6a. Family Medicine Curriculum

Family Medicine

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MISSION STATEMENT

The mission of Xavier University school of Medicine at Aruba is to prepare physicians to practice compassionate primary care medicine of the highest standard. The Xavier trained physician shall be an excellent clinician and advocate for public health in whatever country they practice. The Xavier trained physician shall also have an inquiring scientifically trained mind ready to identify and propose solutions to fundamental questions in the mechanisms, prevention and treatment of disease, as well as the social and economic consequences of the health care decision that are made.

CLERKSHIP OVERVIEW

Welcome to Family Medicine

XUSOM Department of Family Medicine welcomes you to the Family Medicine Clerkship. The faculty and staff hope you have an educationally valuable, as well as enjoyable experience!

Family Medicine Clerkship is required for all third-year Xavier students.

In developing this rotation we have gotten input from a number of our students and educators, as well as from family physicians practicing and teaching locally and nationally. Your input will be important if we are to continue to improve the clerkship. We hope the clerkship meets your needs and provides you with an introduction to the specialty of Family Medicine.

We also adopted: *The Goals of the Family Medicine Clerkship Curriculum : (adopted from National Clerkship curriculum, Society for teachers in Family Medicine 2018 revision)*

In designing and developing this clerkship, this manual was created to assist you in getting the most out of your experience. It includes a description of all requirements for the clerkship, as well as information that will help to introduce you to Family Medicine. This manual outlines the specific competencies that you should be able to excel at upon completion of the rotation.

Your main responsibilities are to:

1. Learn about common ambulatory problems encountered by family physicians.
2. **Understand the primary care physician's role in patient care.**
3. **Implement a biopsychosocial model in caring for patients.**
4. **Implement health promotion and disease prevention in caring for patients.**

By the end of this rotation you should be able to:

- Discuss the principles of family medicine care.
- Gather information, formulate differential diagnoses, and propose plans for the initial evaluation and management of patients with common presentations.
- Manage follow-up visits with patients having one or more common chronic diseases.
- Develop evidence-based health promotion/disease prevention plans for patients of any age or gender.
- Demonstrate competency in advanced elicitation of history, communication, physical examination, and critical thinking skills.
- Discuss the critical role of family physicians within any health care system.

Since Family Medicine is largely an ambulatory-based specialty, the clerkship focuses primarily on ambulatory experiences. However, family physicians do maintain continuity of patient care from the office to the hospital and therefore your experience may include some time spent in the hospital making rounds on the practice's patients, taking calls, or assisting with a delivery. During your rotation, you will quickly realize that primary care medicine is different from the hospital world.

There are a variety of Family Medicine sites and physicians to participate in your educational experience.

The clinical department will always try to match you with locations that meet your preferences. This is based on factors including hospital availability, Step 1 score, and timely submission of required hospital documents. Although we expect your experiences to vary based on your setting, all locations should provide a quality experience that meets our standards and shared curriculum. If at any time during your rotation, you feel there is an issue or that you are not getting enough patient exposure- this needs to be addressed with the clinical department without delay.

Finally, we cannot emphasize strongly enough how important your safety and concerns are to us. **If you are experiencing any problems during the clerkship, please alert us immediately. If you have a concern you would like to keep confidential, you can send an email to confidential@xusom.com.**

COURSE DESCRIPTION

Family Medicine is an essential component of the primary care infrastructure of the US health care system. This primary care specialty provides first contact, ongoing, and preventive care to all patients regardless of age, gender, culture, care setting, or type of problem. Family Medicine clinical experiences allow students to

understand how context influences the diagnostic process and management decisions. Students learn the fundamentals of an approach to the evaluation and management of frequently occurring, complex, concurrent, and ill-defined problems across a wide variety of acute and chronic presentations.

The Family Medicine Clerkship is designed to provide medical students with the knowledge and skill to competently manage medical patients, as well as knowledge about how family dynamics and behavioral medicine principles apply to caring for the health and well-being of the family unit.

Note: Please refer to the XUSOM Academic Policies and Procedures Manual for students for information on overall academic and financial policies governing all rotations.

Instructional methods:

Will include lectures, group discussions, observation, grand rounds, clinical/hospital interaction, assignments, and case studies under the direction of the doctors and/or senior residents at the hospital, clinic, or private office.

Self-Directed Learning:

Students will further demonstrate knowledge of the core through completion of case studies and assignments as determined by the doctors and/or senior residents.

Faculty and Staff Information List

1. Department Chair

   Lakshmi Dodda, MD
   Address: Jackson Park Hospital
   7501 S Stony Island Ave, Chicago, IL 60649 Phone: (773) 947-7310

2. Clerkship Locations
   Jackson Park Hospital, Chicago, IL
   Saint Joseph's Medical Center, Yonkers, NY

Clerkship Faculty and Staff
Lakshmi Dodda, MD, FAAFP Phone: 773-947-7310
Hospital Clinical Coordinator: Lorraine McCrary Medical Education office

773-947-2486

LorraineMcCrary@jacksonpark.com

Course Enrollment Requirements:

Trainings and Prerequisites	Screenings	Immunizations
	National Criminal Background Check	
HIPPA certificate , BLS certificate OSHA Bloodborne Pathogens certificate, ACLS certificate, Responsible Conduct of Research Human Subjects Research	Quantiferon, or two step PPD - TB screening	Records for immunizations: Hepatitis B, MMR, Tdap, Varicella, Flu shot (must be renewed every season)
	Proof of Titer levels: MMR, Hep B, Varicella	
Completion of Introduction to US Healthcare System (Clinical Research) USMLE Step 1	Medical clearance	

Malpractice Insurance
Completed application documents for hospital

Nature of Experience

Outpatient	In- patient	Emergency	Community settings	Radiology	Pathology lab
Yes	Yes	Yes	Yes		Yes

CLERKSHIP STRUCTURE

Introduction

The clerkship is six weeks in length, beginning with one day of orientation and concluding with the online shelf exam. There are two types of sites available to students. One site may be a private practitioner's office, while the other clinical experience involves working at ambulatory care centers associated with Family Medicine residency training programs. These experiences offer similar but not identical experiences. Please remember the preceptors are volunteer teachers; always remain courteous and respectful of both patients and office staff.

Orientation

During the first day of the clerkship, a general orientation is scheduled at the hospital campus. Most orientation sessions begin on a Monday, unless there is a legal holiday. All students are expected to attend the entire orientation.

At the orientation, the clerkship syllabus will be reviewed. The orientation will also include didactic sessions and interactive activities that should assist you in your rotation and required projects. Topics covered during the orientation might include:

- Adolescent Health
- Asthma Management
- Community/Underserved Medicine
- Diabetes Management
- Domestic Violence
- History of Family Medicine
- Musculoskeletal Medicine
- Obesity Management
- Male Sexual Function Issues
- Sports Medicine
- Prostate Screening
- Women's Health

Each clerkship site has an assigned faculty member responsible for your educational experience. When you arrive at your clinical site you will meet with your preceptor/supervising attending. We expect students to spend at least 30 hours per week in direct ambulatory care, with the remaining time used for reading and completing assignments and projects, rounding on inpatients, attending educational programs, etc. Residency-based programs usually offer a more formal orientation to the site. You should discuss with your preceptor how your time will be allotted at this first meeting. You should think about what your personal goals are for the clerkship.

If it is not immediately clear who your assigned preceptor is please notify the Site Director or Clerkship Director as soon as possible. We expect each student to have a preceptor who is ultimately responsible for his/her experience. If you are in a “private office” you should meet with this person every weekday. The only exception will be if your preceptor is on vacation or is off one day per week. In this case, your preceptor may assign another attending to meet with you on those days. At residency practices, you will work with a number of residents and attending’s, However, you should meet with your supervising attending at least twice per week.

Educational Programs On-site

The ACGME approved residency program faculty may plan educational programs unique to its site. Examples may include lectures or visits to a health department program or nursing home. Attendance is mandatory if required by the supervising faculty. Each preceptor may also offer unique experiences of which we encourage students to take advantage such as attending hospital staff or department meetings or attending continuing medical education programs. The preceptor should also assist you in identifying patients who are suitable for your projects. If you find it difficult to select appropriate patients or topics for your projects, inform the Education Coordinator.

Attendance

See the Xavier Student Handbook, for the XUSOM policy on clerkship attendance. Should our school policy differ from that of your assigned site, please inform the Education Coordinator. In most cases, the school policy takes precedence over the clerkship site policy. The Clerkship Director must approve any known absences, in advance. Written documentation of an absence must be provided. **Any illness that leads to time away from the clinical clerkship should be immediately reported to the XUSOM clinical coordinator and Hospital clerkship director.** If a student misses any amount of time due to a contagious Airborne/Droplet illness, like the flu or COVID, the student **MUST** obtain clearance prior to returning to clinical activities. Any clinical time missed, and subsequently cleared will not negatively impact a student’s clinical performance evaluation. **However, missed time, even when excused, may need to be made up, at the discretion of the individual clerkship director.**

Too Tired To Drive Home Policy

If, for any reason, you are too tired to safely drive, you can obtain a taxi ride to your home.

Eighty-hour work week

Your total time at a clinical site cannot exceed 80 hours/week. This includes "call" not more than every fourth night and a minimum of one full day off/week. For violations, notify the Clinical Department and Clerkship Director.

Blood Borne Pathogen Exposure

If you are stuck by a needle or other sharp object, or get blood or other potentially infectious materials in your eyes, nose, mouth, or on broken skin, immediately flood the exposed area with water and clean any wound with soap and water or a skin disinfectant. Report this immediately to a supervisor, indicating the person who needs to be source tested. You should seek immediate medical attention. Notify the school immediately and follow protocol outlined during the orientation.

Non-Sexual/Sexual Harassment/Mistreatment

Though rare, students may find themselves in a hostile learning environment due to a mismatch with their preceptor. It is the policy of the School of Medicine and the Department of Family Medicine that no student should ever be placed in a hostile situation (whether due to real or perceived age, race, gender, gender

orientation, sexual orientation, creed, ethnicity, disability, or other protected factor). Students who find themselves in such a situation are encouraged to try and address the issue if possible. However, if they cannot or find themselves in an untenable situation, the student should contact the course director, course administrator, or chair of the Department of Family Medicine immediately so that, if appropriate, a new clinical assignment should be made. Such re-assignments can be done anonymously (especially in the case of community preceptors with whom the student or their family may have a pre-existing relationship).

XUSOM has a policy of zero tolerance for such treatment If you believe that the issue needs more formal investigation/resolution, you should contact the Dean for Student Affairs or Clinical Dean Harassment and all allegations of sexual harassment must be formally investigated by the institution, you may seek confidential consultation through the school consular.

Learning Objectives and Competencies

Although the Family Medicine Clerkship will be conducted at a variety of clinical sites in different settings, all students are expected to accomplish a core group of competencies. These core competencies are based in three major domains: Patient Care, Health Promotion, Disease Prevention, and Professionalism.

a. **Medical Knowledge**
   1. Individualize effective screening recommendations for a woman over 40, in for her annual exam.
   2. Individualize effective screening recommendations for a man over 40, in for his annual exam.
   3. Understand the assessment, differential diagnosis and initial treatment for insomnia in the elderly, including knowledge of major depressive disorder, and elderly abuse.
   4. Understand the assessment, differential diagnosis and initial treatment of common joint injuries, with special attention to the ankle joint.
   5. Understand the assessment and differential diagnosis for palpitations, with special attention to the diagnosis and treatment plan for hyperthyroidism.
   6. Individualize effective assessment and treatment plans for patients with type II diabetes mellitus.
   7. Understand the assessment and differential diagnosis for unilateral leg swelling, with special attention to the diagnosis and treatment plan for deep venous thrombosis.
   8. Individualize effective assessment and treatment plans for patients with hypertension.
   9. Understand risk factors for coronary heart disease, and effectively stratify patients with those risks, based on history, physical exam, and testing strategy.
   10. Understand the assessment, differential diagnosis and initial treatment of patients with low back pain.
   11. Understand the assessment and differential diagnosis for knee pain, with special attention to the diagnosis and treatment plan for osteoarthritis.
   12. Individualize effective counseling, assessment, and management of teenage pregnancy and its complications.
   13. Understand the assessment and differential diagnosis for an adult with persistent cough, with special attention to the diagnosis and treatment plan for asthma and its co-morbid conditions.
   14. Understand the diagnosis, dating, and management of intrauterine pregnancy, including complications such as hypertension, preeclampsia, gestational diabetes, vaginal bleeding, domestic violence, and depression.
   15. Understand the assessment and differential diagnosis for right upper quadrant pain, with special attention to the diagnosis and management of biliary tract disease, and counseling for alcohol abuse.
   16. Effectively describe skin lesions, understand the treatment principles of topical agents, the specific characteristics of more common skin cancers, along with biopsy options, and preventive measures.
   17. Individualize effective assessment and treatment plans for patients with benign prostatic hypertrophy.

18. Individualize effective screening, counseling, assessment, and treatment plans for women who have reached menopause, with special attention to post-menopausal bleeding, osteoporosis, and hormone therapy.
19. Understand the assessment, differential diagnosis, and treatment plans for patients with headache.
20. Understand the assessment, differential diagnosis, and treatment plans for patients with epigastric pain, with special attention to peptic ulcer disease, H. Pylori gastritis, and gastroesophageal reflux disease.
21. Individualize effective assessment and counseling of those exposed to domestic violence.
22. Understand the assessment, differential diagnosis, and treatment plans for patients with an acute respiratory infection, with special attention to bacterial pneumonia.
23. Individualize effective assessment, counseling, and treatment plans for pediatric patients with obesity.
24. Understand the assessment, differential diagnosis, and treatment plans for patients presenting with new onset neurologic symptoms, with special attention to transient ischemic attack, stroke, and stroke prevention.
25. Understand the assessment, differential diagnosis, and treatment plans for pediatric patients with pharyngitis, with special attention to viral pharyngitis and strep throat.
26. Recommend appropriate screening and preventive measures for pediatric patients, based on age, with special attention to immunizations and anemia.
27. Individualize effective assessment and treatment plans for newborns and their parents during the immediate post-partum period, with special attention to the normal newborn exam, post-partum blues, post-partum depression, and breastfeeding.
28. Understand the assessment, differential diagnosis, and treatment plans for patients with fatigue, with special attention to iron deficiency anemia.
29. Understand the assessment, differential diagnosis, and treatment plans for patients with scrotal pain, with special attention to testicular torsion, and sexually transmitted illness.
30. Understand the assessment, differential diagnosis, and treatment plan for patients with shortness of breath, with special attention to chronic obstructive pulmonary disease (COPD).
31. Individualize effective assessment, treatment plans, and counseling for elderly patients with dementia and/or delirium, including caregivers.
32. Understand the diagnosis of active labor, and interpret fetal monitoring strips.
33. Understand the assessment, differential diagnosis, and treatment plans for patients with congestive heart failure.
34. Individualize effective assessment, treatment plans, and counseling for patients with dysmenorrhea, with added attention to premenstrual syndrome.
35. Understand the assessment, differential diagnosis, and treatment plans for patients with dizziness and vertigo.
36. Understand the important aspects of prenatal screening, with special attention to TORCH infections, HIV transmission, and etiologies for small-for-gestational-age (SGA) infants.
37. Individualize effective assessment, counseling, and treatment plans for pediatric patients with asthma.
38. Understand the assessment, differential diagnosis, and treatment plans for patients with chest pain, with special attention to angina pectoris, atypical angina, non-cardiac chest pain, and secondary prevention of ischemic heart disease through the reduction of cardiovascular risk factors.
39. Individualize effective assessment, counseling, and treatment plans for patients with obesity, with added attention to dyslipidemias.

b. **Communication Skills**
    1. Write a coherent history and physical, or SOAP note.
    2. Clearly present a patient's history and physical exam.
    3. Effectively talk to patients and their families, especially in difficult situations, i.e. end of life issues.

4. Motivate and instruct patients in health promotion and disease prevention.
5. Demonstrate an understanding of how family, culture, and religious beliefs can influence healthcare decisions and outcomes.
6. Respectfully and effectively communicate issues of patient care with non-physician healthcare workers, including clergy.
7. Explain to patients and families, findings from clinical investigations, including plans for follow up, possible courses of therapy with indications, risks, and benefits, and alternatives.
8. Collaborate with fellow students, healthcare professionals, patients and families.
9. Including strategies for teaching in small groups, especially giving feedback.

c. **Professionalism**
   1. Demonstrate an effective physician-patient relationship to provide quality health care and understand the therapeutic role these relationships confer.
   2. Understand the major obligations of physicians to their patients and show skill and service to people who come for care for a variety of reasons.
   3. Demonstrate advocacy for patients over personal interests.
   4. Display behaviors that foster patient trust in the physician, by appropriate dress, grooming, punctuality, honesty, respect for patient confidentiality, and other norms of behavior in professional relationships with patients
   5. Converse appropriately and behave with personal integrity in all course and clerkship activities and in interactions with peers, faculty, residents, and non-physician staff and identify these interactions as analogs of future professional relationships thereby maintaining the same high standards expected in patient care.
   6. Work collaboratively as members of a healthcare team in a variety of settings.
   7. Demonstrate commitment to and examples of service to patients in need.
   8. Recognize and accept their own limitations in knowledge and clinical skills and commit to continuously improve their knowledge and ability.

d. **Patient Care**
   1. Perform, record, present and interpret a complete screening physical exam.
   2. Effectively observe, communicate, and interact with patients, families, and other healthcare workers to obtain histories, deal with difficult situations, and insure proper record keeping.
   3. Integrate data from the history, physical, and laboratory to construct a problem list, develop a prioritized differential diagnosis along with therapeutic, diagnostic, and patient education plans for each problem identified.
   4. Make clinical decisions and solve problems using deductive reasoning based on data obtained about the patient, principles of clinical epidemiology, and evidence-based medicine.
   5. Construct appropriate management strategies (diagnostic, therapeutic and behavioral) for common conditions, both acute and chronic
   6. Develop care plans for patients with chronic conditions not amenable to immediate cure, including: rehabilitative services, care of chronically disable persons and patient facing the end of life.
   7. Interpret the results of the most frequent commonly used clinical laboratory tests.
   8. Perform relevant routine clinical exams and procedures including:
      1. Breast Examination
      2. Testicular Examination
      3. Pelvic examination and PAP smear
      4. Skin exam

e. Practice Based and Lifelong Learning
   1. Demonstrate knowledge of specific topics related to students' patients and use the medical literature to gather relevant information for patient care.

2. Use information technology to access and manage clinical information and perform on-line searches to support ongoing self-directed learning.
3. Search, evaluate, and critically review scientific evidence appropriate to the care of individual patients or as an approach to a clinical problem
4. Demonstrate an understanding of the variations in physician behavior for common conditions, the importance of developing evidence-based practice methodology to lessen variations, the role of practice pathways to manage common problems, and the need to individualize recommendations for the patient.
5. Formulate questions regarding outcomes seen in patient care and consider simple methods of quality improvement including improved patient satisfaction, decreased
6. Complication rates, improved clinical outcomes, and improved access to healthcare for patients from underserved groups.
7. Demonstrate a commitment to identifying errors in medicine, reasons for errors, and develop basic strategies to reduce medical errors.
8. Demonstrate a plan for professional growth.
9. Exhibit an understanding of how to perform database retrievals, retrieve patient- specific information, select and use information technology, and employ electronic communications for the direct care of patients.

f. Social and Community Context of Healthcare
   1. Demonstrate an understanding that some individuals in our society are at risk for inadequate healthcare, including the poor, uninsured, underinsured, children, unborn, single parents, elderly, racial minorities, immigrants, refugees, physically disabled, mentally disabled, chemically dependent, and those with incurable diseases.
   2. Demonstrate an understanding of the impact of economic and health insurance issues on patient care.
   3. Under supervision, develop diagnostic and treatment strategies that are cost-effective, sensitive to limited resources, and do not compromise quality of care.
   4. Appropriately recommend use of consultants and referrals.
   5. Demonstrate knowledge of non-biological determinants of poor health including child abuse, domestic violence, and the economic, psychological, social, and cultural factors that contribute to their development and continuation.
   6. Demonstrate an understanding of economic, psychological, social, and cultural factors that impact patient health.

Note Learning Objectives for the individual FM CASES are linked to the “Medical Knowledge” on our e-library website.

WEEKLY CHECKLIST

The following checklists are to assist you in progressing smoothly through your rotation and to make sure you complete all of the assignments on time.

Week One

- Review initial responsibilities.
- Review competencies.
- Familiarize yourself with the staff and their responsibilities.
- Find out about your office space, parking, and meals. Get ID badges and other administrative responsibilities accomplished, depending on site.
- Review general office policies, including charting, dictation, and the appointment system.

- Start working on the Family Medicine CASES: https://aquifer.org, & Working w/ Families Article.
- Read the syllabus and be familiar with all required assignments, and discuss with your preceptor.
- At the end of the week, discuss with the preceptor how things are going and discuss your goals.
- Enter patient data into the portal daily.

Week Two

- If you are not seeing patients on your own, request that you begin to do so.
- Identify a suitable patient for the biopsychosocial assignment and arrange for an interview to carry out the assignment.
- Begin to complete your Procedural Checklist.
- Continue Family Medicine CASES: https://aquifer.org, & Working w/ Families Article.
- Review your initial personal goals and performance to date with the primary preceptor.
- Identify a clinical question for the Evidence-Based Medicine (EBM) assignment and clear it with your preceptor. You may then start the Library Module, which takes 45-60 minutes to complete.
- Enter patient data into the portal daily.

Week Three

- Make sure you are seeing at least 3 patients per half-day session on your own and writing SOAP notes for them.
- Make sure you are about halfway through your Procedural Checklist by the end of the week.
- Continue Family Medicine CASES: https://aquifer.org, & Working w/ Families Article.
- Schedule a time with your preceptor to discuss, complete and sign your mid-rotation evaluation
- If not already completed, interview your patient for the Biopsychosocial Project. Complete the written portion of the assignment and prepare for oral presentation.
- Present your Biopsychosocial Project and be prepared to discuss how things are going with the faculty facilitator. Enter patient data into the portal daily.

Week Four

- Continue Family Medicine CASES: https://aquifer.org, & Working w/ Families Article.
- Continue to work on the EBM assignment. Make sure you have completed the Library Module.
- Enter patient data into the portal daily.

Week Five

- Continue completing your Procedural Checklist.
- Continue Family Medicine CASES: https://aquifer.org, & Working w/ Families Article.
- Review your patient log. If obvious gaps in certain types of patient problems are seen, discuss with preceptor and try to rectify.
- Make sure you are seeing at least 6 patients per half-day session on your own and writing SOAP notes for them.
- Enter patient data into the portal daily.

Week Six

- Complete all required Family Medicine CASES: https://aquifer.org, & Working w/ Families Article.
- Complete EBM assignment and turn it in at your final exam.
- Elicit feedback from your preceptor on your clinical evaluation. It is extremely important the preceptor note feedback specific to you, as this will be reflected on your MSPE for your residency application.
- Prepare for final exam.
- Enter patient data into the portal daily.

WEEKLY LEARNING GOALS

Week 1

Introduction to the Principles of Family Medicine Health Promotion & Disease Prevention:

- Explain the principles of screening and the characteristics of a good screening test.
- Identify risk factors for breast and cervical cancer based on family history, age, gender and exposure.
- Describe how to perform a thorough breast exam.
- Explain current recommendations for mammography.
- Defend the current recommendations for Papanicolaou testing and the different types of testing available.
- Identify risk factors for osteoporosis and recommend appropriate preventative measures.
- Outline recommended immunizations for adults.
- Describe counseling skills for behavior change.
- Individualize the recommendation for cancer screening for common cancers for an adult male patient (e.g., lung, colorectal, and prostate).
- Explain the significance of nutrition and obesity in health promotion and disease prevention.
- Prescribe an exercise program for a sedentary patient.
- Recommend timely vaccinations based on age, medical conditions, lifestyle, and environment.
- Discuss chlamydia screening.
- Demonstrate the use of the HEEADSS adolescent interviewing technique.
- Understand the health maintenance visit for a 5-year old
- Be able to use CDC/ACIP chart in order to determine what immunizations are required based on age of the patient.
- Know contraindications to immunizations.
- Appreciate the routine components of a health maintenance visit for a school- aged child.
- Understand the recommendations for screening of anemia inchildren.
- Demonstrate how to calculate BMI in a child and be able to identify a child at risk for obesity.
- Determine psycho-social events/stressors that have had an impact on the patient's recent behaviors, affecting the management of health problems. Model the interviewing approach to establishing an empathic connection with the patient and delineate the advantages of this approach.
- Reflect on your own personal reactions to the patient during the interview.
- Consider the benefits of self-knowledge to future patient interactions. Model the exploration of problem-solving solutions which will be acceptable to the provider and the patient, for use when the patient has not been adherent to treatment plans.
- Understand effective and empathic strategies for communicating with patients and families with stressors and from diverse cultural backgrounds

Complementary and Alternative Medicine and Culture:

- Argue for the importance of inquiring about the use of complementary and alternative therapies use in the evaluation of a patient presenting with fatigue, malaise, or mood disturbance.
- Explain how culture can affect the evaluation and treatment of conditions, such as depression, fatigue, and insomnia
- Learn basics about cultural competency and respect for patients who will require interpreter services.
- Reflect on the importance of providing socio-culturally sensitive and responsive education, counseling, and care to patients and their families.

Prenatal Care:

- Describe the essential features of a preconception consultation, including how to incorporate this content into any visit.
- Diagnose pregnancy: intrauterine, ectopic, and miscarriage.
- Discuss options during an unplanned pregnancy.
- Order initial prenatal labs.
- Counsel pregnant patient for healthy behavior, folic acid supplementation, and immunizations.
- Predict normal progression of symptoms and physical exam findings during pregnancy.
- Demonstrate the workup of first trimester vaginal bleeding.
- Demonstrate the management of a miscarriage, including the medical and social follow-up.
- Discuss common etiologies of vaginal bleeding, including placenta previa and placental abruption
- Identify appropriate contraceptive options and preventive care in the post-partum period

Perinatal Care:

- Describe the advantages of group prenatal care.
- Diagnose active labor.
- Appropriately interpret fetal monitoring strips using the NICHDguidelines.
- Understand the evaluation and diagnosis of preeclampsia, and the health disparities related to preeclampsia.
- Describe how culture and health beliefs can affect pregnancymanagement.
- Describe the role of the family physician in the management of prenatal care, labor, delivery, postpartum, and newborn care.

Newborn and Infant Care:

- Identify the known benefits of feeding human breast milk toinfants.
- Understand the important elements of a prenatal history as they relate to the health of the unborn child, including the importance of maternal age.
- Recognize factors in the perinatal and newborn history that may put a neonate at risk for medical problems.
- Identify intrauterine factors that affect the growth of thefetus.
- Demonstrate knowledge of the indication for newborn screening for TORCH infections and HIV.
- Understand factors that affect maternal to fetal HIV transmission and those that play a role in the prevention of vertical HIV transmission.
- Identify the key concepts used in the clinical evaluation of gestational age and stability at birth (e.g., the Ballard score and APGAR score). Use weight and gestational age to categorize potential clinical problems.
- Identify what medications are routinely given to all newborns (e.g., vitamin K, hepatitis B vaccine, ophthalmic prophylaxis).
- Identify the common etiologies for small for gestational ageinfants.
- Recognize the salient physical findings of congenital CMV infection and name potential long- term complications associated with this condition.

Infant Well Child Visit (including Colic):

- Describe the fundamental components of an appropriate history for a newborn or infant.
- Create a differential for an infant who presents withfussiness.
- Describe the pathophysiology and presentation of colic ininfants.
- Detail the maneuvers for an age-appropriate physical exam of a newborn, and explain how to use a growth chart.
- Delineate newborn and young infant behavioral norms, and anticipate typical deviations from these norms.
- Construct an effective approach to screening for postpartum blues and postpartum depression.
- Incorporate fundamental precepts of family systems thinking into supportive counseling that empowers parents in their parenting roles.
- Explain health risk assessment and screening of the neonate and young infant.

Week 1 Assignments

Lange, Family Medicine, Section 1: Chapters 1, 2, 4, 6, 7 Lange, Family Medicine, Section 3: Chapters 16, 17, 18
Lange, Family Medicine, Section 5: Chapter 50
Lange, Family Medicine, Section 6: Chapters 64, 65, 66, 67, 68
MedU Family Medicine Cases 1, 2, CLIPP Cases 1, 2

Week 2

Hypertension:

- Define the nationally accepted guidelines for screening, diagnosing, and staging the severity of hypertension (ex. pre-hypertension, essential hypertension, and resistant hypertension).
- Name appropriate elements of the hypertensive patient history to identify lifestyle and other cardiovascular risk factors, and assess concomitant disorders that affect prognosis and guide treatment.
- Identify appropriate elements of a comprehensive physical examination in hypertensive patients, including proper techniques in blood pressure measurement.
- Order recommended laboratory studies on an uncomplicated new hypertensive patient on initial visits.
- Describe elements of lifestyle modification (including health education and behavioral change strategies) for hypertensive patients.
- Formulate basic management plans for the longitudinal care of patients with hypertension.
- Demonstrate awareness of improved patient care outcomes through effective communication with all members of the primary care team such as nutritionists, social workers, and nurses.
- Understand the initial evaluation of childhood hypertension.

Chest Pain, Angina, Coronary Artery Disease, Palpitations:

- Elicit a clear history characterizing the chest pain and estimate the predictive value of these symptoms in diagnosing the underlying cause.
- Create a differential diagnosis for a patient presenting with chestpain.
- Describe key features from the history and physical exam that help refine the differential diagnosis for chest pain and atypical chest pain.
- Prioritize the differential diagnosis for chest pain based upon presenting history and physical exam.
- List the criteria for diagnosing angina.
- Define nationally accepted guidelines for assessing risk of developing Coronary Artery Disease (CAD). Apply risk assessment to the individual patient.
- Propose and defend the evaluation plan for a patient presenting with coronary artery disease.
- Recommend and defend a treatment plan for a patient with coronary artery disease.

- Develop a differential diagnosis for palpitations based on an organ system approach.
- Examine the predictive role of exercise stress testing for CAD in men and women.

Low Back Pain

- Create a complete and practical differential diagnosis for low backpain.
- Describe the physical examination of a patient presenting with low back pain.
- Elicit a history appropriate for a patient with low backpain.
- Recognize the 'red flags' or alarming presentation features that imply a higher probability for discovering a serious cause for low back pain.
- Outline how to use imaging studies effectively to evaluate low back pain.
- Explain appropriate therapeutic approaches for low back pain.
- Detail a cost-effective and patient-centered approach to recommending consultation and surgical intervention for low back pain.

Osteoporosis

- Common Orthopedic and Sports injuries

Week 2 Assignments

Lange, Family Medicine, Section 3: Chapters 15, 20, 21, 22, 25, 26, 30, 35

Lange, Family Medicine, Section 5: Chapters 47, 48, 49, 52

MedU Family Medicine Cases 4, 5, 9, 10, 25,

SIMPLE Case 16

Week 3

Shortness of Breath, Cough with Focus on Chronic Obstructive Pulmonary Disease (COPD):

- Common Orthopedic and Sports injuries
- Create a differential diagnosis for a patient who presents with shortness of breath and cough.
- Describe an organized, effective approach for smoking cessationcounseling.
- Interpret pulmonary function test results.
- Outline a treatment plan for a patient with COPD.
- Counsel a patient on the use of aninhaler.

Shortness of Breath, Cough with Focus on Congestive Heart Failure (CHF):

- Define necessary elements of the History of Present Illness (HPI) and Past Medical History (PMHx) in a patient having a high risk of CAD and presenting with symptoms and signs consistent with new onset Congestive Heart Failure (CHF).
- Identify and describe the necessary elements of the physical exam (PE) in a patient with suspected CAD/CHF. Explain the significance of positive findings.
- Formulate the differential diagnosis of the most likely precipitating factors of CHF, considering the history and presentation of the identified patient.
- Develop a diagnostic testing strategy for a patient at risk of CAD, presenting with shortness of breath, and interpret the test results.

Respiratory Infections:

- Elicit a thorough history and perform an appropriate physical exam in the setting of an acute respiratory illness.
- Delineate appropriate diagnostic studies and treatment options for an acute respiratory infection.
- Accurately identify common positive findings on physical exam for pneumonia and acute respiratory infection.
- Recognize and identify common causes of upper respiratory infections (URI)
- Discuss inappropriate use of antibiotics in the treatment of URI
- Counsel patients regarding appropriate therapeutic measures for URI

Sore Throat:

- Evaluate a patient with pharyngitis, including appropriate history and physical examination, use of clinical prediction rules and appropriate antibiotic use.
  Know the suppurative and non-suppurative complications of streptococcal pharyngitis.

Week 3 Assignments

Lange, Family Medicine Section 3, Chapters 21, 28
Lange, Family Medicine, Section 5: Chapters 51, 53, 54, 55 Usatine Parts III (all), VIII (all)
MedU Family Medicine Cases 7, 8, 11, 13, 21, 23, 24

Week 4

Dizziness:

- Identify, differentiate, and discuss the common causes and treatment options for vertigo, presyncope and disequilibrium
- Discuss history and physical characteristics that correlate with different causes dizziness
- Discuss specific exam maneuvers and the significance of physical exam findings for the
- diagnosis vertigo
- Identify indications for use of neuroimaging in evaluation of dizziness

Headache:

- Identify the typical presenting signs and symptoms of migraine headache and contrast these with the typical signs and symptoms of the most common and most serious causes of headache (tension, cluster, brain tumor, intracranial hemorrhage, medication use).
- Obtain an appropriate, focused history on a patient who presents with headache.
- Perform a reliable, focused neurologic exam on a patient who presents with headache.
- Identify appropriate indications for ordering imaging tests on a patient who presents with headache.
- Counsel a patient who presents with headache on the appropriate prevention and treatment of the headache.
- Understand the importance of continuity of care when treating a patient who presents with chronic headache.
- Demonstrate the use of point-of-care technology when uncertainty regarding diagnosis, appropriate evaluation and/or treatment of a patient arises during the course of an office visit.

Altered Mental Status (including Dementia):

- Define and differentiate among the presentations of delirium, dementia, and depression in an older adult patient. Appreciate which causes may bereversible.
- Interpret at least one standardized instrument (mini-cog, Folstein MMSE) to screen for cognitive loss in an older adult patient for whom there are concerns regarding memory or function.
- Perform at least two commonly used tests to determine the functional ability of an elderly patient, e.g., "get up and go" test, and the MMSE.
- Assess and describe baseline functional abilities (instrumental activities of daily living, activities of daily living) in an older adult patient with altered mental status
- Describe the differential diagnosis for acute change in mental status for a patient with dementia.
- Recognize and assess caregiver stress and its impact on the care of a patient with dementia.
- Discuss management options for dementia including pharmacological, non- pharmacological, complementary therapies, and caregiver support in an older adult patient with dementia.
- Describe therapeutic interventions to prevent or treat delirium in the hospital setting.
- Describe role of social service, healthcare agencies, hospice, and other community organizations to provide care and assistance to older adult patients with dementia and their families.

Transient Ischemic Attack (TIA) and Stroke:

- Accurately assess signs and symptoms of TIA and stroke.
- Interpret laboratory data related to patients with new onset neurological symptoms, particularly numbness or weakness in an extremity with or without accompanying speech difficulty.
- Assess and interpret target goals for cholesterol and lipoproteins using the best available guidelines (e.g., NCEP ATP III guidelines).
- Describe the appropriate therapy for acute stroke and primary and secondary prevention of stroke.
- Discuss the evidence for the role of lifestyle changes in prevention of stroke.
- Discuss the side effects and costs of commonly used medications for stroke prevention and treatment.
- Describe the importance of effective communication between physicians, students, patients, and families in the management of atherosclerotic cerebrovascular disease
- Demonstrate the ability to care for patients with cerebrovascular disease from diverse patient backgrounds and at different points in their illness.
- Delineate how to discuss depression with patients and family in a sensitive and culturally appropriate fashion.

Week 4 Assignments

Lange, Family Medicine Section 3, Chapters 29,
Lange, Family Medicine Section 4, Chapters 40, 41, 42, 43, 44, 45, 46 Usatine – Part XVII - All
MedU Family Medicine Cases 3, 18, 22, 26, 29, 33,

Week 5

Abdominal Pain

- Elicit an adequate history from a patient with right upper quadrant (RUQ) abdominal pain.
- Perform a diagnostic abdominal exam on a patient with RUQ abdominal pain.
- Formulate a differential diagnosis on someone with right upper quadrant abdominal pain.
- Order and interpret laboratory and radiologic tests used in evaluation of RUQ abdominal pain.
- Discuss screening for substance abuse, especially ethanol.
- Defend a management plan for a patient with biliary tractdisease.

Skin Lesions

- Accurately describe skin lesions
- Define terms that describe the morphology, shape and pattern of skin lesions.
- Explain treatment principles guiding the use of topical corticosteroids and both topical and systemic antifungal agents.
- Apply the ABCDE criteria for the evaluation of hyperpigmented lesions such as melanoma.
- Describe common biopsy procedures including shave biopsy, punch biopsy, incisional and excisional biopsies
- Discuss the treatment modalities for squamous cell carcinoma.
- Describe the importance of and methods for preventing skincancers.

Benign Prostatic Hyperplasia

- Outline the initial evaluation & management of a patient with benign prostatic hyperplasia (BPH).

Menstrual Problems

- List the risk factors for dysmenorrhea.
- Describe the appropriate history and physical and laboratory work up of a patient with dysmenorrhea.
- Create an appropriate differential diagnosis for a patient with dysmenorrhea.
- Describe normal and abnormal physical examination findings on a pelvic exam.
- Describe the treatment of dysmenorrhea.
- Explain the definition of menorrhagia and metrorrhagia
- Discuss the evaluation of a patient with possible premenstrual syndrome (PMS).
- List the treatment options for a patient with PMS.
- Describe the use and insertion procedure for the progestin only intrauterine device (IUD) in a patient with dysmenorrhea.

Menopause

- Recognize symptoms of menopause

Postmenopausal Vaginal Bleeding

- Define menopause and discuss common symptoms and treatment options.
- Create a differential diagnosis for postmenopausal bleeding
- Be able to counsel a patient about the differential, work-up, and follow-up plan for postmenopausal bleeding.
- Discuss risk factors for osteoporosis and the recommended screening for osteoporosis.
- Discuss the recommended cancer screening for a 50+ year-old female.
- Discuss the risks/benefits of hormone replacement therapy in the postmenopausal female.

Be able to counsel patients regarding osteoporosisprevention/treatment.

Week 5 Assignments

Lange, Family Medicine Section 3, Chapters 31, 32, 33, 34, 36,
MedU Family Medicine Cases 12, 14, 15, 16, 17, 19, 20, 32

Week 6

Depression

- List the DSM V diagnostic criteria for Major Depressive Disorder (MDD).
- Use the history, physical exam, and laboratory evaluation to rule out medical causes of depressive symptoms.
- Predict the effects of depression on the patient'sfamily.
- Outline the commonly used therapies for Major Depressive Disorder and their side effects.

Fatigue

- Develop a differential diagnosis for a patient presenting withfatigue.
- Apply a cost-effective strategy when selecting a laboratory evaluation of a patient with fatigue.
- Develop an evaluation and management plan for an adult male with iron deficiency anemia

Cancer

- Articulate the United States Preventive Services Task Force guidelines regarding screening for common cancers among adult men and women.
- Understand principles of clinical epidemiology relevant to screening and screening guidelines.
- Use a patient-centered approach to counsel patients on recommended preventive services.
- Articulate a compassionate approach to delivering bad news to a patient.
- Recognize the primary care physician’s role in maintaining a longitudinal therapeutic relationship with a patient during the process of consultation and referral.

Thyroid disease

- Describe the common presentations of hyperthyroidism.
- Demonstrate the common physical findings in hyperthyroid: lid lag, tremor, and hyperreflexia.
- List the common causes of hyperthyroidism.
- Explain the initial evaluation of a patient with suspected hyperthyroidism.
- Discuss the usual course of a patient with Graves' disease after radioactive iodine (RAI) treatment.
- Discuss the usual course of a patient with Graves' disease after RAI treatment.

Type 2 Diabetes Mellitus

- Collect and incorporate appropriate psychosocial, cultural, health literacy and family data into the management plan of a patient with type 2 diabetes.
- Locate and apply evidence-based standards of care in the management of a patient with type 2 diabetes mellitus.
- Make informed decisions about diagnosis, monitoring, and pharmacologic management of type 2 diabetes patients using scientific evidence and clinicaljudgement.
- Recognize the barriers to coordination of diabetes care and envision system- wide improvements that could improve coordination of diabetes care.
- Recognize the importance of an inter-professional team approach in the care of patients with diabetes.
- Recognize the importance of an inter-professional team approach in the care of patients with diabetes.
- Effectively educate the patient about type 2 diabetes with attention to and respect for the patient's own disease model.

Obesity

- Calculate a body mass index (BMI), and determine the diagnosis of obesity.

- Detail how to counsel a pediatric patient and his/her family regarding appropriate treatment of obesity, including diet and exercise.
- Discuss the societal trends for obesity.
- Explain at least three complications of obesity.

Elder Abuse

During this rotation, students will learn to recognize the various types of abuse (and the associated warning signs) as follows:

- Physical Abuse
- Sexual Abuse Neglect
- Emotional Abuse
- Abandonment Self-neglect

Objectives: To take appropriate action when elder abuse is suspected or there is strong evidence that abuse is taking place.

Domestic Abuse

- Characterize clues or subtle indicators that a patient may have been a victim of intimate partner violence (IPV).
- Explain how to develop a safety plan with a patient at risk for violence.
- Cite the state's mandatory reporting requirements for intimate partner violence.
- Delineate local resources available to survivors ofviolence.
- Understand a survivor's perspective in an abusive relationship and the barriers to his/her seeking help.

Week 6 Assignments

Lange, Family Medicine Section 3, Chapters 36, 37, 38

Lange, Family Medicine Section 6, Chapters 56, 57, 58, 59, 60, 61, 62, 63, 64

MedU Family Medicine Cases 3, 6, 27, 28, 30, 31.

TEXTBOOKS

Required Readings

1. The Color Atlas of Family Medicine, 2e Richard P. Usatine, Mindy A. Smith, Heidi S. Chumley, E.J. Mayeaux Jr. (Available on Access Medicine)
2. Lange, Current Diagnosis & Treatment: Family Medicine, 4e Jeannette E. South-Paul, Samuel C. Matheny, Evelyn L. Lewis (Available on Access Medicine)
   Supplemental Reading

3. Swanson's Family Practice Review (designed for Family Practice Board Exam prep)
4. Case Files in Family Medicine (common presentation in case-based format)
5. Blueprints Family Medicine (very broad overview of many conditions)
6. Step-Up to Medicine (outpatient medicine section)
7. 1st Aid for Step 2 CK or Step 2 Secrets or Boards and Wards (outpatient medicine, Peds, and Ob- Gyn chapters)
8. NMS Family Medicine Q& A

9. MKSAP (Internal Medicine questions)
10. Sloane's Family Medicine Essentials CD (100 questions, comes with textbook)

PRACTICAL TIPS FOR ENHACNING YOUR CLERKSHIP

Initial Responsibilities

As with all positive learning experiences, a key factor influencing your success is the ability to communicate effectively. To achieve the most from the clerkship experience, establish your presence with the preceptor and become involved in the clinical environment as quickly as possible. When you become involved, those with whom you interact will also become involved. The following tips will assist you in getting the most from your clerkship experience:

1. Introduce yourself to the people with whom you'll be working.
2. Be pleasantly assertive-remember you are a new member of the team.
3. Share your goals and interests with your preceptors and others who may assist in your learning.
4. Determine the **equipment** you will need to interact in this environment--stethoscope, watch, identification card, note pad, resource book, etc.
5. Dress--Present yourself as a professional and representative of Xavier University School of Medicine throughout your clinical experience. You will be expected to wear your white jacket at all times when seeing patients. Wear your nametag and any additional name tags required by some hospitals.
6. Problems--Approach your preceptor if you perceive there is a problem. Contact the Education Coordinator if there are irreconcilable differences.
7. Report Abuse – Immediately contact the Education Coordinator if you are being subjected to any form of abuse.
8. Absence--Make sure you notify the preceptor if you must be absent (not the secretary or receptionist). Preceptors are aware of the absence policy for the clerkship. Let the site coordinator know how to contact you in case of emergency, and always contact the Education Coordinator (Andrea).

Other questions to ask:

1. What are my hours?
2. How do I refer to the preceptor and other staff members? (Dr., Ms., Mrs.)
3. Where do I sit for a break or to chart? For lunch?
4. Where should I hang my coat and store my materials?
5. How should the medical record be used by me for charting purposes?
6. How should I introduce myself to patients? (We recommend that you always introduce yourself as student doctor. Preceptors will be advised not to introduce you as "Dr._____".)
7. How should I see patients--prior to the preceptor, in conjunction with the preceptor, after the preceptor?
8. Where are references located for me to use?
9. May I work with the office staff, nurses, or other partners?

CLERKSHIP RESPONSABILITES

As previously stated, we expect students to spend a minimum of 30 hours per week in direct ambulatory care. During the clerkship, the students' primary clinical emphasis will be to evaluate ambulatory patients. The expectation is that over the six weeks you will increase your responsibility so that eventually you will be the first person to see patients. After you complete your evaluation, you will review each patient with your preceptor. Additional clinical responsibilities will vary by site. Opportunities to take call, work evening hours,

Saturday hours, rounding on inpatients or at the nursing home, are all possible learning venues. You are required to hand in certain documents during your clerkship. **Missing documents will result in an incomplete grade for that rotation, and possible loss of credit.**

Required Clinical Documents for Final Grade:

1. Student log book- signed by preceptor. This is to be submitted by the student to the clinical department at the end of the rotation.
2. Mid Rotation Feedback form- one page completed by student, review with preceptor, one page completed and signed by preceptor. This is to be submitted by student to the clinical department at mid clerkship.
3. Student Survey- student will complete on SMS
4. NBME Shelf exam
5. **Final Evaluation**- completed by the preceptor and sent in directly from the hospital. No final evaluation will be accepted that are sent in from students.

COURSE POLICIES

Dress code

All faculty, staff, residents, and medical students working within the Department of Family Medicine abide by the medical center's policy on professional appearance. Gross or repeated violations of this policy may result in a student being sent home from the rotation.

Email

All students should check their XUSOM emails regularly. Schedule changes will be announced only by these mechanisms. Missed activities or tardiness due to changes of which the student should have been aware (i.e. with 24+ hours' notice) will result in an unexcused absence. Students who have difficulty accessing email while at their preceptor's site should inform the course administrator **as soon** as this is discovered. **Emails from personal email addresses will not be answered**.

Flexibility

Though unlikely, the syllabus and course schedule may be changed at any time and without notice, as determined by the clerkship director and Family Medicine faculty based upon the needs of the department and the students. Any changes will be communicated as soon as possible via email and every attempt will be made to provide at least 24 hours' notice.

Professionalism

Any member of the faculty or clerkship staff member may deduct points from a student's final grade due to egregious or repeated professionalism lapses, up to and including, enough points to result in failure of the clerkship, provided that feedback has first been given followed by an opportunity for improvement. Particularly egregious professionalism violations may result in lost points without a remediation period.

Technology

To successfully complete this course, students will require access to a computer capable of running Microsoft Word and Power Point. Updated versions of Adobe Reader and Java Script are recommended. Students are required to sign up for a free Google account for use with Google Docs. Students must have access to a web cam, microphone, and headphones for web conference meetings.

It is the student's responsibility to ensure that their devices are compatible the software utilized in this course.

Covid-19

In light of the ongoing situation with Covid-19, additional precautions will be taken at all rotation sites. This includes but is not limited to:

The Education Coordinator and Compliance officer will be checking your logs intermittently and contact you if there seems to be a problem with your recording. The Clerkship Director must report any student who fails to keep their logs accurately. Do NOT wait until the end of the rotation to enter your data into the portal.

- Testing required before starting rotation
- Daily temperature checks
- Quarantine if necessary
- Additional form to be completed for hospital approval
- Additional PPE training

Patient Log

The Liaison Committee on Medical Education (LCME), requires that students keep a daily patient log of patient encounters. You will be required to use the school log system and the logs should be kept on hand by students at all times in the clinical setting. Log entries should be completed by the end of each day and entered into the portal immediately after. There is no excuse for not submitting your daily logs on time. Your total number of problems may exceed the number of patients you have seen.

- Assigned patient means patients in the clinic, (new or returns) that you are sent to interview, present to the attending and write the clinic note on.
- Conditions are (a) those issues your assigned patients have, i.e., active problems being diagnosed or treated and which you read about. (If your assigned patients have issues that you are not diagnosing, treating or reading about, do not list those issues); (b) issues that other patients on your service have (not assigned to you) that you discuss on rounds and read about; or (c) issues that you encounter by way of simulated patients (simulated patients should not be recorded as "assigned" patients).
- This is a suggested weekly curriculum.
- By the end of the rotation, the student should have covered all topics listed, and completed all assignments.
- The individual preceptor, based on scheduling, patient population and other factors may alter the order of the topics or assignments.
- At the end of week 3the student should request a **formal feedback** session from the preceptor on their progress.
- At the end of week 4, or beginning of week 5, the student should **ensure that the Comprehensive Examination has been scheduled.**

NOTE TO THE STUDENT

Required Clinical Experience	Level of Responsibility (Observe, Assist, Perform)	Required Number	Verified by faculty
Observed Focus History	Perform	1	Yes
Observed Focus Physical	Perform	1	Yes
Musculoskeletal Examination: Head/Neck	Perform	1	Yes
Musculoskeletal Examination: Shoulder	Perform	1	Yes

Musculoskeletal Examination: Hand/Wrist	Perform	1	Yes
Musculoskeletal Examination: Low Back/Hip	Perform	1	Yes
Musculoskeletal Examination: Knee	Perform	1	Yes
Musculoskeletal Examination: Foot/Ankle	Perform	1	Yes
HEENT Examination	Perform	1	Yes
HEENT Disorders	Assist	10	Yes
Genitourinary Disorders	Assist	5	Yes
Gastrointestinal (Abdominal) Examination	Perform	5	Yes
Gastrointestinal Disorders	Assist	10	Yes
Cardiovascular Examination	Perform	5	Yes
Cardiovascular Disorders	Assist	10	Yes
Endocrine Disorders	Assist	10	Yes
Pulmonary Examination	Perform	5	Yes
Pulmonary Disorders	Assist	10	Yes
Psychiatric Disorders	Assist	10	Yes
Neurologic Examination	Perform	3	Yes
Neurologic Disorders	Assist	5	Yes
Dermatologic Examination	Perform	5	Yes
Dermatologic Disorders	Assist	5	Yes
Preventive Health	Assist	20	Yes
Chronic Pain	Assist	3	Yes

Patient Encounter Minimums: The Family Medicine Clerkship provides students opportunities to encounter the many aspects of primary care. To ensure all students are exposed to an adequate breadth of family medicine and progress in their participation in patient care, students are required to record a minimum number of Core Diagnoses as outlined in the table below.

Procedural Checklist and Critical Incidents

During the Family Medicine Clerkship, we expect students to encounter a number of common outpatient procedures. Although each preceptor's office may only perform some of the listed procedures, we expect students to perform or assist in at least 10 of the procedures listed on the Procedural Checklist and Critical Incidents log. The teaching of a procedure may be delegated by the preceptor to a non-physician member of the health care team where appropriate, e.g., nurse, laboratory technologist. Please have the procedure supervisor sign-off and indicate yes or no as to your competency with performing the procedure. Keep the checklist with you at all times in the clinical setting.

Critical incident recording is an additional way to log your experiences. Much like a diary, it provides a systemic and consistent forum to note particularly important or memorable experiences.

Sample Critical Incidents

Date	Incident
10/21	Observed my preceptor tell Mrs. B.F. she had breast CA. Emotions/ reactions very powerful.
10/22	Placed 3 sutures in a 7 year old with hand laceration. Fun and confidence booster!
10/25	Day in the phlebotomy lab: learned quickly not to count down 3,2,1,...b/c pts Move.
10/27	Drug rep discussion about clinical trials, statistics, etc. Rep had performed answers to everything, rarely scientific in origin. We have to make our own decisions about meds/procedures/etc.
11/5	Watched a young girl reveal prior abuse-it's amazing how open people are with their doctors.

Biopsychosocial Project

This project is designed to help you appreciate health and illness from a biopsychosocial perspective. In part, the term biopsychosocial implies that peoples' health is inextricably linked to what happens in their everyday lives. All too often in our practice of medicine, we gain a very limited, sometimes excessively narrow view of the problems that people are facing. This may result in less than adequate care for our patients. Perhaps you can think of some examples from your own lives: a close friend, a family member, a teacher, someone who has suffered an illness or who has died. What was it like for this person to be sick? What were her/his fears and concerns? What other factors played a role in that person's experience of illness? What impact did family have upon the experience? What impact did this experience have upon the family? What enabled that person to feel supported and get back into the swing of things again? These questions represent some ways in which we hope that this project will help you gain a larger view of what people are actually experiencing when they come to you for help. It is our objective to have you select a patient in your practice and examine that patient and her/his family to consider the following principles of Family Medicine:

1. Viewing peoples' health in relation to their daily lives.
2. Understanding the role of family in caring for patients.
3. Appreciating the inseparability of illness and everyday life.
4. Recognizing the importance of optimizing people's daily function.

In order to accomplish these goals, you will be expected to interview a patient whom you have identified together with your preceptor. Your preceptor will help you choose someone who is open to this. Ideally, it would be done at the same time the patient is in for a visit and the patient can be asked to spend just a little longer. In some cases, the patient may prefer to return on a different day when it is more convenient, or you may conduct your interview via phone. You should try to complete the interview within 45 minutes to an hour. Again, the purpose of the interview is to get a better idea of what your patients' lives are all about, what their families are like, what problems they may be facing, to whom they turn for support, and how this relates to their health in general. Inquire if your preceptor would like a copy of your write-up for the patient's chart. We expect you to use the following strategies:

1. Clinical summary of present illness. In one paragraph, briefly describe what's going on with your patient. Mention her/his chief complaint and then discuss the primary aspects of your patient's illness, including pertinent information from Past Medical History, Family History, Social History, etc.
2. Three-generation genogram. (See “Working with Families,” Article on FM Lumen site for a guide to constructing the genogram.) Focus on structural and functional relationships (conflict, affiliation, abuse, separation, etc.) within the family. Also, be sure to identify and label medical problems within the family. A good way to begin this segment is by saying, “I'd like to learn a little more about your family so that I can draw your family tree. This will help me understand more about you and your health.”
3. Family and occupational assessment

   This is an opportunity for you to learn how your patient gets along with family members and co- workers. Ask your patient to complete the Family System APGAR and Work System APGAR, when applicable, which appear later in this section.

4. Stressors and resources

   In addition to the problems that patients present to you, there often exist other challenges that they are facing. These challenges can be viewed as stressors. Stressors may be positive (getting married, receiving a promotion, buying a new house, graduating from school, etc.) or negative (losing a loved one to death, learning about having cancer, sustaining a broken leg, being fired from a job, having service cut off by the electric company, etc.). One way of learning more about peoples' stressors is to ask, “What concerns do you have about your life right now?” or “What else is on your mind that's been troubling you?”

You may encounter resistance when you ask these questions. If so, it might help to say, “Learning more about your concerns gives me a better idea of what your life is all about. In that way, your doctor and I can take better care of you.”

In order to respond to these various stressors, people need help. Help can come in a variety of ways. These are called resources. Examples of resources include money, physical health, neighbors, community agencies, transportation, etc. Usually, the most important resources that people have to buffer the impact of stressors are family and friends. One way of learning about personal support is by asking, “Who is the most important person in your life you can turn to for help or to talk to about your feelings?”

Asking, “What else has made it easier for you to cope with everything that you are going through?” may enable you to further assess peoples' resources. You may also want to learn more about peoples' religious and spiritual beliefs, their hobbies, and things that they do for fun.

One way of remembering potential sources of distress and support is the following acronym, SCREEEM:

S Social

C Cultural

R Religious

E Educational

E Environmental

E Economic

M Medical

5. Patient's perspective of illness

Often, when people come to us for help, they have a number of underlying, related concerns. Unfortunately, patients are rarely able to bring these concerns to our attention. Reasons for this include lack of time, fear of appearing foolish and physician disinterest. Perhaps, one of the biggest reasons is that physicians fail to listen to their patients. It is easy to see how this can happen. We are preoccupied with making an accurate diagnosis, determining appropriate treatment, and getting on to see the next patient. As a result of this preoccupation, we tend to miss clues that patients give us about what is really on their minds. When this happens, even though we may have prescribed the appropriate medicines and ordered the necessary tests, we run the risk of leaving our patients still feeling anxious and uncertain about their condition. In order to reduce peoples' anxiety, it is important to explore their feelings and concerns and to identify what worries them the most. This will give them a chance to share what may really be on their mind. The following questions will help you solicit this information:

“What worries you the most about what's happening to you right now?” “It's important for me

to know what's been on your mind about this.” “What do you expect your doctor to do for you about this problem?”

Once you receive this information, you may feel overwhelmed by some of the emotions that people may express. Remember one important principle: You do not have to fix peoples' feelings. Instead, **listen**. Then, **put yourself in their shoes for a moment** and **respond to what they have to say**. For example, when Ms. Chiles tearfully says to you, “I was just hoping that I didn't have cancer. My sister died three years ago from lymphoma in her bowel.” You can respond by remaining silent, holding her hand, allowing her to cry, and then

saying, “It seems like you're feeling a lot of pain about your sister.” Showing people empathy proves that their feelings are important to you and that you care. This builds their trust and gives them confidence in you as their doctor.

Assessment

Using all of the information you have now obtained, list and describe your evaluation of your patient, both “medically” and “psychosocially.” Be sure to explain how the concerns that you have identified relate to your patient's primary medical problems and impact upon her/his health care.

Plan

State your treatment recommendations for each problem and concern identified in your assessment

Feedback

Now that you have had this opportunity to more extensively evaluate your patient from this biopsychosocial perspective, please answer the following questions:

1. What has this project meant to you?
2. What have you learned from this assignment that you may not have learned otherwise? Presentation to Class

You will present your patient back to students currently doing the Family Medicine Clerkship. You will have about 10 minutes to present the patient's history, genogram, APGARS, your assessment, etc. and then there will be 10 minutes for group discussion

BIOPSYCHOSOCIAL PROJECT OUTLINE

1. Clinical data of present illness
2. Three-generation genogram (see example on prior page)
3. Family and occupational assessment (Family and Work System APGARS - see next two pages)
4. Stressors and resources
5. Patient's perspective of illness
6. Assessment
7. Plan
8. Feedback

SMILKSTEIN'S FAMILY SYSTEM APGAR ITEMS

	Almost Always	Some of the Time	Hardly Ever
1) I am satisfied that I can turn to my family for help when something is troubling me.			
2) I am satisfied with the way my family talks over things with me and shares problems with me.			
3) I am satisfied that my family accepts and supports my wishes to take on new activities or directions.			
4) I am satisfied with the way my family expresses affection and responds to my emotions, such as anger, sorrow, and love.			
5) I am satisfied with the way my family and I share time together.			

Rating Scale:	Scoring:	Example:
Almost Always = 2 pts.	8-10 = Highly Functional	Total = 7 pts.
Some of the Time = 1 pt.	4-7 = Moderately Dysfunctional	Moderately Dysfunctional
Hardly Ever = 0 pts.	0-3 = Dysfunctional	

SMILKSTEIN'S WORK SYSTEM APGAR ITEMS

	Almost Always	Some of the Time	Hardly Ever
1) I am satisfied that I can turn to a fellow worker for help when something is troubling me.			
2) I am satisfied with the way my fellow workers talk over things with me and share problems with me.			
3) I am satisfied that my fellow workers accept and support my ideas or thoughts.			
4) I am satisfied with the way my fellow workers respond to my emotions, such as anger, sorrow, or laughter.			
5) I am satisfied with the way my fellow workers and I share time together.			
6) I am satisfied with the way I get along with the person who is my closest or immediate supervisor.			
7) I am satisfied with the work I do at my place of employment.			

Rating Scale:	Scoring:	Example:
Almost Always = 2 pts.	11-14 = Highly Functional	Total = 7 pts.
Some of the Time = 1 pt.	5-10 = Moderately Dysfunctional	Moderately Dysfunctional
Hardly Ever = 0 pts.	0-4 = Dysfunctional	

Evidence-Based Medicine (EBM) Project

This exercise is designed to provide you with experience in applying the results of medical research to clinical practice, i.e., to help you provide care for your patient that is based on the best evidence available. This is known as Evidence-Based medicine. You will continue to utilize Evidence-Based Medicine throughout your medical career.

You need to start thinking of a clinical question about one of your patients early in your clerkship. Define a question related to therapy or prevention, a diagnostic test, or the harmfulness of an intervention or treatment. If you choose to answer a different type of clinical question, or use a type of study other than the ones described in these articles, you will need to review additional guides available from the library.

Your clinical question should have three parts: 1) the patient; 2) the intervention; and 3) the outcome of interest. The patient refers to the type of patient/condition (for example, an adult postmenopausal female). The intervention refers to the test/treatment/preventive strategy of interest (for example, hormone replacement therapy). The outcome of interest refers to the medical outcome, such as improvement/cure or worsening of a condition or death. Your question should be as specific as possible without being too restrictive. For example: *How effective is hormone replacement therapy in a postmenopausal Caucasian woman in preventing hip fractures?*

Once you identify one or more questions, discuss them with your preceptor to determine the best one to "answer." Then, follow these steps for the respective type of question. The first step is to do a literature search to identify the most helpful article. This search should be based on the principles you learned in the EBM modules in school. Based on that article, you will need to answer the following questions: 1) Are the results of the study valid? 2) What are the results? And 3) Will the results help me in caring for my patients? If the answer to question #1 is "no," try to find a better alternative paper, if available. If not available, you can use that article, pointing out the weaknesses of the study, and go ahead and answer the remaining questions.

Evidence-Based Medicine Resources Online Tutorials

Online tutorials provide easy access to practical instruction and tools to help a student learn about topics of interest. This sampling of free evidence-based medicine tutorials provides valuable info that addresses developing clinical questions, evaluating evidence, and performing efficient literature searches.

Duke University Medical Center Library and University of North Carolina-Chapel Hill Health Sciences Library: Introduction to Evidence-Based Medicine -- This site provides assistance in developing clinical

questions, performing literature searches, evaluating evidence and testing knowledge. Each topic is broken down to help the beginner become proficient in EBM. http://guides.mclibrary.duke.edu/ebmtutorial

Michigan State University, College of Human Medicine, Department of Family Practice: An Introduction to Information Mastery -- This online course was developed by family physician, Dr. Mark Ebell. It consists of modules designed to help you learn how to read and apply articles about diagnosis, therapy and prognosis; know the steps in performing a meta- analysis; and understand when it is appropriate to perform a decision analysis. Each module contains goals and tools, topic-specific curriculum and a quiz. http://ndafp.org/image/cache/23s.pdf

University of Illinois-Chicago, Library of Health Sciences-Peoria: Evidence-Based Medicine: Finding the Best Clinical Literature -- Designed to assist health care professionals and students become effective and efficient users of the medical literature, this site helps with such things as formulating patient-centered questions, applying clinical search filters and using MEDLINE-key aspects in developing your EBM skills. https://researchguides.uic.edu/ebm

EVIDENCE-BASED MEDICINE PROJECT OUTLINE

1. Background: Your patient's history, physical exam, and issues.
2. Question/Type: State the clinically relevant question, and indicate the type of question addressed by the article (therapy, diagnosis, prognosis, etc.)
3. Literature Search:

   (Attach a copy of your article – do not use an Internet printout unless it clearly shows all tables and figures)

   REMINDER:

   Complete the Library Module for the Evidence-Based Medicine Project

4. Study Validity/Results: From the "User's Guides," apply the appropriate one to briefly critique the article.
5. Conclusion: How has your question been answered, if not, why not?
6. Communication: How will you communicate study results to your patient and confirm their understanding?

SAMPLE PROJECT

The efficacy of antibiotics in ameliorating symptoms of acute otitis media in very young children

1. **Background Data (Medical Context for Question)**

   During my Family Medicine rotation, I found that one of the most common reasons for children to visit their Family Medicine physician was for generalized illness with earache. The children's caretakers (usually their mother) would often request antibiotics

   – sometimes, even before they stated that they believed their child had an ear infection.

   We spent much of our time in clinic trying to help parents understand that their child would get well without antibiotics. Although most of the children we saw with acute otitis media were five- to seven-year-olds,

A.W. was a 22-month-old toddler. Ms. W. brought him to clinic because he had been irritable and more 'clingy' than usual over the past few days, had been eating less, and the evening before had started to run a temperature for which he received baby Tylenol. His sister had recently recovered from a head cold, and Ms.

W. suspected that A.W. might have contracted his sister's illness.

On physical exam, A.W. was a shy, well-nourished boy who insisted on remaining with his mother and cried throughout the attempt to examine him. With friendly yet firm persistence by the physician and Ms. W.'s cooperation, the physical exam was completed. Though slightly warm to the touch and with reddened cheeks that could have been from crying, A.W. was afebrile. His eyes were without discharge. His pupils were equal and reactive to light, and extra-ocular eye movements were intact. The nostrils were congested with nasal discharge. The right eardrum appeared normal, and the tympanic membrane was opaque with a normal cone of light. The left tympanic membrane was slightly erythematous and bulged outward, with no discharge or other abnormality noted in the ear canal. A.W. strongly resisted exam of both ears. While crying, his erythematous posterior pharynx was seen. Mucous membranes were moist. A.W.'s lungs were difficult to hear due to crying, but there was good air movement. Heart was regular rate and rhythm. Abdomen was soft, non-tender and non-distended. Pulses and strength in the extremities were normal.

A.W. was sent home without antibiotics, with instructions for his mother regarding symptomatic relief and hydration. A.W.'s case caused me to remember the story my parents often tell of the time I had a painful ear infection as a toddler. According to my parents, I was treated with 'some kind of antibiotics.' I began to think about how we had not given antibiotics to A.W. while I had received them when I was nearly the same age so long ago. As a result, I framed the clinical question below.

2. **Clinical Question**

My question is of the therapy/prevention type. It is as follows:

What is the efficacy of antibiotics in ameliorating symptoms of acute otitis media in very young children?

1. **List the articles identified in the literature search and the one I used.**

   Please see attached list of articles. The article I used is number 15 on the list. It is entitled:

   Primary care based randomized, double blind trial of amoxicillin versus placebo for acute otitis media in children aged under 2 years. *British Medical Journal*, February 5, 2000, Vol 320 No. 7231, 350-4.

2. **Are the results of the study valid?**

(Discuss using primary / secondary guides.)

Primary Guides:

Was the assignment of patients to treatment/prevention randomized?

The study was performed in the Netherlands on children aged between six and 24 months who presented to their general practitioner with acute otitis media between 1996 and 1998.

After parental consent was obtained during the first visit, the assignment of patients to treatment was randomized using computerized two-block randomization. Access to the allocation schedule was possible only from the pharmacy of the University Medical Centre in Utrecht. The schedule was protected by computerized code and accessed only if severe complications or side effects occurred in a patient.

The study randomized patients between two arms: treatment with amoxicillin suspension, 40 mg/kg, three times daily for 10 days, or an identical-appearing placebo suspension.

Were all the patients who entered the trial properly accounted for and attributed at its conclusion? Was follow-up complete?

All patients were properly accounted for and attributed, even though 12 (five percent of the study population) were lost to follow-up over the six weeks of the study. This is presented very clearly in a figure labeled "Trial profile and participant flow" in the paper, and is discussed in the results section as well. Of a total of 240 patients, 117 received amoxicillin and 123 received placebo. Fifteen of the patients (four who were supposed to receive amoxicillin and 11 who were supposed to receive placebo) were allocated as having failed treatment because they took other antibiotics instead. One of the patients receiving placebo was admitted to the hospital due to worsening symptoms. Twelve patients (six each receiving amoxicillin and placebo) were lost to follow-up. The number of patients with the full 42 days' worth of data for the trial was 107 in the amoxicillin group and 105 in the placebo group.

Were patients analyzed in the groups to which they were randomized?

Yes. The investigators checked the robustness of their conclusion that amoxicillin did not significantly impact the clinical course of acute otitis media. They constructed a 'best case' scenario, in which those with incomplete data in the group receiving amoxicillin were assumed to be cured and the incomplete cases in the placebo group were not cured. The analysis did not change the study results.

Secondary Guides

Were patients, health workers, and study personnel 'blind' to treatment/prevention?

Yes. The paper states that the amoxicillin suspension and the placebo suspension looked and tasted the same. The authors also state that "doctors, parents, and investigators remained blinded throughout the study" (p. 351).

Were the groups similar at the start of the trial?

Yes. Table 1 in the paper, titled "Baseline characteristics of 240 children randomised in trial of antibiotic use

for treatment of acute otitis media" (p. 352), shows the number of children in each treatment arm that have various characteristics. I have calculated the percentage of each group belonging to each category in the two tables below. The first table shows the categories in which the two groups are most similar.

Percent of Patients in Group Amoxicillin Placebo

Male Patients	55%	54%
Breastfed for over six months	18%	18%
Presented between October and March	65%	64%
Symptoms:		
Earache	70%	67%
Fever	68%	65%
Perforated ear drum	15%	17%
Bilateral acute otitis media	64%	62%
Bulging ear drum	22%	24%

Mean age of 13.3 months is identical for both groups.

Differences between the groups of more than three percentage points are in the categories presented below.

Percent of Patients in Group Amoxicillin Placebo

Two or more children in family	26%	20%
Smoker in household	39%	32%
Attends day care	24%	15%
Recurrent URTI	32%	27%
Recurrent AOM in family	22%	27%
Recurrent AOM in patient	28%	41%
Allergy	12%	7%
Presented after 3 or more days of illness	49%	44%

Patients were excluded from the trial for the following reasons: antibiotic treatment in the previous four weeks; proved allergy to amoxicillin; compromised immunity; craniofacial abnormalities; Down's syndrome; or being entered in this study before (p. 350).

Aside from the experimental intervention, were the groups treated equally?

Yes. Except for the difference in receiving actual amoxicillin or a placebo suspension, patients were treated equally. All patients were allowed equal symptomatic treatment, including one drop of decongestant nose spray in each nostril three times daily and use of paracetamol to relieve pain. Patients under one year old received a 120 mg paracetamol suppository, and patients over age one received twice that amount.

Parents of all patients kept a diary recording amount of paracetamol used and progression of illness. All patients returned to the general practitioner for follow up on days four and 11, and were visited by the main study investigator at their house six weeks after their initial presentation to the physician.

1. **What were the results?**

   How large was the treatment/prevention effect?

   How precise was the estimate of the treatment effect?

   The table on the following page includes calculations of the treatment effect in terms of risk and risk reduction, as well as the 95% confidence intervals and P-values reported in the paper for the absolute risk reduction.

   Additional outcome measures and accompanying P-values that were reported in the paper are shown below. Median time to cessation of fever P-value (log-rank test) Amoxicillin Group: Two days

   0.004

   Placebo Group: Three days

   Median time to cessation of pain or crying P-value (log-rank test) Amoxicillin Group: Eight days 0.432

   Placebo Group: Nine days

   Mean analgesic consumption, first three days P-value (Mann-Whitney U test) Amoxicillin Group:

   1.7 doses 0.018

   Placebo Group: 2.5 doses

   Analgesic consumption, first ten days P-value (Mann-Whitney U test) Amoxicillin Group: 2.3 doses 0.004

Placebo Group: 4.1 doses Number Needed to Treat

The paper states that seven to eight children need to be treated with amoxicillin in order to improve symptoms at day four in one child. The number needed to treat can be derived in the following manner:

NNT = 1/(Absolute Risk Reduction) = 1/0.13 = 7.69.

I derived the number needed to treat for all categories in the following table.

Size of Treatment Effect						Precision of Treatment Effect	
Outcome	Percent with Outcome	Absolute Reduction	Number Needed to Treat	Relative Reduction	Relative Risk Reduction	P Value	95% CI
Persistent Symptoms at Day Four							
Amoxicillin Group	59%	72%-59%=	1/.13=	72%/59%=	1-1.22= -.22	0.03	(1 to 25)
Placebo Group	72%	13%	7.69	1.22	|-.22|x100%=22%		
No Ear Drum Improvement by Day Four							
Amoxicillin Group	77%	83%-77=	1/.06=	83%/77%=	1-1.08= -.08	0.30	(-4 to 16)
Placebo Group	83%	6%	16.66	1.08	|-.08|x100%=8%		
Treatment Failure at Day 11							
Amoxicillin Group	64%	70%-64=	1/.06=	70%/64%=	1-1.09= -.09	0.35	(-6 to 18)
Placebo Group	70%	6%	16.66	1.09	|-.09|x100%=9%		
Middle Ear Effusion Present at Six Weeks							
Amoxicillin Group	64%	67%-64=	1/.03=	67%/64%=	1-1.05= -.05		
Placebo Group	67%	3%	33.33	1.05	|-.05|x100%=5%		N/A (-10 to 16)

2. **Will the results help me in caring for my patients?**

Can the results be applied to my patient care?

Yes, the results can be applied to patients such as the little boy in section one.

A.W. meets all of the inclusion criteria. He falls in the correct age range, has presented to his primary care doctor after symptoms for several days, and has a similar clinical appearance of acute otitis media as patients in the study. A.W. does not violate any of the exclusion criteria. He has not been given antibiotics in the last month, and does not have an allergy to antibiotics, a craniofacial abnormality, or Down's syndrome.

I agree with the study investigators' conclusion that antibiotics do not significantly impact recovery from acute otitis media in very young children. Treatment with amoxicillin was statistically significantly different from treatment with placebo in only the following three of the eight outcome measures studied: median duration of fever, mean analgesic consumption during the first ten days, and alleviation of symptoms by day four. Even in these categories, amoxicillin's clinical effect was small. It decreased the median duration of fever by only one day, and symptoms were still present by day four in only 13% fewer patients. Although it reduced analgesic consumption by nearly half over ten days, the reduction of doses in absolute numbers (from four to two doses over ten days) is too small to be clinically important. Since the outcomes of the other five measures were not statistically significant, it is likely that any benefit seen from the use of amoxicillin in these categories is due purely to chance.

Were all clinically important outcomes considered?

Yes. The outcomes reported above measured potential benefits of amoxicillin. However, study investigators also measured new-onset diarrhea, a possible harmful side effect of amoxicillin. Although new-onset diarrhea occurred more frequently in the group receiving amoxicillin, the differences between the amoxicillin and placebo groups were not statistically significant. Study results are shown in the table on the following page.

Finally, investigators looked at the amount of medication actually taken in each group, a possible source of bias in the study. They found no significant difference in compliance between the groups. The study reports that eighty percent of children in both groups received the full amount prescribed. An additional 15 percent received 95% of the amount prescribed.

Size of Treatment Effect						Precision of Treatment Effect	
Outcome	Percent with Outcome	Absolute Reduction	Number Needed to Treat	Relative Reduction	Relative Risk Reduction	P Value	95% CI
Diarrhea at Day Four							
Amoxicillin Group	17%	17%-10%=	1/.07=	17%/10%=	1-1.70= -.70	N/A	-16 to 2
Placebo Group	10%	7%	14.29	1.70	|-.70|x100%=70%1		
Diarrhea at Day Ten							
Amoxicillin Group	12%	12%-8%=	1/.04=	12%/8%=	1-1.50= -.50	N/A	-12 to 4
Placebo Group	8%	4%	25	1.50	|-.50|x100%=50%1		

1 Note that, since diarrhea is a negative outcome, the relative risk reductions in these cases should be interpreted as 70% and 50% decreased chances of getting diarrhea if patients take placebo rather than amoxicillin. However, since the 95% confidence interval includes zero in both cases, neither number can be considered a statistically significant effect.

Are the likely treatment benefits worth the potential harms and costs?

I calculated the cost of treatment based on the fact that seven to eight children need to be treated to alleviate symptoms at day four in one child, and that the cost of a 150 ml bottle of amoxicillin (250 mg/5 ml) is $7.99 according to epocrates.com. Assuming that the average two-year-old weighs about 26 lbs and that the course of treatment is 10 days, a two-year-old would require:

26 lbs. = 11.8 kg

40 mg/kg = 11.8 kg x 40 mg = 472 mg per dose

472 mg / (250mg / 5ml)= 9.44 ml per dose (about 1.89 teaspoons)

9.44 ml / 150 ml = 15.9 doses per bottle 3 doses per day x 10 days = 30 doses

Each child would need two bottles, or $7.99 x 2 = $15.98 worth of medicine. If seven children must be treated for every one that experiences beneficial effects, then ($15.98 x

7) = $111.86 would have to be spent to alleviate symptoms in a single child. When possible side effects such as diarrhea or allergic reactions to the medication are also considered, it does not seem either cost-effective or worthwhile to use amoxicillin to treat very young children who present to their general practitioner with acute otitis media. As the study investigators state, the number needed to treat "is not sufficiently important clinically to prescribe antibiotics for every affected child within this age group (p 353)."

Clinical Skills Exercise

Kaplan CCS Assessment and Online 5- Day Course

Xavier University School of Medicine has developed a clinical skills workshop in an effort to further objectify evaluation of clinical performance. This is part of a national trend which moves the traditional Goals and Objectives of a course, towards Competencies and Outcome Objectives. As a Third Year Family Medicine Clerk, you are required to complete such session at the Clinical site, interviewing and counseling patient.

Succeeding on this important exercise requires you to organize, synthesize, and demonstrate various skill sets you have acquired during your time at your rotation. Concentrating on a thorough, yet efficient, history, organizing that data into written format, as well as using that data to construct problem lists, assessments, and plans, will be critical. Feel free to review your materials from our Clerkship, as well as various tools you have used and Kaplan online resources.

- For this encounter you will have 15 minutes to obtain a screening history from a patient. The patient

is here with a change of insurance. No physical is expected.

10 minutes into the encounter you will hear an announcement simply to let you know that 10 minutes have gone by and that you have 5 minutes remaining. Please do not respond to this announcement. If you finish the encounter before 15 minutes have gone by you may close the encounter but know that once you exit the room at this point you may not re-enter until later for the counseling portion of the exercise. Before leaving the room, the SP will tell you that when you return, they have some questions about one of the prevention and screening topics you were told to review. (They will specifically tell you which topic).

- Following the patient encounter you will have approximately 10 minutes to complete a Risk Factor and Health Maintenance Outline on the patient you just interviewed.
- You will have 20 more minutes to counsel the patient on any behaviors that need to be addressed. You should begin by answering the questions the SP has regarding the prevention and screening topic. Continue by counseling on the risk factors that you found.
- To prepare for this you should review the USPSTF Prevention & Screening Recommendations:

  http://epss.ahrq.gov/ePSS/Topics.do

- In addition to help you study you can use the very user-friendly link below from the USPSTF that organizes your approach to screening recommendations and counseling. http://epss.ahrq.gov/ePSS/search.jsp
- As above, 15 minutes into this portion of the encounter you will hear an announcement simply to let you know that 15 minutes have gone by and that you have 5 minutes remaining. Please do not respond to the knock.
  Again, if you finish the encounter before 20 minutes have gone by you may close the encounter but know that once you exit the room you will not meet again with the standardized patient until feedback.

The standardized patient will meet with you briefly and provide feedback on your interpersonal skills through use of the Patient Perception Scale.

Studying for the Family Medicine Clerkship FINAL EXAM

Complete the required Family Medicine CASES.

Shelf Exam

Students will take a web-based NBME examination in Family Medicine at the end of the clerkship. This will include the core 80-question exam with an additional module on chronic care. The family medicine subject examination is like a mini USMLE Step 2 exam. The Shelf Exam is 100 multiple-choice questions. One must be proficient at medicine, pediatrics, surgery, Ob/GYN, and psychiatry to do well on this exam. The Minimum passing score is set at 60.

- Failing the shelf exam for the first time requires repeat the test after clearance from the deans.
- Failing the exam for the second time will require repeating the rotation.
- Failing for the third time will result in student dismissal from the school.

Assessment methods

Preceptor formative and summative evaluation

It is each student's responsibility to ensure completion of the midterm self and preceptor evaluation. The content of this evaluation must be submitted to the clerkship administrator via fax or email within 24 hours of it completion. The form can be printed from SMS, and should include your information on the top of the form for the preceptor's reference.

Final Grade calculation:

NBME Subject Exam in Family Medicine (Shelf Exam): 10%

Preceptor/ Faculty Evaluation: 75%

Entry of Daily Logs- Timely submission- 10%

Attendance - 5%

Online Resources

For those wishing to go online for more information, the following sites are recommended.

1. US Practice Guidelines Clearinghouse: www.guideline.gov. Public resource for evidence- based medicine clinical practice guidelines. The Agency for Healthcare Research and Policy.
2. American Academy of Family Physicians: www.aafp.org.
3. AMA Journals: www.ama-assn.org. Abstracts of articles from each of the AMA "Archive" journals.
4. American Medical Students Association (AMSA): www.amsa.org/well. Webpage of resources relating to medical student well being.

Podcast Weblinks – audio and video files distributed over the internet

www.apple.com/itunes/podcasts Free podcatching software www.accessmedicine.com McGraw-Hill's subscription service

CAREER-RELATED INFORMATION

Family Medicine and Primary/Ambulatory Care

Recently, individuals from many different specialties have started referring to themselves as primary care physicians. It is important to understand how Family Medicine is unique within the realm of primary care and ambulatory care providers.

Family Medicine:

Family Medicine is the medical **specialty** that is committed to and provides continuing and comprehensive health care for the individual and the family. It is a specialty that emphasizes breadth of knowledge and which integrates the biological, clinical and behavioral sciences. The scope of Family Medicine encompasses all ages, sexes, each organ system and every disease entity. Family Medicine is the continuing and current expression of the historical medical practitioner and is uniquely defined within the context of the family (AAFP, 1986).

Primary care:

Primary care is a type of medical care delivery that emphasizes first contact and assumes ongoing responsibility for the patient in both health maintenance and therapy of illness. It is personal care involving a unique interaction and communication between the patient and the physician. It is comprehensive in scope and includes the overall coordination of the care of the patient's health problems, be they biological, behavioral, or social.

The appropriate use of consultants and community resources is an important part of effective primary care (American Academy of Family Physicians [AAFP], 1975). While primary care services can and are delivered by individuals from many specialties including Family Medicine, internal medicine, and pediatrics, not all internists and pediatricians are exclusively involved in primary care.

Ambulatory care:

Ambulatory care is medical care that is provided in the outpatient setting, i.e., outside of the hospital (inpatient) setting. This can include, for example, a physician's office, a clinic attached to a hospital (such as Mulcahy Outpatient Center), and a health department clinic. Patients seen in outpatient settings must be adequately mobile (this can include wheel chair users) and “well” to get to the facility.

Family Medicine as a Career

Family Medicine is rapidly growing in popularity as a career choice for many medical students. In the Article

Appendix is an article entitled, “Responses to Questions about Family Medicine as a Career” reprinted from the American Family Physician**.**

Family Physicians: Who We Are and What We Do

In the increasingly fragmented world of health care, one thing remains constant: Family physicians are dedicated to treating the whole person. Family medicine's cornerstone is an ongoing, personal patient-physician relationship focusing on integrated care. Unlike other specialties that are limited to a particular organ, disease, age or sex, family medicine integrates care for patients of both genders across the full spectrum of ages within the context of community and advocates for the patient in an increasingly complex health care system.

The nation's nearly 70,000 practicing family physicians are key providers of primary care in the United States, with nearly one in four of all office visits made to general and family physicians annually. In 2001, office visits to general and family physicians numbered more than 210 million - 76 million more than to any other specialty.

The specialty of family medicine was created in 1969 to fulfill the generalist function in medicine, which suffered with the growth of sub-specialization after World War II. Since its creation nearly four decades ago, the specialty has delivered on its promise to reverse the decline of general medicine and provide personal, front-line medical care to people of all socioeconomic strata and in all regions of the United States. Today,

family physicians provide the majority of care for America's underserved rural and urban populations. In fact, more than a third of all U.S. counties, with a combined population exceeding 40 million Americans, depend on family physicians to avoid designation as primary care health profession shortage areas.

Because of their extensive training, family physicians are the only specialists qualified to treat most ailments and provide comprehensive health care for people of all ages - from newborns to seniors. Like other medical specialists, family physicians complete a three-year residency program after graduating from medical school. As part of their residency, they participate in integrated inpatient and outpatient learning and receive training in six major medical areas: pediatrics, obstetrics and gynecology, internal medicine, psychiatry and neurology, surgery and community medicine. They also receive instruction in many other areas including geriatrics, emergency medicine, ophthalmology, radiology, orthopedics, otolaryngology and urology.

Providing patients with a personal medical home, family physicians deliver a range of acute, chronic and preventive medical care services. In addition to diagnosing and treating illness, they also provide preventive care, including routine check ups, health-risk assessments, immunization and screening tests, and personalized counseling on maintaining a healthy lifestyle. Family physicians also manage chronic illness, often coordinating care provided by other sub- specialists. From heart disease, stroke and hypertension, to diabetes, cancer and asthma, family physicians provide primary care for the nation's most serious health problems.

Facts about Family Medicine

Average number of hours worked per week: 51 Average number of patients seen in office per week: 92 Mean annual income: $173.7

Percentage of family doctors by size of community:

<2,500 2%

2,500 - 19,999 11%

20,000 - 250,000 21%

250,000 - 1 million 24%

> 1 million 41%

Not reported 1%

(For more comprehensive facts about Family Medicine, visit **aafp.org**) Fellowships commonly completed by family physicians:

Sports Medicine Faculty Development Geriatrics Obstetrics Research

Rural Medicine Preventive Medicine Substance Abuse Adolescent Medicine

Family Medicine Residencies

There are numerous accredited **Family Medicine** residencies in the U.S. There are twenty-six residency programs in Illinois. The American Academy of Family Physicians Directory of Family Medicine Residency Programs and the Clerkship/Preceptor Directory is available at http://www.aafp.org/residencies