identifying and addressing various problems each patient faces. It deserves mention that
Medicine notes are usually fairly long, as patients typically have multiple problems. Students are expected to write H & P’s on all new patients and daily SOAP notes on their patients. Your notes do NOT need to be identical to your residents—this is the time to work on your own skills, not become an expert at copying someone else’s note. It’s okay to look at your residents note to gauge your progress, but just copying their plans does not help your education. All progress notes are now electronically completed on the hospital EMR system. Do not hesitate to ask your residents for help in using the O2 system to write your daily notes. 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).

Orders: Residents and attending are the only individuals who have order writing privileges in the O2 order entry system. However, starting this year, medical students will be allowed to “Pend orders” for their residents and attendings to sign; since this is the first year, ask your residents on the first or second day to ask the specifics on how this will work. Students working at the VA are strongly encouraged to enter electronic orders on their patients. The intern covering that specific patient will be able to sign the orders that you have created after morning rounds are finished.

Remarks: The Basic Medicine clerkship is one which students often consider the most valuable. It is a good place to learn the basics about the presentations and management of human diseases. The amount of material that falls under this heading is vast, so it is important not to get weighed down with obscure facts. The best learning experiences and the best test scores will come to those who learn broad principles of Internal Medicine while on this rotation, and read, read, read. The team dynamic is also in full effect in medicine, and finding one’s role in the team and trying to help out wherever possible can make a big difference. As on many rotations, your hours, responsibilities and overall experience will be determined in large part by your residents. Try to help them out as much as possible—volunteer to call in consults, page and talk with providers from other services and above all show enthusiasm. Remember that your residents are working even longer and under more pressure than you and be grateful when they take extra time to teach you.
**Title of course:** Neurology

**Course Director:** Heather Anderson, MD, x8-6970, handerson3@kumc.edu  
**Course Coordinator:** Paula Mengel, x8-6996, Landon Center on Aging, pmengel@kumc.edu

**On the first day-**  
**Meet:** Landon Center, Room 145 at 7:30 a.m. If you’re lost: Go in the main entrance of Landon Center, walk towards the back of building with the windows on your right (through which you can see a little courtyard), pass the elevator on your left, the double door conference room is your spot.

**4 weeks of Neurology** at the Kansas City Veteran’s Association, KUMC or Children’s Mercy. Typically every morning there is a morning report that lasts from 7:15 or 7:30 until about 8 AM. They are “optional” for students but most of your residents will attend them. Unless you are on the Neuro ICU, your days will typically start after that conference. Friday mornings there are Neurology/Neurosurgery Grand Rounds starting at 6:45 AM in Lied Auditorium.

**Typical Day:** (The combination for the resident room is: 1234, then hit the enter button).  
1. **Neurology ICU:** Rounds typically begin around 0800h. Students can wear scrubs in Neuro ICU. Most students begin the clerkship arriving around 0600h and taper off to 0630-0700h starts as you get the hang of it. 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 some students carry patients according to weeks on service (one the first week, two the second, and so on). You write notes on each patient and present during rounds. Evaluate your comatose patients with Glasgow Coma Scale and Four Score. Remember, systems based.

2. **KUMC Inpatient Ward:** Ask your resident when you should be there in the morning, but expect to show up around 0600h-0800h at the resident room the 8th floor of the Heart Hospital. Make sure you know your patients and make sure to stay on top of any lab results or imaging studies done. Uptodate is a useful resource for “the next step” in diagnosis and management. Wards offer some excellent opportunities to practice your neuro exam, especially the fundoscopic exam. Ask your resident to borrow their ophthalmoscope. You are expected to write notes on your patient (2-4 patients). Rounding is done in the morning. Some attendings will pre-round (some for several hours) while others may just start with rounding. You will be expected to present your patients and give an assessment and plan for them. Days usually end around 1600-1630h with shift change, but can go longer.

3. **Consults:** Ask your resident when you should be there in the morning, but expect to show up around 0700h-0800h in the same resident room on the 8th floor of the Heart Hospital as above. Your patients are scattered around the hospital. See your patients in the morning. Rounds are generally in the afternoon. Hours may be a little bit better than the inpatient service as you may have the chance to come in a little bit later than on inpatient. Similar to inpatient, you will be expected to write notes on your patient.

4. **VA:** At the VA, the three teams usually round at different times, such as 0830h, 1100h, or
even 1300h depending on the attending. You usually need to allot 45 minutes to see your patients before rounds, but give yourself extra time for the first few days. Students typically carry 2-4 patients. At the VA, beware of patients using their “elevator pass” and going outside to smoke for extended periods of time. Touch base with your resident via pager regarding the first day regarding rounds timing. Also, on your first day, you will meet with a lady named Stephanie (on the 11th floor) for parking passes and VA identification cards. Lunches are often provided at the VA by pharmaceutical reps, so if your ethics allow, you can partake. There are several ways to get to the VA; one is: 39th street east to Broadway, north on Broadway to Linwood, east on Linwood. 71 highway is a good route too (google it).

5. **CMH:** The first day is orientation and the coordinator is Paula Mengel. She will give very detailed directions beforehand (via email) on where to go the first day. The child neurology service is entirely a consult service. Typically, the child neurology team consists of an attending, a nurse manager, a child neurology fellow, an adult neurology resident from KUMC, and 2-3 medical students. The attendings switch each week on Fridays. At CMH, sit-down rounds start at 0900h. Typically, it is a good idea to arrive between 0800-0830h. There is a resident conference room where students may leave their personal belongings and use computers. Students do not typically pre-round on patients; rather, the entire team meets with the primary pediatrics team (which consists of CMH residents and UMKC and/or KCUMB medical students) to hear updates on each patient. Rounds typically last 15-45 minutes depending on the patient load. After sit-down rounds, the child neurology team sees each patient. Depending on the patient load, the team may break for lunch and reunite for the afternoon to finish seeing patients. At CMH there are a number of educational conferences over the lunch hour. Professor Grand Rounds occurs each Monday. This is a case presentation by a pediatrics resident. Lunch is provided, and the event is well attended by students, residents, and faculty alike. Additional neuroradiology or neuropathology conferences are held throughout the week. Depending on the attending on service, students may be expected to participate in these conferences. During the afternoons, students and residents are expected to see all inpatient consults and report to the attending. Students should plan to carry 2-4 patients, but each attending has his/her own preference. A typical day ends between 3pm and 6pm. The schedule is quite variable depending on the patient volume. It is a good idea to brush up on newborn reflexes before starting this rotation. Students get free lunch almost every other day at Childrens Mercy, and all inpatient child neurology patients are managed by a primary pediatrics team.

6. **Outpatient clinics** - most are held on the 1st floor at the Landon Center of Aging. The outpatient clinics vary immensely based on what he specialty/topic of the clinic and the attendings that you work with. You will work 1 on 1 with an attending; therefore, it is a good opportunity for exposure to faculty and for learning in depth about one or two topics. Ask the attending to go over complex topics and try to see patients on your own and practice presenting.

**Weekends:** The neurology clerkship requires each student to work **one weekend day of one weekend** during the duration of the course. Select your date during orientation, or more likely, discuss the best timing with your respective team.

**Call schedule:** No call required

**Study Materials (by no means an exhaustive list; use what works for you):**

1. Case Files: Neurology
2. BluePrints Neurology (Text or Clinical Cases)
3. USMLEasy or USMLE World Questions
4. Dr. Anderson conducts excellent lectures in preparation for the shelf

**Grading System:** 90/80/70/60 for Sup/High Sat/Sat/Fail. Break down is below:

<table>
<thead>
<tr>
<th>Evaluation Component</th>
<th>Relative Weight</th>
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<tbody>
<tr>
<td>Neurology Clinical Performance – Inpatient</td>
<td>50%</td>
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<tr>
<td>Neurology Clinical Performance – Outpatient</td>
<td>25%</td>
</tr>
<tr>
<td>National Board Shelf Examination - Neurology</td>
<td>15%</td>
</tr>
<tr>
<td>Case Discussion</td>
<td>7%</td>
</tr>
<tr>
<td>Attendance – Tuesday AMs and Grand Rounds</td>
<td>3%</td>
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**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. An easy way to do this is to create pre-set neurology lists/charts (many residents also use) and edit them each time in your notes.

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 and accommodation (II, III)
   b. Visual fields & Snellen (II)
   c. H-test (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**
4. **Reflexes**
   a. Biceps (C5,C6)
   b. Brachioradialis (C5,C6)
   c. Triceps (C6,C7)
   d. Knee (L2,3,4)
   e. Ankle (S1)
   f. Plantar aka Babinski (L5,S1)
5. **Sensory** (always check symmetrically)
   a. **Light touch** (and extinction) - DC-ML and Spinothalamic
   b. **Temperature** - Spinothalamic
   c. **Vibration** (distal interphalangeal on pts finger and big toe) - DC-ML
   d. **Proprioception** (start distally, i.e., big toe) - DC-ML
   e. 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. **Motor** (strength, coordination, gait)
   
   . Strength
   
   . Shoulder strength (chicken wings) and ROM
   
   i. Arm flexion/extension
   
   ii. Wrist flexion/extension
   
   iii. Finger abduction/flexion/extension
   
   iv. Thumb opposition
   
   v. Hip flexion/extension/abduction/adduction
   
   vi. Knee flexion/extension
   
   vii. Foot dorsiflexion/plantarflexion
   
   viii. Coordination (checking cerebellar, motor, vestibular and proprioception)
   
   ix. Rapid alternating movements - checks cerebellar fxn

1. Arms - pancake flip or pointer to thumb tap
2. Legs - have pt tap their foot against your hand
   
   x. Point to point movements

1. Finger to nose - cerebellar
2. Outstretched arm to finger with eyes closed - cerebellar & vestibular
3. Heel-to-shin - cerebellar and proprioception
   
   xi. Stance

1. Romberg Test - tests proprioception
2. Pronator Drift - significant for upper motor neuron lesion
3. Extend arms, close eyes and tap - strength, proprioception, coordination
   
   a. Overshoots & bounces, but returns to original position = cerebellar
   
   b. Upward drift w/ searching, writhing movements = proprioception
   
   a. Gait - cerebellar, proprioception, motor
   
   b. Rising from seated position
   
   i. Walk across room (tandem, toes, heels)
Title of course: Obstetrics and Gynecology

Course Director: John Calkins, MD, x8-6257, jcalkins@kumc.edu
Course Co-Director: Kimberly Swan, MD, 913-945-7447, kswan@kumc.edu
Course Coordinator: Lorraine Helm, x8-3244, office: 3025 Wescoe, lhelm@kumc.edu

Orientation (Days 1 and 2)
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.
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: 3 weeks obstetrics and 3 weeks of gynecology. You may contact Lorraine Helm prior to your clerkship if you are interested in doing a rural or off-site rotation. Some are only available to female students, unfortunately. Overland Park, Olathe, and Shawnee Mission have been off-site locations available in the past.

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:
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.
4. Pretest book for OB/Gyn: Good question book with great explanations of the answers. They are the same questions for USMLEasy (available free through the library website).
5. Access Medicine has Williams Obstetrics online via Dykes library
6. Consider going to library for atlas on pelvic surgery.

*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.

Scheduling/Hours:
OB: There are 3 types of shifts on OB. You will be given a schedule with your shifts.
1. Low Risk: 6am to 6pm. You will cover Labor & Delivery. For rounds, see below. Wear scrubs.
2. Nights: 6pm 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.
3. High Risk: 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.

Rounding: In general, pre-round at 6am. Post-partum patients are split between the students on low risk/nights (try to follow the patients in whose deliveries you participated) and are expected to be seen with a brief note written (ask a resident for a template) prior to low risk rounds. The same is expected of the students on high risk. Low-risk rounds begin at 7 a.m. followed by high risk
rounds, but all students attend both, so if you are on high risk you must still be ready for rounds at 7a.m.

**Gyn** 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.

**Weekends:** Yes. Students are expected to round and write notes on some weekend days. On OB, you will be given a schedule that will include weekends. On GYN, it depends on the resident/staff, but you are expected to round on your inpatients.

**Call schedule:** There is no call.

**Lecture:** Varies, but usually from 12:00 pm to 2:00 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 ANGEL.

**Call room location/code:** There is no call room for students on L&D.

**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.
   2. Projects (mainly completion credit)
      Shadow Project x 1 = 2 points
      Formative H&P Feedback x 1 = 2 points
      Logging patient procedures/encounters = 2 points
      Short Blue Feedback Form, at least 4 = 2 points
      Clinical Skills validation form = 2 points

**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).
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. You will be expected to split up all of the patients on L&D and Mother/Baby so you each will have 3-5 patients based on the census.

**Questions to ask Antepartum Patients**
Fetal Movement? Vaginal Discharge/Bleeding? Leakage of Fluid?
Cramping or Contraction? Edema? Especially facial edema?
Headaches? Blurring of the vision?

**Writing Notes:**
**GYN Notes:** As you resident for guidance expectation, 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. pre-op 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 the same day surgery one hour before the scheduled surgery.

**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 non-immune, pt needs Rubella injection 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*  
*Hgb9.0-10.0, 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)*

### C-Section

**Post-op 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 1-2 tabs po q 4-6 hrs prn pain*

**Post-op Day #2/3**  
*Remove staples and steri-strip 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 1-2 po q 4-6 hrs prn pain #30, no refills

*Motrin 600 mg 2 po q 4-6 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 <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).
Title of Course: Pediatrics

Course Director: Mitzi Scotten, MD, mscotten@kumc.edu, x8-6364, office: 4008 Miller Bldg.
Course Coordinator: Debra Heisler, dheisler@kumc.edu, x8-6310, office: 4008 Miller Building. Your reigning 2013 Clerkship Coordinator of the Year, as voted on by your friendly SOM14 class.

This Section Updated By: John Meyer, updated in 2013. So when I bust into first person narrative, you'll know who I am...

Critical Info Before You Read Any Further: YOU NEED TO HAVE YOUR BADGE WITH YOU AT ALL TIMES DURING THIS ROTATION. Stop what you are doing right now and go get it. You can't get on any peds floor in the hospital without one - that includes the general peds unit, mother-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!

Grading Breakdown: The Sup-HS-Sat breakdown is your basic 90/80/70 system. 35% of your grade is your adjusted Shelf score (the syllabus covers the adjustment). 15% is your oral exam grade. 50% is your evaluations. There are two extra credit opportunities when you are in the nursery and in the same-day sick clinic that involve presenting and leading a discussion on an evidence-based topic. It doesn't involve too much work, and you get lunch of the deal - in other words, you'd be silly not to do it. The syllabus covers grading in detail, but just remember that to get a good grade in Peds, you have to study hard, show interest (or better yet, be interested), and work hard as part of the team taking care of your patients...you'll notice that this formula for grading success works well in all of your rotations.

Rotation Overview: Peds will be one of the most fun rotations you do all year. It's busy in that you move quickly through a lot of different services, but that also lets you take care of kids in a lot of different settings. You spend three weeks covering inpatient services (the floor, PICU/NICU/Nights, and full-term nursery) and three weeks of outpatient care covering subspecialty clinics/consults, the same-day sick clinic, and a community peds clinic. There are also a number of PBL discussions and resident teaching conferences.

The best thing you can do to prepare for the rotation is to have a kid yourself (and I'm only half joking). It's a great rotation to learn how to examine kids of all ages and interact with patients and their families. And if you didn't pay attention above, KEEP YOUR BADGE WITH YOU. Oh, and the peds clerkship feeds you lunch more than any other clerkship, which is nice.

Dress Code: Ask your residents, but you can generally wear scrubs in the nursery, in ICUs, and covering the floor on nights or weekends. For the dudes, dress professionally but remember that ties scare kids...and we don't like to scare kids on this rotation. For the ladies, dress professionally (and I am not qualified to tell you what that means). You can generally get by without the white coat on most services (those scare kids, too), but you might want to wear it on rounds.

Hours: Outpatient clinics are usually 8:30 to 5 and you don't work weekends. For inpatient services, plan on arriving around 6 or a little earlier 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). You also get one weekday afternoon off to study - you figure that out among your colleagues, and try not to be “that guy” and always take Friday afternoon off (some services won't allow that).
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 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. 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. 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, who wouldn’t want to do that? This is also a fairly relaxed week, but you learn a lot. You typically should show up about 6 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. Getting ready for rounds can be a bit hectic, especially if there was a population explosion overnight, but after rounds tends 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. And you don’t have to write notes on your patients - they want you to spend time learning about the newborn exam. 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.”

**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, and expect to have patients that you cover and write notes on. 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.

**Nights:** Some of you will be assigned to nights - before the clerkship begins, you will be sent an email by Debra asking if you’d like to do nights, PICU, or NICU. Nights is a good choice because you get to cover the floor and the PICU. You show up at 6pm for check-out from the day team and you can wear scrubs. It’s less formal than covering the floor during the day - you’ll round with the residents when you get there to see how everyone is doing, but you won’t have specific patients to follow and write notes on. On slow nights, your residents may do some teaching. On busier nights, you’ll have lots of work to do on the floor and possibly a few admits. Depending on your resident, you’ll likely go see admits on your own and then talk about the patient with the resident, and you might write an H&P for the chart. If it’s slow, you might get sent home early in the morning (before 6am checkout), but if it’s busy plan on staying the whole time. You do 4 nights in a row, and at least one of those nights you should be there from checkout to checkout.

**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 8:30 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. You’ll also periodically admit a patient from same day sick, so don’t get your “common cold” blinders on.

**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 in to 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:** You’ll also likely have an opportunity to work on a subspecialty service, such as renal, cardiology, etc. Hours and duties vary with each service. You may see patients in clinic and you may see consults in the hospital, but the same rules above apply. When you see patients, just plan on focusing your history and exam a bit more than usual.

**Clerkship Didactics:** The peds clerkship likely has the best didactic resources of all the clerkships. The attendings are all good at teaching and will focus on high-yield clinical and Shelf material. There are a number of podcasted lectures on JayDocs that you are expected to watch. They are worth watching and are full of high-yield info. You will also be assigned a number of CLIPP cases, which are online case studies related to common peds patient encounters. Most of them are written well, but you won’t have time to go through them in great depth - you’ll see what I mean when you start using them, but don’t spend too much time writing response and clicking boxes. I recommend just getting the info you need and keep moving - the summary .pdf file at the end hits the high points. There are also a number of PBL cases throughout the clerkship that you will attend unless you are away from the hospital. These aren’t you’re 1st and 2nd year PBLs. They are based on specific CLIPP cases and the attendings who run them go through quickly and highlight what you need to know clinically and for the Shelf - they are very helpful. There is also a Shelf review session in which you’ll go through practice questions.

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 go to Grand Rounds at 8:00 on Friday mornings.

**Oral Exam:** Worth 15% of the overall grade, students will take an oral exam consisting of two vignettes with 5 minute presentations on each vignette. Students receive one vignette ahead of time at orientation, and another they receive at the oral exam. To prepare for the oral exam, it is recommended that students review the required podcasts. You can’t use your notes, so practice your presentation ahead of time. Be prepared and you’ll do fine - it’s a little more laid back than the surgery oral exam.

**H&Ps:** On the inpatient service and in full-term nursery, you’ll have an assigned H&P that you need to complete while being observed by an attending. Try to schedule those with the attendings early in the week so you aren’t scrambling at the end. You can also do one in Same Day Sick for extra credit.
Shelf Prep: The peds Shelf is one of the more challenging of the year. It covers a lot of material, 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, plus a blurb on what I did for the Shelf...

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.


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.

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.

Pretest Pediatrics: Good question book. Many of the questions are vignette based (similar to those appearing on the shelf). Easier to get through than the Appleton & Lange question book.


USMLEasy: Over 700 questions, free through the KUMC Library website. Some questions are taken directly from Pretest. http://library.kumc.edu/databases/dbinfo.htm

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.

What did I do for Shelf prep, you ask? I did most of the CLIPP cases, but went through them quickly. I also went through all of the podcasted lectures. I did not have time to do the assigned readings in Nelson’s, but I did reference it quite a bit for specific questions that I had. I read Case Files, as I enjoy that series and it’s easy to read when you have small bits of time. I did all of the USMLE World questions and highly recommend them (and I still feel that was the right thing to do going into my Step 2 prep). I also did some of the USMLE Easy questions - I think the questions are of a lot lower quality and much less Shelf-like than the World questions, but there are some high-yield points made in them.

One Last Comment: REMEMBER YOUR BADGE
Title of course: Psychiatry

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

On the first day -
Meet: Room 1020 Olathe Pavilion (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.
  2. **Selectives**: One week each
     1. 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.
     2. Adult and Child Psychiatry Outpatient - lots of time to studying but very little to no one on one contact with patients. A glorified shadowing experience that can be fairly boring.
     3. 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 and
- **KCVA Rotations**
  1. **Inpatient**: Two weeks of Adult Psychiatry You may have downtime in the afternoon at the VA-bring things to study. See above
  2. **Selectives**: One week
     1. Adult Outpatient Clinic - see above

- **Call duty**
  1. Each student will have one night of call (6PM-10PM) at the PLS (Psychiatric Liaison Service) in the KU Emergency Department. This will be during your two weeks on adult inpatient. Even students who are at the VA for inpatient will do PLS at KU.

Sites-
- 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).
- Psychiatry Liaison Service (PLS): Office located inside the KU Emergency Room area. Ask for the Psych Liaison at the ER main window. This is where you go when you are on call.
- 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:** 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:**\textit{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.

**Weekends:** If you are at the VA you can be almost sure you won’t have any weekends. Students on KU Adult 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.

**Call schedule:** Everyone will be on call once during the clerkship. All call is taken at KU regardless if you are at the VA at that time. The call is with the PLS (psych. liaison service in the ER), and is from 6 p.m. to 10 p.m. Ofentimes, there will be no patients at all or the hospital will be on diversion (you might be sent to read).

**Grading System:** Sup > 90-100, High Sat > 77, 0-89.9, Sat > 70.5-76.9, Unsat < 70.4 and below. Grade is based on clinical evaluations (30% from adult inpatient, 15% from each selective), oral case presentation (10%), and the shelf exam (30%).

**Books:**

- **Books actually used to study:**
  1. 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.
  2. Blueprints Psychiatry by Murphy, Cowan, Sederer- LWW: Easy read and well organized.
  3. High Yield Psychiatry by Fadem & Simring- Williams & Wilkins: Quick read and covers most of the material (all you really need according to some).
  4. *Case Files Psychiatry:* Short cases, high yield for shelf.
  5. Pretest Psychiatry/USMLE: Easy question banks: Not the best question bank, but unless you want to spend for USMLE World Q bank, is the best option.

**Oral Exam:** accounts for 15% 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.
**Shelf Exam:** Generally considered one of the easier shelf examinations of 3rd year. It accounts for 30% of the overall grade and is curved. Focuses heavily on general psychiatry (mood disorders, anxiety), definitions/diagnostic criteria, (i.e., schizoaffective vs schizophreniform vs schizophrenia), psychiatric pharmacology, and “med-psych” (medical diseases that can mimic psychiatric diseases).
Title of course: Surgery

Course Director: Chris Haller, MD, x8-3254 office: 5th floor Sudler, challer@kumc.edu
Course Coordinator: Debra DeConink, x8-3173 office: 5056 Sudler, ddeconink@kumc.edu

Website: http://classes.kumc.edu/som/surg900/

On the first day-
Meet: (Probably 5020 Eaton) – Look for an e-mail from Debra DeConink
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.

Grading System; 90/80/70: 50% Clinical Evals., 15% presentation and 35% Subject Exam. Pass/Fail on an end of the year Oral Examination (Saturday after the Shelf). Evaluations are done by attendings and chief residents.

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.

OR Locker Room: 2nd floor hospital, south side of building. Students should have card access.
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.
SICU: 2nd floor hospital, North side
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 a large whiteboard inside the OR center room, available through the locker rooms or Same Day Surgery. Paper schedules are available to browse in Same Day Surgery. To access the schedule on the computers, click Hospital Links on the desktop. Click OR Schedule. Then open the “uokumc” document. The system may deny access and ask you why you wish to view. Enter that you are a third year medical student and access will be allowed later that day. If this fails, ask your intern for help.
**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. 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 post-op note.

**Books:**

**Loaned by the Surgery department:**

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

**Books most used to study:**

1. Surgical Recall: Question/answer book that is excellent for pimpping 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 - the infamous resource. Google “Pestana notes” and you will find them easily. This is about 75 pages of basically cases that are very useful and high yield for the shelf.
4. 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.
5. NMS Casebook - similar to CaseFiles but does not have questions. I would use one or the other but probably redundant to use both.
6. 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 (esp medical management of diseases before surgery and fluids/electrolytes) topics. If you have not yet had those clerkships, it may be more challenging and require more studying. Typically, vascular surgery, urology, trauma, and general surgical diseases (appendicitis, bowel obstructinos, hernias, gallbladder diseases) are high yield.

**Oral Exam:** The Saturday after the Shelf Exam (take it easy at the Jigger on Friday), you will be required to meet with 2 faculty members to discuss 2-3 cases typical of general surgery. The list of topics you can expect to be asked about are given to you beforehand, but often additional topics will be included. It is a Fail/Satisfactory/Superior grading scale and is not factored into your numerical grade. Be prepared to answer very forward questions and be concise and confident.

**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. You will not be leaving early on your post-call day. 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 “pre-rounding” time, especially at the beginning of the rotation. Afternoon post-op rounds may be held by trauma on general services (usually not on specialty services). Take the initiative to see your patients prior to post-op rounds.

**Weekends:** If you are not on call, 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. **You will have to take call on weekends.** Weekend duties for medical students are variable on the sub-specialty services.

**Call schedule:** Depends on the number of students, usually once per week during your general surgery rotation. While on call, your team will cover the trauma room in the ER (1st floor of Heart Hospital). Page the intern on call, and you will follow him for the night. They usually have you come to the swamp (see above in “Locations” section). There is no call room, so if it is slow, you will probably be sent home.

**Call Room location/code:** At KUMC, KC VA, and Leavenworth VA there are no call rooms. No call is taken at the VA’s.

**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 1-2 times per week or less. Hours are basic (above) but vary as some of the attendings tend to round very late. Good preparation for shelf exam.

**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 (show-up around 4:45 AM and leave anywhere between 4-9 PM). Excellent attendings (Dr. Mammen, Al-Kasspooles, DiPasco, and Delcore are the main surgeons). One day of clinic per week. Assist on 10-12 surgeries per week.

**General/Emergent** - Basic hours (above). Good experience in the bread/butter general surgery procedures (appendectomies, cholecystectomies).

**Vascular** - one of the more challenging but also worthwhile general surgery rotations. Dr. Thomas is retiring this Fall but has been known to challenge students with high expectations. Drs. Hupp and Vamanan are also 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 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.

**Orthopaedics** - also a fairly laid back service. A little more hands-on 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). Hours vary widely based on services (Hand and Trauma are very busy with 70-80 hours/week while 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.

**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 hands-on (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 hands-off than Plastic Surgery - many students only scrubbed in on a few surgeries per week and observed most surgeries. The residents and attendings are very nice and fun to work with. No weekend hours. Daily conference at 4:30 PM and generally done after that. Interesting surgeries.

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

**ENT** - very wide diversity of procedures based on what attending you work with. Many of the surgeries can be very long (up to 12 hours) but are very interesting cases. A good mix of ENT and plastic surgery (facial plastics). Generally low yield for the shelf exam.

**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.

**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, little/no residents, 1st assist on most surgeries; a bit longer work hours. Free room and board while you are there. Free meals (3 per day).

**Daily Notes:**
1. Be concise.
2. Include Post-Operation 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

**Pre-Op Note:**
As a surgery student, it may be your responsibility to write pre-op notes before a patient goes to surgery. The pre-op 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 pre-op notes.

**Pre-Op 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 Truly MS3
Labs: (List preop CBC, Platelet Count, PT/PTT, ASTRA, etc.)
CXR: Normal chest
EKG: NSR, rate 80, nonspecific STT changes
Current Meds: Tavist-1 prn
Blood: 2 U PRBCs typed, crossed, and available
Consent: Signed and on chart

**Post-Op Note: Always offer to write for resident**
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 pre-operative and post-operative notes. They are generally very basic.

**Post-Op Orders:**
Medical students are currently unable to write orders in O2, so you will probably not have the opportunity to write post-op orders if you are at KUMC for the entire Surgery rotation. 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 post-op pt instructions which you may be able to help fill out.

Post-Op 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.

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.

A note about resident work hours vs. medical student work hours:

Legislation for residents: Interns are not allowed to work more than 16 hours in a row while 2nd year residents and beyond are restricted to 30 hours; 80 hour work week maximum.

This legislation does not apply to medical students. On most of your rotations, you will not come close to these hours, but there may be some exceptions with some call schedules, particularly surgery and OB. It is necessary to know that just because your resident is required to leave at a certain time, this does not apply to you. However, most rotations and physicians are sensitive to student hours.
CHART WORK

Anything you enter into a patient’s chart has the potential to be used as a reference which may help to guide the patient’s future health management. It is also a legal document which may become public record if used in court. It is absolutely imperative that clinical clerks do not write anything in the chart which is not true or not actually observed by you personally. If you are going to include information which was observed by others (i.e. a physical finding noted in the residents notes, but not by you) you must include this as part of your note. It is also unacceptable to photocopy any portion of a patient’s record (including your History and Physicals once they are in the chart), as this is a breech in patient confidentiality. It is always a good idea to “ask before you do,” and this will come in handy throughout your career in medicine.

HISTORY AND PHYSICAL

Maxwell’s pocket manual is an extremely valuable resource for H & P’s, SOAP, pre & post-op 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.

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 by 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. Observing and learning from others is also very helpful.

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. Analogous to the chief complaint portion of a History and Physical, it should be stated in the patient’s own words whenever possible. 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 results. Many attendings like to have ranges for vital signs as well as how lab values have changed from previous studies. Always remember the important phrase “one value is a point, two is a line, and three is a trend.” Check with your individual residents.

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 which 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. You will find that with 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. You will likely find that many residents and attendings have their own preference for either a problem-oriented assessment or a systems-oriented assessment. Once you start a rotation, it would be best if you choose which method you prefer and be consistent with it throughout the rotation.

Plan:
Many combine the assessment & 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 which are added, 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. format which you will record on the chart daily for all of your patients. This is the most important part of your presentation/note. 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 5/6/11, 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, reports last BM as normal yesterday.

O. P.E. VITALS: BP 136/82 no orthostatic change, P80, RR18, T 37.0, HEENT: unchanged
NECK: no JVD
CHEST: Fine insp. rales in post. bases, scattered insp. rhonchi., exp. phase prolonged, but decreased use of accessory muscles.
ABD: Obese, BS present, nottender to palpation, no HSM or masses
NEURO: CN II-XII intact, sensory, cerebellar, and motor exams WNL, DTR’s 2+ and bilat. =. No tremors, seizure activity, or asterixis, patient is alert and oriented c intact short-term memory.

EXTR: no clubbing, cyanosis or edema.

LABS:

\[
\begin{array}{ccc}
141 & 108 & 14 \\
4.0 & 26 & 1.0 \\
\end{array}
\]

sputum culture - neg. @ 24 hrs.
stools occult blood positive
7.37/42/84 on 2L/NC
4 units PRBC’s typed and cross matched
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.
   - 4 units PRBCs typed and crossed. 2 units received on admission.

2) COPD.
   - Improved. Pt currently on 2LO2 via nasal cannula.
   - ABG’s 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 (e.g., Infectious Disease or Psychiatry), imaging, therapy like RT or PT, diet and, of course, daily medications. In short, order writing is the instrument for getting things done for the patient while in the hospital.

In November 2010, order writing at KUMC became exclusively electronic on O2. Starting this year, medical students will be able to “Pend orders” for their residents/faculty to sign. Since this is the first year that this will occur, neither students nor interns/residents have experience with it. 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. I would suggest getting used to writing orders on paper and show your residents/faculty that you know what you are doing before asking to write complicated orders. Run through orders with your residents or watch them place orders.

Admission Orders (ADC VAN 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.

1. Admit: Floor, team, house officer, attending, etc. For instance, admit to 44C ICU, Med I Service, Dr. Smith H.O., Beeper #2222

2. 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!

3. Condition: The patient’s condition on admission, transfer, or post-operatively is noted here as stable, critical, etc. Vital signs: This is technically part of nursing procedures, but is written separately by convention.

4. 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, Swan-Ganz measurements Q shift, neurochecks Q4hr.

5. 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.

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

7. 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.

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

9. **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

10. **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.

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

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

13. **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:**
At KUMC, O2 is used for discharge orders. The KCVA uses a different system. 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 follow-up 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 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 and are also available at [http://www2.kumc.edu/pharmacy/medabbreviations.htm](http://www2.kumc.edu/pharmacy/medabbreviations.htm). (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*
### DESCRIPTION AND DIAGNOSIS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>abdominal aortic aneurysm</td>
</tr>
<tr>
<td>A&amp;B</td>
<td>apnea and bradycardia</td>
</tr>
<tr>
<td>A-aDO2</td>
<td>A-a gradient</td>
</tr>
<tr>
<td>A-a gradient</td>
<td>alveolar to arterial gradient</td>
</tr>
<tr>
<td>AAS</td>
<td>acute abdominal series</td>
</tr>
<tr>
<td>AB</td>
<td>antibody, abortion, or antibiotic</td>
</tr>
<tr>
<td>A/BI</td>
<td>ankle brachial index</td>
</tr>
<tr>
<td>ABD</td>
<td>abdomen</td>
</tr>
<tr>
<td>ABG</td>
<td>arterial blood gas</td>
</tr>
<tr>
<td>ACLS</td>
<td>advanced cardiac life support</td>
</tr>
<tr>
<td>ACTH</td>
<td>adrenocorticotropic hormone</td>
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<tr>
<td>ADC VAN-DALISM</td>
<td>mnemonic for Admit, Diagnosis, Condition, Vitals, Activity, Nursing procedures, Diet, Allergies, Labs, IV fluids, Studies, Medications</td>
</tr>
<tr>
<td>ADH</td>
<td>antidiuretic hormone</td>
</tr>
<tr>
<td>AEIOU TIPS</td>
<td>mnemonic for Alcohol, Encephalopathy, Insulin, Opiates, Uremia, Trauma, Infection, Psychiatric Syncope afebrile</td>
</tr>
<tr>
<td>AF</td>
<td>aortofemoral, or atrial fibrillation</td>
</tr>
<tr>
<td>AFB</td>
<td>acid-fast bacilli</td>
</tr>
<tr>
<td>AFP</td>
<td>alpha-fetoprotein</td>
</tr>
<tr>
<td>AI</td>
<td>aortic insufficiency</td>
</tr>
<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, abdominal-perineal</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>
</tr>
<tr>
<td>ASO</td>
<td>antistreptolysin O</td>
</tr>
</tbody>
</table>
D5W  5% dextrose in water
DIC  disseminated intravascular coagulation
DKA  diabetic ketoacidosis
DOA  dead on arrival
DOE  dyspnea on exertion
DPL  diagnostic peritoneal lavage
DPT  diphtheria, pertussis, tetanus
DTR  deep tendon reflexes
DVT  deep venous thrombosis
DX   diagnosis
EBL  estimated blood loss
ECG/EKG  electrocardiogram
ECT  electroconvulsive therapy
EDC  estimated date of confinement
EOMI extraocular muscles intact
ESR  erythrocyte sedimentation rate
ET   endotracheal
ETOH  ethanol
EUA  examination under anesthesia
FBS  fasting blood sugar
FEV1 forced expiratory volume in 1+ second
FHT  fetal heart tones
FFP  fresh frozen plasma
FRC  functional residual capacity
FTA-ABS fluorescent treponemal antibody-absorbed
F/U  follow-up
FUO  fever of unknown origin
FVC  forced vital capacity
Fx   fracture
G    gravida
GC   gonorrhea (gonococcus)
GFR  glomerular filtration rate
GI   gastrointestinal
GSW  gunshot wound
GTT  glucose tolerance test
GU   genitourinary
GXT  graded exercise tolerance (cardiac stress test)
HAA  hepatitis-associated antigen
HBsAg  hepatitis B surface antigen
HCG  human chorionic gonadotropin
HCT  hematocrit
HEENT head, ears, eyes, nose and throat
Hgb/Hb hemoglobin
H/H  hemoglobin/hematocrit
HIAA  5-hydroxyindoleacetic acid
HJR  hepatojugular reflux
HPF  high power field
HPI  history of present illness
HR   heart rate
Hx   history
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<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>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) anti-shock 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, Addison's disease, Collagen-vascular 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>NAVEL</td>
<td>mnemonic for Nerve, Artery, Vein, Empty space, Lymphatic</td>
</tr>
<tr>
<td>NC/AT</td>
<td>normocephalic/traumatic</td>
</tr>
<tr>
<td>NED</td>
<td>no evidence of disease</td>
</tr>
<tr>
<td>NERD</td>
<td>no evidence of return disease</td>
</tr>
<tr>
<td>NG</td>
<td>nasogastric</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
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<tr>
<td>--------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>NIDDM</td>
<td>non-insulin dependent diabetes mellitus</td>
</tr>
<tr>
<td>NKA</td>
<td>no known allergies</td>
</tr>
<tr>
<td>NKDA</td>
<td>no known drug allergies</td>
</tr>
<tr>
<td>NRM</td>
<td>no regular medicines</td>
</tr>
<tr>
<td>NS</td>
<td>normal saline or neurosurgery</td>
</tr>
<tr>
<td>NSR</td>
<td>normal sinus rhythm</td>
</tr>
<tr>
<td>NT</td>
<td>nasotracheal</td>
</tr>
<tr>
<td>OB</td>
<td>obstetrics</td>
</tr>
<tr>
<td>OCG</td>
<td>oral cholecystogram</td>
</tr>
<tr>
<td>OD</td>
<td>oculus dextra - right eye, overdose</td>
</tr>
<tr>
<td>OM</td>
<td>otitis media</td>
</tr>
<tr>
<td>OP</td>
<td>oropharynx</td>
</tr>
<tr>
<td>OPV</td>
<td>oral polio vaccine</td>
</tr>
<tr>
<td>OR</td>
<td>operating room</td>
</tr>
<tr>
<td>ORIF</td>
<td>open reduction internal fixation</td>
</tr>
<tr>
<td>OS</td>
<td>left eye</td>
</tr>
<tr>
<td>OU</td>
<td>both eyes</td>
</tr>
<tr>
<td>P</td>
<td>para</td>
</tr>
<tr>
<td>PA</td>
<td>posteroanterior</td>
</tr>
<tr>
<td>PAC</td>
<td>premature article contraction</td>
</tr>
<tr>
<td>pAO2</td>
<td>alveolar oxygen</td>
</tr>
<tr>
<td>paO2</td>
<td>peripheral arterial oxygen content</td>
</tr>
<tr>
<td>PAP</td>
<td>pulmonary artery pressure</td>
</tr>
<tr>
<td>PAT</td>
<td>paroxysmal atrial tachycardia</td>
</tr>
<tr>
<td>P&amp;PD</td>
<td>percussion and postural drainage</td>
</tr>
<tr>
<td>P&amp;C</td>
<td>panendoscopy and cystocopy</td>
</tr>
<tr>
<td>PCWP</td>
<td>pulmonary capillary wedge pressure</td>
</tr>
<tr>
<td>PDA</td>
<td>patent ductus arteriosis</td>
</tr>
<tr>
<td>PDR</td>
<td>Physicians Desk Reference</td>
</tr>
<tr>
<td>PE</td>
<td>pulmonary embolus</td>
</tr>
<tr>
<td>PEEP</td>
<td>positive end expiratory pressure</td>
</tr>
<tr>
<td>PERRLA</td>
<td>pupils equal, round, and reactive to light/accommodation</td>
</tr>
<tr>
<td>PFT</td>
<td>pulmonary function tests</td>
</tr>
<tr>
<td>PI</td>
<td>pulmonic insufficiency</td>
</tr>
<tr>
<td>PID</td>
<td>pelvic inflammatory disease</td>
</tr>
<tr>
<td>PKU</td>
<td>phenylketonuria</td>
</tr>
<tr>
<td>PMH</td>
<td>past medical history</td>
</tr>
<tr>
<td>PMN</td>
<td>polymorphonuclear leukocyte (neutrophil)</td>
</tr>
<tr>
<td>PND</td>
<td>paroxysmal nocturnal dyspnea</td>
</tr>
<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>
</tbody>
</table>
PUD peptic ulcer disease
PVC premature ventricular contraction
PVD peripheral vascular disease
PZI protamine zinc insulin
Q mathematical symbol for flow
RA rheumatoid arthritis
RAD right axis deviation
RAE right atrial enlargement
RAP right atrial pressure
RBBB right bundle branch block
RBC red blood cell (erythrocyte)
RDA recommended dietary allowance
RDW red cell distribution width
RIA radioimmunoassay
RLL right lower lobe
RLQ right lower quadrant
RML right middle lobe
RNA ribonucleic acid
R/O rule out
ROM range of motion
ROS review of systems
RRR regular rate and rhythm
RT rubella titer, respiratory therapy
RTA renal tubular acidosis
RTC return to clinic
RU resin uptake
RUG retrograde urethrogram
RUL right upper lobe
RUQ right upper quadrant
RV residual volume
RVH right ventricular hypertrophy
Rx prescription, treatment
SA sinoatrial
Sab spontaneous abortion
SBE subacute bacterial endocarditis
SBFT small bowel followthrough
SBS short bowel syndrome
SCr serum creatinine
SG Swan-Ganz
SGGT serum gamma-glutamyl transaminase (AST)
SGOT serum glutamic-oxaloacetic transaminase (ALT)
SGPT serum glutamic-pyruvic transaminase
SIADH syndrome of inappropriate ADH
SIMV synchronous intermittent mandatory ventilation
SLE systemic lupus erythematosus
SOAP mnemonic for Subjective, Objective, Assessment, Plan
SOA/SOB shortness of air, shortness of breath
SVD spontaneous vaginal delivery
SQ subcutaneous
SX symptoms
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<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>Tx</td>
<td>treatment</td>
</tr>
<tr>
<td>UA</td>
<td>urinalysis</td>
</tr>
<tr>
<td>UGI</td>
<td>upper gastrointestinal</td>
</tr>
<tr>
<td>URI</td>
<td>upper respiratory tract infection</td>
</tr>
<tr>
<td>US</td>
<td>ultrasound</td>
</tr>
<tr>
<td>UTI</td>
<td>urinary tract infection</td>
</tr>
<tr>
<td>UUN</td>
<td>urinary urea nitrogen</td>
</tr>
<tr>
<td>VBG</td>
<td>Venous Blood Gas</td>
</tr>
<tr>
<td>VC</td>
<td>vital capacity</td>
</tr>
<tr>
<td>VCUG</td>
<td>voiding cystourethrogram</td>
</tr>
<tr>
<td>VMA</td>
<td>vanillylmandelic acid</td>
</tr>
<tr>
<td>V/Q</td>
<td>ventilation-perfusion</td>
</tr>
<tr>
<td>VSD</td>
<td>ventricular septal defect</td>
</tr>
<tr>
<td>VSS</td>
<td>vital signs stable</td>
</tr>
<tr>
<td>WB</td>
<td>whole blood</td>
</tr>
<tr>
<td>WBC</td>
<td>white blood cell or white blood cell count</td>
</tr>
<tr>
<td>WD</td>
<td>well-developed</td>
</tr>
<tr>
<td>WF</td>
<td>white female</td>
</tr>
<tr>
<td>WM</td>
<td>white male</td>
</tr>
<tr>
<td>WN</td>
<td>well-nourished</td>
</tr>
<tr>
<td>WNL</td>
<td>within normal limits – attendings don’t like this abbreviation, some say that it stands for “we never looked”</td>
</tr>
<tr>
<td>W/U</td>
<td>work-up</td>
</tr>
<tr>
<td>Y/O</td>
<td>years old</td>
</tr>
</tbody>
</table>
A few abbreviations to avoid:

<table>
<thead>
<tr>
<th>Abbreviation/ Dose Expression</th>
<th>Intended Meaning</th>
<th>Misinterpretation</th>
<th>Correction</th>
</tr>
</thead>
<tbody>
<tr>
<td>cc</td>
<td>milliliter</td>
<td>Mistaken for “00”, two zeros when handwritten</td>
<td>Use “mL”</td>
</tr>
<tr>
<td>“o”</td>
<td>Hour(s), i.e. “q1º”</td>
<td>Mistaken for a zero when handwritten. i.e. every “10”</td>
<td>Use “Hr”</td>
</tr>
<tr>
<td>MgSo4</td>
<td>Magnesium Sulfate (MgSO4)</td>
<td>Mistaken for Morphine Sulfate (MSO4)</td>
<td>Write out magnesium</td>
</tr>
<tr>
<td>MSO4</td>
<td>Morphine Sulfate (MgSO4)</td>
<td>Mistaken for Magnesium Sulfate (MgSO4)</td>
<td>Write out morphine</td>
</tr>
<tr>
<td>ug, or μg</td>
<td>Micrograms</td>
<td>Mistaken for a zero when handwritten</td>
<td>Use “mcg”</td>
</tr>
<tr>
<td>sq</td>
<td>Subcutaneous</td>
<td>The “q” has been mistaken for “every”</td>
<td>Use “SQ”</td>
</tr>
<tr>
<td>SC</td>
<td>Subcutaneous</td>
<td>Mistaken for SL</td>
<td>Use “SQ”</td>
</tr>
<tr>
<td>“</td>
<td>Inch</td>
<td>Mistaken for “11”</td>
<td>Write out 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 (9-917-xxxx) 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 5-2337, wait for a new dial tone and then dial in the 3-digit 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 3-digit 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
Contributed by Britton Zuccarelli, Class of 2011
Updated by Rebecca Loren, Class of 2012

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://www2.kumc.edu/wims/WIMS_family_issues.html for exact locations, as this may change periodically. Currently, there are lactation stations in 2001 Robinson, 4021 Miller, and 3070 SON. There is also one being constructed in Wahl Hall West. Each room has various availability and amenities, including a breast pump (you provide your attachments). There is usually a sign-up sheet to reserve the space (only one person at a time) in the adjacent room. This room is pretty much booked over the lunch hour throughout the year.
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 4-6 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 6-10 hrs. Remember to drink lots of water and take your prenatal vitamins.
**Telephone Directory**

<table>
<thead>
<tr>
<th>Service</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>KUMC-913-588-5000 (operator).</td>
<td></td>
</tr>
<tr>
<td>Dial 8 before in-house extension, or dial 9 for outside line.</td>
<td></td>
</tr>
<tr>
<td>KCV-A-816-861-4700</td>
<td></td>
</tr>
<tr>
<td>Admissions—5287</td>
<td>GI Consult/Endo—3945</td>
</tr>
<tr>
<td>Ambulatory Care/Fax—3974/8389</td>
<td>GI Office/Hepat—6019</td>
</tr>
<tr>
<td>Anesthesiology—6670</td>
<td>Hematology—6077</td>
</tr>
<tr>
<td>Cancer Center—7750</td>
<td>Bone Marrow—1731</td>
</tr>
<tr>
<td>CTS—7743</td>
<td>ID—6035</td>
</tr>
<tr>
<td>Dermatology—6028</td>
<td>Clinic Appt—3901</td>
</tr>
<tr>
<td>Dietary—7681</td>
<td>Oncology—6029</td>
</tr>
<tr>
<td>EEG—6970</td>
<td>Pulmonary—6044</td>
</tr>
<tr>
<td>ENT—6701</td>
<td>Renal—6074</td>
</tr>
<tr>
<td>ER—6504</td>
<td>OT/PT—6789/6790</td>
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<tr>
<td>Gen Surgery—6100</td>
<td>Ophthalmology—6600</td>
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<tr>
<td>Gen Surgery Consults—6161</td>
<td>Ortho Surgery—6100</td>
</tr>
<tr>
<td>Hearing/Speech—5937</td>
<td>Orthotics—6548</td>
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<tr>
<td>IT Help Desk—7995</td>
<td>Page Operator—5115</td>
</tr>
<tr>
<td>IV team (pager)—7538</td>
<td>Pharmacy—2820</td>
</tr>
<tr>
<td>KUMED West—8400</td>
<td>Plastic Surgery—2000</td>
</tr>
<tr>
<td>Lab—1700</td>
<td>Police—5030/911</td>
</tr>
<tr>
<td>Chem—1720</td>
<td>Psychiatry—1300/6400</td>
</tr>
<tr>
<td>Bac T—1750</td>
<td>Radiation Oncology—3600</td>
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<tr>
<td>Blood Bank—1760</td>
<td>Radiology—6850</td>
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<tr>
<td>Stat Lab—1795</td>
<td>CT Body—6878</td>
</tr>
<tr>
<td>Heme—1730</td>
<td>CT Head—6824</td>
</tr>
<tr>
<td>Immunology—1770</td>
<td>MRI—1832</td>
</tr>
<tr>
<td>Virology—1750</td>
<td>Sono—7861/6861</td>
</tr>
<tr>
<td>Surg Path—1180</td>
<td>Specials—6875</td>
</tr>
<tr>
<td>Cytology—1179</td>
<td>Nuc Med—6844/6839</td>
</tr>
<tr>
<td>Medical Records—2454</td>
<td>Resident On-Call Pager—917-</td>
</tr>
<tr>
<td>Neurology—6970</td>
<td>Rehab—6795/2050</td>
</tr>
<tr>
<td>Neuro Surg—6119</td>
<td>Sleep Study—3843</td>
</tr>
<tr>
<td>Medicine—6000</td>
<td>Social Work—2160</td>
</tr>
<tr>
<td>Allergy/Rheum/Immun—6009</td>
<td>Urology—6146</td>
</tr>
<tr>
<td>Cardiology—9600</td>
<td>Vasc Surgery—6109</td>
</tr>
<tr>
<td>Echo—6016</td>
<td></td>
</tr>
<tr>
<td>EKG—6021</td>
<td></td>
</tr>
<tr>
<td>Endocrinology—6022</td>
<td></td>
</tr>
<tr>
<td>Gen Med Cons—6063</td>
<td></td>
</tr>
<tr>
<td><strong>Useful Websites:</strong></td>
<td></td>
</tr>
<tr>
<td>1. <a href="http://www.library.kumc.edu">www.library.kumc.edu</a> (dykes website access to MDconsult, Pubmed, access medicine)</td>
<td></td>
</tr>
<tr>
<td>2. <a href="http://www.emedicine.com">www.emedicine.com</a></td>
<td></td>
</tr>
<tr>
<td>3. <a href="http://www.uptodate.com">www.uptodate.com</a></td>
<td></td>
</tr>
<tr>
<td>4. <a href="http://www.medfools.com">www.medfools.com</a> (for scut sheets, useful on Internal Medicine)</td>
<td></td>
</tr>
</tbody>
</table>
PDA/Smartphone Resources:
1. http://library.kumc.edu/resources/pda.htm
2. www.handheld.com
3. www.epocrates.com
4. www.medscape.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