



Course Guide for

FAMILY MEDICINE

Revised June 2019

Goals of the Family Medicine Core Clinical Externship

At the end of the clerkship the student should be able to:

- Discuss the value of primary care as an integral part of any health care system.
- Acquire an approach to the evaluation and initial management of acute presentations commonly seen in the office setting.
- Acquire an approach to the management of chronic illnesses that are commonly seen in the office setting.
- Acquire an approach to conducting a wellness visit for a patient of any age or gender.
- Model the principles of family medicine care.
- 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.

Family Medicine Clinical Objectives

1. *Biopsychosocial model*

a. Patient-centered communication skills

- i. Demonstrate active listening skills and empathy for patients.
- ii. Demonstrate setting a collaborative agenda with the patient for an office visit.
- iii. Demonstrate the ability to elicit and attend to patient's specific concerns and prioritize concerns to be addressed during an office visit.
- iv. Explain history, physical examination, and test results in a manner that the patient can understand.
- v. Clarify information obtained by a patient from such sources as popular media, friends and family, or the Internet.
- vi. Demonstrate validation of the patient's feelings by naming emotions and expressing empathy.
- vii. Effectively incorporate psychological issues into patient discussions and care planning.
- viii. Use effective listening skills and empathy to improve patient adherence to medications and lifestyle changes.
- ix. Describe the treatment plans for prevention and management of acute and chronic conditions to the patient.
- x. Reflect on personal frustrations and transform this response into a deeper understanding of the patient's and one's own situation, when patients do

not adhere to offered recommendations or plans.

b. Psychosocial awareness

- i. Discuss why physicians have difficulty in situations such as patients' requests for disability documentation, non-adherence, and chronic narcotic use.
- ii. Discuss the influence of psychosocial factors on a patient's ability to provide a history and carry out a treatment plan.

c. Patient education

- i. Discuss mechanisms to improve adherence to and understanding of screening recommendations.
- ii. Provide patient education tools taking into account literacy and cultural factors (e.g., a handout on how to read nutrition labels).
- iii. Describe the patient education protocols and programs for core chronic illnesses at their assigned clerkship sites.
- iv. Identify resources in a local practice community that support positive health outcomes for diverse patients and families.
- v. Promote the use of support groups and other community resources in the area of mental health.
- vi. Identify and provide resources for patients with substance abuse problems at their clinic sites (e.g., lists of treatment referral centers, self-help groups, substance abuse counselors, etc.).

2. Comprehensive Care

a. Information gathering and assessment

- i. Use critical appraisal skills to assess the validity of resources.
- ii. Formulate clinical questions important to patient management and conduct an appropriate literature search to answer clinical questions.
- iii. Use evidence-based medicine (EBM) to determine a cost-effective use of diagnostic imaging in the evaluation of core, acute presentations.
- iv. Find and use high-quality Internet sites, including mobile apps, as resources for use in caring for patients with core conditions.

b. Lifelong learning

- i. Assess and remediate one's own learning needs and goals.
- ii. Describe how to keep current with preventive services recommendations.

3. Continuity of Care

a. Barriers to access

- i. Describe the barriers that affect health care access and utilization that stem from personal barriers.

Examples include:

- Disadvantaged minority populations (e.g., LGBTQ)
- Unemployment
- Lack of education
- Lack of traditional family support
- Inadequate access to transportation
- Personal beliefs on health and wellness
- Language and cultural barriers

- ii. Describe the barriers that affect health care access and utilization that stem from community barriers.

Examples include:

- Low socioeconomic status of communities
- Geographic barriers in rural and remote communities as well as urban intercity
- Inadequate number of quality health care providers
- Inadequate availability of social services
- Inadequate access to referral-based health care services, outside of the community
- Increasing ethnic diversity of the population, not matched by the health care workforce

- iii. Describe the barriers that affect health care access and utilization that stem from health care system barriers.

Examples include:

- High cost of health care
- Increasing number of uninsured and under-insured individuals
- Insufficient capacity of mental health services
- Inadequate number or distribution of primary care providers
- Inadequate coordination of chronic disease care and management across healthcare disciplines

4. Contextual Care

a. Person in context of family

- i. Conduct an encounter that includes patients and families in the development of screening and treatment plans.
- ii. Demonstrate caring and respect when interacting with patients and their families even when confronted with atypical or emotionally charged behaviors.
- iii. Demonstrate interpersonal and communication skills that result in effective information exchange between patients of all ages and their families.

b. Person in context of community

- i. Discuss local community factors that affect the health of patients.
- ii. Discuss health disparities and their potential causes and impact on patient care.
- iii. Demonstrate interpersonal and communication skills that result in effective information exchange between patients of all ages and professionals from other disciplines and other specialties.

c. Person in context of their culture

- i. Communicate effectively with patients and families from diverse cultural backgrounds.
- ii. Discuss areas where culture can impact the ability of patients to access and utilize health care.
- iii. Describe how one's own cultural influences impact one's ability to effectively deliver patient care.

5. Coordination/Complexity of Care

a. Team approach

- i. Describe the value of teamwork in the care of primary care patients.
- ii. Discuss the roles and benefits of multiple members of a health care team (e.g., pharmacy, nursing, social work, and allied health).
- iii. Participate as an effective member of a clinical care team.

b. Quality and safety

- i. Recognize clinical processes established to improve performance of a clinical site.

Examples include:

Describe the use of a quality improvement protocol within a practice and how the protocol might improve health care.

Describe methods of monitoring compliance with preventive services guidelines.

Describe how one of the core chronic diseases is monitored in the assigned clerkship site.

Describe how narcotic use is managed and monitored in the assigned clerkship site.

Overview of Clinical Care

Importance of Prior Knowledge: Having prior knowledge of a patient presenting to the office influences the diagnosis and provides an advantage in negotiating diagnostic testing and treatment strategies. Diagnostic testing can be conducted in stages. First, the physician considers the most common and any dangerous diagnoses. This approach is more cost-effective than obtaining an extensive work-up initially and is appropriate for the outpatient setting where common diagnoses are common. In addition, the opportunity for patients to follow-up allows the family physician to proceed with diagnosis and treatment in a thoughtful, staged manner taking into account the patient's age, gender, or the presence of pregnancy or any chronic illnesses.

Care in the Community Setting: The prevalence of disease varies greatly based on the care setting. These differences in prevalence change pretest probability, affecting the predictive value of a test, and altering posttest probability of a specific diagnosis. For example, a patient presenting to the family physician's office with chest pain will have a much lower likelihood of experiencing a myocardial infarction than a patient presenting with chest pain to the emergency room or subspecialist's office.

The Multipurpose Visit: For family physicians, an acute visit sometimes presents a highly cost-effective opportunity to address chronic medical problems and health promotion. In addition, family physicians frequently care for an entire family, and many issues for the individual patient or family member often surface in the context of a single office visit.

Core Presentations for Acute Care

The suggested topics for core acute presentations are listed in Appendix 1. Common causes are listed as well as any serious conditions that should be considered. The topic-specific objectives and additional skills can be used as a guide for determining important attributes related to each specific topic.

Student Learning Objectives for Acute Presentations

At the end of the clerkship, for each common symptom (See Appendix 1.), students should be able to:

1. Differentiate among common etiologies based on the presenting symptom.
2. Recognize "don't miss" conditions that may present with a particular symptom.
3. Elicit a focused history and perform a focused physical examination to determine the most probable diagnosis.
4. Discuss the importance of a cost-effective approach to the diagnostic work-up.
5. Describe the initial management of common and dangerous diagnoses that present with a particular symptom.

Core Presentations for Chronic Diseases

An introduction to a Chronic Care Model, such as the one developed by Wagner, is appropriate for a third-year medical student. Wagner's model has six fundamental areas: self-management, decision support, delivery system design, clinical information system, organization of health care, and community. In this section, most objectives center around self-management and decision support.

A similar approach can be applied to most chronic diseases. General components of this approach, appropriate for a third-year medical student, include diagnosis, surveillance, treatment, and shared goal-setting. Chronic disease management involves empowering patients to engage in their own care and working as the leader or member of a team of professionals with complementary skills such as nurses, physical therapists, nutritionists, and counselors.

Many patients have more than one chronic disease. In caring for these patients, continuity increases efficiency

and improves patient outcomes. Similar to diagnosis in acute care, continuity allows the family physician to address multiple issues in stages. Students should understand, however, that a follow-up visit with a patient is different than the initial visit with a patient and also different from an acute problem visit.

Students should also learn that a therapeutic physician-patient relationship facilitates negotiation and improves physician and patient satisfaction and outcomes. Relationships with patients are rewarding.

Student Learning Objectives for Chronic Disease Presentations

At the end of the clerkship, for each core chronic disease, students should be able to:

1. Find and apply diagnostic criteria.
2. Find and apply surveillance strategies.
3. Elicit a focused history that includes information about adherence, self-management, and barriers to care.
4. Perform a focused physical examination that includes identification of complications.
5. Assess improvement or progression of the chronic disease.
6. Describe major treatment modalities.
7. Propose an evidence-based management plan that includes pharmacologic and non-pharmacologic treatments and appropriate surveillance and tertiary prevention.
8. Communicate appropriately with other health professionals (e.g., physical therapists, nutritionists, counselors).
9. Document a chronic care visit.
10. Communicate respectfully with patients who do not fully adhere to their treatment plan.
11. Educate a patient about an aspect of his/her disease respectfully, using language that the patient understands. When appropriate, ask the patient to explain any new understanding gained during the discussion.

Examples of core chronic conditions:

Anxiety and Depression
Arthritis
Asthma/COPD
Coronary Artery Disease
Chronic back pain
Heart failure
Hyperlipidemia
Hypertension
Obesity
Osteoporosis/osteopenia
Substance use, dependence and abuse
Type 2 diabetes mellitus

Health Promotion and Disease Prevention

Family physicians provide health promotion in at least three ways—during office visits for health promotion, during office visits for another purpose, and outside of office visits in other health care settings such as extended care facilities and hospitals and partnerships with community agencies or public health officials.

Each patient will have a unique combination of primary, secondary, and possibly tertiary prevention recommendations based on his/her risk factors and current diseases. In addition, patient preferences, time constraints, and variability in insurance coverage limit the ability to provide all recommended clinical prevention services for every patient. Creating an individualized health promotion plan requires a preventive medicine knowledge base and skills in negotiation and patient education. Family physicians are skilled in prioritization and must partner with patients to determine which preventive services are appropriate, important, and affordable.

Student Learning Objectives for Adult Preventive Care Presentations.

1. Define wellness as a concept that is more than “not being sick.”
2. Define primary, secondary, and tertiary prevention.
3. Identify risks for specific illnesses that affect screening and treatment strategies.
4. For women: elicit a full menstrual, gynecological, and obstetric history.
5. For men: Identify issues and risks related to sexual function and prostate health.
6. Apply the stages of change model and use motivational interviewing to encourage lifestyle changes to support wellness (weight loss, smoking cessation, safe sexual practices, exercise, activity, nutrition, diet).
7. Provide counseling related to health promotion and disease prevention.
8. Discuss an evidence-based, stepwise approach to counseling for tobacco cessation.
9. Find and apply the current guidelines for adult immunizations.
10. Demonstrate ability to educate patients on screening and preventive measures for:

- Breast cancer
- Cervical cancer
- Colon cancer
- Prostate cancer
- Coronary artery disease
- Hypertension
- Depression
- Fall risk in elderly patients
- Intimate partner and family violence
- Obesity
- Osteoporosis

Sexually transmitted infections
Substance use/abuse
Type 2 diabetes mellitus
Immunizations for adults

Student Learning Objectives for Well Child and Adolescent Preventive Care Presentations

1. Describe the core components of pediatric preventive care—health history, physical examination, immunizations, screening/diagnostic tests, and anticipatory guidance.
2. Identify health risks, including accidental and non-accidental injuries and abuse or neglect.
3. Conduct a physical examination on a child and identify normal and abnormal physical findings in various age groups.
4. Identify developmental stages and detect deviations from anticipated growth and developmental levels.
5. Recognize normal and abnormal physical findings in the various age groups.
6. Find and apply the current guidelines for immunizations and be able to order them as indicated, including protocols to “catch-up” a patient with incomplete prior immunization.
7. Identify and perform recommended age-appropriate screenings.
8. Provide anticipatory guidance based on developmental stage and health risks.
9. Communicate effectively with children, teens, and families
10. Demonstrate ability to educate patients on screening and preventive measures for:
 - Abuse/neglect
 - Growth and development
 - Hearing/vision
 - Diet/exercise
 - Family/social support
 - Lead exposure
 - Nutritional deficiency
 - Potential for injury
 - Safety (seatbelts, helmets)
 - Sexual activity
 - Substance use
 - Depression/suicide prevention
 - Tuberculosis
 - Immunizations

Appendix 1. Core Acute Presentations

Topic*	Common	Serious	Topic-specific Objectives	Additional Skills
Upper respiratory symptoms	Infectious (viral upper respiratory infection, bacterial sinusitis, streptococcal pharyngitis, otitis media, and mononucleosis) and noninfectious causes (allergic rhinitis)	RSV, influenza	<ul style="list-style-type: none"> • Recognize that most acute upper respiratory symptoms are caused by viruses and are not treated with antibiotics. • Determine a patient's pretest probability for streptococcal pharyngitis and make an appropriate treatment decision (e.g., empiric treatment, test, or neither treat nor test). 	<ul style="list-style-type: none"> • Recognize which tests are appropriate and when to send a patient into the hospital for further evaluation and treatment
Joint pain and injury	Ankle sprains and fractures, knee ligament and meniscal injuries, shoulder dislocations and rotator cuff injuries, hip pain, Carpal Tunnel Syndrome, osteoarthritis, and overuse syndromes (e.g., Achilles' tendinitis, patello-femoral pain syndrome, subacromial bursitis/ rotator cuff tendinosis), gout	Septic arthritis, acute compartment syndrome, acute vascular compromise associated with a fracture or dislocation	<ul style="list-style-type: none"> • Describe the difference between acute and overuse injuries. • Elicit an accurate mechanism of injury. • Perform an appropriate musculoskeletal examination. • Apply the Ottawa decision rules to determine when it is appropriate to order ankle and knee radiographs. 	<ul style="list-style-type: none"> • Detect a fracture on standard radiographs and accurately describe displacement, orientation, and location (e.g., nondisplaced spiral fracture of the distal fibula).
Pregnancy (initial presentation)			<ul style="list-style-type: none"> • Recognize that many family physicians incorporate prenatal care and deliveries into their practices, and studies support this practice. • Recognize common presentations of pregnancy, including positive home pregnancy test, missed/late period, and abnormal vaginal bleeding. • Appreciate the wide range of responses that women and their 	

			families exhibit upon discovering a pregnancy.	
Abdominal pain	Gastro-esophageal reflux disease (GERD), gastritis, gastroenteritis, irritable bowel syndrome, dyspepsia, constipation, and depression.	Appendicitis, diverticulitis, cholecystitis, inflammatory bowel disease, ectopic pregnancy, and peptic ulcer disease	<ul style="list-style-type: none"> Recognize the need for emergent versus urgent versus non-urgent management for varying etiologies of abdominal pain. 	
Common skin lesions	Actinic keratosis, seborrheic keratosis, keratoacanthoma, melanoma, squamous cell carcinoma, basal cell carcinoma, warts, and inclusion cysts	Melanoma	<ul style="list-style-type: none"> Describe a skin lesion using appropriate medical terminology. 	
Common skin rashes	Atopic dermatitis, contact dermatitis, scabies, seborrheic dermatitis, urticarial, and viral exanthem	Cellulitis	<ul style="list-style-type: none"> Describe the characteristics of the rash. 	
Abnormal vaginal bleeding	Pregnancy, cervical polyp, endometrial hyperplasia, medication related	Endometrial cancer, ectopic pregnancy	<ul style="list-style-type: none"> Elicit an accurate menstrual history. Recognize when vaginal bleeding is abnormal. 	
Low back pain	Muscle strain, altered mechanics including obesity, and nerve root compression	Aneurysm rupture, acute fracture, infection, spinal cord compromise, and metastatic disease	<ul style="list-style-type: none"> Describe indications for plain radiographs in patients with back pain. 	<ul style="list-style-type: none"> Conduct an appropriate musculoskeletal examination that includes inspection, palpation, range of motion, and focused neurologic assessment.
Cough	Infectious (pneumonia, bronchitis, or other upper respiratory syndromes, and sinusitis) and non-infectious causes (asthma, GERD, and allergic rhinitis)	Lung cancer, pneumonia, and tuberculosis	<ul style="list-style-type: none"> Understand how pretest probability and the likelihood of test results altering treatment can be used to guide diagnostic testing. Recognize pneumonia on a chest X ray. 	<ul style="list-style-type: none"> Conduct an appropriate pulmonary examination including auscultation with identification of basic lung sounds and percussion.
Chest pain	Gastrointestinal (e.g., GERD), musculoskeletal (e.g., costochondritis), cardiac (e.g., angina and	Myocardial infarction, aortic dissection, pulmonary embolism, pneumothorax	<ul style="list-style-type: none"> Describe how age and comorbidities affect the relative frequency of 	<ul style="list-style-type: none"> Recognize cardiac ischemia and injury on an electrocardiogram ECG).

	myocardial infarction), and pulmonary (e.g., pulmonary embolism, pneumothorax)		<p>common etiologies.</p> <ul style="list-style-type: none"> • Apply clinical decision rules that use pretest probability to guide evaluation. • Recognize the indications for emergent versus urgent versus non-urgent management for varying etiologies of chest pain. 	
Headache	Tension, migraine, and sinus pressure headaches	Meningitis, subarachnoid hemorrhage, and temporal arteritis	<ul style="list-style-type: none"> • Determine when imaging is indicated. 	
Vaginal discharge	Bacterial vaginosis, yeast vulvovaginitis, sexually transmitted infections		<ul style="list-style-type: none"> • Discuss the interpretation of wet prep and potassium hydroxide (KOH) specimens. • Discuss STD testing and treatments, including patient privacy issues and reporting. 	
Dysuria	Urethritis, bacterial cystitis, pyelonephritis, prostatitis, STI and vulvovaginal candidiasis	Pyelonephritis		<ul style="list-style-type: none"> • Interpret a urinalysis and urine culture • Discuss when to order additional testing
Dizziness	Benign positional vertigo (BPV), labyrinthitis, medications and orthostatic dizziness	Cerebral vascular disease (CVA), brain tumor, and Ménière's Disease and arrhythmia		<ul style="list-style-type: none"> • Identify cardiac causes of dizziness on EKG
Shortness of breath/ wheezing	Asthma, chronic obstructive pulmonary disease (COPD), obesity, angina, and congestive heart failure (CHF), bronchiolitis	Exacerbations of asthma or COPD, pulmonary embolus, pulmonary edema, pneumo-thorax, and acute coronary syndrome	<ul style="list-style-type: none"> • Assess a patient with dyspnea for signs of clinical instability. • Describe the role of laboratory testing and imaging in the diagnosis of CHF and PE. 	<ul style="list-style-type: none"> • Recognize typical radiographic findings of COPD and CHF. • Interpret pulmonary function testing to distinguish between asthma, COPD and restrictive lung disease.
Fever	Viral upper respiratory and GI syndromes, streptococcal pharyngitis, influenza, and otitis media	Meningitis, sepsis, fever in the immunosuppressed patient	<ul style="list-style-type: none"> • Describe a focused, cost-effective approach to diagnostic testing. • Propose prompt follow-up to detect treatable causes of infection that 	

			appear after the initial visit.	
Depression (initial presentation)	Depression in elderly patients, depression associated with serious medical illness, drug use, thyroid disorder, major depressive disorder	Abuse/neglect, suicide risk assessment	<ul style="list-style-type: none"> • Appreciate the many presentations of depression in primary care (e.g., fatigue, pain, vague symptoms, sleep disturbance, and overt depression). • Use a validated screening tool for depression. • Assess suicidal ideation. • Recognize when diagnostic testing as indicated to exclude medical conditions that may mimic depression (e.g., hypothyroidism). • Recognize the role of substance use/abuse in depression and the value of identifying and addressing substance use in depressed patients. • Recognize the potential effect of depression on self-care and ability to manage complex comorbidities. 	
Dementia (acute symptoms)	Infection (UTI, respiratory, etc.), electrolyte disturbance, urinary retention, pain, substance use/abuse, medication effect, depression	Acute cerebrovascular accident	<ul style="list-style-type: none"> • Describe the difference between acute delirium and dementia • Perform a screening test for cognitive decline (e.g., the clock drawing test or the Mini-Mental Status Examination). • Select appropriate initial diagnostic tests for a patient presenting with 	

			memory loss, focusing on tests that identify treatable causes.	
Male Genitourinary symptoms	Inguinal hernia, cystitis/prostatitis, benign prostatic hypertrophy, erectile dysfunction, hydrocele, varicocele	Testicular torsion, prostate or testicular cancer	<ul style="list-style-type: none"> Select appropriate laboratory tests for a male patient with urinary complaints. 	
Leg swelling	Venous stasis and medication-related edema	Deep venous thrombosis (DVT), obstructive sleep apnea, and CHF	<ul style="list-style-type: none"> Recognize the need for urgent versus nonurgent management for varying etiologies of leg swelling, including when a Doppler ultrasound test for DVT is indicated. 	
Eye pain/complaints	Acute conjunctivitis (viral, allergic, bacterial), corneal abrasion, foreign body	Acute angle glaucoma, retinal detachment, central retinal artery occlusion	<ul style="list-style-type: none"> Discuss the difference between viral, allergic and bacterial conjunctivitis Recognize when to make an emergent referral to Ophthalmology for a red, painful eye, or vision loss 	