

**SECTION II. EDUCATIONAL PROGRAM FOR THE M.D. DEGREE**

**PART A: KEY QUANTITATIVE INDICATORS**

*a. Total number of scheduled weeks of instruction for the complete medical education program (Source: LCME Part II Medical School Questionnaire). Do not include weeks devoted to vacation or holiday time.*

160

*b. For U.S. medical schools only: Provide the USMLE results for first-time takers during the three most recently completed academic years (Source: National Board of Medical Examiners School Reports).*

**STEP 1:**

Year or Academic Year	Number Examined	Percent Passing	Mean Total Score and S.D.		National Mean Total Score and S.D.	
			Score	S.D.	Score	S.D.
2011	35	97%	224	19	224	22

Step 2 results not yet available for charter class of 2013.

**STEP 2 CK:**

Year or Academic Year	Number Examined	Percent Passing	Mean Total Score and S.D.		National Mean Total Score and S.D.	
			Score	S.D.	Score	S.D.

**STEP 2 CS:**

Year or Academic Year	Number Examined	Percent Passing

*For Canadian medical schools only: Provide the results on Part I of the MCCQE Examination for each of the three most recently completed academic years (Source: Dean’s Report, Section II from Medical Council of Canada)*

Year or Academic Year	Number Examined	Mean Total Exam Standard Score and S.D.		National Mean Standard Score and S.D.	
		Score	S.D.	Score	S.D.

*c. Show the percentage of graduating medical students in each indicated academic year who agree or strongly agree (sum of the two categories) with the statement, “Overall, I am satisfied with the quality of my medical education.” (Data sources: for U.S. medical schools, AAMC Longitudinal Statistical Summary Report [LSSR]; for Canadian medical schools, AAMC Canadian Graduation Questionnaire [CGQ] or other source [please identify])*

Please Note: This information is not yet available as our charter class will not graduate until 2013. Independent Student Survey asked the following question: “Educational program is preparing me to become a good physician.” MS III respondents (29/40 or 73%) showed that 90% agreed with this item.

	2005-06	2006- 07	2007- 08	2008- 09	2009-10	2010- 11	2011- 12
% Satisfied or Very Satisfied							

## SECTION II. EDUCATIONAL PROGRAM FOR THE M.D. DEGREE

### PART B: NARRATIVE DATA AND TABLES

#### Overview of the Educational Program

The Paul L. Foster School of Medicine (PLFSOM) at Texas Tech University Health Sciences Center in El Paso has adopted a highly integrated, clinically oriented approach to teaching and learning throughout the four year program leading to the M.D. degree. The first two years of the El Paso curriculum consists of four major courses: *Scientific Principles of Medicine; Medical Skills; Society, Community, and the Individual; and the Masters' Colloquium*. Although these courses are described in the course description section of the database, illustrated graphically in ED-5, and discussed in detail in responses to specific Educational Program standards, it may be advantageous to the reader to have a broad overview of the curriculum as an introduction to the Educational Program section of the database.

The two-year *Scientific Principles of Medicine (SPM)* course is the centerpiece of the PLFSOM curriculum. It is organized around roughly 100 "clinical presentations" (e.g., sore throat, abdominal pain, chest discomfort) that are assigned to an appropriate organ system block or unit. (Please see Section II, Appendix 1 for full listing of clinical presentations). Each of the clinical presentations (CPs) is delivered to students by an expert clinician faculty member in the form of a clinical "scheme"—a branching diagram or algorithm illustrating the way that an experienced clinician organizes his/her thinking about an approach to a given clinical presentation. Each scheme, in turn, serves as the basis for the instruction in the basic science concepts and content relevant to an understanding of the pathophysiological processes associated with a given clinical presentation.

#### Sequential SPM Units

YEAR 1	YEAR 2
1. Introduction to Health and Disease	7 CNS/Special Senses
2. Musculoskeletal & Integumentary System	8. Renal System
3. Gastrointestinal System	9. Endocrine System
4. Liver and Hematological System	10. Reproductive System
5. Cardiovascular & Pulmonary Systems	11. The Mind and Human Development
6. Integration of Systems	

This integrated curriculum was inspired by the "Calgary curriculum," which has been in operation at the Faculty of Medicine at the University of Calgary in Alberta, Canada since 1994. The curriculum in El Paso integrates the basic and clinical sciences from the very outset of instruction; students learn anatomy, biochemistry, physiology and other basic science concepts and content needed to understand specific clinical presentations at the time that the presentation is being addressed. The relevance of particular basic science content is thus transparent to the learner. This pedagogical approach has been shown to enhance knowledge comprehension, retention, and to accelerate the acquisition of diagnostic reasoning skills. In years 3 and 4, students re-visit the CPs introduced in years 1 and 2 in the context of their clinical training through required clerkship experiences.

Our two-year *Medical Skills* course is closely aligned with SPM. In this course students learn how to take focused histories and how to conduct focused physical examinations on patients presenting with the clinical problems that are being addressed concurrently in SPM. Thus, for example, when students are

learning about how to approach a patient with chest discomfort and the basic sciences relevant to understanding chest discomfort in SPM, in Medical Skills they are learning to take histories and perform physical examination on standardized patients presenting with chest pain. In this context they learn how to distinguish normal and abnormal heart and lung sounds and how to distinguish between cardiac, pulmonary, and musculoskeletal causes of chest discomfort. This learning takes place primarily in a state-of-the-art clinical skills and simulation laboratory in which students practice with standardized patients, partial task-trainers, and high-fidelity human body simulators. The Medical Skills course also provides learning opportunities designed to reinforce high yield basic science concepts in the clinical context thus further reinforcing the content and concepts introduced in SPM.

Our two-year course *Society, Community, and the Individual: The Integration of Public Health and Community Medicine* introduces students to the concepts of population health and community medicine and consists of the following threads: 1) epidemiology, 2) biostatistics, 3) community, 4) culture, 5) family systems, 6) occupational and environmental health, and, because a vast majority of the patients in the El Paso region speak Spanish as their primary language, 7) Spanish. A major goal of this course is to introduce students to the social determinants of health and to encourage them to see patients in the broader contexts of their personal experiences in the community, as members of families, and as participants in cultural traditions that influence health and illness beliefs and behaviors. This course provides students hands-on experiences in a local community clinic setting and in the community at large. These community experiences enable students to develop the behaviors and attitudes required to work collaboratively with other health care professionals and community members. The community involvement associated with this course also serves as a potential springboard for service learning initiatives.

The fourth major course spanning the first two years of the curriculum is the *Masters' Colloquium*. The PLFSOM has created learning communities, called "Colleges," consisting of 25 students and led by "College Masters." The College Masters are responsible for organizing a weekly "masters' colloquium" focusing on the "art and science of medicine" with specific emphasis on issues related to professionalism. The Colloquium is primarily a discussion-based course with selected readings and in-class exercises designed to promote critical reflection and the exchange of ideas.

**Year 3-4 Required Clerkships--** Year 3 of the PLFSOM curriculum consists of three, 16 week blocks. Two clerkship disciplines share each of these blocks as follows: Internal Medicine/Psychiatry; Obstetrics and Gynecology/Pediatrics; and Family Medicine/Surgery. Although students receive individual grades for each clerkship discipline, they participate in both clerkship disciplines throughout a block. The blocks are designed to include "integration experiences" across disciplines, and "shared teaching" teaching experiences. For example, in the Internal Medicine/Psychiatry block, psychiatrists and internists round together with students on occasions and selected topics are addressed by internists and psychiatrists (e.g., substance abuse, sleep disorders) in the didactic component of the curriculum. The overall goal of the block structure is to encourage students to think about patient problems from the standpoint of multiple disciplines and perspectives. Each block has been charged with "revisiting" a number of the clinical presentations (CP) presented in years 1-2 to review underlying basic science concepts and diagnostic reasoning. As part of the end of block assessment, students participate in a multi-station OSCE that includes "integrated" cases (e.g., an anxious patient presenting with chest pain, a pregnant adolescent, pre-operative assessment of elderly patient). Finally, the following topics are "threaded" throughout the required components of the year 3-4 curriculum: geriatrics, basic science correlations, ethics, professionalism, EBM, patient safety, pain management, palliative care, quality improvement, communication skills, diagnostic imaging, clinical pathology, and clinical research.

In year 4, students complete required clerkships in Emergency Medicine, Neurology, Critical Care, and a Sub-internship in Internal Medicine, Pediatrics, Family Medicine or Surgery. Each of these experiences is 4 weeks. A minimum of 12 weeks is allocated as elective time. Finally, at the end of the year, students participate in a 1-week capstone experience designed to facilitate their transition into graduate medical education.

**Scholarly Activity and Research Project Requirement.** Although not a course per se, all students at the PLFSOM are expected to initiate, complete, and report on a scholarly project by the fall of their fourth year to graduate. For the purposes of this requirement, “scholarship” is defined broadly and students can engage in bench research, clinical or translational research, community-based research, or in projects that involve educational research or the medical humanities. These projects are supervised by mentor who has expertise in the project area selected by the student. Three independent study credits are awarded as follows: 1 credit for project definition and description, 1 credit for completion of data collection, and 1 credit for reporting the results of the project in a student forum.

**ED-1. The medical school faculty must define the objectives of its educational program. The objectives must serve as guides for establishing curriculum content and provide the basis for evaluating the effectiveness of the educational program.**

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*Objectives for the educational program as a whole serve as statements of what students are expected to learn or accomplish during the course of their medical education program.*

*It is expected that the objectives of the educational program will be formally adopted by the curriculum governance process and the faculty (as a whole or through its recognized representatives). Among those who should also exhibit familiarity with the overall objectives for the education of medical students are the dean and the academic leadership of clinical affiliates who share in the responsibility for delivering the program.*

**ED-1-A. The objectives of the educational program must be stated in outcome-based terms that allow assessment of student progress in developing the competencies that the profession and the public expect of a physician.**

*The objectives of the medical education program are statements of the items of knowledge, skills, behaviors, and attitudes that medical students are expected to exhibit as evidence of their achievement.*

*The educational objectives, along with their associated outcome measures, should reflect whether and how well graduates are developing these competencies as a basis for the next stage of their training.*

*There are several widely recognized definitions of the knowledge, skills, behaviors, and attitudinal attributes appropriate for a physician, including those described in the AAMC's Medical School Objectives Project, the general competencies of physicians resulting from the collaborative efforts of the Accreditation Council for Graduate Medical Education (ACGME) and the American Board of Medical Specialties (ABMS), and the physician roles summarized in the CanMEDS 2005 report of the Royal College of Physicians and Surgeons of Canada.*

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Institutional learning objectives and goals were developed and refined by a faculty committee after reviewing the following national and international resources: CanMeds Objectives, the AAMC Medical School Objectives Project Reports, and the ACGME Competencies. In addition, the institutional learning goals and objectives of several medical schools around the country were reviewed, including but not limited to: the University of Arizona College of Medicine, Brown University School of Medicine, Florida State College of Medicine, Indiana University School of Medicine, Texas Tech University Health Sciences Center School of Medicine (Lubbock), and the University of Wisconsin School of Medicine and Public Health. The Curriculum and Educational Policy Committee (CEPC) of the Paul L. Foster School of Medicine (PLFSOM) carefully reviewed the institutional goals and objectives and, through an iterative process, reached agreement about the mapping of these goals onto the six ACGME competency domains: medical knowledge, patient care, interpersonal and communication skills, professionalism, practice based learning, and systems based care.

*a. Complete the following table showing general competencies expected of graduates, educational program (institutional learning) objectives related to each competency, and any outcome measures(s) that will indicate achievement of each listed objective. Add rows to the table as needed.*

Please see below.

**Paul L. Foster School of Medicine**

**Institutional Learning Goals by ACGME Competencies**

ACGME Competency	Learning Objective: Students will be able to:	Outcome Assessment Examples
<b>Medical knowledge</b>		
	Describe the normal structure and function of the human body (MK-1)	Tank-side Grand Rounds assessment forms <sup>a</sup> M1 & M2 Weekly formative examinations <sup>b</sup> M1 & M2 End-of-Unit examinations <sup>c</sup> M1 End-of-Year NBME customized examination <sup>d</sup> M1, M2 & M3 OSCEs <sup>e</sup> M3&M4 Clerkship assessment forms <sup>f</sup> USMLE 1 & 2
	Compare and contrast normal variation and pathological states in the structure and function of the human body (MK-2)	Tank-side Grand Rounds assessment forms <sup>a</sup> M1 & M2 Weekly formative examinations <sup>b</sup> M1 & M2 End-of-Unit examinations <sup>c</sup> M1 End-of-Year NBME customized examination <sup>d</sup> M1, M2 & M3 OSCEs <sup>e</sup> M3&M4 Clerkship assessments <sup>f</sup> USMLE 1 & 2
	Describe analytic methods (laboratory, quantitative methods, Evidence-Based medicine principles) and apply them in patient care (MK-3)	Tank-side Grand Rounds assessment forms <sup>a</sup> M1 & M2 Weekly formative examinations <sup>b</sup> M1 & M2 End-of-Unit examinations <sup>c</sup> M1 End-of-Year NBME customized examination <sup>d</sup> SCI examinations <sup>g</sup> M3&M4 Clerkship assessments <sup>f</sup> USMLE 1 & 2

ACGME Competency	Learning Objective: Students will be able to:	Outcome Assessment Examples
<b>Medical knowledge (Continued)</b>	Apply the scientific method for the acquisition of new knowledge, for the critical appraisal of published knowledge, and to problem solving in the laboratory and patient care (MK-4)	Tank-side Grand Rounds assessment forms <sup>a</sup> M3&M4 Clerkship assessments <sup>f</sup> SARP Projects (3 assessments) <sup>h</sup>



ACGME Competency	Learning Objective: Students will be able to:	Outcome Assessment Examples
<b>Patient Care</b>		
Care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.	Categorize, describe, and use various therapeutic methods in the treatment of illness and disease (PC-1)	M1 & M2 Weekly formative examinations <sup>b</sup> M1 & M2 End-of-Unit examinations <sup>c</sup> M1 End-of-Year NBME customized examination <sup>d</sup> SCI Core Activity Forms M3&M4 Clerkship assessment forms <sup>f</sup> USMLE 1 & 2
	Identify life-threatening conditions that require immediate and specific interventions (PC-2)	M1 & M2 Weekly formative examinations <sup>b</sup> M1 & M2 End-of-Unit examinations <sup>c</sup> M1 End-of-Year NBME customized examination <sup>d</sup> M1, M2 & M3 OSCEs <sup>e</sup> M3&M4 Clerkship assessment forms <sup>f</sup> USMLE 1 & 2
	Provide precise, timely and comprehensive patient care that is documented appropriately (PC-3)	M1, M2 & M3 OSCEs <sup>e</sup> M3&M4 Clerkship assessment forms <sup>f</sup> USMLE 1 & 2 Tank-side Grand Rounds assessment forms <sup>a</sup>
	Perform and accurately record findings and observations derived from physical examinations (PC-4)	Tank-side Grand Rounds assessment forms <sup>a</sup> Medical Skills course SOAP Note feedback M1, M2 & M3 OSCEs <sup>e</sup> M3&M4 Clerkship assessment forms <sup>f</sup> USMLE 1 & 2 SCI Core Activities forms <sup>i</sup>
	Choose appropriate laboratory tests and/or diagnostic procedures and accurately interpret results (PC-5)	M1 & M2 Weekly formative examinations <sup>b</sup> M1 & M2 End-of-Unit examinations <sup>c</sup> M1 End-of-Year NBME customized examination <sup>d</sup> M1, M2 & M3 OSCEs <sup>e</sup> M3&M4 Clerkship assessment forms <sup>f</sup> USMLE 2

ACGME Competency	Learning Objective: Students will be able to:	Outcome Assessment Examples
<b>Patient Care (Continued)</b>	Generate a comprehensive list of diagnostic considerations based on the integration of historical, physical and laboratory findings (PC-6)	Tank-side Grand Rounds assessment forms <sup>a</sup> Medical Skills course SOAP Note feedback M1, M2 & M3 OSCEs <sup>e</sup> M3&M4 Clerkship assessment forms <sup>f</sup> USMLE 1 & 2

ACGME Competency	Learning Objective: Students will be able to:	Outcome Assessment Examples
<b>Interpersonal Communication Skills</b>		
Students must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.	Communicate clearly, respectfully and compassionately with patients, families, colleagues, and members of the health care team (ICS-1)	Tank-side Grand Rounds assessment forms <sup>a</sup> M3&M4 Clerkship assessment forms <sup>f</sup> SCI Preceptor assessment forms <sup>j</sup> Master's Colloquium assessment forms <sup>k</sup> Patient assessments --Medical Skills Course & M3-4 Clerkship Assessment forms <sup>f</sup> M1, M2 & M3 OSCEs <sup>e</sup>
	Collect and record pertinent elements of the clinical history in a concise and accurate manner (ICS-2)	Tank-side Grand Rounds assessment forms <sup>a</sup> Medical Skills course SOAP Note feedback M3&M4 Clerkship assessment forms <sup>f</sup> SCI Preceptor assessment forms <sup>j</sup> M1, M2 & M3 OSCEs <sup>e</sup>
	Communicate knowledge, interpretation and recommendations orally and/or in writing to a wide range of professional or lay audience in culturally appropriate ways (ICS-3)	M3&M4 Clerkship assessment forms <sup>f</sup> Tank-side Grand Rounds assessment forms <sup>a</sup> SCI Preceptor assessment forms <sup>j</sup> Master's Colloquium assessment forms <sup>k</sup> Patient assessment forms (Medical Skills & M3&M4 Clerkships) <sup>l</sup> M1, M2 & M3 OSCEs <sup>e</sup> SARP Project assessment forms <sup>h</sup>

ACGME Competency	Learning Objective: Students will be able to:	Outcome Assessment Examples
<b>Professionalism</b>		
Students must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.	Describe fundamental ethical principles and how they apply in patient care and medical practice (Prof-1)	M1 End-of-Year NBME customized examination <sup>d</sup> USMLE Step 1 & 2 M1, M2 & M3 OSCEs <sup>e</sup> Ethics Reflection Exercise in Masters Colloquium M3&M4 Clerkship assessment forms <sup>f</sup>
	Recognize and avoid the conflicts of interest that can arise in medical practice (Prof-2)	M3&M4 Clerkship assessment forms <sup>f</sup> Patient assessment forms (Medical Skills & M3&M4 Clerkships) <sup>l</sup>
	Display compassion in interactions with all patients regardless of race, gender, ethnicity, sexual orientation, socioeconomic status and disability (Prof-3)	Tank-side Grand Rounds assessment forms <sup>a</sup> M3&M4 Clerkship assessment forms <sup>f</sup> SCI Preceptor assessment forms <sup>j</sup>
	Apply the highest ethical standards in all professional activities (Prof-4)	M3&M4 Clerkship assessment forms <sup>f</sup> Master's Colloquium assessment forms <sup>k</sup>
	Demonstrate respect for the beliefs, opinions and privacy of patients, families, and members of the health care team (Prof-5)	M3&M4 Clerkship assessment forms <sup>f</sup> SCI Preceptor assessment forms <sup>j</sup> Patient assessment forms (Medical Skills & M3&M4 OSCEs) <sup>l</sup> Master's Colloquium assessment forms <sup>k</sup> Small Group assessment forms <sup>m</sup>
	Demonstrate scrupulous honesty in all professional matters (Prof-6)	M3&M4 Clerkship assessment forms <sup>f</sup> SCI Preceptor assessment forms <sup>j</sup>
	Provide compassionate and culturally appropriate care in all stages of the life cycle (Prof-7)	M3&M4 Clerkship assessments <sup>f</sup> SCI Preceptor assessment forms <sup>j</sup> Patient assessment forms (Medical Skills & M3&M4 OSCEs) <sup>l</sup>
	Preserve patient's dignity in all interactions (Prof-8)	M3&M4 Clerkship assessments <sup>f</sup> SCI Preceptor Assessments <sup>j</sup> Patient assessment forms (Medical Skills & M3&M4 OSCEs) <sup>l</sup>
	Demonstrate advocacy for the interests and needs of patients (Prof-9)	M3&M4 Clerkship assessment form <sup>f</sup>

ACGME Competency	Learning Objective: Students will be able to:	Outcome Assessment Examples
<b>Practice-Based Learning</b>		
Students must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-assessment and life-long learning.	Use inductive and deductive reasoning as appropriate in the diagnosis and management of disease (PBL-1)	Tank-side Grand Rounds assessment form <sup>a</sup> M1 & M2 Weekly formative examinations <sup>b</sup> M1 & M2 End-of-Unit examinations <sup>c</sup> M1, M2 & M3 OSCEs <sup>e</sup> M3&M4 Clerkship assessment forms <sup>f</sup>
	Use epidemiological and bio-statistical methods to analyze and solve clinical problems (PBL-2)	M1 End-of-Year NBME customized examination <sup>d</sup> USMLE 1 & 2 SCI Core Activities form <sup>i</sup> SCI examinations <sup>g</sup>
	Identify the need to employ self-initiated learning strategies (problem definition, resource identification, critical appraisal) when approaching new challenges, problems, or unfamiliar situations (PBL-3)	Tank-side Grand Rounds assessment form <sup>a</sup> M3&M4 Clerkship assessment forms <sup>f</sup> SARP Assessment forms <sup>h</sup> Master's Colloquium Assessment forms <sup>k</sup> SCI Core Activity Form <sup>i</sup>
	Recognize when to take responsibility and when to seek assistance based on one's position, training and experience (PBL-4)	Small Group assessment forms <sup>m</sup> M3&M4 Clerkship assessment forms <sup>f</sup>
	Demonstrate sophistication in the use of digital resources for patient care, self-education, and the education of patients and their families (PBL-5)	Tank-side Grand Rounds assessment form <sup>a</sup> SARP Assessment forms <sup>h</sup> Masters' colloquium assessment form <sup>k</sup> M3&M4 Clerkship assessment forms <sup>f</sup>
	Demonstrate the application of a scheme inductive approach to arrive at a focused differential diagnosis (PBL-6)	Small group WCE assessment M1, M2 & M3 OSCEs <sup>e</sup> M3&M4 Clerkship assessment forms <sup>f</sup>
	Demonstrate self-awareness and the skills necessary for life-long learning (PBL-7)	Tank-side Grand Rounds assessment form <sup>a</sup> SARP projects assessment form <sup>h</sup> M3&M4 Clerkship assessment forms <sup>f</sup>

ACGME Competency	Learning Objective: Students will be able to:	Outcome Assessment Examples
<b>Systems-Based Practice</b>		
Practice, as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value	Describe the components of social structure (e.g., family, neighborhood, community) and the role each plays in health behavior, disease prevention, and the treatment of illness (SBP-1)	SCI Core Activity Form <sup>i</sup> SCI examinations <sup>g</sup> M3&M4 Clerkship assessment forms <sup>f</sup>
	Describe the components of the national health system and its funding and how this system affects individual and community health (SBP-2)	SCI Core Activity Form <sup>i</sup> SCI examinations <sup>g</sup> M3&M4 Clerkship assessment forms <sup>f</sup>

- <sup>a</sup> Tank-side Rounds Assessment form assesses knowledge, investigatory & analytic thinking, attitudes, and communication skills. The associated Donor Electronic Medical Record assessment includes documentation, scheme usage, and analytic thinking. Both forms are intended to assess self-assessment and life-long learning skills.
- <sup>b</sup> Weekly formative examinations are used primarily to assess knowledge and skills acquired in the Scientific Principles of Medicine course.
- <sup>c</sup> End-of-unit summative examinations are used primarily to assess knowledge acquired in each SPM unit and the corresponding skills learned in the Medical Skills course. Methods of examination include written exams, computer-based exercises, and demonstrations of skills using appropriate clinical simulator devices. In addition, students at PLFSOM participate in “progress testing” and complete two examinations on an annual bases beginning at matriculation. These are the Diagnostic Pattern Recognition Examination (70 items) and the Clinical Data Interpretation Examination (80 items). This examination was developed at Southern Illinois University School of Medicine and is being used by a consortium of medical schools from around the United States.
- <sup>d</sup> M1 students take an NBME customized examination to assess their acquired knowledge. The test items are selected to cover the organ system units covered in SPM to date and to cover epidemiology and ethics principles covered in SCI and Master's colloquium.
- <sup>e</sup> OSCEs are used at the end of each organ system unit. M2 and M3 students also take an end-of-year OSCE to assess general clinical and communication skills. Students will be required to remediate areas of demonstrated deficiency prior to completing USMLE STEP 2 (CS).
- <sup>f</sup> Clerkship assessment forms assess knowledge, application, medical care, attitudes, communication skills, practice-based learning, systems-based practice and professionalism.
- <sup>g</sup> SCI exams cover topics in biostatistics, epidemiology, social determinants of health, health disparities, border health issues, occupational and environmental health and community health, family systems, and cultural competence.
- <sup>h</sup> SARP is a required mentored research experience. Students are assessed on the scientific merit of the project, analytic skills, communication skills, and integrity. Assessment occurs three times: the proposal stage, a written report, and at a poster presentation.
- <sup>i</sup> Community-based clinic sessions in Society, Community, and the Individual require the student to document specific skills for each session, to discuss the systemic issues related to providing health care for a specific condition, and to self-identify areas for improvement. These are reviewed and commented on by the course director, primarily for formative purposes.
- <sup>j</sup> Preceptors observe students during the community-clinic sessions in Society, Community, and the Individual. Assessments include professionalism, respectful communication, clinical skills, and the ability to communicate case information.
- <sup>k</sup> Masters’ Colloquium is primarily an oral discussion format. Assessment is based on critical appraisal papers. Assessment categories cover self-directed learning skills, appraisal of the literature, and analytic skills.
- <sup>l</sup> Patients assess the student as part of both Medical Skills and Clerkship experiences.
- <sup>m</sup> Small Group assessment forms are used in SPM and SCI. These forms assess student's ability to apply concepts, respectful communication, and ability to admit lack of knowledge.

***b. Describe the medical school’s use of these outcome measures in reaching a summative judgment regarding students’ attainment of each competency.***

Decisions about the selection of assessment strategies are driven by their appropriateness for producing reliable, valid, and fair measures of the competency that is being assessed. For each required course and clerkship, students are expected to demonstrate performance at pre-determined levels (e.g., 75% on internal examinations of knowledge in the Scientific Principles of Medicine Course and the Society, Community and Individual course; 70% for OSCEs in the end of year 3 assessment of clinical skills). Discussion of methods used to assess student attainment of institutional learning objectives is an important component of the end of course debriefings and reports to the Curriculum and Educational Policy Committee (CEPC). Course approval by the CEPC requires that the course director satisfies the committee that his/her course is appropriately assessing institutional learning objectives and s/he is using appropriate outcome measures in making summative judgments about student performance. In the clerkships we employ NBME shelf examinations to assess knowledge acquisition. Behaviors, skills, and attitudes are assessed by faculty and residents. The criteria incorporated into the assessment form used for this purposes is based on the PLFSOM institutional learning objectives and in some instances the language we adopted in creating this assessment form is extracted verbatim or as a paraphrase of institutional learning objectives. A copy of this assessment form can be found in Section II, Appendix 2.

***c. Indicate the year in which current educational program (institutional learning) objectives were originally adopted and the year in which they were most recently reviewed or revised.***

Year Adopted	Year Last Reviewed or Revised
2007 2011	

The institutional learning objectives listed above were reviewed in November and December 2011 by the Educational Program Self-Study Sub-Committee. This group concluded that the current institutional learning objectives were serving as effective guides for educational program planning and implementations and that they accurately reflected the overall goals of the PLFSOM. This sub-committee recommended that the time to subject the institutional learning objectives to a comprehensive formal review would be after the graduation of its first class of students when more complete outcome data is available. This would correspond with the planned 5-year curriculum review described in response to ED-1a (‘e’) below. The Evaluation Committee has been charged with devising a plan for this review by fall of 2012 for implementation in the 2013-14 academic year.

***d. Briefly describe how and by what individuals/groups the educational program objectives are used in curriculum planning and in the initial selection and ongoing review of the content included in the curriculum.***

The institutional learning objectives drive educational program development, assessment methods, and provide the bases for evaluating program effectiveness.

The program objectives are integrated into the curriculum planning process. Course specific objectives are based on the 31 general institutional objectives outlined above. Because of the integrated nature of



the curriculum, many activities and assessments are associated with more than one learning objective. The original content selection process started in January 2007, when the El Paso faculty began defining specific learning objectives for the new curriculum and ensuring that the course specific objectives were tied directly to the institutional learning objectives. The initial curriculum was reviewed and approved by the Curriculum and Educational Policy Committee (CEPC).

The faculty members responsible for required courses and clerkships meet frequently to discuss course development and delivery, including how the content is meeting institutional objectives. Course and clerkship directors are required to monitor the development of their respective programs to ensure that learning goals and objectives are consistent with, and contribute to, the accomplishment of institutional learning objectives. Curriculum planning is an iterative process conducted by the faculty with input and oversight by the CEPC. Finally, substantive changes to the learning objectives, educational methods, and student assessment strategy for each course are reviewed for approval by the CEPC. A major component of the course and clerkship approval process is certification that they are contributing to the ultimate accomplishment of the institutional learning objectives. The CEPC reviews each course and clerkship annually, and must approve all major changes to a course or clerkship. The CEPC considers the impact of any changes on the institutional objectives.

*e. Briefly describe how the educational program objectives are used in the evaluation of the effectiveness of the educational program as a whole.*

As part of program evaluation we examine learning outcomes related to our broader institutional learning objectives to determine if any content area has a percentage pass rate significantly lower than the others. Clinical skills performance is assessed by multi-station end of year Objective Structured Clinical Examinations (OSCEs) in years 1, 2 and 3. These OSCEs reflect institution learning objectives in several domains. Further, the assessment form developed to evaluate student performance in required third and fourth year clerkships also reflects institutional learning objectives. The assessment strategy adopted for the Scholarly Activity and Research Program (SARP) is another example of the role of the institutional learning objectives in guiding student assessment and program evaluation. SARP now includes more specific measures of written communication skills and professional integrity based on a review of institutional learning objectives.

*See also information for standards ED-33 and ED-46 in this section of the database.*

**ED-2. An institution that offers a medical education program must have in place a system with central oversight to ensure that the faculty define the types of patients and clinical conditions that medical students must encounter, the appropriate clinical setting for the educational experiences, and the expected level of medical student responsibility. The faculty must monitor medical student experiences and modify them as necessary to ensure that the objectives of the medical education program are met.**

*The institution that offers a medical education program is required to establish a system to specify the types of patients or clinical conditions that medical students must encounter and to monitor and verify the medical students' experiences with patients so as to remedy any identified gaps. The system must ensure that all medical students have the required experiences. For example, if a medical student does not encounter patients with a particular clinical condition (e.g., because it is seasonal), the medical student should be able to remedy the gap by a simulated experience (e.g., a standardized patient experience, an online or paper case) or in another clerkship rotation.*

*When clerkship rotations in a given discipline are provided at multiple instructional sites, compliance with this standard (ED-2) may be linked to compliance with standard ED-8, which requires that the medical education program demonstrate comparability of education experiences across instructional sites.*

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*a. Describe the mechanisms used for the initial selection and subsequent revision of the kinds of patients or clinical conditions, and the clinical settings, needed to meet the medical school's objectives for clinical education. Note if the kinds of patients or clinical conditions were selected by each clinical discipline or by a group (e.g., a clinical clerkship committee) with representation from multiple disciplines. Briefly summarize the role of the curriculum committee or other central oversight body (e.g., a clerkship rotation directors committee) in reviewing the criteria across courses and clerkships (or in Canada, clerkship rotations).*

The initial selection and refinement of the kinds of patients or clinical conditions that students should encounter, the settings in which these encounters should occur, and the level of student responsibility was determined by clerkship design teams consisting of faculty members associated with each of the clerkships sharing a block in our integrated model. These design teams based their recommendations on the goals and objectives of each of the clerkships, published guidelines and standards for medical student education, and their prior experience in clerkship education as a regional clinical campus of TTUHSC School of Medicine in Lubbock.

The Curriculum and Educational Policy Committee (CEPC) reviewed and approved the original plan for the year 3-4 curriculum that is diagrammed in ED-5. A detailed syllabus for each block and clerkship was submitted to the CEPC for careful review, including the listing and rationale for the clinical conditions that students were expected to encounter and the alternative methods that were identified for meeting these expectations if students did not encounter a given clinical condition for any reason. All clerkships employ a common electronic patient encounter log to monitor students' clinical experience. The senior associate dean for medical education provides an annual summary report on student clinical experiences to the Year 3-4 committee on the conditions encountered by students and level of responsibility. The members of this committee play a peer consultative role with one another and the committee can recommend changes in what is expected of the student. These recommendations must ultimately be reviewed and approved by the CEPC.

***b. Provide a table summarizing the criteria for patient types or clinical conditions, level of student responsibility, and clinical setting for each required clerkship rotation.***

In the table below, the following general definitions apply to the column dealing with student level of responsibility. (Please note: The psychiatry clerkship modifies these operational definitions slightly to reflect the unique nature of psychiatric problems and the physician-patient relationship in treating psychiatric illnesses.)

**Observe**-The student observes others interacting with, and/or examining the patient, or performing a procedure, but the student does not participate directly in the process. This is a passive experience from the standpoint of the interaction of the learner and patient.

**Assist**-The student participates with a supervising physician (resident or attending) in interviewing, and/or examining a patient, or performing a procedure. The student may perform a portion of the history or physical or participate in a procedure in a secondary role. The student does not play an active role in diagnosis or treatment decision-making.

**Manage/Perform**-The student performs the history or physical exam AND formulates the differential diagnosis AND suggests the appropriate course of treatment under supervision of the preceptor, resident, or attending. For procedures, the student plays a primary role in performing the indicated procedure under supervision of the preceptor, resident, or attending.

In addition to listing the clinical conditions, level of student responsibility, and setting of care, the first column of the table below lists the “clinical presentations” (CPs) covered in the pre-clerkship curriculum that will be “revisited” as part of the clinical training in years 3 and 4. The CEPC of PLFSOM requires that the CPs addressed during years 1 and 2 be incorporated into the clerkship instructional program to promote vertical integration. The required diagnoses and procedures for each of the clerkships are listed in the third column of the table.

Clerkship	Diagnostic Category and PLFSOM Clinical Presentation (CP) Review	Required Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Family Medicine	Cardiovascular CPs: <ul style="list-style-type: none"> <li>Chest discomfort</li> <li>Abnormal blood pressure</li> </ul>	Chest Pain Hypercholesterolemia Hypertension	Manage (all)	Outpatient
	Respiratory CPs: <ul style="list-style-type: none"> <li>Cough</li> <li>Wheezing</li> <li>Sore throat</li> </ul>	Allergic Rhinitis Asthma COPD Upper respiratory infection	Manage (all)	Outpatient
	Health Maintenance CPs: <ul style="list-style-type: none"> <li>Work physical</li> <li>Periodic health exam adult</li> <li>Menopause</li> </ul>	Periodic physical – male Periodic physical -- female Stop smoking discussion	Manage (all)	Outpatient
	Abdomen CPs: <ul style="list-style-type: none"> <li>Vomiting/Nausea</li> <li>Diarrhea</li> <li>Abdominal distention</li> <li>Abdominal pain</li> </ul>	Abdominal Pain Urinary tract infection or... Dysuria	Manage (all)	Outpatient
	Endocrine CPs: <ul style="list-style-type: none"> <li>Diabetes/Hyperlipidemia</li> <li>Weight gain, obesity</li> </ul>	Diabetes Manage	(all)	Outpatient
	Psychiatric CPs: <ul style="list-style-type: none"> <li>Mood disorders</li> <li>Panic and anxiety</li> </ul>	Depression or... Anxiety	Manage (all)	Outpatient
	General CPs: <ul style="list-style-type: none"> <li>Headache</li> </ul>	Headache	Manage (all)	Outpatient
	Musculoskeletal CPs: <ul style="list-style-type: none"> <li>Bone fractures</li> <li>Limp and deformity</li> <li>Joint pain</li> </ul>	Joint injury/pain (shoulder, knee, or ankle) or... Low back pain	Manage/perform (all)	Outpatient

Clerkship	Diagnostic Category and PLFSOM Clinical Presentation Review	Required Diagnosis/Procedure (A student must encounter one condition from each diagnostic category from the list below)	Level of Student Responsibility	Clinical Setting
Internal Medicine	Cardiovascular CPs: <ul style="list-style-type: none"> <li>• Chest discomfort</li> <li>• Abnormal heart sounds</li> <li>• Heart murmurs</li> <li>• Syncope (see also neurological category)</li> <li>• Palpitations</li> <li>• Abnormal blood pressure</li> </ul>	Chest Pain Congestive heart failure Hypertension Venous Thromboembolism	Manage (all)	Inpatient
	Respiratory CPs: <ul style="list-style-type: none"> <li>• Dyspnea</li> <li>• Pleural abnormalities</li> <li>• Cough</li> <li>• Wheezing</li> <li>• Cyanosis</li> <li>• Hemoptysis</li> </ul>	Cough Dyspnea COPD Asthma Pneumonia	Manage (all)	Inpatient
	Renal/Genitourinary Disease CPs: <ul style="list-style-type: none"> <li>• Abnormalities of renal function</li> <li>• Disorders of serum Na<sup>+</sup></li> <li>• Intrinsic renal disease</li> <li>• Abnormalities of hydrogen ion concentration</li> <li>• Hypertension</li> <li>• Renal failure: Acute</li> <li>• Renal failure: Chronic</li> <li>• Male genitourinary disorders</li> </ul>	Dysuria Acute renal failure Chronic kidney disease Fluid, electrolyte and acid-base disorders	Manage (all)	Inpatient
	Infectious Diseases CPs: <ul style="list-style-type: none"> <li>• Abnormal temperature/Fever</li> </ul>	HIV Infection Nosocomial infections	Manage (all)	Inpatient

Clerkship	Diagnostic Category and PLFSOM Clinical Presentation Review	Required Diagnosis/Procedure (A student must encounter one condition from each diagnostic category from the list below)	Level of Student Responsibility	Clinical Setting
Internal Medicine (Cont)	Gastrointestinal CPs: <ul style="list-style-type: none"> <li>• Vomiting/Nausea</li> <li>• Diarrhea</li> <li>• Abdominal distention</li> <li>• Abdominal pain</li> <li>• Constipation</li> <li>• GI bleed</li> <li>• Liver function test abnormalities, Jaundice</li> </ul>	Abdominal pain G.I. Bleed (upper or lower) Liver disease	Manage (all)	Inpatient
	Endocrine CPs: <ul style="list-style-type: none"> <li>• Diabetes, Hyperlipidemia</li> <li>• Hypothalamus/Pituitary axis</li> <li>• Disorders of thyroid function</li> <li>• Weight gain, obesity</li> </ul>	Diabetes Mellitus Dyslipidemias Obesity	Manage (all)	Inpatient
Hematolog	y/Oncology CPs: <ul style="list-style-type: none"> <li>• Abnormal hemoglobin</li> <li>• Abnormal white blood cells</li> <li>• Lymphadenopathy</li> <li>• Coagulation abnormalities</li> </ul>	Anemia Cancer	Manage (all)	
	Rheumatology CPs: <ul style="list-style-type: none"> <li>• Joint pain</li> <li>• Numbness and pain</li> </ul>	Arthritis Vasculitis Lupus/SLE	Manage (all)	Inpatient
.	Neurology CPs: <ul style="list-style-type: none"> <li>• Syncope (see also cardiovascular category)</li> <li>• Seizures and epilepsy</li> <li>• Stroke and aphasia</li> <li>• Delirium, stupor, and coma</li> </ul>	Altered mental status	Manage	Inpatient

Clerkship	Diagnostic Category and PLFSOM Clinical Presentation Review	Required Diagnosis/Procedure (A student must encounter one condition from each diagnostic category from the list below)	Level of Student Responsibility	Clinical Setting
Internal Medicine (Cont)	General areas CPs: <ul style="list-style-type: none"> <li>• Substance abuse, withdrawal</li> <li>• Mood disorders</li> <li>• Panic and anxiety</li> <li>• Numbness and pain</li> <li>• Skin rashes</li> <li>• Skin ulcers (benign and malignant)</li> <li>• Itching</li> <li>• Hair and nail disorders (alopecia)</li> </ul>	Fever Rash Major Depression Obesity Substance abuse	Manage (all)	Inpatient
	Selected Key Procedures	Arterial blood gas Electrocardiogram Digital rectal examination	Perform or Assist (all)	Inpatient

<b>Clerkship</b>	<b>Diagnostic Category and PLFSOM Clinical Presentation Review</b>	<b>Required Diagnosis/Procedure</b>	<b>Level of Student Responsibility</b>	<b>Clinical Setting</b>
Obstetrics and Gynecology	Prenatal Care CPs: <ul style="list-style-type: none"> <li>• Contraception</li> <li>• Screening and prevention</li> <li>• Normal pregnancy</li> <li>• Diabetes and Hyperlipidemia</li> </ul>	New OB visit Routine OB visit Diabetes Management Non-stress test/Fetal Monitoring	Assist Manage Assist Observe	Clinic
	OB Triage CPs: <ul style="list-style-type: none"> <li>• Vaginal discharge</li> <li>• Abnormal genital track bleeding</li> <li>• Pregnancy loss</li> </ul>	Evaluation/treatment vaginal discharge (wet prep) Evaluation of ruptured membranes (fern test) Assessment of Labor Evaluation/treatment 2nd and 3rd trimester bleeding Evaluation/treatment UTI and Pyleonephritis OB ultrasound	Assist  Observe  Assist  Assist Observe	Labor & Delivery
	Labor and Delivery CPs: <ul style="list-style-type: none"> <li>• Pregnancy complications</li> </ul>	Evaluation of labor Evaluation/treatment of post-partum bleeding Normal vaginal delivery C-section	Assist Observe Assist Observe/Assist	Labor & Delivery
	GYN Clinic CPs: <ul style="list-style-type: none"> <li>• Periodic Health exam-Adult</li> <li>• Screening and prevention</li> <li>• Contraception</li> <li>• Abnormal genital track bleeding</li> <li>• Pelvic pain</li> <li>• Pelvic mass</li> <li>• Pregnancy loss</li> <li>• Menopause</li> <li>• Prolapse/Pelvic floor relaxation</li> <li>• Pregnancy complications</li> </ul>	Annual Exam (minimum of two exams in any age group) 18-25 years old 25-40 years old 40+ years old Evaluation/treatment of abnormal uterine bleeding Evaluation/treatment of sexually transmitted diseases Evaluation/treatment of abnormal pap smears Evaluation/treatment of spontaneous abortions Evaluation/treatment of Ectopic pregnancies Contraception counseling	Manage    Assist (all remaining conditions)	Clinic



<b>Clerkship</b>	<b>Diagnostic Category and PLFSOM Clinical Presentation Review</b>	<b>Required Diagnosis/Procedure</b>	<b>Level of Student Responsibility</b>	<b>Clinical Setting</b>
Obstetrics and Gynecology (Cont)	GYN Outpatient Procedures	Colposcopy Laser/Leep/Cryosurgery Endometrial biopsy Transvaginal sonography (+/-)	Observe (all)	Clinic
	GYN Inpatient Procedures	Post-op care D&C Cold knife cone Tubal ligation (Laparoscopy and Laparotomy) Hysterectomy (Abdominal, Vaginal, and Laparoscopic Assisted Vaginal) Ectopic Pregnancy (Laparoscopy or Laparotomy) Adnexal surgery Pelvic floor surgery	Assist Assist Observe Assist Assist Assist Assist Assist Assist	Inpatient
	GYN Oncology	Evaluation/treatment cervical cancer Evaluation/treatment uterine cancer Evaluation/treatment ovarian cancer	Assist (all)	Clinic

Clerkship	Diagnostic Category and PLFSOM Clinical Presentation (CP) Review	Required Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Pediatrics	Newborn CPs: <ul style="list-style-type: none"> <li>• Human development: infant to toddler</li> </ul>	Well Baby Jaundice Prematurity Physiologic Jaundice Respiratory Distress Syndrome	Manage or Assist (all)	Nursery
Accidents/Tr	trauma CPs: <ul style="list-style-type: none"> <li>• Bone fractures</li> </ul>	Child Abuse	Assist/Manage	Inpatient
Cardiovascular	CPs: <ul style="list-style-type: none"> <li>• Heart murmur</li> <li>• Cyanosis</li> </ul>	Heart Murmur	Assist/Manage	Inpatient
	Neurological CPs: <ul style="list-style-type: none"> <li>• Developmental disorders</li> <li>• Seizures and Epilepsy</li> </ul>	Developmental Delay/Regression	Observe	Outpatient
	Nutrition CPs: <ul style="list-style-type: none"> <li>• Failure to thrive/malnourished</li> </ul>	Failure to Thrive Obesity	Observe/Assist (all)	Inpatient/ Outpatient
Respiratory	Respiratory, Lower CPs: <ul style="list-style-type: none"> <li>• Cough</li> <li>• Wheezing</li> </ul>	Respiratory Distress Asthma	Assist/Manage (all)	Outpatient
	Respiratory, Upper CPs: <ul style="list-style-type: none"> <li>• Sore throat</li> <li>• Hearing loss, deafness, tinnitus, dizziness-vertigo, ear pain (combined CP)</li> </ul>	Rhinorrhea Sore Throat Otitis	Assist/Manage (all)	Inpatient/ Outpatient
	Endocrine CPs: <ul style="list-style-type: none"> <li>• Diabetes/Obesity</li> <li>• Hypothalamus/Pituitary axis</li> <li>• Abnormal stature</li> <li>• Disorders of thyroid function</li> </ul>	Short Stature/Delayed Growth Diabetes Mellitus	Observe (all)	Outpatient

<b>Clerkship</b>	<b>Diagnostic Category and PLFSOM Clinical Presentation (CP) Review</b>	<b>Required Diagnosis/Procedure</b>	<b>Level of Student Responsibility</b>	<b>Clinical Setting</b>
Pediatrics (Cont)	Dermatology CPs: <ul style="list-style-type: none"> <li>• Skin rashes</li> <li>• Itching (Puritis)</li> </ul>	Exanthems	Assist/Manage	Inpatient/Outpatient
	Gastrointestinal CPs: <ul style="list-style-type: none"> <li>• Abdominal pain</li> <li>• Vomiting/nausea</li> <li>• Diarrhea</li> <li>• Constipation</li> <li>• Abdominal distention</li> </ul>	Abdominal Pain Colic Diarrhea	Assist/Manage (all)	Inpatient/Outpatient
	Hematology/Oncology CPs: <ul style="list-style-type: none"> <li>• Abnormal hemoglobin</li> <li>• Abnormal white blood cells</li> <li>• Coagulation abnormalities</li> </ul>	Anemia	Observe/Assist	Inpatient/Outpatient
	Health Maintenance CPs: <ul style="list-style-type: none"> <li>• Periodic health exam-Child</li> <li>• Human Development: Infant to toddler (Parts I and II)</li> <li>• Human Development: Early Childhood</li> <li>• Human Development: Pre-teen</li> <li>• Human Development: Teen</li> </ul>	2-4-6 months 12 months Toddler / School Age Adolescent	Manage (all)	Outpatient

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure (Note: For this clerkship a student is required to see at least one patient per diagnostic category drawn from the list below)	Level of Student Responsibility	Clinical Setting
Psychiatry	Depressive Disorders CPs: <ul style="list-style-type: none"> <li>• Mood disorders</li> </ul>	Mood Disorders (single or recurrent): Mild; Moderate; Severe w or w/o psychosis Dysthymic Disorder Depressive NOS Depressive 2° to General Medical Condition or Substance Abuse Induced Disorder	Observe/Assist/or Manage (all)	Outpatient/Inpatient /Day Hospital
	Mania, Hypomania CPs: <ul style="list-style-type: none"> <li>• Mood disorders</li> </ul>	Bipolar I Bipolar II Bipolar NOS Bipolar 2° to General Medical Condition or Substance Abuse Induced Disorder	Observe/Assist/or Manage (all)	Outpatient/Inpatient /Day Hospital
	Psychotic Disorders CPs: <ul style="list-style-type: none"> <li>• Psychotic patient/disordered thought</li> </ul>	SCZ, SCZ-affective (depressed or bipolar type) 2° to General Medical Condition or Substance Abuse Induced Disorder Psychosis NOS Schizophreniform disorder, Brief psychotic disorder, Delusional disorder, etc	Observe/Assist/or Manage (all)	Outpatient/Inpatient /Day Hospital
	Anxiety Disorders CPs: <ul style="list-style-type: none"> <li>• Panic and anxiety</li> </ul>	Panic Disorder Agoraphobia Phobia (soc/spec) Obsessive compulsive disorder, Generalized anxiety disorder, Acute stress disorder Anxiety Disorder NOS	Observe/Assist/or Manage (all)	Outpatient/Inpatient /Day Hospital
	Substance Dependence, Abuse or Withdrawal CPs: <ul style="list-style-type: none"> <li>• Substance abuse withdrawal</li> </ul>	Substance abuse Or Withdrawal	Observe/Assist/or Manage	Outpatient/Inpatient /Day Hospital

<b>Clerkship</b>	<b>Diagnostic Category and Clinical Presentation Review</b>	<b>Diagnosis/Procedure (Note: For this clerkship a student is required to see at least one patient per diagnostic category drawn from the list below)</b>	<b>Level of Student Responsibility</b>	<b>Clinical Setting</b>
Psychiatry (cont)	Adjustment Disorder CPs: <ul style="list-style-type: none"> <li>• Behavioral disorders</li> <li>• ADD/ADHD</li> <li>• Mood disorders</li> <li>• Anxiety disorders</li> </ul>	Depression Anxiety Conduct problem	Observe/Assist/or Manage (all)	Outpatient/Inpatient /Day Hospital
	Cognitive Disorders CPs: <ul style="list-style-type: none"> <li>• Dementia</li> </ul>	Dementia Observe/Assi	st/or Manage	Outpatient/Inpatient /Day Hospital
Risk	Assessment Danger to self or others	Suicidal ideation Homicidal ideation Risk for harm	Observe/Assist/or Manage (all)	Outpatient/Inpatient /Day Hospital
Personality	Disorders	Personality disorder	Observe/Assist/or Manage	Outpatient/Inpatient /Day Hospital

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Surgery	GI/Alimentary Tract CPs: <ul style="list-style-type: none"> <li>• Vomiting/nausea</li> <li>• Diarrhea</li> <li>• Constipation</li> <li>• Abdominal distension</li> <li>• Abdominal pain</li> <li>• GI bleed</li> </ul>	Abdominal wall defect (Hernias) Peptic/Duodenal ulcer Small bowel obstruction Appendicitis Colon cancer Diverticulitis Hemorrhoids	Manage (H and P)/ assist or observe surgical procedure (all)	Outpatient/ Inpatient
	Hepatobiliary/Pancreas CPs: <ul style="list-style-type: none"> <li>• Liver function test abnormalities</li> </ul>	Cholecystitis Pancreatitis Pancreatic cancer	Manage (H and P)/ assist or observe surgical procedure (all)	Outpatient/ Inpatient
	Breast	Breast cancer	Manage (H and P)/ assist or observe surgical procedure	Outpatient/ Inpatient
	Vascular/Thoracic/Cardiac CPs: <ul style="list-style-type: none"> <li>• Chest discomfort</li> <li>• Dyspnea</li> <li>• Hemoptysis</li> </ul>	Deep venous thrombosis Lung cancer Pneumothorax Coronary artery disease	Manage (H and P)/ assist or observe surgical procedure (all)	Outpatient/ Inpatient
	Trauma	Blunt trauma: Head/neck/chest/abdomen/pelvis Penetrating trauma	Manage (H and P)/ assist or observe surgical procedure (all)	Outpatient/ Inpatient
	General/Miscellaneous Pre-operative	assessment General anesthesia Management/removal of drains and tubes (two) Nasogastric tube or feeding tube insertion (two) Foley catheter insertion (two male, two female) Venipuncture/IV start (two) Suturing (two) Suture or staple removal (two) Rectal exam (two)	Manage (H and P)/ assist or observe surgical procedure (all)	Outpatient/ Inpatient
	Endocrine CPs: <ul style="list-style-type: none"> <li>• Hypothalamus/Pituitary axis</li> <li>• Disorders of thyroid function</li> </ul>	Thyroid nodule Thyroid cancer	Manage (H and P)/ assist or observe surgical procedure (all)	Outpatient/ Inpatient

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Neurology	Stroke CPs: <ul style="list-style-type: none"> <li>Stroke and aphasia</li> </ul>	Ischemic stroke Hemorrhagic stroke	Manage Manage	Inpatient (all)
	Seizures and Epilepsy CPs: <ul style="list-style-type: none"> <li>Syncope</li> <li>Epilepsy</li> </ul>	Alterations of consciousness	Manage	In/outpatient
	Motor and Sensory Systems CPs: <ul style="list-style-type: none"> <li>Numbness and pain</li> <li>Weakness</li> <li>Movement disorders</li> <li>Gait disturbance</li> </ul>	Radiculopathy Neuralgias Myasthenia gravis Spinal cord injury or disease Movement disorders	Manage Manage Manage Manage	In/outpatient In/outpatient In/outpatient In/outpatient
	Headache CPs: <ul style="list-style-type: none"> <li>Headache</li> </ul>	Headaches Myopathies	Manage Manage	Outpatient Outpatient
	Procedures	Lumbar puncture Nerve conduction study EEG	Assist Observe/assist Observe	In-patient In/out-patient In/out-patient

Clerkship	Diagnostic Category and Clinical Presentation Review	Diagnosis/Procedure	Level of Student Responsibility	Clinical Setting
Emergency Medicine	Cardio-pulmonary CPs: <ul style="list-style-type: none"> <li>• Chest discomfort</li> <li>• Abnormal arterial pulse</li> <li>• Abnormal blood pressure: Hypertension</li> <li>• Abnormal blood pressure: Shock</li> <li>• Dyspnea</li> <li>• Syncope</li> </ul>	Chest pain Cardiopulmonary resuscitation Shortness of breath in adults Shock	Manage Manage Manage Assist	Emergency Department
	Gastro-intestinal CPs: <ul style="list-style-type: none"> <li>• Abdominal pain</li> <li>• GI Bleeding</li> </ul>	Abdominal pain GI bleeding	Manage (all categories)	Emergency Department
	Neurological CPs: <ul style="list-style-type: none"> <li>• Delirium, stupor, coma</li> <li>• Seizure and epilepsy</li> </ul>	Altered mental status Headache Seizure	Manage (all categories)	Emergency Department
	Trauma CPs: <ul style="list-style-type: none"> <li>• Bone Fractures</li> </ul>	Traumatic injuries	Manage/assist	Emergency Department
	Other common emergency presentations CPs: <ul style="list-style-type: none"> <li>• Diabetes/Hyperlipidemia</li> <li>• Wound</li> </ul>	Pelvic pain Diabetes related emergencies Environmental emergencies Abnormal behavior Abnormal blood sugar Assessment of wounds	Manage/assist (all categories)	Emergency Department



***c. Describe the system(s) used by students to log the clinical experiences required of them.***

Texas Tech University Health Sciences Center Medical School (Lubbock) developed an On-line Patient Log Book (OPLOG) for students to record their patient encounters, setting, and level of involvement. The Paul L. Foster School of Medicine adopted this application with some modifications. Students have password protected access to the OPLOG through their individual e-portfolios. Students are required to record the following on each of their patients:

- Age
- Gender
- Ethnicity and language preference
- Setting (Clinic/Private Office, Hospital, Home Visit, Nursing Home/ Rehab)
- Diagnoses or problems addressed at the time of the encounter
- Procedures (if any)
- Level of student involvement with care (observed, assisted, managed/performed—all operationally defined)

***d. Summarize the system(s) used by faculty to monitor students' completion of required clinical experiences. When and by whom are clerkship-specific clinical experiences reviewed and monitored? When and by whom are overall clinical experience data for all students collected and monitored?***

Clerkship directors are responsible for certifying that students have met all of the clinical requirements of the rotation. The clerkship directors are also responsible for developing alternative experiences for required rare or seasonal conditions that a student may not have encountered during the course of the clerkship. Clerkship directors review the OPLOG entries to assure that students are being exposed to required clinical conditions at a level appropriate for meeting the clerkship learning objectives. These reviews take place at the mid-point and the end of the rotation. With the assistance of the clerkship coordinators and the Year 3-4 coordinator in the Office of Curriculum, Evaluation, and Accreditation (OCEA), the Clerkship Director is notified if a student is at risk for not meeting a required condition prior to the end of the rotation. Depending upon the structure of the rotation this may be done weekly or bi-weekly so that adjustments in schedule can be made or an alternative method selected. In other clerkships students will be notified 7-10 days before the end of the rotation if they will need to employ an alternative method for meeting requirements and what method they are to use.

The OCEA, directed by the senior associate dean for medical education, is responsible for monitoring the overall clinical experience data at the end of each 16 week block. This data is reviewed by the Year 3-4 Committee and adjustments can be made if necessary based on the data, and with the concurrence of the CEPC. At the end of the year, the senior associate dean for medical education, or his designee (e.g., the director of assessment and evaluation), reports on students' clinical experiences to the CEPC in an annual review of the past academic year.

*e. For each required clerkship rotation, list the options for remedying gaps in student clinical experiences. List those clinical experience requirements fulfilled by alternate experiences (e.g., simulation, assigned readings, CLIPP cases) by more than 25% of students in a given clinical clerkship during the prior academic year.*

A variety of methods are used to remedy gaps in student clinical experiences including standardized patients, simulated patients, computerized cases (e.g., “Design a Case” simulations in Family Medicine), on-line cases (e.g., CLIPP in pediatrics), case reports and selected readings. We have modified our electronic patient encounter log to enable students to report when they have had to use an “alternate experience” to meet a clinical encounter expectation. Thus far, fewer than 25% have had to utilize an alternative method in any rotation.

*See also the Required Clerkship Forms.*

**ED-3. The objectives of the educational program must be made known to all medical students and to the faculty, residents, and others with direct responsibilities for medical student education.**

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*Describe the means by which the general objectives of the educational program (institutional learning objectives) are made known to:*

*a. medical students;*

The institutional learning objectives are distributed to students at orientation. They are also available on-line and are included in the annual student catalogue.

The educational program objectives relevant to an individual course are identified in that course's syllabus. These syllabi are available to all students via WebCT. Course directors are also required to provide an "administrative" orientation for their respective courses during which they highlight course goals and objectives as they relate to meeting the institutional learning objectives described in section ED 1 and 1-A.

*b. Instructional staff, including course and clerkship rotation directors, full-time and volunteer (community) faculty, graduate students, and resident physicians with responsibility for teaching, assessing, and supervising medical students*

The institutional learning goals and objectives are available on-line and are provided to faculty, residents, and community physicians in a tri-fold pamphlet.

The educational program objectives relevant to an individual course or clerkship are identified in that course's syllabus. These syllabi are available to course faculty. Course and clerkship level learning objectives are mapped to the institutional learning objectives and the syllabus indicates the relationship between course/clerkship objectives and those of the institution.

In the Society, Community and Individual (SCI) course, volunteer faculty members are made aware of the specific session objectives via written communication and through face-to-face or telephone communication with the course director. Faculty members are provided written objectives for each of the structured learning activities that students are expected to complete while participating in the community clinic component of the course. An example can be found in ED-28, page 108.

In the Scientific Principles of Medicine (SPM) course units, all instructors are expected to review the institutional learning objectives as they design the learning sessions for which they are responsible. The institutional learning objectives are tied to unit learning objectives. Full time faculty members provide most of the instruction associated with the educational units of this course. Occasionally volunteer faculty members or senior residents participate. For example, residents are involved in the Integration of Systems segment in the emergency medicine simulations. Volunteer and resident physicians are made aware of the relevant course learning objectives in their specific training for worked case example sessions or simulation sessions as appropriate.

In Medical Skills clinical faculty members who have incidental involvement are made aware of the individual session objectives by e-mail communication or hardcopy versions given to them. Again these

objectives are directly linked to the course objectives which in turn are linked to the Institutional Objectives.

In the Scholarly Activity and Research Project program, all faculty members are made aware of the relevant Institutional Objectives in their Potential/New Mentor Packets.

Clerkship directors are responsible for ensuring that all faculty and residents teaching, supervising, and evaluating students are informed of the educational objectives for which they are responsible. Clerkship directors meet with faculty and residents to review clerkship objectives and methods for assessing student performance.

***c. the academic leadership of the medical school and its affiliated institutions.***

The senior associate dean for medical education is responsible for informing the dean and other members of the administrative staff (including department chairs and academic representatives of affiliated institutions) about the educational objectives of the curriculum. He is responsible for reporting on the status of those objectives (e.g., in what part of the curriculum they are addressed, how they are being assessed, how well students are performing and recommendations for changes that may be proposed by course committees or the Curriculum and Educational Policy Committee). The educational program update and review is a standing agenda item for the annual leadership retreat.

*See also ED-24*

**ED-4. The program of medical education leading to the MD degree must include at least 130 weeks of instruction.**

---

*Provide the number of scheduled weeks of instruction in:*

Year/Academic Period One	43 weeks
Year/Academic Period Two	40 weeks
Year/Academic Period Three	48 weeks
Year/Academic Period Four	29 weeks

Total: 160 weeks

*See also Part A, item (a.) in this section of the database.*

**ED-5. The medical faculty must design a curriculum that provides a general professional education, and that prepares students for entry into graduate medical education.**

*a. Supply a copy of the default “Course Schematic” report from the online AAMC Curriculum Directory or another diagram that illustrates the structure of the educational program for the base academic year (e.g., 2011-2012) used in the database and self-study. The schematic or diagram should show the approximate sequencing of, and relationships among, required courses and clerkship rotations in each academic period of the curriculum.*

**Curriculum Overview: Year 1**

July	Aug	Dec	Jan	May			
<b>SCI</b>	SPM Unit 1 Health & Disease	SPM Unit 2 Musculo- skeletal/ Integument Systems	SPM Unit 3 GI System	SPM Unit 4 Liver and Hematological System	SPM Unit 5 Cardio/ Pulmonary	SPM Unit 6 Integrated Systems	<b>C E Y E</b>
<b>Medical Skills</b>							
<b>Master’s Colloquium</b>							
<b>Society, Community and the Individual</b>							
<b>SPM</b>	Scientific Principles of Medicine (Basic and Clinical Medical Science)						
<b>SCI</b>	Society, Community, and Individual (Biostatistics, Epidemiology, Family, Community, Culture, Environmental/Occupational Health, Spanish)						
<b>Medical Skills</b>	(Physical Exam, Diagnostics, Preventative Medicine)						
<b>Master’s Colloquium</b>	(Ethics, Professionalism, Personal Development)						
<b>CEYE</b>	Comprehensive End of the Year Exam						

**Curriculum Overview: Year 2**

Aug	Dec	Jan	May	June		
SPM Unit 7 CNS/Special Senses	SPM Unit 8 Renal System	SPM Unit 9 Endocrine System	SPM Unit 10 Reproductive System	SPM Unit 11 Mind and Human Development	End of Year OSCE and CBSE	<b>Self Study and USMLE Step 1</b>
<b>Medical Skills</b>						
<b>Master’s Colloquium</b>						
<b>Society, Community and the Individual</b>						



### Year 3 Integrated Block Curriculum

16 Weeks	16 Weeks	16 Weeks
<ul style="list-style-type: none"> <li>• Internal Medicine                             <ul style="list-style-type: none"> <li>• general (8 weeks)</li> <li>• selective (2 weeks)</li> </ul> </li> <li>• Psychiatry (6 weeks)</li> </ul>	<ul style="list-style-type: none"> <li>• Obstetrics-Gynecology (8 weeks)</li> <li>• Pediatrics (8 weeks)</li> </ul>	<ul style="list-style-type: none"> <li>• Family Medicine (6 weeks)</li> <li>• Surgery                             <ul style="list-style-type: none"> <li>• general (6 weeks)</li> <li>• selective (4 weeks)</li> </ul> </li> </ul>
• Integrated Teaching and Learning Experiences	• Integrated Teaching and Learning Experiences	• Integrated Teaching and Learning Experiences
• Longitudinal Selective in Psychiatry	• Maternal/Fetal/Neonate Experience	• Longitudinal Selective in Family Medicine
<b>Threads:</b> Geriatrics, Basic Sciences, Ethics, Professionalism, EBM, Patient Safety, Pain Management, Chronic Illness Care, Palliative Care, Quality Improvement, Communication Skills, Diagnostic Imaging, Clinical Pathology, Clinical and Translational Research.		



Year Four Curriculum								
4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	1 week
<i>Sub Internship</i>	<i>Critical Care</i>	<i>Emergency Medicine</i>	<i>Neurology</i>	<i>Elective</i>	<i>Elective</i>	<i>Elective</i>	<i>Flexible Use</i>	<i>CAPSTONE (To be determined)</i>
<b>Threads:</b> Geriatrics, Basic Sciences, Ethics, Professionalism, EBM, Patient Safety, Pain Management, Chronic Illness Care, Palliative Care, Quality Improvement, Communication Skills, Diagnostic Imaging, Clinical Pathology, Clinical and Translational Research								

See also Required Courses and Clerkship Rotations (A. Summary Data).

Academic Year 2011-2012

***b. If the medical school offers multiple educational program tracks, provide a separate description of any tracks not included in the AAMC Curriculum Directory.***

PLFSOM does not offer separate or multiple tracks.

*See also Required Courses and Clerkship Rotations (A. Summary Data).*



**ED-5-A. The educational program must include instructional opportunities for active learning and independent study to foster the skills necessary for lifelong learning.**

*It is expected that the methods of instruction and evaluation used in courses and clerkships will provide students with the skills to support lifelong learning. These skills include self-assessment on learning needs and independent identification, analysis, and synthesis of relevant information, as well as the assessment of whether information sources are credible. Students should receive explicit experiences in using these skills, and evaluation of and feedback on their performance.*

a. Provide sample weekly schedules in the Appendix that illustrate the amount of time in the first and second years (phases) of the curriculum that students spend in scheduled activities.

The template diagram below illustrates the how time is scheduled in years 1 and 2 of the curriculum. This template was used in schedule planning. Example schedules are included in Section II Appendix 3.

		Mon	Tue	Wed	Thu	Fri		
<b>MS1</b>	8	Scheme	SPM	SPM	SCI/Spanish	WCE	MC	
		SPM	SPM	SPM				
		SPM	SPM	SPM	Form 1	MSC2	MC	WCE
	12	SPM	SPM	SPM				
	LUNCH							
		SPM	Self-Study (Clinic 1x per month)	Self-Study (Clinic 1x per month)	MSC3	Form 2	Self-Study	
		SPM						
	5				Form 3	MSC1		

		Mon	Tue	Wed	Thu	Fri			
<b>MS2</b>	8	SCI/Spanish	WCE	MC	Self-Study (Clinic 1x per month)	Self-Study (Clinic 1x per month)	SPM		
		Form 1	MSC2	MC			WCE		SPM
									SPM
	12								SPM
	LUNCH								
		MSC3	Form 2	Self-Study	Scheme	SPM	SPM		
					SPM	SPM	SPM		
	5	Form 3	MSC1		SPM	SPM			
					SPM	SPM	Self-Study		

SPM = Scientific Principles of Medicine; SCI = Society, Community and the Individual; Form 1-3 = Formative Exam; MSC 1-3 = Medical Skills Course; WCE = Worked Case Example small group; MC=Masters

b. Provide a list of the types of instructional formats that the medical school characterizes as active learning.

The following instructional formats as examples of active learning in our curriculum:

- Scholarly Activity and Research Project (SARP) (graduation requirement for all students)

- Scientific Principles of Medicine weekly formative exams
- Tank-side Grand Rounds (“postmortem” exercise with cadavers)
- Community Assessment project (SCI)
- Analytic and reflective essays required in Masters’ Colloquium in years 1 and 2
- Evidence-Based Medicine exercises in Internal Medicine and Emergency Medicine clerkships
- Individualized Learning Week in Pediatrics (beginning July 2012)

*c. Describe the time available for students to prepare for active learning.*

The faculty, through its course committee structure, Curriculum and Educational Policy Committee, and Faculty Council has endorsed a schedule that provides students a minimum of 12 unscheduled hours per week in 3-4 hour blocks for individual study.

*d. In the context of the definition of active learning included in the “Special Instructions” to this section, provide examples that illustrate the opportunities that exist in the curriculum for students to do each of the following:*

- i. Assess their own learning needs*
- ii. Identify, analyze, and synthesize information relevant to their learning needs*
- iii. Assess the credibility of information sources*
- iv. Share the information with their peers and supervisors*

**SCHOLARLY ACTIVITY AND RESEARCH PROGRAM (SARP)**

This curriculum component provides medical students an opportunity to design and execute an independent scholarly project under the guidance of a faculty mentor. A variety of topics and research areas are available in three broad categories, allowing for a project to be tailored to a student’s background and interests: 1) basic, clinical, and translation research; 2) epidemiology, community-based, behavioral, public, and environmental health; and 3) medical humanities, qualitative research, and medical education research. This is a mandatory curriculum requirement, with one independent study credit awarded for selection of a mentor and preparation of a Project Plan, one credit for execution of the project itself, and a final credit awarded for a poster summarizing the project presented at an annual student symposium held in the fall. Students can choose between one of two tracks: Track 1 concentrates execution of the project into the summer between the first and second year with a poster presented in the fall of the second year. Track 2 provides the student more flexibility allowing execution of the project anytime during the first 3 years followed by a poster presentation at the next student symposium. For both Tracks, selection of a mentor and preparation of a Project Plan is due at the end of the first year.

Through SARP, students are given the opportunity to select a question or topic about which they would like to learn more, identify resources in the literature and/or through individual investigation yielding data related to their question, critically analyze and interpret this information, and share the results of this investigation with faculty and peers through a poster presentation. Students are provided with guidance and feedback at each stage of the investigative process.

In addition to SARP there are several other opportunities for students to engage in active, self-directed learning as defined by the LCME. These include the following:

### ORIENTATION

During orientation students complete a number of standardized and validated instruments designed to assess their learning styles and preferences, self-regulation of learning, reading speed and comprehension. These assessments are administered by a PhD level educational psychologist in the Office of Student Affairs. She helps students to interpret their individual results and discusses the potential implications of these results for adapting to the rigors of medical education and a highly integrated approach to learning basic science concepts and content in a clinical context.

### SCIENTIFIC PRINCIPLES OF MEDICINE (SPM) COURSE

In SPM, students complete weekly “formative” quizzes that are scored but do not contribute to grading decisions. These quizzes usually consist of 25 items drawn from the material covered in the preceding week. The quizzes are delivered electronically and students receive immediate feedback on their performance, along with explanations for the correct answers on all items. In addition, each student receives an individualized electronic list of learning objectives tied to the items missed on formative (and summative) examinations. A primary goal of this component of the curriculum is to give students an opportunity to assess areas of strength and weakness, thus enabling them to make informed decisions about how to address personal learning needs and how to organize their self-directed learning efforts.

Donor Electronic Medical Record (DEMR) Project and Tank-side Grand Rounds—As part of our integrated instruction in anatomy, student teams complete the following exercise: Each team is responsible for identifying and documenting normal anatomy and pathologies. For each finding, the team hypothesizes possible causes and identifies information needed to evaluate the hypothesis, along with potential sources of that information. As the year progresses, students are expected to answer previous hypotheses and generate new ones based on their findings. Students use SOAP notes in an electronic medical record to document the process. A formative assessment at the end of the first semester includes presentation of findings to date and critique of the report. Summative assessment occurs at the end of the second semester and includes a grand rounds case presentation. The objectives of this exercise include team-work, integration of medical knowledge, communication skills, and practice of self-directed learning skills. (The scoring rubrics for the DEMR project, Tank-side Grand Rounds presentation and the Integration of Systems Unit “Coding of the Rich and Famous” simulation are included in Section II, Appendix 4.)

### MASTERS COLLOQUIUM

The Masters Colloquium is a weekly series of topic-based discussions utilizing a student centered instructional approach. The goal of the Masters Colloquium is “*to promote critical thinking and reflective mindfulness in discourse and decision making, [and] respectfulness, empathy, and integrity in relations with others....*” The College Master(s) select(s) preparatory readings for each session. The College Master(s) then facilitate(s) the discussion: they introduce the topic, provide background information, and present questions, scenarios, videos, or cases to the students for analysis and discussion. Through their active participation, the students define the aspects of each case that they wish to examine, present their analysis and proposals, reflect and respond to counterproposals, and state the limits of their knowledge and understanding. For example, in a session on Systemic Barriers to Health Care students select their own learning issues related to the overall topic, form small groups to investigate the learning issue utilizing their laptops to search resources for identifying potential solutions, critically analyze the information they retrieve, and present their analysis to their classmates.

The College Masters have outlined the series of topics to be covered during the Colloquia. While many of these sessions afford students opportunities to reflect on their personal learning needs, a number of sessions explicitly address issues related to learning and the assessment of personal learning needs through reflection. These include sessions on learning, decision-making heuristics, and the hierarchy of decision-making.

Assessment in the first two semesters of the Colloquia is based upon reflective essays. The students are asked to write an essay based upon personal experience (or the experience of individuals that they know). In these essays, they describe a difficult experience in which they were presented with a difficulty or dilemma, and analyze the choices available to them. They are also required to write a brief essay in which they provide an analysis and recommendations for dealing with ethical issues related to a clinical case. Completion of this assignment requires that students identify areas about which they lack knowledge that they must then research to satisfactorily complete the assignment.

### **SOCIETY, COMMUNITY, AND INDIVIDUAL (SCI)**

The students are involved in active learning in the community assessment module of the SCI course. Students are given information in class about why community assessment is important and about methods for doing community assessment (using the PRECEDE/PROCEED logic model, completing windshield surveys, asset mapping, doing key informant interviews). The students are placed into small groups and given a map of the community they will be assessing. They develop a strategy for doing the assessment, decide what questions to ask the key informants based upon their chosen objectives for the assessment, find objective data on the web (CDC, census data, health department data, etc), and develop a presentation about the community for their peers and faculty.

### **YEAR 3 INTERNAL MEDICINE CLERKSHIP**

In the Internal Medicine clerkship component of the Internal Medicine/Psychiatry Block rotation all students are required to identify a clinical question based on a patient to whom they have been assigned. This exercise is structured as follows: The student does an admission history and physical examination and then presents the patient to their fellow student and an attending physician who is responsible for supervising “student rounds.” At the conclusion of their case presentation, the student identifies the clinical question that they would like to pursue based on the patient they have presented and will be following during the course of the admission. The student then initiates a literature search either independently or with the assistance of a medical librarian to help answer questions about search strategies. The student then identifies a recent article from the literature that s/he feels best addresses the question. At a subsequent student morning report, the student summarizes the article, shares with his/her student colleagues a critical appraisal of the article including a discussion of research design, analytic methods, strengths and weaknesses, any potential source of bias. The student also discusses how the results reported in the article might influence decisions about the care of the patient. The instructor provides students with feedback on their choice of article and their critical appraisal of its strengths, weaknesses, and implications for practice.

### YEAR 3 PEDIATRICS CLERKSHIP

Beginning in July 2012 all students completing the pediatrics component of the OBGYN/Pediatrics Block will participate in a week long “Individualized Learning” experience under the supervision of a teaching resident and the clerkship director. In this program students 1) identify an area in which they feel they are week related to pediatrics, 2) discuss this with the teaching resident, 3) develop a learning plan, 4) execute the plan, and 5) demonstrate the accomplishment of their learning objectives utilizing an appropriate assessment method that they negotiate with the resident and that is approved by the clerkship director.

### YEAR 4 EMERGENCY MEDICINE CLERKSHIP

Towards the end of your rotation each student is required to make a brief case presentation to the other students and at least one faculty member. This round table style presentation is based on a case of interest to the student as represented by a patient seen in the ED. The presentation includes a discussion of the differential diagnosis and diagnostic and therapeutic plan. The presentation must be accompanied by one primary reference relevant to the care of the patient but NOT a review article. The student is expected to discuss the strengths and weaknesses of the study and it’s applicability to patient care. Finally, the student is expected to indicate how the article was located (e.g., Pubmed, Google, etc) and why it was chosen to answer the question.

*e. Describe where and how in the curriculum there is assessment of students’ progress in developing the skills needed for lifelong learning, including the ability to learn through self-directed, independent study. In the Appendix, provide examples of any instruments used for such assessment.*

Students are given many opportunities to engage in self-directed learning and student progress in the development of the skills needed for life-long learning is assessed in a variety of ways across the curriculum. Their required participation in SARP is a good example. Students are required to identify a topic, question, or problem; select a mentor; develop and present a brief “proposal” outlining the topic or question they wish to pursue and the methods they will adopt to address their topic or question. The student must then collect and analyze information/data and, finally, articulate conclusions based on the data in the form of a poster presentation. At each step in this process, students are given feedback based on rubrics developed expressly for that purpose. (See Section II Appendix 5.)

Similarly, rubric guided assessment and feedback, is a component of the DEMR/Tank-side Grand Rounds program (as described above), and community assessment group projects in the Society, Community, and Individual (SCI) course.

As part of the assessment of student performance in required year 3-4 clerkships, faculty and supervising residents are asked to assess student commitment to self-initiated and directed learning and their proficiency in identifying and integrating current literature in their case discussions and patient-care activities. The following items are incorporated on the clerkship assessment form:

- Demonstrates sophistication in the use of digital resources for patient care, self-education, and the education of patients and their families (PBL-5)
- Demonstrates knowledge of current peer-reviewed literature in relation to patient management (PBL-2)
- Takes the initiative in increasing clinical knowledge and skills (PBL- 7)

*f. Is demonstration of these skills considered as a criterion for grading in any course or clerkship rotation?*

Students skills related to life-long learning are included as a criterion for grading in the following courses and programs.

**SCIENTIFIC PRINCIPLES OF MEDICINE**

Students' performance on the Tank-Side Grand Rounds component of Unit 6 Integration of Systems is a component of the semester grade.

**SCHOLARLY ACTIVITY AND RESEARCH PROGRAM (SARP)**

As noted above, SARP provides students opportunities to apply skills that are essential for effective and efficient life-long learning. The presence (or absence) of these skills are evident in the planning documents, intermediate progress reports, and in the poster presentations students prepare at the conclusion of their project. Passing this requirement requires satisfactory evaluations by the course directors and oversight committees. A student who falls short will be required to revise and re-submit to satisfactorily complete the requirement.

**REQUIRED YEAR 3-4 CLERKSHIPS**

In addition to including an assessment of the skills of life-long learning on the clinical assessment form for the required clerkships, the following clerkships have developed specific activities and exercises to assess these skills:

In the **Internal Medicine** component of the Medicine/Psychiatry block students complete an Evidence-Based Medicine project on a patient discussed in morning report. Students formulate a clinical question, search the literature, formulate an answer to the question based on a critical appraisal of the literature, and present the results of their review to the ward team. As part of the end of clerkship OSCE students are also assessed on their ability to formulate a clinical question and develop an effective search strategy.

In the **Surgery** component of the Surgery/Family Medicine block, students participate in a "case based learning" exercise developed by the clerkship director. Students complete a pre-test consisting of clinical case vignettes upon which they complete multiple choice or fill in the blank questions. Based on their performance, students identify topic areas in which they need to focus more attention to address knowledge deficits. The students then identify their own resources to address knowledge deficits and assess the effectiveness of their self-directed study based on their performance in the topic area on the shelf-exam. A similar type of program is planned for the **Emergency Medicine** clerkship in year 4. In this experience students demonstrate their learning on a topic that they have selected for focused review by giving a case presentation to members of the department.

In the **Pediatrics** individualized learning program beginning in July 2012, students will be required to complete to demonstrate the accomplishment of their learning goals to the satisfaction of the teaching resident and clerkship director.

*Also see Required Courses and Clerkship Rotations (A. Summary Data).*



**ED-6. The curriculum must incorporate the fundamental principles of medicine and its underlying scientific concepts; allow students to acquire skills of critical judgment based on evidence and experience; and develop students' ability to use principles and skills wisely in solving problems of health and disease.**

**ED-7. It must include current concepts in the basic and clinical sciences, including therapy and technology, changes in the understanding of disease, and the effect of social needs and demands on care.**

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*a. Provide one or more examples of where in the curriculum there is or will be attention to students' development of the following skills and understanding:*

*i. Skills of critical judgment based on evidence*

### MEDICAL SKILLS COURSE

Our Medical Skills course is organized on the principles of evidence based medicine and an evidenced based approach to physical diagnosis. The use of evidence in medical decision-making and judgment has been incorporated into the Medical Skills course curriculum as follows:

When appropriate, and when data is available, the diagnostic power of diagnostic information (specifically key elements of the medical history, focused physical findings, and abnormalities noted on diagnostic studies) is presented to the students in terms of **LIKELIHOOD RATIOS**. An explanation of likelihood ratios was included in a didactic presentation during Unit 2, and again in the video prepared for the session on abdominal pain in Unit 3.

**Murphy's sign:** for acute cholecystitis

- o Hold continuous firm pressure in the RUQ during deep inspiration.
- o Test is positive if there is inspiratory arrest.

**EBM:** positive Murphy's sign has a weak +LR of 1.9.

Negative Murphy's sign has a weak -LR of 0.6

**McBurney's point tenderness:** for appendicitis

- o Palpate with a finger at a point 1/3 of the way from the ASIS to the umbilicus.

**EBM:** presence of tenderness has a moderate +LR of 3.4

Absence of tenderness has a -LR of 0.4

**Rovsing's sign** of indirect tenderness: for appendicitis

- o Press with the examining hand over the **left** lower quadrant.
- o Positive if pain is felt in the right lower quadrant.

**EBM:** positive Rovsing's sign has a weak +LR of 2.5

Negative Rovsing's sign has a weak -LR of 0.7

**Blumberg's sign** of rebound tenderness: for peritonitis

- o Maintain pressure over an area of tenderness; then withdraw the hand abruptly.
- o Test is positive if the patient winces with pain.

**EBM:** positive rebound tenderness has a weak +LR of 2.1

Negative rebound tenderness has a moderate -LR of 0.5.

In two first year sessions, evidenced based decision rules have been included as learning exercises. For example, during the third week of the Introduction to Health and Disease unit, the Centor decision rule for streptococcal pharyngitis was included in the session preparatory materials.

**WORKSHEET:** Medical Skills, Unit One, Session 2: Sore Throat

In order to determine your patient's likelihood of having GAS pharyngitis, you need two bits of information:

1. The pretest (a priori) probability that the patient has GAS infection (as opposed to viral pharyngitis).
2. The likelihood ratio, which is calculated from findings Sunday history and physical examination.

**Pretest probability:**

The pretest probability that a patient has infection with GAS varies with age. Generally speaking in the outpatient setting, patients presenting with sore throat will have the following probability of GAS infection:

- Children aged 5 to 9 ..... 30%
- Adolescents aged 10 to 19 ..... 15-20%
- Young adults ..... 5 -10%

**Likelihood Ratio:**

The Centor prediction rule is used to calculate the likelihood of GAS infection from findings on history and physical. To use the rule, assign 1 point each for:

- History of fever
- Absence of cough
- Tonsillar exudate
- Cervical adenopathy

The positive likelihood ratio (derived from comparison studies in patients presenting with sore throat) is:

- 4 points = 6.3
- 3 points = 2.1
- 2 points = 0.75
- 1 point = 0.3
- 0 points = 0.16

With these two numbers, you can now proceed to perform a probability calculation.

**Probability calculation:**



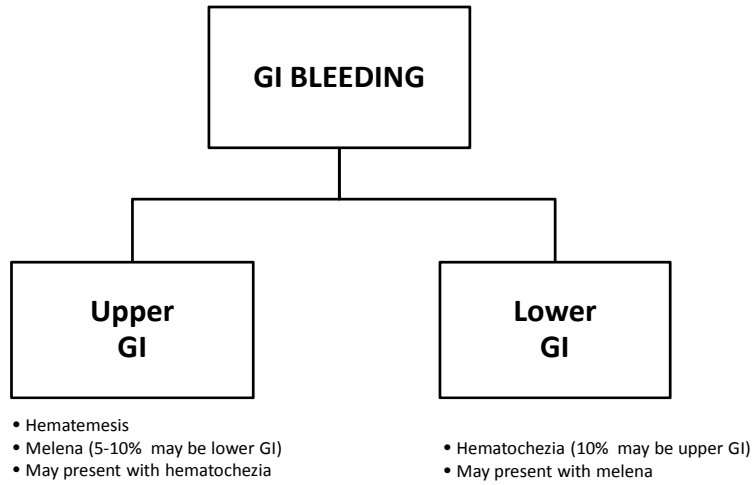
<b>WORKSHEET:</b> Medical Skills, Unit One, Session 2: Sore Throat	
<p><b>Step One:</b> estimate the pretest probability that the patient has GAS pharyngitis.</p> <ul style="list-style-type: none"> <li>• Use prevalence data from the literature</li> <li>• Also use your experience, clinical intuition, and knowledge about the population being tested</li> </ul>	<p>Estimate of pretest probability = _____ %</p>
<p><b>Step two:</b> use the nomogram in the following manner:</p> <ul style="list-style-type: none"> <li>• Mark the pretest probability on the left side of the nomogram.</li> <li>• Mark the likelihood ratio (gained from the history and physical examination) on the center scale.</li> <li>• Use a straight edge to extend a line from the pretest probability through the likelihood ratio and onto the scale on the right side of the nomogram. Where the line intersects the scale, read the post test probability.</li> </ul> <p><u>NOTE: rules of thumb for LR:</u>                      If LR is &gt;10, test is conclusive                      If LR is 5-10, gain is moderate                      If LR is 2-5, gain is small                      If LR is 1-2, test is inconclusive</p>	
<p><b>Step three:</b> compute the information gain: calculate the arithmetic difference between the pre-test and post-test probabilities.</p>	<p>Info gain = post test prob. minus pretest prob.                      _____ % = _____ % - _____ %</p>

*ii. Skills of medical problem-solving*

**SCIENTIFIC PRINCIPLES OF MEDICINE (SPM)**

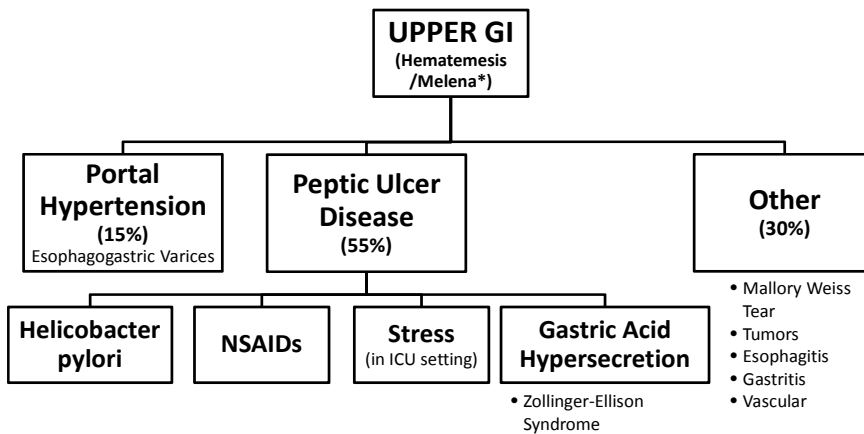
The SPM course is an organ-based curriculum organized around a series of clinical presentations (CPs, e.g., the patient with abdominal pain). Each week of instruction begins with an experienced clinician presenting a “clinical scheme” organized as a branching diagram illustrating how s/he approaches and thinks about a patient presenting with a problem like GI Bleeding—see example scheme below.

UNIT THREE – GI BLEEDING



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UNIT THREE – GI BLEEDING

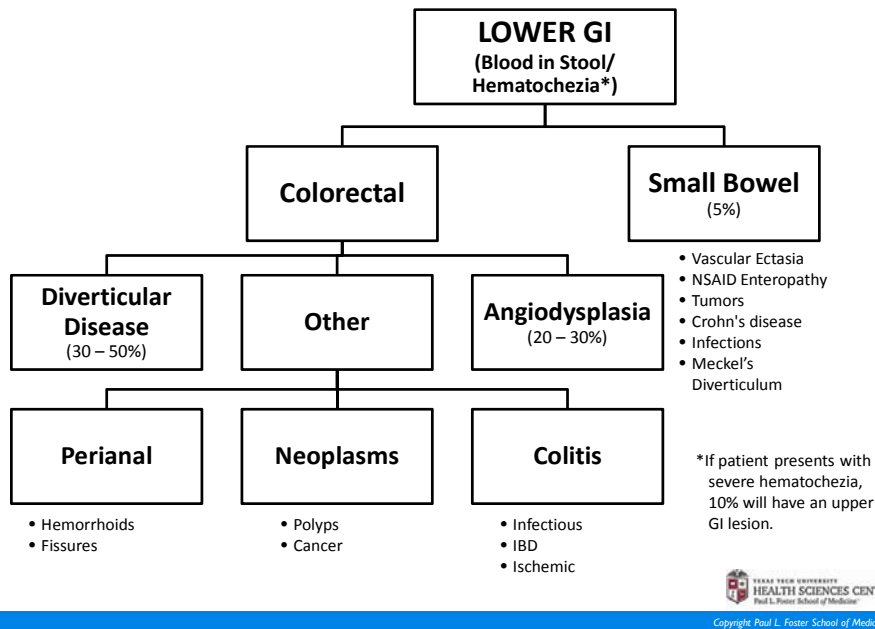


\* If patient presents with melena, 5-10% will have a colorectal or small bowel source.



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## UNIT THREE – GI BLEEDING



This illustrates the clinical reasoning and problem solving process. At the end of the week, students participate in a 2 hour small group experience in which they meet with a physician tutor and employ the scheme and a “process work sheet” (see Section II, Appendix 6) to analyze patient paper cases to arrive at a diagnosis. These sessions are also structured to encourage students to review important basic science content and concepts in the context of the case analysis.

### MEDICAL SKILLS

The fundamental goal of the Medical Skills Course is medical problem-solving which is, in turn, the most fundamental goal of the clinical presentation based curriculum. On a weekly basis, the students are presented with problem-solving exercises based on the clinical presentation for the week. These exercises are mainly presented in three formats as follows:

1. During each unit students are presented with Standardized Patient exercises.
  - a. The Medical Skills course director selects a clinical condition from the list of conditions included in the clinical presentation of the week and develops a standardized case scenario that is enacted by trained patient simulators.
  - b. During the medical skills session, students interview and examine the standardized patients, and then type a brief progress note in which they present their differential diagnosis and clinical reasoning.
  - c. The medical students are videotaped during these interactions and a selected number of these videotapes are reviewed. The students receive feedback on their videotaped performance.
  - d. At the end of each standardized patient scenario, the standardized patients themselves rate the student's performance on a series of criteria. A number of these criteria relate to clinical problem solving. Aggregate data is prepared immediately after each standardized patient scenario and is presented to the students for feedback.

2. Approximately once during each Unit, students participate in a Human Patient Simulator (HPS) exercise. The HPS can portray clinical presentations that are technically not feasible using an actor such as respiratory failure, shock, and coma.
  - a. HPS scenarios are crafted from the diagnoses included in the clinical presentation of the week. The scenarios are scripted to present the medical students with decision-making problems that require them to apply the content covered during the previous week in Scientific Principles of Medicine.
  - b. The HPS scenarios are typically conducted as a small group exercise facilitated by a medical specialist. Decision-making is reviewed and discussed during the scenario and during a post-scenario wrap-up session.
3. Certain clinical presentations have a high requirement for cognitive skill development. For these presentations, the Medical Skills Course includes a number of problem-solving workshops. For example:
  - a. During the Musculoskeletal unit, workshops included rapid evaluation of fractures and dislocations;
  - b. During the GI unit, workshops included evaluation of swallowing difficulties;
  - c. During the Liver/Hem unit, workshops included practice cases for interpreting liver function studies and practice cases in anti-coagulation and thrombosis;
  - d. During the Cardio-Pulmonary unit, workshops include ECG interpretation, analysis of arrhythmias, and the interpretation heart sounds and murmurs, interpretation of hemodynamic data and interpretation of pulmonary function tests;
  - e. During the Renal unit students perform calculations on abnormalities of acid-base balance and how to interpret laboratory findings in renal patients;
  - f. During the Endocrine unit, workshops cover interpretation of thyroid function tests and the interpretation of a number of endocrine studies.

### *iii. Knowledge and understanding of societal needs and demands on health care*

The **Society, Community, and Individual (SCI)** course emphasizes societal needs, health care disparities, and the unique character and needs of the predominantly Hispanic community on the Texas-Mexico Border. In fact, the MS1 year of the PLFSOM begins with a 3-week mini-immersion experience on language, culture, and community of El Paso and the border region. This immersion experience includes instruction in Spanish and the completion of a community assessment project supervised by a faculty member with a background in public health. The following is a partial list of sessions related to societal and health care issues:

- What is Community?
- Mexican-American Culture
- Social Determinants of Health
- What is Culture and Why it Matters
- Health Effects of Environmental Contaminants
- Promoting Health in the Community
- Families in Transition and the Family Life Cycle

The **Masters Colloquium** also includes sessions in which students explore the issues of societal needs and demands on healthcare. Examples include the following:

- Economics of Health Care: Introduction to Medicare and Medicaid
- The Patient's Experience of Chronic Disease
- Health Care Costs and Sustainability
- Dialysis and Transplantation: Access to Care
- The Ethics of Life Sustaining Interventions
- Awareness of Disability: Blindness and Deafness
- Gender Issues in Medicine
- Global Health Issues

*b. Indicate whether students are explicitly assessed on these skills and this knowledge in any required courses or clerkship rotations and describe the manner in which the knowledge and skills are assessed.*

Knowledge and skills related to critical judgment based on evidence are assessed as in the required Masters Colloquium course through the rubric based assessment of two assigned reflective and analytic essays. In these essays, they describe a difficult experience in which they were presented with a difficulty or dilemma, and analyze the choices available to them. They are also required to write brief essays in which they provide an analysis and recommendations for dealing with personal experiences or ethical issues related to a clinical case. Completion of this assignment requires that students identify areas of need for personal and professional development, and describe how they plan to meet these needs.

Medical problem-solving skills are routinely assessed in SPM during the weekly formative assessments and unit summative assessments using clinical and experimental vignette based multiple-choice questions. Weekly small-group worked-case example sessions also provide a regular opportunity for assessment within this domain (see small-group evaluation form). The ability of students to apply knowledge to medical problem solving is also assessed within the SPM course as part of the Unit 6 Emergency Medicine simulation exercise and the Tank-side Grand Rounds presentation (please see Section II, Appendix 4).

Medical problem-solving skills are also assessed by small group tutors as part of the Worked Case Example sessions described above and in response to ED-28, pages 106-107.

Several items on the rubric used to assess student performance in the required clerkships specially address medical problem solving. Please see copy of this form in Section II, Appendix 2.

Knowledge and skills related to an understanding of societal needs and demands on health care are assessed through the evaluation of the community assessment project presentation and their responses to short answer and multiple choice questions on SCI mid-term and final examinations.

Faculty supervising students during required clerkship rotations assess students on their ability to identify social and economic considerations relevant to patient care and their ability to identify social resources and health care systems resources to benefit the patient. These judgments are incorporated into the

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clinical assessment rubric completed on each student at multiple points during their clinical rotations.  
(See Section II, Appendix 2.)

*See also information for standard ED-28, and the Required Course and Required Clerkship Rotation Forms.*

**ED-8. There must be comparable educational experiences and equivalent methods of evaluation across all alternative instructional sites within a given discipline.**

*Compliance with this standard requires that educational experiences given at alternative sites be designed to achieve the same educational objectives. Course duration or clerkship length should be identical, unless a compelling reason exists for varying the length of the experience. The instruments and criteria used for student evaluation, as well as policies for the determination of grades, should be the same at all alternative sites. The faculty who teach at various sites should be sufficiently knowledgeable in the subject matter to provide effective instruction, with a clear understanding of the objectives of the educational experience and the evaluation methods used to determine achievement of those objectives. Opportunities to enhance teaching and evaluation skills should be available for faculty at all instructional sites.*

*Although the types and frequency of problems or clinical conditions seen at each instructional site may vary, each course or clerkship rotation must identify any core experiences needed to achieve its objectives and ensure that students receive sufficient exposure to such experiences. Similarly, although the proportion of time spent in inpatient and ambulatory settings may vary according to local circumstances, in such cases the course or clerkship rotation director must ensure that limitations in learning environments do not impede the accomplishment of objectives.*

*To facilitate comparability of educational experiences and equivalency of evaluation methods, the course or clerkship director should orient all participants, both teachers and learners, about the educational objectives and grading system used. This orientation can be accomplished through regularly scheduled meetings between the director of the course or clerkship and the directors of the various sites that are used.*

*The course and clerkship rotation leadership should review medical students' evaluations at all instructional sites to identify any persistent variations in educational experience or assessment methods.*

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*For each course or clerkship that will be offered at more than one teaching site, describe the following:*

*a. How faculty members at each site are or will be oriented to the objectives and grading system for the course or clerkship.*

**SOCIETY, COMMUNITY, AND INDIVIDUAL COURSE (SCI)**

The SCI course director meets with the key leaders of the community partnership clinics and other health organizations to describe program goals, objectives and expectations for students. These community partners are also given copies of the course syllabus and other materials. Specifically, faculty at the community health clinics are briefed annually at the beginning of the academic year by the SCI course director regarding course goals, learning objectives, and expectations of the students. Community clinic faculty are also provided a print copy of a "briefing book" describing the learning activities that students are required to complete at each of their scheduled visits, including the criteria to be used by the community faculty and course director to assess student performance on each of these required activities. In addition, community faculty members are provided with a voice-over power point presentation regarding course objectives and requirements. The SCI course director determines the final student grades based in part on this input.

The SCI course established a Community Clinic Advisory Committee that meets 2-3 times a year with the course director, course coordinators, and senior associate dean for medical education to discuss course implementation and to discuss what is working well and areas in need of modification or improvement. The dean of the medical school frequently attends these meetings as well.

#### REQUIRED CLERKSHIPS

A small number of students complete components of their required clerkship and selective experiences at clinical sites other than University Medical Center. The designated clerkship director meets with the faculty at least once a year to orient them to the syllabus, clerkship expectations, learning objectives and activities, and to review the evaluation form that is to be completed on each student. In addition to this general orientation, the clerkship director meets with the site faculty at least 2 times a year and communicates by phone or e-mail as often as needed to assure the quality of the student learning experience.

***b. How and how often individuals responsible for the course or clerkship will communicate with faculty at each site regarding planning, implementation, student evaluation, and course evaluation.***

#### SOCIETY, COMMUNITY, AND INDIVIDUAL COURSE (SCI)

The course leaders and community partners meet prior to the initiation of the course and at the end of the course for an appraisal of course implementation. Community faculty complete and return assessments on the students they precept within one week of each scheduled experience. Problem solving sessions are convened as needed to assure optimal course implementation.

#### REQUIRED CLERKSHIPS

As noted above, each clerkship director meets with the faculty at affiliated clinical teaching faculty to review student assessments, clerkship evaluations, and to discuss changes needed to optimize the quality of the experience for learners and faculty alike. Frequent phone and e-mail communication also occurs.

***c. The process by which faculty development activities related to teaching and evaluation will be made available to instructional staff across sites and the frequency with which these activities are provided. Indicate the types of faculty development activities that already have been offered and the level of faculty participation.***

Formal teaching and evaluation of students is conducted by faculty in the School of Medicine who have all participated in one or more of the faculty development activities described in section IV (please see FA-4 and FA-11).

We employ a variety of faculty development approaches for community faculty participating in the SCI course including small group meetings, one-on-one sessions with the course director(s), dinner meetings with large groups, and distribution of print materials. The latter consists of detailed “briefing” books outlining expectations of the student and checklists for assessing student performance. An example excerpted from the briefing book is provided in Section II, Appendix 7 and on page 108 of this section of the database.

As discussed in FA-4 section IV of the database, the associate dean for faculty affairs and development developed an 8 module basic faculty development for community based faculty that addresses principles of adult learning, teaching techniques appropriate to the clinical setting, and student assessment. This



program was implemented in late Fall 2010. This program is available through synchronous and asynchronous modalities to facilitate participation.

A new faculty development initiative for community faculty was initiated on March 7, 2012 with the delivery of a 3 hour CME credit bearing dinner training session on precepting skills in the clinic setting. Twenty-one current and 6 prospective community volunteer preceptors attended this session. It addressed such fundamental issues as how to integrate students into the clinic environment, involvement of staff members in preparing for students, expectation sharing with students, the “1-minute” preceptor model, characteristics of effective feedback to learners, and PLFSOM assessment policies and procedures. This session included pre- and post-testing via an audience response system which demonstrated significant improvement in knowledge about the precepting process by the end of the program. This session also served to announce that the PLFSOM is making the “Teaching Physician” on line faculty development website ([www.TeachingPhysician.org](http://www.TeachingPhysician.org)) available to all full, part-time, and volunteer faculty members as a resource to enhance their teaching skills and as a source of CME credits for completing the modules in this program. A second such dinner meeting was held on May 30, 2012 for 12 community preceptors. The Office of Faculty Affairs and Development is committed to offering a minimum of 2 dinner meetings a year for purposes of faculty development for community volunteer faculty. Individual course and clerkship directors also meet with individual faculty or small groups of faculty more frequently and as needed.

***d. The mechanisms that are used for review and sharing of student evaluations of their educational experiences, data regarding students’ completion of required clinical experiences, student performance data, and any other data reflecting the comparability of learning experiences across sites. Describe the specific types of data reviewed and the individuals or groups responsible for reviewing the information.***

The following data are routinely collected on all students and sorted by clinical site to assess the comparability of learning experiences:

- Patient-encounters by clinical presentation/diagnosis and level of participation (Op-log reports)
- Didactic schedule
- Clinical assessment of student performance by faculty and residents
- Student performance on end of clerkship shelf-examinations and OSCE
- Student evaluations of faculty and clerkship experience

The above data is centrally collected by the director of assessment and evaluation in the Office of Curriculum, Evaluation, and Accreditation and shared with the clerkship director and the senior associate dean for medical education.

***e. The mechanisms employed to address inconsistencies across sites in such areas as student evaluations of courses and clerkship rotations and students’ grades.***

We monitor student evaluations and student performance as measured by examination and faculty assessment for site differences that may signal inconsistencies. If discrepancies are detected the clerkship director is responsible for developing an appropriate intervention to remedy the inconsistency. The clerkship director is required to report on comparability of educational experiences across clinical teaching sites as part of the end of year review for the Curriculum and Educational Policy Committee (CEPC). The CEPC can make a recommendation to the dean to review the educational viability of any

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affiliation. Thus far, a comparison of student evaluations/satisfaction, assessment of clinical performance, and shelf examination scores show no differences between students on the Internal Medicine clerkship between those completing the experience at William Beaumont Army Medical Center and those doing so at UMC.

*See also information for standard ED-41 in this section and standard FA-11 in Section IV: Faculty if the school operates one or more geographically separate instructional sites/ campuses.*

**ED-9. A medical education program must notify the LCME and the CACMS, when applicable, of its plans for any major modification of its curriculum.**

*The notification should include the explicitly-defined goals of the change, the plans for implementation, and the methods that will be used to evaluate the results. Planning for curriculum change should consider the incremental resources that will be required, including physical facilities and space, faculty and resident effort, library facilities and operations, information management needs, and computer hardware.*

*In view of the increasing pace of discovery of new knowledge and technology in medicine, the LCME and the CACMS encourage experimentation that will increase the efficiency and effectiveness of medical education.*

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**a. Indicate the year of implementation for the last major revision of the curriculum:**

As a new medical school that will be graduating its first class in 2013, we have not had a need to initiate major curricular revisions. We have implemented some adjustments in sequencing and scheduling based on experience and student feedback. However, there have been no major changes in the structure, organization or content of the curriculum at this stage of our development as a school.

Not applicable
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**b. Summarize the principal features of that curricular revision, including the reasons for the change and the specific goals that the change was designed to accomplish.**

Not applicable.

**c. Describe the planning process for that curricular revision, identifying the individuals, committees, or others involved.**

Not applicable.

**d. Describe any plans for major modification of the present curriculum, along with the timetable for planning and implementation.**

There are no current plans to make major modifications to our curriculum.

**ED-10. The curriculum must include behavioral and socioeconomic subjects, in addition to basic science and clinical disciplines.**

*Lists of subjects widely recognized as important components of the general professional education of a physician are included in the medical education database completed in preparation for full accreditation surveys, and in the LCME Part II Annual Medical School Questionnaire. Depth of coverage of the individual topics will depend on the school's educational goals and objectives.*

*a. Check the topics listed below that are included in the curriculum as part of a required course and/or an elective course. Provide the total number of sessions in which each topic is included in one or more required courses and clerkship rotations in the preclinical and clinical phase of the curriculum. To be included in this listing, the subject should be included in the objectives for the session or as a significant topic covered during that session.*

The number of sessions listed below is based on a key word search of the Ilios curriculum database for all courses and clerkships in the 2011-12 AY. Please note that a number of topics overlap. We have indicated in brackets those topics that can be “counted” in more than one category.

Content Area	Subject Is or Will be Included in Required Course/ Clerkship	Number of Sessions in Required	
		Preclinical Course(s)	Clinical Clerkship(s)
Biostatistics	√	16 11	
Biomedical informatics [also see evidence-based medicine]	√	5	3
Clinical/translational research	√	5 6	
Communication skills	√	29 24	
Community health [also see health disparities]	√	12 3	
Complementary/alternative health care	√	7 1	
Cultural competence	√	25 (including community-clinic visits in SCI)	9
End-of-life care [also see palliative care]*	√	3 2	
Epidemiology	√	43 16	
Evidence-based medicine	√	5 24	
Domestic violence/abuse	√	3 10	
Global health issues	√	4 0	
Health care financing	√	4 2	
Health care systems	√	3 10	

Content Area	Subject Is or Will be Included	Number of Sessions in Required	
Health care quality improvement (also see patient safety)	√	3 6	
Health disparities		8	1
Human development/life cycle	√	18 21	
Human sexual/gender development (This and the next category overlap)	√	14 17	
Human sexuality/sexual functioning	√	14 19	
Medical ethics	√	23 13	
Medical genetics	√	24 9	
Medical humanities	√	10 1	
Medical jurisprudence (Masters Colloquium topics overlaps with ethics)	√	23 3	
Medical socioeconomics [also see health care systems and health disparities]	√	3 2	
Nutrition	√	19 8	
Occupational health/medicine	√	3 0	
Pain management [Please note: restricted search to exact term, does not include many basic science sessions related to pain]*	√	8 12	
Palliative care [see also end of life care]*	√	14 19	
Patient safety	√	8 17	
Population-based medicine [see also epidemiology, Evidence-Based Medicine, health disparities]	√	12 3	
Prevention/health maintenance	√	14 29	
Rehabilitation/care of the disabled	√	2 2	
Research methods	√	12	5
Substance abuse	√	13 11	

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\*Please note: All PLFSOM students are required to take a 4 week selective in Critical Care. They can fulfill this requirement in the NICU, PICU, MICU, SICU, or CVICU. In this rotation they will gain much experience in the management of pain, palliative care, and end-of-life care.

***b. Describe any steps being taken to improve content coverage in any areas in which the medical school believes more exposure is needed.***

The senior associate dean discussed the data summarized above with the Year 3-4 committee. From this discussion we identified the following areas for additional development: complementary and alternative medicine, health disparities, occupational medicine, and rehabilitation.

*See also information for standards ED-13, ED-17, ED-17-A, ED-19, ED-20, ED-28, and ED-37.*

**ED-11. The curriculum of a medical educational program must include content from the biomedical sciences that supports students' mastery of the contemporary scientific knowledge, concepts, and methods fundamental to acquiring and applying science to the health of individuals and populations and to the contemporary practice of medicine.**

*It is expected that the curriculum will be guided by clinically-relevant biomedical content from, among others, the disciplines that have been traditionally titled anatomy, biochemistry, genetics, immunology, microbiology, pathology, pharmacology, physiology, and public health sciences.*

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***a. Describe the process used to select the content taught in the preclinical phase of the curriculum.***

The Institutional Learning Objectives described in ED-1-A were developed and adopted prior to the development of course level objectives and served as the foundation for the development of specific objectives and course content. The development of the pre-clerkship phase of the curriculum was an iterative process actively involving over 20 different faculty members representing the full scope of foundational science disciplines (as listed in the annotation above) and clinicians from several medical specialties. As a new medical school we had the relative luxury of recruiting a cadre of faculty whose time and effort was devoted exclusively to designing and developing a highly integrated organ system based, clinical presentation curriculum. Most of the faculty members recruited to develop the PLFSOM curriculum had prior experience as medical school faculty. This group met together four half days a week for nearly a year for the purpose of identifying the appropriate basic science content, as proposed by discipline experts, that would be required for a clinician in training to understand the structural and pathophysiological processes underlying over 100 clinical presentations (e.g., the patient with chest discomfort, the patient with sore throat, the patient with fever). (A current list of the clinical presentations arranged by organ system can be found in Section II Appendix 1.) The faculty was able to give each other feedback on the appropriateness of proposed content, identify potential overlaps and gaps, discuss sequencing and depth, and exchange ideas about mode of content delivery. The faculty group also relied heavily on national guidelines (e.g., American Physiological Society objectives) and consulted with educational leaders at a number of medical schools around the country. In recognition of the role of the USMLE as the pathway to licensure in the U.S., the faculty also used the USMLE content outline as a resource to ensure that topics addressed in USMLE Step I were adequately addressed.

***b. Include data from the most recent AAMC Medical School Graduation Questionnaire (GQ) or the AAMC Canadian Graduation Questionnaire (CGQ) (for Canadian medical schools) on how well instruction in the following basic science subjects was rated by respondents in preparing them for clinical clerkship rotations:***

The data reported below is from the student self-study survey completed by third year students (30/40, 75% response rate). The questions asked about their satisfaction with the preparation for clerkships provided in years 1 and 2 in each of the disciplines listed. Items marked as somewhat satisfied and very satisfied were combined to get the percentages reported.

Basic Science Disciplines	% Rating Preparation for Clinical Clerkship Rotations as Excellent or Good	National % Rating Preparation for Clinical Rotations as Excellent or Good (2011)
Biochemistry 86.6		58.8
Genetics 83.3		67.5
Gross Anatomy	46.6	87.9
Immunology 83.3		80.3
Microbiology 50.0		80.9
Pathology 90.0		86.9
Pharmacology 40.0		72.9
Physiology 9	0.0	89.1
Behavioral Science	83.3	82.4

These results have been discussed by the CEPC, course directors, and faculty members responsible for the content areas listed above. A number of steps are being planned for improving instruction, particularly in anatomy, microbiology, and pharmacology. Many of the planned changes involve improvements in the organization of material, improvement in the integration of content, and increased participation of clinician faculty in delivery of content to highlight clinical relevance and application. Recruitment is in progress for an additional pharmacologist to assist with instruction in that area.

***c. Include data from the most recent AAMC GQ or AAMC CGQ on the percent of respondents rating instruction in public health as inadequate, appropriate, and excessive.***

We have not yet graduated a class and GQ data is not available. We administered a survey of MS III students (100% response rate) in our charter class on June 4, 2012 which revealed the following:

Instruction in Public Health is...	<u>Inadequate</u>	<u>Appropriate</u>	<u>Excessive</u>
	2.6%	81.6%	15.8%

*See also information for standards ED-5 and ED-10 and Required Courses and Clerkship Rotations (B. Required Course Forms).*



**ED-12. Instruction within the basic sciences should include laboratory or other practical opportunities for the direct application of the scientific method, accurate observation of biomedical phenomena, and critical analyses of data.**

*Opportunities could include hands-on or simulated (for example, computer-based) exercises where students either collect or utilize data to test and/or verify hypotheses or to address questions about biomedical principles and/or phenomena. Schools should be able to illustrate where in the curriculum such exercises occur, the specific intent of the exercises, and how they contribute to the objectives of the course and the ability to collect, analyze, and interpret data.*

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**a. List the preclinical courses that include laboratory sessions.**

The following courses during the first two years of the curriculum include laboratory sessions, including computer-based simulations:

- Scientific Principles of Medicine
- Medical Skills
- Society, Community, and the Individual

**b. Describe where in the curriculum students have opportunities to participate in educational sessions (actual or simulated) that involve the direct application of the scientific method, accurate observation of biomedical phenomena, and the collection or analysis of scientific data.**

#### **SCIENTIFIC PRINCIPLES OF MEDICINE (SPM)**

SPM is the primary course for delivery of the core basic science material in the curriculum. During this course, students are exposed to laboratory sessions related to the disciplines of anatomy, histology, physiology, and microbiology.

**Gross and Neuro-Anatomy:** Approximately 55 hours is spent in laboratory sessions in anatomy over a two year period. These laboratories are designed to introduce students to the visual anatomic arrangement of the human body. This is accomplished using donors (cadavers), visual imaging, and computer imaging. Students dissect donor bodies; observe prosected donors, plasticized models, and various diagnostic imaging modalities. In addition to commercially available images, each donor is CAT scanned prior to the initiation of dissection. This scanning allows the students to directly relate imaging of the donor with their direct observations obtained during dissection studies. The students also have access via computers in the laboratories or personal laptops to the following anatomic software packages: Anatomy TV, VH Dissector, Elsevier 3D Anatomy, Netter Presenter, Grant's Dissector, Grant's Atlas of Anatomy, Clinically Oriented Anatomy, Clinical Neuroanatomy, and Neurosciences & Neuroanatomy. The wide variety of available programs is to allow students to customize their investigations.

Approximately 72 hours of laboratory time is dedicated to gross and neuroanatomy during years one and two. There is a major program employed in the lab designed to promote development of critical thinking skills, clinical reasoning, empathy, teamwork and professionalism, in addition to anatomical knowledge. This program is referred to as the ***Donor Electronic Medical Record Project (DEMR)***.

The DEMR project was adapted from the Albert Einstein College of Medicine. The first day of lab involves no dissection. It is an examination of each donor cadaver by a practicing clinician in the presence of the students assigned to that cadaver. The students then write a report in an on-line reporting

system that describes their observations (e.g., body condition, bruises, scars, medical devices, lump, etc.) and their hypotheses as to what the findings might mean. Throughout the first year of the curriculum student teams add to their reports as they dissect and discover new findings and write new hypotheses. The electronic interface also allows students to request consults from expert clinicians, who then come to the lab to provide their expert guidance about topics such as surgeries, masses, implanted devices, etc. At year's end, each team presents oral reports of their findings and hypotheses in the form of "Tank-side grand rounds." This is a graded component of SPM Unit 6, "Integration of Systems."

**Histology:** The Histology component is delivered in two ways: 1) presentation of material and observation of slide material in a large group setting and 2) observation using virtual microscopy employing the Bacchus image system. The students have 24 hour access to the Bacchus imaging system via computer interfaces. Students are expected to correlate gross anatomy and histology of each organ system.

**Physiology, Immunology and Microbiology:** Approximately 23 hours of laboratory time is designated for these disciplines over a two year period in SPM. In the simulated immunology and "hands-on" microbiology labs, the students utilize standard laboratory techniques to investigate antigen/antibody relationships and interpret clinical data based on these procedures, discover basic techniques that relate to identification of microbiological agents in various body fluids, and relate microbiological phenomena to the establishment of infections in various tissues. In the physiology laboratories, students investigate the following topics: how membrane potentials are generated, how membrane potentials are then modified to generate graded and action potentials; properties associated with EEG recordings and brain functions; basic properties of skeletal muscle contraction; blood pressure regulation at rest and exercise; respiratory volumes in health or disease and how these are modified during exercise; and how the basic senses of vision, hearing and cutaneous sensation function. The data for these laboratories are collected by using the "Powerlab" systems from AD Instruments. Graphs are generated and the data analyzed by students in terms of application to clinical medicine. In addition, our physiology faculty members conduct two case based problem solving (mathematical calculation) labs. One addresses the analysis of renal function and alterations of body fluid distribution; and the other deals with acid-base problems and integrates renal and pulmonary issues related to pH issues.

An interesting example of integration between SPM and Medical Skills occurs during Sore Throat and Fever clinical presentations during unit 1. The anatomy lab in SPM facilitates understanding of the anatomical features of the mouth and throat, which are then applied in the Medical Skills. Students practice conducting throat swabs on each other; these swabs are subsequently cultured, stained and identified by our students in SPM as part of the microbiology lab experience.

### MEDICAL SKILLS

This course provides instruction in the skills of bedside physical examination and interpretation of common diagnostic studies. Examples of clinical exercises that require students to make observations and interpretations of biomedical phenomena include:

- Group exercises in which students examine and interpret hemodynamic findings and other data from Human Patient Simulators (HPS). During these facilitated exercises, the students are asked to describe their findings, state their interpretation of the findings, and state how this changes their approach to management.
- Standardized patient exercises in which the standardized patients are trained to portray various abnormalities, including neurologic deficits, abnormal lung and heart sounds (using an electronic

simulator to create the abnormal findings), and musculoskeletal limitations secondary to specific injuries. Students are required to make clinical observations, analyze and interpret the findings, and state their conclusions in a written note.

- Skill development workshops in which the students practice physical examination skills such as examination of the retina using the ophthalmoscope, as well as examination of partial task simulators with images of abnormal retina findings.
- Instructional sessions in which students practice interpretation of electrocardiograms, including correlation of abnormalities on electrocardiogram with underlying pathophysiologic processes.
- Instructional sessions on interpretation of pulmonary function studies, with correlations to underlying classes of lung disease.
- Instructional sessions on auscultation of cardiac murmurs using the Harvey cardiac murmur simulator, including correlation of abnormal findings to the underlying cardiac pathophysiology.

### **SOCIETY, COMMUNITY AND INDIVIDUAL (SCI)**

In SCI, students learn to analyze statistical and epidemiological data. The students spend 28 hours in sessions designed to introduce them to the power of interpretation utilizing information that can be gleaned from patient data (epidemiology) and the tools needed to accurately interpret the meaning of this data (biostatistics).

In the **Biostatistics** thread, students are exposed to three main learning experiences: (1) lecture/discussion of biostatistical concepts, (2) hands on practice problems designed to teach students to calculate and then interpret their results, and (3) clinical journal review for the purpose of introducing and extending the translation of scientific research to clinical practice (evidence based medicine). These experiences are meant to not only expose students to the subject matter in biostatistics, but also to aid in their ability to critically analyze data. Students also participate in a mini-journal club activity designed to give them an opportunity to critically analyze data reported in the medical literature.

In the **Epidemiology** thread, students learn about the calculation and interpretation of measures of disease frequency and measures of association. Common research study designs are also reviewed. Skills needed to critically evaluate the medical literature are addressed in a lecture on alternative explanations (namely chance, bias, and confounding) to study results. Students complete a computerized simulation of an illness outbreak scenario as part of this SCI curricular thread. This component of the curriculum occurs at the same time that students are covering GI clinical presentations in the SPM course in order to promote integration across courses. In addition to detailed epidemiological analysis, students learn how to analyze social aspects of patient profiles within communities to assess community wide medical needs.

### **SCHOLARLY ACTIVITY AND RESEARCH PROGRAM (SARP)**

As described in more detail in ED-17-A, all students are required to select a topic or problem they would like to investigate under the supervision of a qualified mentor. This requirement enables students to identify and define a problem, select methods appropriate to addressing the problem, collect and analyze data, and draw conclusions based on their analysis.

**FAMILY MEDICINE/SURGERY BLOCK COLORECTAL CANCER SCREENING PROJECT**

In the Family Medicine/Surgery Block, beginning in July 2012, all students participate in an ongoing colorectal cancer screening project. This experience includes exposure to data collection, management, and interpretation. This project is described briefly later in this data base in response to ED-17-A , page 77 and page 78.

*See also Required Courses and Clerkships, Part A, item (A.).*

**ED-13. Clinical instruction must cover all organ systems, and include the important aspects of preventive, acute, chronic, continuing, rehabilitative, and end-of-life care.**

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*Describe the means by which the medical school ensures that each aspect of clinical medicine identified above is included in required preclinical and clinical instruction.*

The 4-year curriculum leading to the MD degree at the PLFSOM has been designed to ensure that students are exposed to all organ systems and that they address the diagnosis and treatment of illness and disease from a variety of perspectives—acute, emergent, and chronic. Issues related to palliative and end-of-life care are threaded throughout the four year curriculum. Organ systems serve as an organizing principle during the pre-clerkship phase of instruction. Years 3 and 4 provide clinically intensive instruction in all of the major clinical disciplines and afford students both “selective” and elective subspecialty experience. In year 4 students are required to complete a sub-internship in either surgery, internal medicine, pediatrics, family medicine, or OB-GYN; and they are required to complete a four week critical care selective.

Curriculum content (objectives, learning session materials, assignments, clinical encounters, etc) is monitored centrally through Ilios, a curriculum management data base. Course and clerkship directors are required to present their courses/clerkships to the Curriculum and Educational Policy Committee (CEPC). The CEPC is responsible for providing the oversight necessary to ensure that there are no gaps in the delivery of content necessary for the education of competent physicians. This oversight is facilitated by the “advance search” function in our Ilios curriculum database. This enables us to search by topic, course title, objectives, key words, and a variety of other parameters for curricular content.

*See also information for standard ED-10 and required Course and Clerkship Rotation Forms.*

**ED-14. The curriculum of a medical education program must include clinical experience in primary care.**

**ED-16. The clinical experiences provided to medical students by a medical education program must utilize both outpatient and inpatient settings.**

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*a. List each required course and clerkship rotation that provides experiences in primary care, and specify the number of hours or weeks devoted to the topic of primary care in each course or clerkship rotation.*

### **PRE-CLERKSHIP CURRICULUM**

Society, Community and Individual – Students spend one half day per month throughout the first and second years of the curriculum in community clinic settings in the greater El Paso area. These clinics are all primary care facilities staffed primarily by family physicians, general pediatricians, and general internists.

### **CLERKSHIPS**

Family Medicine = 8 weeks (including 15-week half day per week longitudinal selective in family medicine)

Pediatrics = 2 weeks

Internal Medicine = 8 weeks

Elective opportunities in primary care disciplines and settings are available in year 4.

*b. List the required clerkships (in Canada, clerkship rotations) that do not include any required ambulatory experiences.*

All year 3 required clerkships include ambulatory experiences. In year 4, the following required clerkships or sub-internship selectives do not include ambulatory components:

- Critical Care Clerkship (Selective)
- Internal Medicine Sub-Internship
- Pediatrics Sub-internship

*See also information for standard ER-6 in Section V: Educational Resources and Required Courses and Clerkship Rotations, Part A, item (A.).*

**ED-15. The curriculum of a medical education program must prepare students to enter any field of graduate medical education and include content and clinical experiences related to each phase of the human life cycle that will prepare students to recognize wellness, determinants of health, and opportunities for health promotion; recognize and interpret symptoms and signs of disease; develop differential diagnoses and treatment plans; and assist patients in addressing health-related issues involving all organ systems.**

*It is expected that the curriculum will be guided by the contemporary content from and the clinical experiences associated with, among others, the disciplines and related subspecialties that have traditionally been titled family medicine, internal medicine, obstetrics and gynecology, pediatrics, preventive medicine, psychiatry, and surgery.*

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*a. Describe how the curriculum prepares students to recognize wellness, determinants of health, and opportunities for health promotion. Include examples of where in the curriculum these topics are addressed and how student achievement is assessed.*

Students are first introduced to the concepts of wellness and health promotion in the two-year, required Society, Community, and Individual (SCI) course. SCI is the curricular vehicle at PLFSOM for exposing students to population health and public health concepts and principles. The first three weeks of the MS1 year consists of a “mini-immersion” experience on language, culture, and community on the border. As part of this experience students complete a community assessment project emphasizing community resources and the absence of resources that can adversely affect wellness and health promotion. SCI includes lectures and discussion on such topics as “Social Determinants of Health,” “What is Culture and Why it Matters?” and “Mexican-American Culture on the Border.” Through SCI, students are also exposed to behavior change principles and methods for improving adherence to health promoting behaviors.

The concept of wellness is also addressed early in the MS 1 year as part of the first unit of the Scientific Principles of Medicine (SPM) course. This unit is an “Introduction to Health and Disease” and develops the concept of homeostasis and how organisms adapt to their environments to maintain homeostatic balance. Two of the clinical presentations assigned to this unit explicitly address wellness and health promotion in adults and children. These concepts are further reinforced in the context of clinical care in the Medical Skills course in which students are given experience in interacting with standardized patients around issues related to the periodic health examination in the adult and in the child. Health and wellness are revisited in subsequent units of SPM (e.g., units dealing with the cardiopulmonary system, endocrine system, and reproductive systems.) In the year 2 Mind and Human Development unit of SPM students review the care of patients across the life-span including health promotion and disease prevention.

During the clerkship years, the Family Medicine, OB/GYN, and Pediatrics clerkships, in particular, address issues related to health promotion, disease prevention, anticipatory guidance, and wellness.

Student achievement is assessed through examination for knowledge outcomes, standardized patient encounters (e.g., OSCE stations) for clinical application of communication skills (e.g., motivational interviewing, immunization counseling and patient education), and assessment of clinical performance during the clerkships by direct observation as recorded on a clinical assessment rating form.



***b. Provide data in the following table from the most recent AAMC GQ or AAMC CGQ on respondents' perceptions of the adequacy of instruction in the following areas:***

On June 4, 2012 we administered a survey of third year students in our charter class to answer the following questions. Response rate was 100%.

Topic	Percent of respondents indicating that instruction was:		
	Inadequate	Appropriate	Excessive
Diagnosis of disease	0%	97.4%	2.6%
Management of disease	13.2	81.6	5.3
Health maintenance	0	97.4	2.6
Disease prevention	0	94.7	5.3
Health determinants	2.6	86.8	10.5

***c. Describe how experiences in family medicine, internal medicine, obstetrics and gynecology, pediatrics, preventive medicine, psychiatry, and surgery are provided. Are these experiences organized as separate clerkships/clerkship rotations, as one or more integrated (longitudinal) clerkship rotations, or in some other way?***

Year 3 of the PLFSOM curriculum consists of three, 16 week blocks. Two clerkship disciplines share each of these blocks as follows: Internal Medicine/Psychiatry; Obstetrics and Gynecology/Pediatrics; and Family Medicine/Surgery. Although students receive individual grades for each clerkship discipline, they participate in both clerkship disciplines throughout. The blocks are designed to include “integration experiences” across the disciplines in the block, and “shared teaching” experiences. For example, in the Internal Medicine/Psychiatry block, a student who is caring for a diabetic patient who has also been diagnosed with a mental illness will address both conditions; psychiatrists and internists round together with students once a week; and selected topics are addressed by internists and psychiatrists (e.g., substance abuse, sleep disorders) in the didactic component of the curriculum. In the OB-GYN/Pediatrics block, students are assigned to women in late stages of pregnancy that they follow prenatally, participate in the infant’s birth, and then follow the infant into the pediatric setting. The overall goal of the block structure is to encourage students to think about patient problems from the standpoint of multiple disciplines and perspectives. As part of the end of block assessment, students participate in a multi-station OSCE that include “integrated” cases (e.g., an anxious patient presenting with chest pain, a pregnant adolescent, pre-operative assessment of elderly patient).

Preventive medicine is addressed within each of the clerkships as appropriate to the specific medical discipline. Prevention is particularly stressed in the following clerkships: Family Medicine, Pediatrics, and OB-GYN.

*See also information for standards ED-5 and ED-10 and Required Clerkship Rotation Forms.*



**ED-17. Educational opportunities must be available in multidisciplinary content areas, such as emergency medicine and geriatrics, and in the disciplines that support general medical practice, such as diagnostic imaging and clinical pathology.**

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*Describe where in the curriculum the following subject areas are covered and specify the amount of time devoted to each area:*

*a. Emergency Medicine*

**PRE-CLERKSHIP CURRICULUM**

**Scientific Principles of Medicine (SPM)**

Unit 6 of SPM, at the end of year 1, is a two week, “Integration of Systems” unit that is taught using emergency medicine scenarios; including a half-day simulation experience “Coding of the Rich and Famous” in our clinical simulation center.

**CLERKSHIP CURRICULUM**

Emergency Medicine is a required four week clerkship during the fourth year of medical school.

*b. Geriatrics*

**PRE-CLERKSHIP CURRICULUM**

**Scientific Principles of Medicine (SPM)**

Geriatrics is threaded throughout the four year curriculum. Age related changes and illnesses associated with aging are addressed in all units of the Scientific Principles of Medicine Course. Examples include gait disturbance, altered mental status, dementia, and incontinence. These issues are elaborated upon in the Medical Skills course. A minimum of 11 hours of contact time in SPM were explicitly linked to geriatrics, elderly, or aging in our curriculum database.

**Medical Skills**

Several topics that are included in the Medical Skills curriculum are pertinent to geriatric medicine. These include gait disturbance, imbalance, and ataxia; deformity and limp; altered mental status; incontinence of urine and stool; and falls in the elderly.

**Masters Colloquium**

The content of the Masters Colloquium is not specifically related to clinical specialties, but several of the topics do bear on aspects of geriatric practice. These include

- The aging US population and socioeconomic implications
- Issues in the ICU, palliative care, end-of-life care, hospice care
- Death and dying

**CLERKSHIPS**

The Paul L. Foster School of Medicine has adopted an integrative approach to teaching and assessing geriatric competencies throughout the third and fourth years of the curriculum. Geriatricians were

attached to the design teams for the required clerkships as part of the Year 3-4 Task Force and thus contributed to the development of the clerkship curriculum. The Minimum Geriatric Competencies for Medical Students endorsed by the American Geriatric Society served as a guide in developing and implementing curricular materials in the following domains: medical management; cognitive and behavioral disorders; self-care capacity; falls, balance, and gait disorders; health care planning and promotion; atypical presentation of disease; palliative care; and hospital care for elders (see *Academic Medicine*, Vol 84, no. 5/May 2009). The philosophy of the PLFSOM is that all graduating physicians, regardless of eventual specialty, need to be prepared to provide appropriate care to aging patients. A search of our curriculum database reveals that issues explicitly related to geriatrics topics and competencies are addressed in at least 11 sessions during year 3.

### *c. Diagnostic Imaging/Radiology*

#### **PRE-CLERKSHIP CURRICULUM**

##### **Scientific Principles of Medicine Course (SPM)**

Diagnostic imaging and radiology is integrated into each SPM organ system unit. To facilitate this integration we have made the following types of resources available to students:

- Drs. Sanja Kupesic (editor) and Bhargavi Patham (co-editor) have created a PLFSOM on-line Medical Image Library (MIL) database ([http://ilios.ttuhsu.edu/VMI/\(S\(2oribe55nj0qaafcm2mxtt45\)\)/Default.aspx](http://ilios.ttuhsu.edu/VMI/(S(2oribe55nj0qaafcm2mxtt45))/Default.aspx)). The images in this database have been contributed by faculty in the Department of Radiology. Currently there are more than 2,000 images in this searchable database. Faculty members routinely use these images in their presentations, for exam questions, and for the Worked Case Example Sessions. Students have ready access for study. The editors are continually adding content to this excellent database.
- The Department of Medical Education purchased an ultrasound unit dedicated to medical education. This instrument has been used by students for abdominal imaging, and will be used for heart imaging. The motivation for this purchase is that there is no substitute for hands-on experience for teaching students to interpret ultrasound.
- Each of the donor cadavers used by students were CT scanned from head to toe and these DICOM datasets are provided to each student on their laptops for their review and study.
- CT and MRI DICOM datasets from anonymous, living patients have been provided to students for their review and study. Students have these on their laptops.

##### **Medical Skills Course**

The Medical Skills Course includes sessions on interpretation of basic radiologic studies. These sessions include interpretation of the basic chest x-ray, interpretation of bone films in fracture and dislocation, the interpretation of barium swallow studies, the use of renal ultrasound and evaluation of renal failure, and the interpretation of pelvic ultrasound.

#### **CLERKSHIPS**

Students learn to incorporate imaging results in their evaluation of patients in each of the required clerkships in years 3 and 4 as a threaded component of the curriculum. A key word search of our curriculum management database revealed that 34 didactic sessions in year 4 were linked to diagnostic imaging/radiology.

*d. Clinical Pathology*

**PRE-CLERKSHIP CURRICULUM**

**Scientific Principles of Medicine**

Clinical and anatomic pathology are integral components in all units of the SPM course.

**Medical Skills**

The Medical Skills Course includes sessions on the interpretation of basic clinical pathology studies. These include the interpretation of:

- spinal fluid analysis
- peripheral blood smears and bone marrow biopsies
- lymph node biopsies
- coagulation studies
- findings on examination of urinary sediment
- serum electrolytes
- endocrinological studies of thyroid, pituitary, and adrenal function
- hemoglobin and blood sugar values, and
- pregnancy test.

**CLERKSHIPS**

Clinical pathology is incorporated into the clerkship years in several ways: 1) in didactic sessions dealing with specific disease conditions or syndromes; 2) during morning report and clinical case conferences; 3) during rounds on patients being cared for by the ward team; and 4) during the assessment and evaluation of the patients the students care for in the hospital and in ambulatory settings under the supervision of faculty and residents.

Students will be afforded many opportunities during the required year 3 and 4 clerkships to be exposed to microbiology, hematology, serology, blood bank, chemistry and cytology/histology. All clerkships include learning objectives related to evidence-based approaches to ordering labs and integrating clinical pathology into patient care. For example, students can be expected to address the following topics:

- Immunology—interpretation of immunological laboratory results
- Gastroenterology—interpretation of liver function tests and pancreatic enzyme levels
- Infectious Disease—analyzing clinical microbiology data
- Hematology/Oncology—interpreting CBCs/differentials and blood smears
- Nephrology— analyzing kidney function, GFR, urine electrolytes, protein and creatinine
- Gynecologic Oncology—histopathological diagnosis and correlates with pelvic neoplasms
- Reproductive Endocrinology—identifying laboratory aspects of reproductive endocrine and infertility care
- Pediatric Genetics—genetic testing from DNA to chromosome to protein and cell studies, interpreting molecular, cytogenetic and biochemical laboratory results and translating these results into management plans

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- Clinical Medicine—perform, analyze, and interpret commonly-ordered tests such as peripheral smear, bone marrow aspiration, UA, microbiology, and various biological markers.

A key word search of our curriculum database identified 41 sessions in year 3 clerkships that were tied to “clinical pathology.”

**ED-17-A. The curriculum of a medical education program must introduce medical students to the basic scientific and ethical principles of clinical and translational research; including the ways in which such research is conducted, evaluated, explained to patients, and applied to patient care.**

*The faculty of the medical education program should develop explicit learning objectives (knowledge, skills, behaviors, and attitudes) to meet the requirements of this standard. One example of relevant objectives is contained in Report IV of the AAMC's Medical School Objectives Project (Contemporary Issues in Medicine: Basic Science and Clinical Research).*

*There are several ways in which the medical education program can meet the requirements of this standard. They range from separate required coursework in the subject to the establishment of appropriate learning objectives and instructional activities within existing patient-focused courses or clerkship rotations (e.g., discussing the application of new knowledge from clinical research in bedside teaching activities, offering mentored projects, or conducting journal club sessions in which medical students explore the development or application of clinical and translational research).*

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*a. List all required courses and clerkships that include formal learning objectives and/or teaching sessions that address basic principles of clinical and translational research.*

Clinical and translational research is “threaded” throughout the four year curriculum. The overarching objectives of the clinical and translational research tread are:

1. The student will describe the ethical aspects of clinical and translational research.
2. The student will describe the basic types of clinical studies and the advantages and limitations of each.
3. The student will be able to determine which statistical methods are most appropriate and will be able to interpret data produced using these statistical methods.
4. The student will be able to appropriately describe to patients findings from clinical/translational research.
5. The student will be able to appropriately describe clinical trials to patients.

### **SOCIETY, COMMUNITY, AND INDIVIDUAL (SCI) YEARS 1-2**

One of the major goals of the SCI course is to provide students a firm foundation in the epidemiological and biostatistical principles necessary to understand and interpret clinical data and to be a well-informed and critical consumer of medical literature. The topics addressed in this two-year required course related to clinical and translational research include the following:

- Introduction to clinical and translational research (to be implemented in 2012-13)
- Introduction to epidemiology and measures of association
- Screening: Sensitivity and specificity
- Introduction to study designs I and II
- Outbreak investigations
- Alternative explanations of study results
- Descriptive one sample statistics
- Comparison of groups
- Linear regression
- Binary outcomes of an event

- Two exposure variables
- Multiple exposure variables
- Evidence-based-medicine
- Reading the medical literature

### **SCIENTIFIC PRINCIPLES OF MEDICINE (SPM) YEARS 1-2**

In this required two-year course, the results of clinical and translational research are routinely integrated into scheduled learning sessions. However, two sessions are devoted explicitly to principles and concepts derived from clinical and translational research. These include sessions on the “Detection of Genetic Variation” (SPM Unit 1, Introduction to Health and Disease) and “Translational Research: Therapeutic Use of Stem Cells” (Unit 5, Cardio/Pulmonary System). In addition, the SPM and SCI course directors are developing a new integrated learning session in which students will be provided a clinical case and asked to independently investigate relevant standards of care for the condition and also identify on-going clinical trials related to the case scenario. Students will be expected to prepare a summary of their findings and outline how they would explain both standard of care and relevant translational or clinical trials to a patient discuss participation in such trials. In small group sessions students will be given opportunities to practice these discussions with a standardized patient and receive feedback from the SP, faculty facilitators, and their peers.

### **MASTERS COLLOQUIUM**

The Masters Colloquium includes a two hour discussion session on the ethics of clinical and translational research that addresses a variety of topics ranging from informed consent, to conflicts of interest, to access.

### **SCHOLARLY ACTIVITY AND RESEARCH PROGRAM (SARP) (YEARS 1-4)**

This curriculum component provides medical students an opportunity to design and execute an independent scholarly project under the guidance of a faculty mentor. A variety of topics and research areas are available in three broad categories, allowing for a project to be tailored to a student’s background and interests: 1) basic, clinical, and translation research; 2) epidemiology, community-based, behavioral, public, and environmental health; and 3) medical humanities, qualitative research, and medical education research. This is a mandatory curriculum requirement, with one independent study credit awarded for selection of a mentor and preparation of a Project Plan, one credit for execution of the project itself, and a final credit awarded for a poster summarizing the project presented at an annual student symposium held in the fall. Students can choose between one of two tracks: Track 1 concentrates execution of the project into the summer between the first and second year with a poster presented in the fall of the second year; whereas Track 2 provides the student more flexibility, allowing execution of the project anytime during the first 3 years followed by a poster presentation at the next student symposium. For both Tracks, selection of a mentor and preparation of a Project Plan is due at the end of the first year. Thus far, the vast majority of student SARP projects are in the areas of clinical and translational research. A new requirement of SARP beginning in the 2012-13 academic year is that all students, regardless of the type of project they are completing, will be required to take and pass the Collaborative Institutional Training Initiative (CITI) human subjects research on-line course.

### **REQUIRED CLERKSHIP EXPERIENCES (YEARS 3-4)**

A number of the required year 3-4 clerkships include learning sessions and activities with an explicit focus on clinical and translational research. In the OBGYN/Pediatrics block students participate in a session on “clinical research skills” in which they critically analyze a peer-reviewed journal article reporting the results of a clinical trial. In the Family Medicine/Surgery Block students are exposed to clinical research by participating in an on-going, funded community based colorectal cancer screening project sponsored by the research division of the Department of Family and Community Medicine. They are given assigned readings on clinical and translational research and they spend time participating with project staff in “Project ACCION (Against Colorectal Cancer in our Neighborhood). They accompany project outreach workers in the community to recruit patients, observe the process of soliciting patient informed consent, monitor and track participants and input data into the project database. This learning activity will be initiated in July 2012.

*b. For each course and clerkship listed, briefly summarize how student achievement of those objectives and that content is assessed.*

### **SOCIETY, COMMUNITY, AND INDIVIDUAL (SCI)**

Attainment of learning objectives related to clinical and translational research in the SCI course is assessed in multiple choice examinations utilizing USMLE style questions designed to measure students abilities to apply their knowledge in solving clinical or population-based problems. The Year 1 Comprehensive End of Year Examination is based on the NBME customized examination service and includes questions related to epidemiology, biostatistical principles and interpretation of clinical trial results. This will enable us to benchmark our student performance against a national sample.

Performance on biostatistics, epidemiology and interpretation of clinical trial results items on Step 1 and 2 of the USMLE will also be monitored to assess how well our curriculum is preparing students in these areas.

### **SCIENTIFIC PRINCIPLES OF MEDICINE (SPM)**

Examination questions based on the learning sessions explicitly linked to clinical and translational research principles are incorporated into the end-of-unit summative examination. For the new integrated SCI/SPM session on clinical and translational research described above, students will turn in the summary of their independent investigation of the literature and outline for counseling patients about participating in clinical trials or translational research projects. These will be assessed by designated faculty members utilizing a scoring rubric designed for this purpose.

### **SCHOLARLY ACTIVITY AND RESEARCH PROGRAM (SARP)**

As described, this is a 3-credit independent study course. The evaluation processes for each of the three 1-credit components are as follows:

1. **Project Plan.** The student and a mentor submit a two part Project Plan. Part 1 is due in mid-April and will consist of a project title, a selection of execution mode (Track 1 or Track 2) and represents a commitment of both student and mentor. Part 2 is due in late May and will consist of a detailed description of the execution portion of the project, including timeline and goals. The Project Plan will be reviewed by the program directors and an oversight committee consisting of 6 faculty. Appropriate adjustments to the Project Plan are suggested to the student and mentor prior to final approval.



2. **Execution.** For Track 1 students, the execution phase is 7 weeks in June and July between MS1 and MS2. A one page progress report is required at the halfway point containing a rubric filled out by the mentor along with a short commentary and a paragraph written by the student describing the project's progress and attainment of specific goals, etc. Track 2 students are required to submit a progress report every 6 months. At the end of the execution phase for both Track 1 and Track 2, students submit a final report, similar to the progress report, but containing extended narrative about project accomplishments. The progress and final reports is examined by the program directors and the oversight committee, again with appropriate adjustments suggested to the student and mentor prior to final approval.
3. **Poster Presentation.** The final credit is awarded for a poster presentation of the project at a student symposium held each fall. Judging of the poster will be completed by the program directors and the oversight committee using a rubric. Criteria for evaluation will include clarity of the project description, thoroughness of the analysis and conclusions, and demonstrated understanding of basic principles in response to questions from the judging panel.

#### **REQUIRED CLERKSHIP EXPERIENCES (YEARS 3-4)**

In the OB-GYN/Pediatrics Block session on the skills of clinical research, students complete problem solving "worksheets" that are reviewed and assessed by the session faculty member, an epidemiologist in the Department of Obstetrics and Gynecology. In the Family Medicine/Surgery Block colorectal cancer screening project students will be asked to write a 1 page essay summarizing their impressions of the take-home points about clinical research in primary care. New items in the USMLE Step 2 on critical appraisal of the literature and drug company advertisements will also be evaluated as a potential outcome measure for this new project that was begun in the 2011-2012 academic year.

*c. Briefly describe any required courses or clerkship rotations in which students are routinely exposed to, or have the opportunity to apply basic principles of, clinical and translational research, even if there are no formal objectives for such learning*

As noted above, current clinical and translational research is incorporated "informally" into many of the sessions of the Scientific Principles of Medicine course. Similarly, during the clerkship years students are routinely exposed to, and have opportunities to apply, basic principles of clinical and translational research. To the extent that principles of Evidence-Based-Medicine relate to clinical and translational research and inform clinical practice, two of our clerkships Internal Medicine in the Internal Medicine/Psychiatry Block and Emergency Medicine in year 4 have developed EBM exercises that are required of all students. These exercises are described in detail in response to ED-5-A (pages 42-43) above.

*Also see Standard ED-10.*



**ED-18. The curriculum of a medical education program must include elective opportunities to supplement required courses and clerkship rotations.**

*Although electives permit medical students to gain exposure to and deepen their understanding of medical specialties reflecting their career interests, they should also provide opportunities for medical students to pursue individual academic interests.*

*a. Indicate the number of weeks of elective time that are expected of all medical students in each year of the curriculum:*

<b>Year</b>	<b>Total Weeks of Elective Time</b>
1 0	
2 0	
3 8	(Selectives)*
4 12	

\*Students are given subspecialty “selective” opportunities during their year 3 rotations to enable them to begin exploring sub disciplines of interest in more depth earlier in their clinical training.

**Internal Medicine (2 weeks)**

- Cardiology
- Gastroenterology
- Geriatrics
- Hematology/Oncology
- Primary Care

**Surgery (four weeks)**

- Anesthesiology
- ENT
- Ophthalmology (Surgical)
- Orthopedics
- Pediatric Surgery
- Trauma

**Family Medicine (15 half days—Longitudinal Selective)**

- Community Medicine
- Prenatal Care
- Chronic Illness Care
- Geriatrics
- Sports Medicine

- Complementary, Alternative, and Integrative Medicine
- Native American Medicine
- Pharmacotherapeutics in Primary Care

**Psychiatry (15 half days—Longitudinal Selective)**

- Child/Adolescent
- Consultation/Liaison
- Geropsychiatry
- Sleep Medicine
- Psychotherapy
- Neurology
- Clinical Research Interviewing

*b. Indicate the maximum number of weeks that students may spend taking electives at another institution that is not part of the medical school's health system or affiliated with the medical school.*

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*c. Provide the average number of weeks that students in the most recent graduating class spent taking electives at another institution.*

Not  
available\*

\*As a new medical school we have not graduated a class. Based on the planned and approved schedules of our charter class of 2013, the average number of weeks that students will take at other institutions is 6.5.

*d. Describe any policies or practices that encourage students to use electives to pursue interests outside of their chosen specialty.*

We are committed to encouraging students to use their elective time to broaden their experience base and to explore the breadth of medicine. Our goal is to graduate generalist physicians who are well rounded and well prepared to pursue the specialty of their choice for residency training. Student advisors are instructed to assist their advisees in making elective choices that will enhance their preparation for their specialties of choice by broadening their perspective and knowledge base. The associate dean for student affairs also reinforces this message. (Please see below.)

*e. Indicate whether the medical school has a policy that specifies a maximum number of electives (or elective weeks) that students may take in the same specialty area, either at the medical school or at another institution. If a policy is in place, describe the policy and the means by which it is enforced.*

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A student may take no more than 2 electives in the same specialty area. The associate dean for student affairs must provide final approval for all year 4 elective schedules. This enables her to monitor student selections and to intervene as appropriate.

**ED-19. The curriculum of a medical education program must include specific instruction in communication skills as they relate to physician responsibilities, including communication with patients and their families, colleagues, and other health professionals.**

The following Institutional Learning Objectives (see ED-1-A) relate to the communication competencies we expect our students to demonstrate.

Interpersonal Communication Skills
Communicate clearly, respectfully and compassionately with patients, families, colleagues, and members of the health care team (ICS-1)
Collect and record pertinent elements of the clinical history in a concise and accurate manner (ICS-2)
Communicate knowledge, interpretation and recommendations orally and/or in writing to a wide range of professional or lay audiences in culturally appropriate ways (ICS-3)

*Describe where in the curriculum (i.e., specific course[s] or clerkship rotation[s]) students gain experience in the following areas. Specify the settings in which instruction occurs (e.g., classroom, clinical setting, simulated setting) and the format(s) used (e.g., lecture, small group, standardized patient, role play).*

*a. Communicating with patients and patient families*

**PRE-CLERKSHIP CURRICULUM**

**Society, Community, and Individual (SCI)**

Communication skills with patients and families are an important component of SCI. This is accomplished as follows:

1. Over 80% of the population of El Paso is Hispanic and a majority of this population speaks Spanish as their preferred language. Consequently, we include **Spanish** (conversational and medical Spanish) as a required component of the curriculum. Students are assigned to ability groups based on self-reported comfort with Spanish and a brief oral assessment. The first 3 weeks of the M1 school year is devoted primarily to a “mini-immersion” experience in the language and culture of the Texas-Mexico border. During this period, students spend 4 hours per day in Spanish instruction in a small group format. Instruction in conversational and medical Spanish is provided every other week in two-hour sessions throughout years 1 and 2 as part of SCI. (Please note: beginning with the 2012-13 AY, Spanish instruction will occur on a weekly basis in a one hour session/week.)
2. **Community Clinic Experience**—students are assigned to community clinics throughout the greater El Paso region and are required to spend 8 half days per academic year in those settings. During these sessions students are given an opportunity to interact with patients and to practice interviewing and physical examination skills that they learn in Medical Skills (see below) and in classroom and small group sessions of SCI addressing a variety of socio-behavioral issues.

**Medical Skills**

The development of communication skills is a major component of the Medical Skills Course. Medical students see standardized patients on a regular basis throughout the course and instructional objectives on communication skills are included in these sessions. Examples of the specific communication skills covered during these sessions includes opening the session, the use of open-ended and focused questions,

nonverbal communication, delivering bad news, responding to emotions, facilitating behavioral change, and providing closure at the end of the interaction. The school provides students' access to Doc.Com-- an excellent teaching and learning resource on physician-patient communication. Modules from this on-line resource are required components of several Medical Skills sessions.

### **Masters Colloquium**

Issues related to physician communication with patients and their families are addressed in a number of sessions in the Masters Colloquium. These include the following:

- Awareness of disability
- Honesty and confidentiality
- The patient's experience of chronic disease
- The ethics of life-sustaining interventions
- The patient's right to refuse therapy

This instruction takes place in a "large group/small group" discussion format. For example, the issues involved are framed in large group plenary presentations, the students then move to smaller break-out groups for discussion and problem solving, and then reconvene in the large group to share conclusions and to discuss remaining issues or questions.

### **REQUIRED CLERKSHIPS**

Communication skills are a threaded component for all clerkships. All clerkships include an assessment of students skills at communicating with patients and their families as part of the mid- and end of clerkship evaluation. This assessment is based on observations of student clinical encounters in the course of normal ward and clinic activities. Communication skills are assessed in the end of third year OSCE that all students are required to take and pass. Standardized patients provide check-list feedback on student interpersonal and communication skills.

*b. Communicating with physicians (e.g., as part of the medical team)*

### **PRE-CLERKSHIP CURRICULUM**

#### **Scientific Principles of Medicine (SPM)**

As part of this course students meet in small groups with a physician facilitator to work through 3-4 patient cases with the goal of discussing and interpreting clinical data and of applying the clinical presentation scheme to reach a likely diagnosis. This enables students to begin the process of learning the conventions associated with discussing clinical information with attending physicians and other member of the medical team.

#### **Society, Community, and Individual (SCI)**

Students are required to discuss the patients they see in the community clinic setting with their preceptors. This permits the student to begin a professional dialogue with experienced physician mentors and teachers.

### **Masters Colloquium**

The development of effective overall communication skills is a principal goal of the Masters Colloquium. Three sessions early in the curriculum focus specifically on effective communication. Furthermore, the entire course is taught through student-centered instructional methods that include large and small group

facilitated discussion, presentations to the larger group, readings, role plays, break out small group assignments, and reflective writings. Effective communication skills are practiced in virtually every session of the Colloquium.

### **REQUIRED CLERKSHIPS**

Student presentation skills are assessed in each of the required clerkships. Faculty who work with medical students during the required clerkships are asked to assess student case presentations in terms of their completeness, accuracy, and organization.

In addition, as a component of professionalism assessment, residents and attending physicians provide feedback on their perceptions of student communication skills with members of the ward team.

#### ***c. Communicating with other (non-physician) health professionals***

### **PRE-CLERKSHIP CURRICULUM**

#### **Society, Community, and Individual (SCI)**

Several learning activities have been developed, as part of the community clinic experience, to expose students to the roles and responsibilities of various members of the health care team including nursing assistants, nurses, billing clerks, social workers, pharmacists, dentists, and lay community health outreach workers. This exposure facilitates communication by providing medical students with an understanding of the roles, responsibilities, and duties of non-physician health care workers and professionals.

### **REQUIRED CLERKSHIPS**

Students are assessed on the following as part of the professionalism component of the student assessment form: honesty, respectful interactions, and reliability, all of which depends upon communication. These assessments are based on attending faculty and resident observations of students in the course of their daily work on the inpatient wards and clinics associated with their clerkship rotations.

*See also information for standards ED-10 and ED-28.*

**ED-20. The curriculum must prepare students for their role in addressing the medical consequences of common societal problems, for example, providing instruction in the diagnosis, prevention, appropriate reporting, and treatment of violence and abuse.**

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*a. Indicate where in the curriculum students learn about the medical consequences of common societal problems.*

The Paul L. Foster School of Medicine is situated in a border community which has a number of serious and complex socioeconomic problems. This also creates many opportunities to learn about the health consequences of these problems. Societal problems include poverty, obesity, substandard primary and secondary education, limited access to higher education, domestic and gang-related violence, substance dependence, and illegal immigration. Many of these problems are highlighted and addressed throughout the curriculum with the goal of graduating clinicians with sensitivity and heightened awareness to these issues and the skill sets necessary to practice optimally within the region.

**SOCIETY, COMMUNITY, AND THE INDIVIDUAL** — In the SCI course, community relationships provide the basis for studying factors that contribute to community health related issues. Instruction occurs in the classroom and in community-based clinics. Learning formats include direct patient care, community and home visits, community needs assessments, intervention projects, and community outreach activities. Issues related to the family and the role of the family in health, illness, and coping are highlighted in this course. One session in year 2 is devoted to family dysfunction, including domestic violence and abuse of vulnerable individuals. Opportunities are provided for students to visit community agencies dedicated to preventing domestic violence and to caring for those who are victims of domestic violence (see ‘b’ below).

**SCIENTIFIC PRINCIPLES OF MEDICINE** — several of the clinical presentations assigned to the organ system units of SPM address the medical and health consequences of societal problems. Examples include obesity and diabetes (Endocrine System); smoking, alcohol use and substance abuse (Introduction to Health and Disease, Mind and Human Development); child abuse (Introduction to Health and Disease, Mind and Human Development); suicidal behavior (Mind and Human Development).

**MASTERS’ COLLOQUIUM** — this course addresses a wide range of topics, including the art of medicine, ethics, and the social responsibilities of the physician. This course considers broader societal and behavioral issues and their role in the health care of the individual and their communities. The instructional format includes oral presentations, group discussions, documentary films, and selected readings.

Topics covered during the Masters Colloquium include several important common societal problems. These include:

- Access to care
- The impact of poverty on health and illness
- The use, misuse, and stewardship of antibiotics
- The future financing of health care in the United States

**MEDICAL SKILLS** — Several sessions of the course focus on communication and counseling skills in the setting of several common societal problems. These problems include abnormal weight gain and obesity, substance abuse and drug dependence, suicidal behavior and prevention.

**Years 3-4**— Students are provided with many opportunities during their required third and fourth year clerkships to experience firsthand the health consequences of different societal problems. Our major affiliates, University Medical Center and the new El Paso Children’s Hospital are county facilities and provide a majority of the care for those from the poorer rungs of our society. This gives students the opportunity to learn about the relationship between poverty and disease, the challenges associated with substance abuse, and the impact of violence on patients and their families. These are all issues that are also addressed during ward rounds and in morning report.

*b. List the required courses and clerkship rotations in which the following aspects of domestic violence and abuse are covered (see Glossary at the front of this section for definition).*

<b>Content area</b>	<b>Required course(s) where topic is addressed</b>	<b>Required clerkship(s) where topic will be addressed</b>
Diagnosis	Society, Community & Individual	Family Medicine Internal Medicine Pediatrics OB-GYN Psychiatry Emergency Medicine
Prevention	Society, Community, & Individual	Family Medicine Internal Medicine Pediatrics OB-GYN Psychiatry Emergency Medicine
Reporting	Society, Community & Individual	Family Medicine Internal Medicine Pediatrics OB-GYN Psychiatry Emergency Medicine
Treatment	Society, Community & Individual	Family Medicine Internal Medicine Pediatrics OB-GYN Psychiatry Emergency Medicine

*See also information for standard ED-10.*



**ED-21. The faculty and medical students of a medical education program must demonstrate an understanding of the manner in which people of diverse cultures and belief systems perceive health and illness and respond to various symptoms, diseases, and treatments.**

*Instruction in the medical education program should stress the need for medical students to be concerned with the total medical needs of their patients and the effects that social and cultural circumstances have on patients' health. To demonstrate compliance with this standard, the medical education program should be able to document objectives relating to the development of skills in cultural competence, indicate the location in the curriculum where medical students are exposed to such material, and demonstrate the extent to which the objectives are being achieved.*

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*a. List the courses and clerkship rotations in which students learn about issues related to cultural competence in health care and describe the specific elements related to cultural competence that are covered in each. Note whether the instruction occurs through formal teaching, informal exposure in the clinical setting, or both.*

### **PRE-CLERKSHIP CURRICULUM**

The knowledge, attitudes, behaviors, and skills necessary to provide culturally appropriate patient care are emphasized in the following courses during the first and second years of the curriculum:

**Society, Community, and the Individual (SCI)**—The SCI course is designed to take students from the classroom into the community to teach them about the relationships among social issues, community factors, and individual health. The course considers how ethnicity, cultural factors, and belief systems in the underserved communities influence residents' perception of health and illness; their access to health care services; and their response to various symptoms, diseases, and treatments. Instruction occurs in the classroom and in community-based clinics. Teaching formats include lectures, discussion, direct patient care, community and home visits, community needs assessments, intervention projects, and community outreach activities. In addition to over 150 hours devoted to Spanish language instruction, the following sessions are explicitly related to cultural competence as part of this course:

- Mexican-American Culture on the US-Mexico Border (lecture)
- What is Culture and Why Does it Matter? (small group discussion)
- Complementary, Alternative, and Folk Medicine (lecture)

**Medical Skills**—in this course, students are taught to employ communication skills designed to elicit the patient's perspective on his or her health and illness concerns. These perspectives are rooted in the cultural traditions informing patient attitudes, beliefs, expectations, and normative behaviors. Among the skills that are taught over the two years of this course are the following: use of open-ended questions, empathic responding, active listening, elicitation of the patient's lay explanatory model, and elicitation of information about the patient's use of alternative practitioners and remedies. Most of the instruction in Medical Skills is done through role play utilizing standardized patients. Students receive formative feedback from peer observers and standardized patients. OSCEs are employed for summative assessment at the end of each unit corresponding with the units of the Scientific Principles of Medicine course.

**Masters' Colloquium**—the Paul L. Foster School of Medicine is situated in a border community, and is responsible for serving a distinctly multicultural community. Most of our students are recruited from throughout the state of Texas and come from diverse ethnic backgrounds—Asian, South Asian, Anglo-American, Middle Eastern, etc. This provides ample opportunities for formal and informal discussions of

the role of cultural background on beliefs, values, expectations and worldview in health and illness. The Masters Colloquium also includes a scheduled session devoted explicitly to cultural interactions.

### CLERKSHIP CURRICULUM

As documented in ED-10, these issues are addressed explicitly in several of the required clerkships in years 3 and 4. Students also have many opportunities to learn from their clinical experience and to reflect on the impact of culture on these experiences.

*b. Indicate the means by which students' acquisition of the knowledge, skills, behaviors, and attitudes related to cultural competence is assessed. Provide evidence that educational program objectives and course or clerkship objectives addressing cultural competence are being met.*

**Knowledge** related to cultural competency is assessed through multiple choice questions utilizing USMLE style clinical vignette, and short answer essay questions in the SCI course.

**Skills and behaviors** is assessed by standardized patients in the Medical Skills course and through the assessment of communication skills necessary for providing culturally appropriate care in Year 1, 2, and 3 OSCEs. As part of the student evaluation of the Spanish component of SCI, they are asked to register the extent to which they agree or disagree with the following statements: "I have improved my Spanish speaking ability" and "I can elicit basic patient information in Spanish."

For the class of 2014 the percent of students agreeing with the statement that their Spanish had improved increased from 43% in the fall of their MS1 year to 74% by the spring of their second year. The percentage of students in the class of 2015 agreeing with this statement at the beginning and end of their first year was roughly unchanged—57% at the beginning of the year versus 51% at the end. However, in both classes we see an increase in the student confidence that they can elicit basic information from patients in Spanish. For the students in the class of 2014 56% indicated that they could use Spanish to elicit basic information at the beginning of their third year and 73% agreed with this statement by the end of the year. For students in the class of 2015 the percent agreement with this statement increased from 51% at the beginning of the year to 66% at the end of the year.

**Attitudes** are assessed through observation and feedback by the college masters through the Masters Colloquium course that spans the first two years of the curriculum. As noted elsewhere (for example, please see ED-22, page 90 and ED-23, page 94) the Colloquium is designed to focus on issues related to professionalism, medical ethics, critical thinking, and controversies in medicine. This course also includes reflective writing exercises. The college masters therefore have an opportunity to observe student interactions during these discussions and to provide feedback on their reflection exercises.

In addition, students are assessed by their preceptors in the community clinics where students receive early clinical experience during the first two years of study, and by the residents and attending faculty who work with students in the year 3-4 clerkships based on observations of student interactions with patients and their families and with members of the health care team.

The clinical assessment and professionalism form that faculty and residents complete on the students they supervise during required clerkship experience in years 3-4 include a number of items that relate directly

to the knowledge, attitudes and skills associated with the concept of cultural competence. For example, faculty provide assessments of how well students adjust their language to communicate clearly with patients and their families, recognition and responsiveness to psychosocial issues, and how well they relate to patients from diverse social and cultural backgrounds. This form includes items that directly assess cultural competency. A copy of this form is included in Section II Appendix 2. This data can be tracked over time for individuals and class aggregates. Faculty assessment of student performance in this domain thus far over the first two blocks is highly satisfactory with over 80% of the students receiving a high rating on this skill.

A longitudinal survey is also administered yearly throughout the 4 year curriculum. This survey includes a validated instrument on attitudes toward cultural issues in medicine. The results of this survey will provide us with data on any shifts in attitude that may occur over the course of study from matriculation to graduation. This data has not yet been analyzed.

*See also information for standard ED-10.*

**ED-22. Medical students in a medical education program must learn to recognize and appropriately address gender and cultural biases in themselves, in others, and in the process of health care delivery.**

*The objectives for instruction in the medical education program should include medical student understanding of demographic influences on health care quality and effectiveness (e.g., racial and ethnic disparities in the diagnosis and treatment of diseases). The objectives should also address the need for self-awareness among medical students regarding any personal biases in their approach to health care delivery.*

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*a. Describe where in the curriculum (in formal teaching sessions and/or indirectly through clinical experiences) students receive or will receive instruction addressing the following topics:*

*i. Demographic influences on health care quality and effectiveness (including disparities in health care delivery).*

### **PRE-CLERKSHIP CURRICULUM**

**Society, Community, and the Individual**—students learn about demographic influences on health care quality and effectiveness. Instruction occurs in the classroom and in community-based clinics and other community agencies and organizations. Teaching formats include lectures, discussion, direct patient care, community needs assessments, intervention projects, and community outreach activities.

**Scientific Principles of Medicine**—students learn about racial, gender, and ethnic disparities in the diagnosis and treatment of diseases as relevant to the specific topic or body system addressed in the unit. When appropriate, gender and cultural biases associated with specific clinical presentations are also addressed. For example, during the cardio-pulmonary unit, students are made aware of common gender biases in the diagnosis and treatment of women with chest pain and cautioned against managing women with chest pain less aggressively than they would men with chest pain. In SPM units, instruction takes place primarily in classroom and laboratory and teaching formats include lectures, TBL-like problem-solving sessions, and small-group worked case example clinical correlation sessions.

**Medical Skills**—As noted in ED-2, this course covers the concepts, skills, attitudes, and behaviors required to become culturally aware communicators who exhibit compassion and respect for all patients, without regard to race, ethnicity, gender, financial situation, social condition, or incapacity. After being introduced to this information in lecture format in the classroom and through instructional videos produced by the American Academy on Communication in Health Care (see <http://webcampus.drexelmed.edu/doccom/user/>), students have the opportunity to practice culturally competent communication with standardized patients in the clinical simulation center.

**Masters' Colloquium**—this course augments students' understanding of demographic influences on health care quality and effectiveness, including racial or ethnic disparities in health care delivery, by considering these issues from national and international perspectives. Students also have the opportunity to talk with the college masters about specific concerns or questions they have regarding gender and cultural biases in health care. Instructional formats include oral presentations, group discussions, and reflective exercises. One of the formal sessions in the Masters Colloquium explicitly addresses gender issues.

### CLERKSHIP CURRICULUM

As a medical school located on the US-Mexico border and in a region that is predominantly Hispanic, PLFSOM is uniquely well positioned to provide its students many direct and indirect opportunities to learn about demographic influences on health, health care delivery, and access to care during the clerkship years. Several of the “threads” that are woven into years 3-4 (see schematics in ED-5) are relevant to these issues including—ethics, professionalism, and communication skills. For each clerkship block, one half day a week is set aside for didactic activities.

#### *ii. Student self-awareness of their own biases and those of their peers and teachers/supervisors.*

The goal of the Masters Colloquium is *"to promote critical thinking and reflective mindfulness in discourse and decision making, respectfulness, empathy, and integrity in relations with others, and engaged, responsible citizenship in the community."* This is done in an atmosphere of openness and non-judgmental consideration of each person’s point of view, so as to model diplomacy, the free and open exchange of ideas, and self-objectivity. As previously described, the Masters Colloquium includes a number of writing assignments in which students are required to examine their own values and beliefs in the context of the educational milieu in which they are learning.

#### *b. Provide evidence that educational program objectives or course and clerkship rotation-specific objectives related to gender and cultural biases in health care are being met.*

As described in our response to ED-21 (b), issues related to gender and cultural biases are routinely monitored via our clinical and professionalism assessment form based on observations of student behavior and comments in the classroom, hospital ward, and clinic. Thus far faculty assessments of student sensitivity toward and competency in dealing with cultural and gender differences have been positive

*Also see information for standard ED-10.*

**ED-23. A medical school must teach medical ethics and human values, and require its students to exhibit scrupulous ethical principles in caring for patients, and in relating to patients' families and to others involved in patient care.**

*The medical education program should ensure that medical students receive instruction in appropriate medical ethics, human values, and communication skills before engaging in patient care activities. As students take on increasingly more active roles in patient care during their progression through the curriculum, adherence to ethical principles should be observed, assessed, and reinforced through formal instructional efforts.*

*In medical student-patient interactions, there should be a means for identifying possible breaches of ethics in patient care, either through faculty or resident observation of the encounter, patient reporting, or some other appropriate method.*

*The phrase "scrupulous ethical principles" implies characteristics that include honesty, integrity, maintenance of confidentiality, and respect for patients, patients' families, other students, and other health professionals. The program's educational objectives may identify additional dimensions of ethical behavior to be exhibited in patient care settings.*

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*a. Identify each course and clinical clerkship rotation for which there is an explicit educational objective that includes the expectation that students gain an understanding of ethical issues and human values.*

## **PRE-CLERKSHIP CURRICULUM**

### **Orientation Period**

We introduce students to medical oaths during orientation and charge the class to write their own oath articulating their shared values and commitments to themselves, the faculty, and the patients from whom they will learn. The development of this oath is a cooperative exercise and involves the entire class working in small groups and then through representatives across groups, and finally culminating in a class meeting where a consensus is achieved about the content and wording of the oath. This oath is then read as part of the White Coat Ceremony marking the students' transition into medical school and the profession. Students are also introduced to the Honor Code that is published in the Student Handbook and referenced in course syllabi during orientation.

### **Society, Community and the Individual (SCI)**

Human values and issues related to ethics are addressed in a number of components of the SCI program. The community thread addresses issues related to social justice through its emphasis on access to care and health care disparities; the family thread includes sessions on family violence and the obligation of health care professionals to identify and report suspected abuse or neglect to the appropriate authorities; the culture thread encourages students to adopt a stance of cultural humility and curiosity and provides instruction on strategies to elicit the patient's perspective on their illnesses and the impact of the illness on the patient and the patient's family. The environmental and occupational thread addresses issues related to the health effects of contaminants and pollution and highlights the relationship between social and environmental justice.

### **Medical Skills**

The Medical Skills Course reinforces the organizational goals related to ethical conduct and human values through the application of these principles in patient simulations and in interactions during small group

instruction. All students receive orientation to the HIPAA rules at the beginning of the course, and the confidentiality of patient information is promoted and modeled throughout the course. Instructional objectives for each standardized patient encounter include the goal of setting a positive provider-patient interaction. Instructional objectives are included that address topic-specific communication skills such as effective strategies for counseling regarding childhood vaccinations (advocacy for the health of children), strategies for functional geriatric assessment (advocacy for the safety and security of the aged), diplomacy in delivering bad news (compassionate support of those with potentially life-threatening illness), and nonjudgmental interview techniques for those with sexually transmitted infections and substance dependence (nondiscrimination of individuals with potentially socially stigmatizing behaviors).

### **Masters Colloquium**

The emphasis of this course is on professionalism, human values, controversies in medicine, and medical ethics. The Masters Colloquium devotes twelve sessions to ethical issues. Each session includes a preparatory reading assignment, a presentation of background information, presentation of cases, and facilitated discussion and case analysis. The list of topics follows:

- Introduction to Medical Ethics
- Confidentiality
- Informed consent and decision-making capacity
- Ethical issues in intensive patient care, palliative care and pain management, end of life/hospice care
- Ethics of life sustaining interventions and the persistent vegetative state.
- Ethics of refusal to care for patients and refusal of treatment by patients
- Ethics of healthcare distribution, economics, and reform
- Research ethics
- Ethics of conflicts of interest
- Ethical issues in genetic diagnosis, screening- confidentiality, insurance, etc.
- Drug companies and hospitals
- Gender issues in medicine

### **CLERKSHIP CURRICULUM**

Each of the clerkship blocks includes instruction on ethical issues pertinent to the clerkship rotations sharing a block. A review of our Ilios curriculum management database indicates that ethics is addressed as a significant topic in approximately 17 different didactic sessions. Topics addressed range from ethical consideration in delivering bad diagnostic news, to contraceptive counseling, to the ethics of prescribing psychotropic medications during pregnancy.

***b. Provide examples of any formative or summative assessment instruments used to assess the acquisition or demonstration of medical students' ethical behavior in the preclinical and/or clinical curriculum. How and from whom is information about student ethical behavior collected?***

In the **Scientific Principles of Medicine** course (SPM) and in the **Society, Community, and the Individual** (SCI) course, students participate in small group sessions that gives faculty an opportunity to observe student interactions and small group behaviors. We developed an assessment that includes items on respectful interactions with peers and faculty, the willingness of a student to admit lack of knowledge



or preparation, and the student's willingness to withhold judgment on others regardless of culture and lifestyle (see page 102).

In the community clinic experience in **SCI**, preceptors assess students through the use of a rating form that provides feedback on several dimensions of ethical behavior. First, it specifically asks about respect in the form of communication and conduct ("respects beliefs, rights, roles, abilities, and values of patient, staff and preceptor"). Second, the preceptors assess student behavior on four dimensions of ethical behavior: maintains confidentiality, maintains professional boundaries, honest, and behaves with equity to all patients. The student uploads these forms into their e-portfolios where they are reviewed by the SCI course director.

The **Masters Colloquium** includes summative assessment of knowledge of bioethical principles as demonstrated in written assignments in which ethical dilemmas are presented for analysis and suggested course(s) of action.

In the event that a course director identifies a breach of ethics, the course director will consult with the associate dean for student affairs. The associate dean will determine if the breach is part of a pattern across courses, conduct an inquiry if necessary, refer serious breaches to the Grading and Promotions Committee, and ensure that the involved student(s) receives counseling. If the event is deemed minor and does not extend across courses, the course director or the student's college master may provide the counseling. For patterns of behavior, the associate dean for student affairs will provide the counseling.

*c. Describe the methods used to identify and remediate any breaches of ethics in patient care made by medical students.*

Ethical conduct is assessed primarily by observation and feedback from faculty attending and residents working closely with the students during the clinical phases of the education program. Feedback on ethical and professional behavior is provided using the clerkship evaluation professionalism form. This form includes items on honesty, ethical principles, conflict of interest avoidance, compassion, respect, confidentiality, and ability to admit lack of knowledge. These forms are completed by supervising physicians and residents. Clerkship directors review these forms and provide the student with feedback and counseling on his/her performance in the areas of ethics and professionalism. The clerkship director determines whether an ethical lapse should be addressed by the associate dean for student affairs. The clerkship performance rating form completed on each student by faculty attending and residents includes a component on professionalism including ethical conduct. The current version of this instrument can be seen in Section II, Appendix 2.

In addition, students may be referred to the Grading and Promotion Committee to address egregious violations of ethical standards or a pattern of sub-optimal professional behaviors. The Grading and Promotion Committee is empowered to recommend that a student be suspended or even dismissed based on ethical issues and professionalism considerations. However, every effort is made to counsel the student and to devise remediation activities to enable the student to acquire the knowledge, attitudes, skills and behavior needed to provide ethical patient care. Remediation is decided on a case-by-case basis and could range from a prescribed course of required meetings with the associate dean for student affairs, the preparation of a paper in the area related to the infraction, or referral to other types of programs (e.g., anger management counseling).

*See also information for standards ED-10, MS-31-A, and MS-34.*



**ED-24. At an institution offering a medical education program, residents who supervise or teach medical students and graduate students and postdoctoral fellows in the biomedical sciences who serve as teachers or teaching assistants must be familiar with the educational objectives of the course or clerkship rotation and be prepared for their roles in teaching and assessment.**

*The minimum expectations for achieving compliance with this standard are that: (a) residents and other instructors who do not hold faculty ranks (e.g., graduate students and postdoctoral fellows) receive a copy of the course or clerkship rotation objectives and clear guidance from the course or clerkship rotation director about their roles in teaching and assessing medical students and (b) the institution and/or its relevant departments provide resources (e.g., workshops, resource materials) to enhance the teaching and assessment skills of residents and other non-faculty instructors. There should be central monitoring of the level of residents' and other instructors' participation in activities to enhance their teaching and assessment skills.*

*There should be formal evaluation of the teaching and assessment skills of residents and other non-faculty instructors, with opportunities provided for remediation if their performance is inadequate. Evaluation methods could include direct observation by faculty, feedback from medical students through course and clerkship rotation evaluations or focus groups, or any other suitable method.*

*a. Provide information in the following table for each required course or clerkship rotation where residents, senior medical students, graduate students, or postdoctoral fellows teach, assess, or supervise medical students.*

Course or Clerkship/Clerkship Rotation	Teaching/Supervision Provided by:	Describe How Objectives are Provided (e.g., orientation sessions, e-mail, syllabus)
SPM* Unit 6	Emergency Medicine Residents	Orientation by unit director, written session objectives and instructions
Internal Medicine	Residents	Orientation by Clerkship Director, syllabus
Psychiatry	Residents	Orientation by Clerkship Director, syllabus
OB-GYN	Residents	Orientation by Clerkship Director, syllabus
Pediatrics	Residents	Orientation by Clerkship Director, syllabus
Family Medicine	Residents	Orientation by Clerkship Director, syllabus
Surgery	Residents	Orientation by Clerkship Director, syllabus
Emergency Medicine	Residents	Orientation by Clerkship Director, syllabus
Critical Care	Residents	Orientation by Clerkship Director, syllabus
Sub-Internships**	Residents	Orientation by Clerkship Director, syllabus

\* A select group of residents may be asked to assist faculty in SPM clinical correlation worked case example sessions under faculty supervision. When this occurs, residents are provided the same written materials as the faculty listing objectives and giving instructions for how the session is to be conducted.

Emergency Medicine residents, paired with faculty members, participate in the clinical simulation exercises for medical students during the Integration of Systems unit in year 1 of SPM.

\*\*Students are required to do one sub-internship rotation in year four selected from Internal Medicine, Surgery, Family Medicine, OB-GYN or Pediatrics.

***b. Describe any institution-level and department-level programs to enhance the teaching and assessment skills of graduate students, postdoctoral fellows, or residents who teach, assess, or supervise medical students. If such programs are the same as those provided for faculty, indicate that fact and refer to the responses for standards FA-4 and FA-11 in Section IV: Faculty.***

The associate dean for graduate medical education, working in conjunction with the associate dean for faculty affairs and development recently developed an enhanced version of a Resident as Teachers Program. This program includes basic instruction on teaching skills (e.g., bed-side teaching, One-minute preceptor model), assessment (including skills for giving effective feedback), and expectations regarding student-resident relationships and the learning environment. This program is based on materials previously designed for community and full time faculty and on an earlier version of a “Residents as Teachers” program. The newer version of this program also includes instruction on the “clinical presentation” model that we employ in the pre-clerkship the curriculum, so that residents will be familiar with prior student experience. Participation in this program is mandatory and must be successfully completed to receive a contract. The associate dean for graduate medical education confirms completion of this program by residents in writing to the senior associate dean for medical education.

In addition to the institutional Residents as Teachers program, each of the clinical departments with required clerkships have their own programs for preparing residents to work with students. These range from resident “retreats” to one-on-one sessions with the clerkship director on clerkship specific issues.

***c. Describe any institution-level policies that require participation of residents and others (e.g., graduate students) in orientation or faculty development sessions related to medical student teaching or assessment.***

Graduate students do not participate in medical student education. Residents are required to complete the Resident as Teacher program described above as a condition of employment. They must document successful completion of this program to receive an employment contract.

***d. How and by whom is the participation of residents, graduate students, and postdoctoral fellows in sessions to enhance their teaching skills monitored?***

See response to ‘c’ above. It should also be noted that residents are evaluated on their teaching and supervisory skills by residency faculty members and by students.

*See also the Required Course Forms and Required Clerkship Forms.*

**ED-25. Supervision of medical student learning experiences at an institution that offers a medical education program must be provided throughout required clerkship rotations by members of the institution's faculty.**

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***a. Describe how the school will assure that students will be appropriately supervised during required clinical clerkships.***

The clerkship director is ultimately responsible for assuring that students are adequately supervised during each of the required year 3 and 4 experiences. During the inpatient components of their clerkships, students are assigned to a resident team led by attending physicians. The faculty attending is directly responsible for student supervision. Some level of supervision will also be delegated to the senior resident. In the ambulatory components of the clerkship, supervision will be the responsibility of the faculty attending physician. Faculty supervision includes the following activities:

- Direct observation of student interactions with patients to assess history taking and physical examination skills;
- Assessment of clinical reasoning based on oral presentations during rounds and reviews of patient write-ups;
- Frequent formative feedback based on observation and oral and written assessments;
- Completion of an on-line student assessment form for review by the clerkship director and incorporation into the student's clinical assessment grade.
- As part of the end of rotation evaluation students are asked to report on their experience with supervision. These results are shared with the clerkship directors and if students report inadequate levels of supervision, the senior associate dean discusses the matter with the clerkship director who is then responsible for implementing quality improvement measures.

***b. List any required clerkships where students may be supervised by physicians who are not medical school faculty members (do not include residents/fellows). What steps are being taken to provide faculty appointments to those physicians who will participate as teachers/supervisors in required clinical clerkships?***

One or two students per rotation are assigned to William Beaumont Army Medical Center for the Internal Medicine components of the Internal Medicine/Psychiatry Block. Because of frequent staff turnover related to deployments it has been difficult ensuring that all of the clinicians interacting with our students have volunteer faculty appointments. We are actively working to develop systems for identifying physicians at this site who do not have faculty appointments so that we can initiate that process in a timely manner. Our faculty affairs office is also developing policies to streamline the appointment process for these faculty members. We have had several meetings with the WBAMC personnel to discuss this problem and ways to avoid assigning students to non-faculty.

*c. Where direct teaching of students is carried out by individuals who do not hold faculty appointments at the medical school, describe how the teaching activities provided by these individuals are supervised by medical school faculty members.*

All faculty members at this site receive the same information about clerkship goals and objectives and expectations regarding student assessment. Students have been very positive about their learning experience and the quality of instruction at this site.

**ED-26. A medical education program must have a system in place for the assessment of medical student achievement throughout the program that employs a variety of measures of knowledge, skills, behaviors, and attitudes.**

*Assessments of medical student performance should measure the retention of factual knowledge; the development of the skills, behaviors, and attitudes needed in subsequent medical training and practice; and the ability to use data appropriately for solving problems commonly encountered in medical practice. The system of assessment, including the format and frequency of examinations, should support the goals, objectives, processes, and expected outcomes of the curriculum.*

**ED-29. The faculty of each discipline should set standards of achievement in that discipline and contribute to the setting of such standards in interdisciplinary and interprofessional learning experiences, as appropriate.**

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*a. Describe the role of individual disciplines and the central curriculum management structure in setting standards of achievement (e.g., establishing the grading policy for individual courses and clerkship rotations).*

#### **OVERVIEW**

The CEPC established overall institutional policies related to student assessment and grading. It established a two interval Pass/Fail system of grading for the pre-clerkship curriculum and a three interval Honors/Pass/Fail system for years 3 and 4. Course and unit directors in years 1 and 2 working with their respective faculty course and unit committees (see ED-33) establish the criteria for setting grades and how those grades will be calculated. These course level policies were reviewed and approved by the CEPC. For years 3 and 4, the required clerkship committee devised a common set of assessment guidelines that apply to each of the clerkships. As with the first two years of the curriculum, clerkship assessment policies were reviewed and approved by the CEPC.

#### **SCIENTIFIC PRINCIPLES OF MEDICINE COURSE**

**Development of Assessment Items:** Student assessment items, whether formative or summative, are developed by faculty members who have direct responsibility for teaching in a specific course. Evaluation items are directly linked to the stated educational objectives of the course or unit through the Ilios curriculum management system. Items are prepared in advance of the scheduled evaluation in order to permit review of items for content and construction. Initially, items are vetted by a designated item review committee composed of MD and PhDs from the Department of Medical Education with differing discipline expertise. Next, the course director and the senior associate dean for medical education evaluate the questions to ensure that they meet minimal quality guidelines. Once an item has been used in a formative or summative examination, item statistics are reviewed by the course and unit directors and OCEA technical staff. Poorly performing items are either revised or eliminated from the examination item pool.

**Validation of Examinations:** OCEA provides regular and timely reports of examination results, including a statistical analysis and assessment of the validity of each examination item. This information is reviewed by the course director and by the faculty members responsible for teaching the course or unit.

Aggregate student performance as assessed by course or unit summative assessments are shared with the Curriculum and Educational Policy Committee as a required component of the feedback provided by the course director at the conclusion of his/her course or unit.

### MEDICAL SKILLS COURSE

Comprehensive summative examinations are administered at the end of each SPM unit. These examinations consist of OSCEs, SOAP notes and standardized patient evaluations. These examinations are designed to evaluate students' proficiency in specific clinical skills including history-taking, physical examination, use of diagnostic instruments, performance of medical procedures and the integration of the systems-based knowledge acquired in preceding SPM units. A formative assessment of students' progress in the acquisition of clinical skills is also performed weekly during the Medical Skills session using similar evaluation methods.

### SOCIETY, COMMUNITY AND THE INDIVIDUAL

SCI follows the same procedures as described above for SPM in assessing knowledge. Students' encounters with patients from community clinics are also formally evaluated by supervising clinic physician and the SCI course director. Evaluation of students' clinical skills consists of faculty rating (using a checklist) and evaluation of students' clinical notes. (See ED-28 for an example SCI checklist.)

### MASTERS COLLOQUIUM

In the Masters Colloquium students are required to write brief reflective and analytic essays on issues related to controversies in medicine, medical ethics, and the physician-patient relationship. These essays are assessed by the Masters utilizing rubrics.

### CLERKSHIP ROTATIONS

As described in more detail in ED-33, the Clerkship Directors serve on a standing committee that reports to the Curriculum Educational Policy Committee (CEPC). The Clerkship Directors Committee established a uniform definition of student achievement which applies to all of the required clerkships in years 3-4. This was thoroughly reviewed and discussed by the CEPC which then approved the assessment and grading plan proposed by the Clerkship Directors Committee.

#### ***b. Describe how the scheduling of examinations in the preclinical years is determined.***

The medical school faculty believes that frequent evaluation of students, coupled with timely feedback and corrective action, is an essential component of the curriculum. The PLFSOM evaluation system incorporates weekly formative exams and summative examinations at the end of each course or SPM unit.

The summative examination schedule in the pre-clerkship years is determined by course schedule. Summative exams occur approximately every 5-8 weeks. There are 6 summative exams in year 1 and 5 summative exams in year 2. Course directors meet prior to the beginning of each semester to establish the dates and order of examinations. The CEPC reviews and approves the semester schedule.

***c. Include a copy of any standard form(s) used by faculty members or resident physicians to evaluate students in small group settings during the preclinical years.***

Small group facilitators complete an assessment form on each student at the conclusion of each small group that solicits information on the following: student participation, demonstrated level of preparation, ability to apply learning, and respect for faculty and peers. (Please see copy of small group assessment form below).

**SMALL GROUP STUDENT ASSESSMENT**



Student \_\_\_\_\_

Date: \_\_\_\_\_ 201\_

Faculty Name \_\_\_\_\_

Faculty Signature \_\_\_\_\_

*For each of the following statements, please indicate if the student displayed this characteristic or behavior (if the student did not attend, please check here . No further information is necessary.)*

Student exhibited this behavior

Yes No		Unable to assess	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appropriately participated in the discussion
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Demonstrated awareness of the key concepts in the required material
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Demonstrated the ability to apply the key concepts to the discussion
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Demonstrated respect for group members
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appropriately admitted lack of knowledge
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Demonstrates acceptance of diverse cultures, life stage, lifestyles, etc

Please Comment

SEE ALSO INFORMATION FOR STANDARDS ED-1 AND ED-33 AND REQUIRED COURSES AND CLERKSHIP ROTATIONS, PART A, ITEM (B.).

*Also, refer to the information for standard MS-33 in Section III: Medical Students relating to assessment of student performance. If there are no institutional policies regarding assessment of student performance, describe the means by which standards of achievement are set for individual required courses and clerkship rotations.*



**ED-27. A medical education program must include ongoing assessment activities that ensure that medical students have acquired and can demonstrate on direct observation the core clinical skills, behaviors, and attitudes that have been specified in the program's educational objectives.**

*a. Is there a core list of clinical skills/behaviors that students must demonstrate? (check)*

X	Yes, as part of the institutional educational objectives
X	Yes, as a separate list being developed for each required clinical clerkship
	No (please explain if checked)

*b. List each OSCE or standardized patient assessment that occurs outside of individual courses or clerkship rotations, and describe the general content areas each covers and when in the curriculum each occurs. For each, indicate whether the purpose of the OSCE or standardized patient assessment is formative (i.e., to provide feedback to the student) or summative (i.e., to inform decision-making about academic progression or graduation).*

At the end of the third year of medical school, all students are required to take, and pass, a multiple station OSCE designed to assess communication-skills, the ability to take an appropriate focused history and correctly conduct an appropriate focused physical examination based on the patient's presenting problem. This OSCE also includes components to assess student ability to document the findings of the history and physical examination and to provide an assessment and plan appropriate to the findings. Students are required to pass each of these stations based on a pre-determined cut point for each station. Students who do not reach this passing threshold are required to remediate. Remediation is determined by the clerkship director who designed the station based on the nature of the deficiency.

*c. Complete the following table with data from the AAMC GQ, the AAMC CGQ and/or other school-specific sources (e.g., clerkship evaluations) that indicate whether students' clinical skills are being directly observed in each required clinical clerkship rotation.*

Rotation	% agreeing they were observed		National % agreeing they were observed (2011 data)	
	*	Physical Examination*	History Phy	sical Examination
Family Medicine	88.8	88.8	76.4	79.5
Internal Medicine	83.3	83.3	75.8	79.3
Obstetrics-Gynecology 77.7		77.7	58.0	68.3
Pediatrics 88.8		88.8	76.4	79.5
Psychiatry 100		100	82.2	80.3
Surgery 77.7		77.7	49.4	53.9

\*Please note: This data is from the independent student self-study survey. Students combined history and physical examination into a single item.

*d. Provide data from the AAMC GQ, the AAMC CGQ, and/or the independent student analysis that address students' perceptions of their ability to perform core clinical skills.*

We administered a survey of the charter class of 2013 on June 4<sup>th</sup> to solicit this information as it was not included in the student independent analysis. 38/40 students responded for a response rate of 95%.

<b>Core Clinical Skills</b>	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Patient communication skills	0	0	9	(23.7%)	29 (76.3%)
Physical examination skills	0	1 (2.6%)	1 (2.6%)	14 (36.8%)	22 (57.9%)
Clinical decision making	0	1	(2.6%)	15 (39.5%)	22 (57.9%)
Ability to manage common conditions	0	0	16	(42.1%)	22 (57.9%)

*See also Required Courses and Clerkships, Part A, item (B.)*

**ED-28. A medical education program must include ongoing assessment of medical students' problem solving, clinical reasoning, decision making, and communication skills.**

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*When answering the question, limit the response to a few appropriate examples of assessment materials and methods that illustrate how the relevant skills are assessed. Additional information or examples can be provided on site, if requested by the survey team.*

*Provide a representative sample of the materials and methods (e.g., written or oral examination questions, research paper assignments, problem-based learning cases) specifically designed to assess students' skills in problem solving, clinical reasoning, and communication. Indicate the courses or clerkship rotations that employ such materials or methods.*

**SCIENTIFIC PRINCIPLES OF MEDICINE (SPM)**

**Problem Solving— (Body fluid dynamics and calculations)**

Students are introduced to concepts related to intra- and extra-cellular body fluids and compartments in the first unit of SPM (Introduction to Health and Disease), with an emphasis on plasma concentration, interstitial fluid composition, intracellular fluid composition, and transport mechanisms responsible for moving ions and organic molecules across membranes. In this context students are introduced to the Darrow-Yannet diagrams and asked to solve simple problems related to the addition of different IV fluids to plasma and how that fluid ultimately distributes among the three compartments. Body fluid composition and movement is revisited as part of the Cardiovascular/Pulmonary unit at the end of year 1 as it relates to blood pressure. Body fluids are addressed yet again in year 2 as part of our Renal System unit. In this unit, students participate in a body fluids laboratory exercise in which they need to demonstrate their complete understanding of how the body responds to fluid alterations in one compartment and how this influences the composition of fluid in another compartment. They must also demonstrate the ability to mathematically calculate alterations in body fluids. In this laboratory period, students in small groups are given minimal information related to the condition of the body under normal conditions and asked to calculate total body water, intra- and extra-cellular volumes, and osmolarity of each of these compartments. The student groups are then given two different patient case scenarios—one of a patient working out-of-doors who suffers a heat related injury and is admitted to the emergency department suffering from severe dehydration, and the second a patient in congestive heart failure. In the first scenario students must calculate the patient's body fluid condition when he arrives at the emergency department, and how his condition will change when IV fluids of different compositions. Students are expected to draw corresponding Darrow-Yannet diagrams for each of these conditions. They are also expected to discuss in their small groups the mechanisms mediating the changes in body fluid composition over time. In the second scenario, students are provided stat lab values, physical examination results, and provided a table with minimal information related to the patient's initial condition. They must then complete the remaining values on the table and answer a set of questions by conducting appropriate calculations. At the conclusion of this scenario, as in the first, students draw a corresponding Darrow-Yannet diagram.

**Problem solving (examples from the examination item databank associated with SPM Unit 3 “Dysphagia” clinical presentation):**

1-A 58-year-old female is being evaluated by a gastroenterologist for dysphagia which is gradually becoming worse. An upper GI radiographic study with barium contrast demonstrates the presence of a dilated esophagus proximal to the lower esophageal sphincter (LSC). No lesions are seen within the lumen of the esophagus. Which of the following is a likely cause of the patient's symptoms?

- A) Absence of myenteric plexus in the proximal esophagus
- B) Absence of the myenteric plexus at the distal esophagus
- C) Absence of the submucosal plexus in the body of the esophagus
- D) Absence of the submucosal plexus at the lower esophageal sphincter

Answer: D

Explanation: The patient is suffering from achalasia, which is caused by the absence of normal relaxation of the lower esophageal sphincter (LES). This condition results from decreased or absent inhibitory ganglion cells in the myenteric plexus of the body of the esophagus.

Objective: Discuss the esophagus in terms of its origin, termination, sphincters, nerve supply, blood supply, and the following clinical conditions: Barrett's esophagus, Mallory-Weiss tears, esophageal stricture, dysphagia, achalasia, esophageal varices, and hiatal hernia, tracheo-esophageal fistula, and appearance on radiographs, upper GI series, MRIs and CT scans.

2-Following a neurological event of sudden onset, a 75-year-old woman develops dysphagia. The patient exhibits a loss of pain and temperature on the contralateral side of the body, and loss of pain and temperature on the ipsilateral side of the face. She also exhibits a partial ptosis, miosis, and anhidrosis of the face on the ipsilateral side. Damage to which of the following is responsible for the patient's dysphagia?

- A) Facial nerve
- B) Hypoglossal nerve
- C) Medial lemniscus
- D) Nucleus ambiguus
- E) Nucleus of the tractus solitarius

Answer: D

Explanation: The patient is suffering from a lateral medullary syndrome of Wallenberg. Her stroke has damaged the nucleus ambiguus, which contains the cell bodies of special visceral efferent neurons that innervate the striated muscle of the palate and pharynx.

Objective: Discuss the lesions of the central and peripheral nervous system pertinent to dysphagia. Discuss the lateral medullary syndrome in terms of dysphagia. Discuss the medial medullary syndrome in terms of tongue function

### **Clinical Reasoning—Worked Case Example Sessions--SPM**

Worked case examples (WCE) are weekly two hour small group sessions in which an experienced clinician faculty member "guides" students through the analysis of 3-4 patient cases utilizing the clinical schemes that initiated the week's instruction. As described earlier in the database, the clinical scheme associated with each clinical presentation illustrate an approach to thinking about a patient presenting with a given complaint or problem. The scheme illustrates the major branch points in clinical reasoning and serves as a framework for organizing basic science content that is important for a student to learn in order to understand the pathophysiology underlying the problem.

Example: During the WCE session related to the clinical scheme presentation of "*Weakness and Loss of Motion*" (SPM, Unit 2) one of the four worked cases is a classic example of new-onset myasthenia gravis. Ultimately the students are expected to localize the problem and propose a most likely diagnosis through application of the clinical scheme for weakness and loss of motion. The clinician-tutor facilitates participation by all the students and advances the discussion by providing limited elaboration and re-direction when necessary. In addition, an important function of the tutor is to ensure that the students explicitly justify each step in their reasoning as they identify the clinical presentation and then work

through the relevant clinical scheme to arrive at a diagnosis. For the example case of myasthenia gravis, the tutor ensures that the student-generated discussion clearly identifies the chief complaint (activity-dependent weakness), determines the clinically distinctive elements of the history, describes the expected examination findings, reviews and explains the relevant laboratory and electrodiagnostic test results, localizes the lesion to the post-synaptic side of the neuromuscular junction, discusses relevant pathophysiological mechanisms, identifies the most likely diagnosis, and suggests confirmatory steps. As such, observation and assessment of the students' introductory level clinical reasoning is the most essential role of the WCE faculty tutor. Informal and formative feedback is provided to the students as an intrinsic part of the WCE discussions and, in addition, the tutor completes a brief but formal assessment of each student at the end of the session. An example case can be reviewed in the Section II, Appendix 8.

**MEDICAL SKILLS**

Standardized patients complete checklists on student communication, history-taking and examination skills as part of the Medical Skills course. An example check list follows:

**H&P CHECKLIST: JAMIE ANDARES**

Date \_\_\_\_\_ Student \_\_\_\_\_ SP initials \_\_\_\_\_

	Yes	No
Student established a positive working relationship (presented him/her-self, eye contact and addressed me as Mr./Ms. Andares) [comm.]		
Student asked me about onset of symptoms and developed a chronologic timeline of my complaints [Hx]		
Student asked me about weight loss or gain (Review of Systems) [Hx]		
Student asked me if I feel that the food “sticks” to my throat [Hx]		
Student asked me to <u>show</u> where I feel the food is “stuck” [Hx]		
Student asked me if I choke or cough after swallowing [Hx]		
Student asked me if I feel food coming up my nose after swallowing [Hx]		
Student asked me about alcohol and tobacco use [Hx]		
Student asked me about my own perspective how the new symptom affects my life in a supportive manner [comm.]		
Student asked me about diseases in my family [Hx]		
Student examined my mouth [PE]		
Student asked me to smile (check for facial droop) [PE]		
Student listened to my lungs and heart under my clothing [PE]		
Student listened to my right lung, on the side [PE]		
Student performed stretch tendon reflexes examination on <u>both</u> arms [PE]		
Student performed stretch tendon reflexes examination on <u>both</u> legs [PE]		
Student asked me to move my wrist OR forearm against resistance – <u>both</u> wrists OR forearms [PE]		
Student asked me to move my knee OR ankle against resistance – <u>both</u> knees OR ankles [PE]		
Student asked me to walk and observed my gait [PE]		
Student explained to me that the difficulty swallowing I experience may be related to the stroke I suffered [comm.]		
Student made me feel comfortable [comm.]		

**Comments or Clarifications:**

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**Society, Community, and the Individual (SCI)**

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In SCI students spend one-half day a month in a community clinic. As part of that experience preceptors complete the following checklist assessing student history-taking and communication skills:

**TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER  
SCHOOL OF MEDICINE – El Paso  
FACULTY CHECKLIST: REPORT ON CORE ACTIVITY #3  
BASIC HISTORY (PERIODIC HEALTH EXAMINATION or FOLLOW UP ON A STABLE  
PROBLEM)**

Student:

Date:

**You must check ‘yes’, ‘no’ or ‘N/A’ for not applicable-not observed for each item**

Yes	No	N/A	Check if the student orally reported to the preceptor (MD,FNP):
			1. Patient’s chief complaint
			2. A chronological sequence of the present illness
			3. Patient’s past medical history
			4. Patient’s family history
			Check if the student was able to:
			5. Determine the patient’s need for preventative interventions
			6. Identify the type of screening test the patient was due for
			7. Identify the immunizations the patient was due for
			8. Determine whether the patient had a normal or abnormal weight
			9. Two medical conditions associated with the patient’s weight abnormality if applicable
			10. Three medical conditions the patient is at risk for due to the weight abnormality
			11. Identify information material aimed to prevent disease and promote health
			12. Discuss information material with patient
			13. Elicit information about the impact of the patient’s symptoms on his/her daily life
			14. Elicit information about the patient’s explanation (s) about his/her symptoms or disease
			Check if the student:
			15. Demonstrates good communication skills (e.g., Provides clear information to patient, gives patient opportunity to ask questions)
			16. Demonstrates good interpersonal skills (e.g., demonstrates courtesy when communicating with preceptor and staff )
			17. Demonstrates professionalism (e.g., demonstrates respect and professional demeanor)

Please ask the student:

From the patient’s perspective...

1. What is the most troubling or worrisome about this illness for the patient?
2. What impact is the illness having on the patient’s life?
3. What is the patient hoping we can do for him/her today?

### **Required Clerkships**

The clerkship assessment forms employed in years 3 and 4 for required clerkships include items related to problem solving, clinical reasoning, decision-making and communications skills. In addition each clerkship requires students to submit patient write-ups for evaluation and each includes some form of observed history and physical examination in which the aforementioned skills are assessed.

*See also the Required Course and Clerkship Forms and the information for standards ED-6/7 and ED-19.*



**ED-30. The directors of all courses and clerkship rotations in a medical education program must design and implement a system of fair and timely formative and summative assessment of medical student achievement in each course and clerkship rotation.**

*Faculty of the medical education program directly responsible for the assessment of medical student performance should understand the uses and limitations of various test formats, the purposes and benefits of criterion-referenced vs. norm-referenced grading, reliability and validity issues, formative vs. summative assessment, and other factors associated with effective educational assessment.*

*In addition, the chief academic officer, curriculum leaders, and faculty of the medical education program should understand, or have access to individuals who are knowledgeable about, methods for measuring medical student performance. The medical education program should provide opportunities for faculty members to develop their skills in such methods.*

*An important element of the medical education program's system of assessment should be to ensure the timeliness with which medical students are informed about their final performance in courses and clerkship rotations. In general, final grades should be available within four to six weeks of the end of a course or clerkship rotation.*

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*a. Describe the availability of individuals knowledgeable about educational assessment who can assist faculty in developing formative and summative evaluations of students (for example, experts in test development or educational measurement). Describe the organizational placement of such individuals (for example, medical school office, university office, department).*

Expertise in educational assessment is available to the faculty through the Office of Curriculum, Evaluation and Accreditation (OCEA). OCEA is an academic service unit directed by the senior associate dean for medical education. This office includes a PhD level director of assessment and evaluation. This person is knowledgeable in statistical analysis, mixed methods research, and qualitative assessment. Besides providing technical analysis, interpretation, and quality control oversight on all internally generated assessments, she is available for individual and group consultation on assessment issues. The director of assessment and evaluation in OCEA is also working closely with faculty in developing scoring rubrics to assess written exercises, class presentations, projects, and professionalism. The senior associate dean also has considerable experience in student assessment including service on an USMLE Step 1 item writing committee. At present, we have the resources needed to meet institutional needs.

*b. List any workshops or similar activities given during the most recent academic year that addressed methods of evaluating student performance.*

Dr. Naomi Lacy presented a faculty development workshop on October 19, 2011 titled: Asking and Writing Questions that Measure Student Learning. This workshop addressed the following issues: learning objectives and the most appropriate strategies for assessing these objectives; commonly occurring flaws in written examination questions; NBME item-type definitions; and a template for constructing questions. In addition, participants were given an opportunity to practice writing items and to get feedback on those items from workshop participants. Fifteen faculty members participated in this workshop and it received very favorable reviews with all relevant evaluation categories receiving an average rating of 4.4 or higher on a 5-point scale.



During the past academic year, most of the faculty development related to evaluating student performance has been in the form of individual feedback to faculty based on item analysis of their formative and summative evaluation questions.

The director of assessment and evaluation has also worked with small groups of faculty to assist them in the development of scoring rubrics for student written work in Scientific Principles of Medicine (“tank-side rounds), clinic observation exercises in the Society, Community, and Individual Course, reflection exercises in the Masters Colloquium, and for the write-up required to document progress in the Scholarly Activity and Research project. At this point in our development, we feel that targeted feedback and just-in-time instruction and guidance are the most effective approach for enhancing faculty members’ knowledge and skills in student assessment methodologies.

Prior to the last academic year, we conducted several workshops and faculty development events on student assessment, including item-writing workshops conducted by the senior associate dean for medical education and by representatives of the National Board of Medical Examiners. Most of these events occurred in the 2008-2009 academic year prior to the seating of the charter class in July 2009. As noted in response to ED-31 (below), during the first two years of the curriculum we offer weekly formative quizzes in addition to 100-150 item summative examinations utilizing USMLE style questions. All questions are subjected to item analysis at each administration. Items that appear to be psychometrically problematic are reviewed by the course directors and by the item author, and improved as needed or eliminated from the item pool. For summative examinations, items are reviewed not only by the course director and item authors but other faculty members in the department of medical education. This enables us to diagnose problems in item format, construction, and/or expectation. This, in essence becomes a workshop on item-writing as flawed items are identified, “diagnosed”, and suggestions for improvement are offered.

***c. Provide information on the average length of time for preclinical course grades to be made available to medical students.***

Examination results are reported to students in a timely fashion. Formative exam results are reported instantly on submitting the completed examination. Summative exam and OSCE scores are reported within 5-7 days of administration following a review of the results and any adjustments that need to be made to accommodate flawed items. All final course grades are submitted electronically to the Texas Tech University Health Sciences Center (located in Lubbock) within 10 days of the completion of the final examination (including OSCE). Students can access their final grade electronically through their e-portfolio. Grade reports are the responsibility of the senior associate dean for medical education and all student assessment is coordinated by the Office of Curriculum, Evaluation and Accreditation. Three staff members—2 coordinators in OCEA and 1 senior analyst in the IT/ET department—have been assigned to work full time on the coordination and management of the formative and summative evaluation process.

*d. For each required clinical clerkship/clerkship rotation, provide the average time for grades to be made available to medical students. What percent of students in each clinical discipline received their grades within six weeks? List clerkship rotations (or clerkship rotation sites) that are significant outliers.*

<b>Clerkship</b>	<b>Block 1/% Students Receiving Grades w/in 6 weeks*</b>	<b>Block 2/% Students Receiving Grades w/in 6 weeks</b>	<b>Block 3/% Students Receiving Grades w/in 6 weeks</b>
Family Medicine	56 days/0%	31 days/100%	Pending
Surgery	56 days/0%	31 days/100%	Pending
Internal Medicine	56 days/0%	31 days/100%	Pending
Psychiatry	56 days/0%	31 days/100%	Pending
OB/GYN	56 days/0%	30 days/100%	Pending
Pediatric	56 days/0%	30 days/100%	Pending

Please note: As a policy we had decided to release all student clerkship grades at the same time. During block 1 grade release was delayed by a delay in the release of the final scaled scores for the new Family Medicine Modular examination. We have since changed that policy and are now releasing grades when the clinical block grades are complete. As can be seen in the table above all clerkship grades were available to students in a little over 4 weeks in block 2. Block 3 just concluded and the data for this block will be made available prior to the survey team visit.

*e. Describe how the medical school monitors the timing of provision of clerkship grades and ensures that course and clerkship rotation grades are released to students in a timely manner.*

Clerkship grades are expected to be provided within 30 days of the conclusion of the clerkship. These grades are submitted to the Year 3-4 Coordinator who is a member of the Office of Curriculum, Evaluation, and Accreditation for posting in the student's e-portfolio and for recording by the Office of the Registrar. If grades have not been reported by the 30 day deadline, the Year 3-4 Coordinator contacts the senior associate dean for medical education and he will follow-up with the clerkship director to ensure submission. During the first block two clerkships (the Medicine/Psychiatry block) succeeded in turning-in student grades within 30 days. The remaining clerkships were contacted by the senior associate dean for medical education and reminded of the need to provide grades in a prompt manner. The remaining clerkships during the first of the 3 Blocks turned in grades between 7 and 8 weeks after the completion of the block. The senior associate dean for medical education has subsequently met again with the clerkship directors, department chairs, and department faculty to reinforce the importance of frequent and timely feedback for clerkship students. The director of assessment and coordination and the year 3-4 coordinator in OCEA have also re-doubled their efforts to ensure that the clerkship directors and coordinators are familiar and comfortable with the on-line grading applications that have been developed by the PLFSOM IT department for grade reporting.

*See also information for standard ED-26 in this section, MS-33 in Section III of the database, Required Courses and Clerkships, Part A, item (B.), and individual Required Course and Clerkship forms.*

**ED-31. Each student should be evaluated early enough during a unit of study to allow time for remediation.**

*It is expected that courses and clerkships provide students with formal feedback during the experience so that they may understand and remediate their deficiencies. Courses or clerkships that are short in duration (less than 4 weeks) may not have sufficient time to provide structured formative evaluation, but should provide alternate means (such as self-testing or teacher consultation) that will allow students to measure their progress in learning.*

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*a. Summarize the opportunities that are available to medical students for formative assessment during the preclinical years (e.g., the availability of practice tests, study questions, problem sets). How does the curriculum committee or other central authority ensure that students receive formative assessment(s) in the preclinical phase of the curriculum?*

Early formative assessment is an integral part of the **Scientific Principles of Medicine** curriculum. A 25 item formative quiz is given weekly during the first two years of the curriculum. These exams cover the material addressed in the previous week. The items for the formative assessment are drawn from the same pool of examination items that are used for summative assessments. The results of the evaluation are reviewed by the college masters, associate dean for student affairs, and the senior associate dean for medical education, and discipline content experts. This information is used to assess the progress of each student. This process permits early intervention. In addition to assessing academic difficulties, the college masters also provide a more global assessment of the student's adjustment to the rigors of medical school. Because the college masters have a close working relationship with the students, they are in a position to develop and initiate a remediation plan at the earliest sign of concern.

The Office of Student Affairs hired a PhD educational psychologist as a learning resource specialist for our students. Besides conducting workshops and advising students on study skills, test anxiety, and other topics designed to facilitate learning, she is also available to meet with students individually to conduct "error analysis" on the formative examinations to help the student diagnose whether performance problems are a result of poor comprehension of the material, misinterpretation of the item(s), or flawed approaches to study.

For **SCI**, the course director meets with students who have performed poorly on mid-term and/or final examinations to arrange for appropriate remediation.

**Medical Skills** closely monitors student performance from week to week based on standardized patient feedback. Student-SP encounters are recorded and are available for review as needed. This allows the development of individualized approaches to remediation based on identified areas of weakness.

Both the senior associate dean for medical education and the associate dean for student affairs monitor the provision of formative feedback in years 1 and 2. If either has concerns about students receiving sufficient formative feedback, they will discuss with the course or clerkship director and they can report their concerns to the CEPC, if the appropriate course director is not responsive. Thus far, sufficient formative feedback is being routinely provided to students.

*b. Describe the institutional policies and procedures that are in place to ensure that students receive formal feedback at the mid-point of a clerkship/clerkship rotation. Describe the means by which the occurrence of mid-clerkship rotation feedback is monitored within individual departments and at the curriculum management level.*

The Year 3-4 required clerkship directors meet with students in a formal formative feedback session at least once per clerkship, at about the mid-point in the experience, so that students will have time to remedy any deficiencies and remain on-track for meeting expectations about the clinical conditions they are required to encounter in order to meet clerkship objectives. The results of the mid-clerkship formative feedback are uploaded into the student's e-portfolio. The scheduled date and time of the feedback session is given to the Year 3-4 coordinator in the Office of Curriculum, Evaluation, and Accreditation. She monitors the e-portfolio for evidence that the feedback was provided and if that evidence is lacking, she contacts the clerkship director to remind him or her of this requirement and to learn of any special circumstances requiring that it be rescheduled. The senior associate dean is also contacted so that he can follow-up as needed to ensure that formative feedback is being provided.

*c. Provide data, by clerkship rotation, from the AAMC GQ, the AAMC CGQ, clerkship rotation evaluations, and/or the student independent analysis that illustrate the percentage of students receiving mid-clerkship rotation feedback. Include, if available, data regarding students' perceptions of the utility of this feedback and its relationship to the criteria that will be used for summative grading in the clerkship/clerkship rotation.*

**Mid-clerkship Feedback: Blocks 1-3**

<b>Clerkship</b>	<b>% of students receiving mid-course feedback</b>
Family Medicine	89.5
Internal Medicine	100
Obstetrics-Gynecology	97.2
Pediatrics 100	
Psychiatry 1	00
Surgery 6	0%

Most third year students received mid-clerkship evaluations. In surgery for Block 2, a scheduling error led to the cancelation of scheduled mid-rotation feedback at the scheduled time. A heavy clinical load on the part of the clerkship director made it difficult to provide this feedback in a timely manner. This problem was compounded by the fact that the clerkship coordinator in the department had other clerical duties as well. To address this problem, we reassigned the clerkship director responsibilities to another faculty member who will be able to devote about 40% time and effort to the clerkship. The surgery department also hired a full time clerkship coordinator to assist in the administration of the clerkship. In Block 3 all students received mid-clerkship feedback in all of the clerkships.

**Perceptions of Feedback MS 3 Students 2011-12**

Clerkship	% of respondents agreeing that they received sufficient feedback (Blocks 1-3)	National % of respondents agreeing (if data from the AAMC GQ are used) 2011 data (rounded)
Family Medicine	91	81
Internal Medicine	74	95
Obstetrics-Gynecology 62		66
Pediatrics 88		83
Psychiatry 100		81
Surgery 54		65

The clerkship directors have been meeting with faculty and residents to impress upon them the importance of completing timely evaluations and of providing students frequent and clear feedback. The percentages of students agreeing that they received sufficient feedback in the final block 3, following these interventions, follow:

Family Medicine = 92%  
 Internal Medicine = 65%  
 OB-GYN = 91%  
 Pediatrics = 100%  
 Psychiatry = 100%  
 Surgery = 68%

OB-GYN, Pediatrics, and Surgery clerkships demonstrated marked improvements in student perceptions that they received sufficient feedback in block 3 as compared with earlier blocks. The difficulties in the surgery clerkship have already been noted and the new clerkship director, with the support of his department chair and the senior associate dean for medical education is reinforcing the need for faculty to be explicit about giving feedback. The department of medicine has named a new clerkship director for the 2012-13 academic year and he is aware of student perceptions and has agreed to make an improvement in this area a major priority. We are continuing to monitor faculty and resident performance in this area for all clerkships.

*See information provided in Required Courses and Clerkships, Part A, item (B), and on the Required Course forms.*

**ED-32. Narrative descriptions of student performance and of non-cognitive achievement should be included as part of evaluations in all required courses and clerkships where teacher-student interaction permits this form of assessment.**

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- a. List the courses in the preclinical phase of the curriculum that include narrative descriptions as part of the final assessment where the narratives are:*
- i. provided only to students as a formative assessment*
  - ii. used as part of the final grade/assessment in the course*

#### **COURSES PROVIDING NARRATIVE FEEDBACK ONLY TO STUDENTS**

**Scientific Principles of Medicine**—In the weekly 2 hour small group “worked case example” (WCE) sessions, faculty tutors complete a brief evaluation of student performance addressing both cognitive (e.g., ability to apply knowledge) and non-cognitive behaviors (e.g., preparation and behaving in a respectful manner). The tutors are also expected to provide brief written commentary on student performance and achievement. Faculty compliance with providing narrative feedback has been variable. This, in part, reflects the fact that faculty facilitation varies from week to week. As a clinical presentation curriculum, we purposefully rely on faculty members who have experience and expertise in caring for patients who reflect the clinical presentations being addressed in a given session. Some faculty members report that they do not know the students well enough to comment on their performance. On average students in the class of 2014 received narrative feedback three times a year in this course in 2011-12. For the class of 2015 students received an average of 8 narrative comments in 2011-12.

**Society, Community, and the Individual**—faculty tutors complete student performance evaluation forms on each on each individual student for all small group discussion sessions and for Spanish sessions. (See description above.)

**Medical Skills**—In medical skills, students interact frequently with standardized patients who complete checklists on each student following the interaction. These checklists include judgments about interpersonal skills and sensitivity to the patient during the interaction. In addition to completing the checklist, the standardized patient also provides free-text commentary on the non-cognitive components of student performance in the interaction. On average students in the class of 2014 received narrative comments 7 times and for the class of 2015, 12 times in 2011-12.

At the end of the first two years of medical school, each student’s small group evaluation forms and narrative comments are reviewed by the college masters, associate dean for student affairs, and the senior associate dean for medical education. This group collaborates in drafting a brief narrative summary highlighting the positive trends noted in these evaluations and also identifying areas of needed growth and improvement and recommendations for success in years 3-4 ward teams.

#### **COURSES PROVIDING NARRATIVE FEEDBACK AS PART OF THE FINAL GRADE/EVALUATION**

**Masters Colloquium**—In this course, as previously noted, students complete a number of written reflective exercises dealing with issues related to professional development, ethical reasoning, and controversial topics in medicine. These exercises require the student be introspective and self-aware. The College Masters evaluate these assignments and provide narrative feedback based on rubrics.

Students are required to pass these assignments to pass the course. If a student does not meet expectations, they are given an incomplete and an opportunity to revise and resubmit. If a student does not make an effort to satisfactorily complete these assignments, they will be at risk of failing the colloquium and would be referred to the Grading and Promotion Committee.

**Society, Community, and the Individual**—In this course, students spend one half day a month in community clinic settings where they interact with clinicians, other members of the health care team, and patients. The clinic preceptor completes an evaluation form on each student which includes observations about interpersonal skills. If problems are identified, the course director meets with the student and if problems persist, this can be grounds for not passing this component of the SCI course. Students must pass all components of the course to receive a grade of ‘P’ for the semester. A student judged to be at risk for failing the course is referred to the Grading and Promotion Committee.

*b. List the clinical clerkship rotations that include a narrative description as part of the final assessment where the narratives are:*

*i. provided only to students as a formative assessment*

Narrative feedback is provided to students during the formative feedback scheduled at the mid-point in the clerkship. This information is included in the student e-portfolio.

*ii. used as part of the final grade/assessment in the course*

Clerkship directors for all required clerkships provide a narrative summary of student performance as part of the clerkship grading process. This narrative includes comments on such non-cognitive factors as dependability, work ethic, motivation, commitment to self-directed learning related to patient care, interpersonal skills, teamwork, and ethical conduct. Students who do not demonstrate a high level of professionalism are not eligible for Honors designation regardless of how well they perform in the other components of the clerkship. If significant problems are detected, or if the student fails to respond to formative feedback, the student may be referred to the associate dean for student affairs. She in turn can refer the student to the Grading and Promotion Committee for discussion, review, and the formulation of an appropriate course of action.

*iii. used as part of the Medical Student Performance Evaluation (MSPE)*

Clerkship directors provide narrative feedback for all students. These comments are included in the MSPE.

*See information provided on the Required Course and Clerkship Forms.*



**ED-33. There must be integrated institutional responsibility for the overall design, management, and evaluation of a coherent and coordinated curriculum.**

*The phrase “integrated institutional responsibility” implies that an institutional body (commonly a curriculum committee) will oversee the educational program as a whole. An effective central curriculum authority will exhibit the following characteristics:*

- *Faculty, medical student, and administrative participation.*
- *Expertise in curricular design, pedagogy, and evaluation methods.*
- *Empowerment, through bylaws or decanal mandate, to work in the best interests of the institution without regard for parochial or political influences or departmental pressures.*

*The phrase "coherent and coordinated curriculum" implies that the medical education program as a whole will be designed to achieve its overall educational objectives. Evidence of coherence and coordination includes the following characteristics:*

- *Logical sequencing of the various segments of the curriculum.*
- *Content that is coordinated and integrated within and across the academic periods of study (i.e., horizontal and vertical integration).*
- *Methods of pedagogy and medical student assessment that are appropriate for the achievement of the program's educational objectives.*

*Curriculum management signifies leading, directing, coordinating, controlling, planning, evaluating, and reporting. Evidence of effective curriculum management includes the following characteristics:*

- *Evaluation of program effectiveness by outcomes analysis, using national norms of accomplishment as a frame of reference.*
- *Monitoring of content and workload in each discipline, including the identification of omissions and unplanned redundancies.*
- *Review of the stated objectives of each individual course and clerkship rotation, as well as the methods of pedagogy and medical student assessment, to ensure congruence with programmatic educational objectives.*

*Minutes of the curriculum committee meetings and reports to the faculty governance and deans should document that such activities take place and should report on the committee's findings and recommendations.*

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*a. Provide an organizational chart for the management of the curriculum that includes the curriculum committee and its subcommittees, other relevant committees, the chief academic officer, and other individuals or groups involved in curriculum design, implementation, and evaluation.*

See next page for curriculum management organizational chart.





*Is the curriculum management structure complete? If not, describe any planned additions.*

Yes.

*b. Supply the title of the faculty committee with primary responsibility for the curriculum:*

Curriculum and Educational Policy Committee (CEPC)
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*c. Provide the charge or terms of reference for this committee and the source of its authority (bylaws, mandate from the dean of faculty executive committee).*

The Curriculum and Educational Policy Committee is established in the faculty bylaws as a permanent committee of the School of Medicine. As stated in the Faculty Bylaws (Article IX, section C, subsection 2), the CEPC shall have the responsibility to review on a continual basis the undergraduate medical curriculum to assure its adherence to the written educational policies, goals, and objectives of the School of Medicine and shall report its activities to the Faculty Council at least biannually. Based upon its review, the committee makes recommendations for changes in educational policy or in the organization or content of the curriculum that are discussed with the Faculty Council and with the dean.

The committee is responsible for establishing the policies necessary to maintain a contemporary and effective undergraduate medical curriculum. More specifically, the curriculum must be designed to provide a general professional education that addresses the educational objectives of the institution while preparing students to:

- Enter and complete graduate medical education.
- Qualify for licensure.
- Provide competent and compassionate care.
- Continue their education throughout their careers.

The committee reviews the undergraduate medical education curriculum on a continuous basis to assure its adherence to the written educational policies, goals, and objectives of PLFSOM. Based upon its review, the committee develops policies and procedures and makes recommendations to the dean and the faculty for changes in educational policy or in the organization or content of the curriculum. In order to accomplish the mission of the CEPC, the chair may appoint subcommittees that may include participants who are not members of the committee. It will be the responsibility of the CEPC, through its chair or his designee, to coordinate the activities and reports of these subcommittees.

Curriculum oversight and policy formulation is the primary responsibility of the Curriculum and Educational Policy Committee. This committee consists of faculty representatives appointed by the dean and ex-officio members representing key administrative offices related to medical student education. This committee is responsible for developing educational policies (e.g., grading policies), reviewing courses and clerkships to assure that they are meeting their educational goals and objectives, and approving proposals for changes in the curriculum. Any proposals emanating from the Curriculum and Educational Policy Committee are presented to the Faculty Council as the elected representative body of the general faculty. If the CEPC and Faculty Council disagreed about a policy recommendation, every attempt would be made to resolve that disagreement through discussion and compromise. In the event that the Curriculum and Educational Policy Committee and the Council are unable to agree on important

curriculum issues, those issues will be taken to the voting faculty for final resolution. To date, there has been no disagreement between these two governing bodies.

The committee meets monthly, and as needed, and is chaired by the senior associate dean for medical education.

The dean appoints members of the committee based on the recommendation of the chairman consistent with faculty bylaws as described in part 'd' below. These appointments are reported to the Faculty Council.

***d. Describe the current composition of this committee and mechanisms for selecting its members and chair.***

As described in the Faculty Bylaws, the senior associate dean for medical education serves as the chairman of the CEPC and committee members are appointed by the dean with the consent of the Faculty Council. The composition of the committee is as follows: 1 MD college master and 1 PhD college master (two year terms); 3 basic science and 3 clinical science faculty members (4 year terms); 1 student from each college elected by his or her respective college on an annual basis; director of assessment and evaluation (ex-officio), director of information technology (or designee) (ex-officio) and the associate director of the library (or designee) (ex-officio). CEPC meetings are open meetings and frequently interested faculty members attend. The medical students typically send two representatives per class year, drawn from the ranks of the student-elected student curriculum and evaluation committee.

***e. Indicate the frequency of regularly scheduled committee meetings during a typical academic year: (check)***

Weekly	
Bi-weekly	
X Monthly	y
Bi-monthly	
Other	(describe)

***f. If this committee has standing subcommittees, describe their charge or role, membership, and reporting relationship to the parent committee.***

**COURSE DIRECTORS COMMITTEE (YEARS 1-2) AND CLERKSHIP DIRECTORS COMMITTEE (YEARS 3-4)**

The **year 1-2 course directors committee** consists of the course directors for the four major courses offered in the first two years of the Paul L. Foster School of Medicine and the two co-directors of the Scholarly Activity and Research Program. The senior associate dean for medical education (Chair, Curriculum and Educational Policy Committee) and the chair of the Department of Medical Education also sit on this committee. The primary purpose of this committee is to promote coordination and integration across courses through frequent communication. If the Curriculum and Educational Policy Committee has questions, concerns, or recommendations cutting across courses, communication will be with the Course Directors Committee. This committee meets at least quarterly and more often as

necessary. Any member of the committee can request that a meeting be held. The senior associate dean for medical education facilitates these meetings. Decisions and recommendations by this committee are reported to the CEPC for discussion and action as appropriate.

A similar committee consisting of the **year 3-4 required clerkship directors** has also been formed. Its major function is to establish policies and procedures that apply to all year 3-4 programs. This committee meets monthly with the senior associate dean for medical education, the associate dean for student affairs, and the director of assessment and evaluation. Clerkship coordinators also routinely attend this meeting. Like its counterpart committee in years 1 and 2, the required course and clerkship committee reports to the CEPC.

### COURSE COMMITTEES

Course committees for each course in the first two years of the curriculum, including each SPM unit, are standing subcommittees of the CEPC. Each of these committees is chaired by the course director.

#### **Role of Course Committees**

The role of the course committees includes planning the courses and SPM units, including identifying teaching, and evaluation methodologies. The subcommittees also approve examination blueprints and course summative examinations. At the conclusion of each course or SPM unit, the appropriate subcommittee reviews course and student evaluations and recommends changes in the course or unit, as needed.

#### **Reporting Relationship to Curriculum and Educational Policy Committee**

At a minimum, course committees, through the course directors, report to the CEPC at least twice each year—once at the beginning of the year regarding course planning and implementation, and once at the end of the year regarding student and course evaluation. At the discretion of the chair of the CEPC or any of its members, mid-year or more frequent reports may be requested. As we are in the early stages of the implementation of our curriculum, each course has presented mid-year reports on their progress to identify successes, problems, and solutions.

#### **Membership of Course Committees**

The chair of the Department of Medical Education nominates the course directors for SPM, SCI, Medical Skills and the Masters Colloquium. The CEPC must approve these nominations. Further, the chair of the Department of Medical Education, in consultation with the year 1 and 2 SPM course directors, also nominates faculty to serve as members of the unit committees. These appointments must also be approved by the CEPC. The membership of each course committee is interdisciplinary, as described below:

**Scientific Principles of Medicine**—The planning committee for each systems-based SPM unit include faculty representatives from the clinical and basic sciences disciplines to be addressed in the unit.

**Medical Skills**—The planning group for this course consists of an ad hoc interdisciplinary team of clinical faculty who have expertise with the clinical presentations associated with the organ system unit under consideration.

**Society, Community, and the Individual**—The planning committee for this course consists of the leaders of the 7 threads that are included in this course: biostatistics, epidemiology, culture, community, family, environmental and occupational health, and Spanish.

**Masters' Colloquium**—The planning committee for this course consists of the college masters from all colleges.

The chairs of the clinical departments appoint clerkship directors for their respective disciplines. These appointments are also subject to review and approval by the Curriculum and Educational Policy Committee. The clerkship directors also have a reporting line to the senior associate dean for medical education related to their clerkship education responsibilities. Funds are allocated to the departments to protect up to 50% time for clerkship duties. All required clerkship directors serve as members of the Year 3-4 Clerkship Directors Committee. As noted above, this committee meets monthly to discuss policies and procedures and to engage in problem solving as necessary.

### EVALUATION COMMITTEE

The Evaluation Committee is a standing subcommittee of the Curriculum and Educational Policy Committee. It is chaired by the director of assessment and evaluation in the Office of Curriculum, Evaluation and Accreditation.

#### **Role of the Evaluation Committee**

The primary function of the Committee on Evaluation is to provide oversight on the design, methods, collection, and interpretation of all data (quantitative and qualitative) that is used to assess the quality of the educational programs of the school. The roles of the committee include the following:

- Review the evaluation process on a regular basis, including the content and structure of testing materials, student performance, validity and reproducibility of evaluations, evaluation feedback, and correlation of course content and evaluations.
- Evaluate the curriculum and student performance and provide feedback to the dean and the Curriculum and Educational Policy Committee about the effectiveness of the curriculum.
- Identify problems in student performance, pedagogy, or evaluation that might require prompt modification or remediation.
- Recommend policy changes related to assessment and evaluation.

#### **Membership of Evaluation Committee**

The members of this committee are broadly representative of the faculty responsible for basic science instruction across the curriculum and the clinical training programs. Committee Members are appointed by the dean on the recommendation of the senior associate dean for medical education for an initial 3 year term that will be annually renewable at the discretion of the dean and recommendation of the senior associate dean for medical education. Ex-Officio members of the committee includes the senior associate dean for medical education, the director of assessment and evaluation in the Office of Curriculum, Evaluation, and Accreditation, and the college masters who are not serving terms on the Curriculum and Educational Policy Committee. The Evaluation Committee is chaired by the director of assessment and evaluation.

#### **Reporting Relationship to Curriculum and Educational Policy Committee**

The Evaluation Committee reports to the CEPC, through its chair, at least annually, and more frequently as requested by the evaluation committee chair, the chair of the CEPC, or by request of any member of the CEPC.

*g. Describe the roles of the curriculum committee and any subcommittees, the chief academic officer or associate dean for educational programs, interdisciplinary course committees (if relevant), and the departments in each of the following areas:*

- *Developing and reviewing the institutional objectives for the educational program*
- *Reviewing the objectives of individual courses and clerkships*

- *Ensuring use of appropriate teaching methods or instructional formats*
- *Ensuring that content is coordinated and integrated within and across academic periods of study*
- *Ensuring use of appropriate methods to evaluate student performance*
- *Monitoring the quality of individual faculty members' teaching*
- *Monitoring the overall quality of teaching in courses*
- *Monitoring the outcomes of the curriculum as a whole*

#### **DEVELOPING AND REVIEWING THE INSTITUTIONAL OBJECTIVES FOR THE EDUCATIONAL PROGRAM**

The Curriculum and Educational Policy Committee provides educational vision and oversight related to the design, implementation, and evaluation of the undergraduate medical curriculum and ensures that course learning objectives and outcomes are aligned with institutional educational objectives. The committee also ensures that the curriculum adheres to LCME standards and to the mission, vision, and long-term goals of the school of medicine. The CEPC provides bi-annual report on the "State of the Curriculum" to the Faculty Council.

Departments, as organizational entities, are not involved in the review of institutional objectives. This is a function of the faculty through their representative membership in the CEPC and the Faculty Council.

#### **REVIEWING THE OBJECTIVES OF INDIVIDUAL COURSES AND CLERKSHIPS**

Individual course (or unit in the case of the Scientific Principles of Medicine Course) and clerkship learning objectives are developed by the faculty members responsible for instruction and these are in turn reviewed by the responsible course, unit, or clerkship committees and the designated course or clerkship directors. The CEPC approves the individual courses' learning goals and objectives as documented in the course or clerkship syllabus.

#### **ENSURING USE OF APPROPRIATE METHODS OR INSTRUCTIONAL FORMATS**

The course committees, which report to the CEPC, have primary responsibility for identifying appropriate methods and instructional formats for each course. The committees have access to the expertise available in the Office of Curriculum, Evaluation, and Accreditation as well as the director of academic support in the Office of Student Affairs. These individuals are available to assist course committees in identifying appropriate methods and instructional formats. The CEPC reviews the planning and evaluation reports from each course committee to ensure that selected pedagogical methods are appropriate for meeting the educational objectives of the course or unit. The CEPC encourages course/clerkship designers to employ a variety of educational methods. Course and clerkship directors are required to report on the distribution of educational modalities in their course/clerkship CEPC reviews.

#### **ENSURING THAT CONTENT IS COORDINATED AND INTEGRATED WITHIN AND ACROSS ACADEMIC PERIODS OF STUDY**

The CEPC reviews the general operations of the curriculum on a regular basis to ensure that the curriculum content is coordinated and integrated within and across academic periods of study. This includes an annual review of the overall program to include scheduling, faculty assignments, and any major changes in content. This function is facilitated through the use of the Ilios curriculum management program described earlier. The committee allocates time to each course. The committee also receives and considers regular reports from the senior associate dean for medical education and from the

evaluation committee. The CEPC may also communicate directly with the dean and with appropriate course directors or department chairs in the event an urgent concern about the curriculum is identified.

In addition to the annual course reviews, each course is scheduled for in-depth three year review by the CEPC of learning objectives, content, pedagogy, student performance, and opportunities for change and improvement. The 3 year course review process was initiated in November, 2011 and will continue throughout the next academic year.

#### **ENSURING USE OF APPROPRIATE METHODS TO EVALUATE STUDENT PERFORMANCE**

The Office of Curriculum, Evaluation, and Accreditation is responsible for ensuring that appropriate methods are used in assessing student performance. This is a major responsibility of the director of assessment and evaluation and her staff. She is advised by the members of the Evaluation Committee which reports to the CEPC.

In addition to internal review of the curriculum, benchmarks will be used to compare the performance of students at TTUHSC-Paul L. Foster School of Medicine with national norms. These benchmarks will include grades, success rates on USMLE Steps 1, 2 (CK, CS), other normative national examinations, and NBME examinations.

The Office of Curriculum, Evaluation, and Accreditation also provides support for the Student Grading and Promotions Committee, which monitors individual student performance, certifies satisfactory student achievement, and recommends to the administration and to the faculty the promotion of students at the end of appropriate academic periods.

#### **MONITORING THE QUALITY OF INDIVIDUAL FACULTY TEACHING**

Faculty members and courses are evaluated by medical students throughout the curriculum. The results of these evaluations are tabulated and analyzed by the Office of Curriculum, Evaluation, and Accreditation with summary results provided to the appropriate individuals, including the evaluated faculty member, the course committee chair, and department chairs. The CEPC does not review the results of individual faculty evaluations. As requested, they can review aggregated data about student perceptions of the quality of teaching, but individual results are limited to the faculty member, director of assessment and evaluation, the senior associate dean, the department chair and course directors.

#### **MONITORING THE OVERALL QUALITY OF TEACHING IN COURSES**

Oversight of the overall quality of teaching in courses is a shared responsibility of the Office of Curriculum, Evaluation, and Accreditation and course and unit directors. The results of evaluation surveys are reviewed by the director of assessment and evaluation, the senior associate dean for medical education, the course directors, and the course committees to identify areas for improvement. Course directors are required to present these results to the Curriculum and Educational Policy Committee and to describe proposed changes based on evaluation results.

#### **MONITORING THE OUTCOMES OF THE CURRICULUM AS A WHOLE**

The monitoring of the outcomes of the curriculum as a whole is a responsibility shared by the dean, the senior associate dean for medical education, the Curriculum and Educational Policy Committee, and the Evaluation Committee. Resources of the Office of Curriculum, Evaluation, and Accreditation (including

staff, the director of assessment and evaluation, the Ilios curriculum management system, etc) are available to accomplish this function. Evaluation of the curriculum as a whole has implications for strategic planning overseen by the dean; scheduled course and program reviews, which is the responsibility of the CEPC and its various subcommittees; and the monitoring of student performance outcomes based on institutional learning objectives as described above. The Evaluation Committee is responsible for providing recommendations for the adoption of appropriate methodologies and strategies for collecting and interpreting the data needed to make judgments about overall curriculum quality. “Downstream” indicators (e.g., practice location, sub-specialty training and practice) as a component of overall curriculum evaluation are described in detail in response to ED-46.



**ED-34. The faculty of a medical education program must be responsible for the detailed design and implementation of the components of the curriculum.**

*Faculty members' responsibilities for the medical education program include, at a minimum, the development of specific course or clerkship rotation objectives, selection of pedagogical and assessment methods appropriate for the achievement of those objectives, ongoing review and updating of content, and evaluation of course, clerkship rotation, and teacher quality.*

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*Provide examples of the types of changes that can be handled at the level of the course or clerkship and the types of changes that require curriculum committee or other central approval prior to implementation.*

The faculty is responsible for the specific content of the curriculum and it has input on issues related to policies and procedures by virtue of faculty membership on the CEPC and committees reporting to the CEPC. The CEPC is responsible for coordination, integration, and oversight. The CEPC sets broad policy and establishes expectations related to the design and implementation of the educational program as a whole.

The following are examples of the types of changes can be handled at the level of a course or clerkship:

- Revision in the wording of session specific learning objectives
- Revision of sequencing of presentation of content within a course or unit
- Minor changes in scheduling—for example, switching lecture times of faculty members to accommodate changes in faculty schedules due to illness or to provide more appropriate sequencing
- Minor changes in planned teaching modalities—for example, changing a scheduled lecture to a large group team based learning exercise
- Reassigning faculty tutors in small group sessions
- Changes from year to year in required texts or assigned readings

Any proposed change at the level of a given course that may impact on another course must be discussed with the leadership of the other course(s). To facilitate communication between courses, a Year 1-2 Course Directors Committee and a Year 3-4 Clerkship Directors Committee have been established (see ED-33).

The following are examples of the types of proposed changes that must be reviewed and approved by the Curriculum and Educational Policy Committee (CEPC) prior to implementation:

- Increase or decrease in contact hours
- Change in course content that could have the effect of creating gaps or unintended redundancies
- Major changes in educational methods—e.g., replacing small group learning with lectures
- Changes in grading policy

*See also the Required Course and Clerkship Forms, and information for standards ED-33 and ED-46/47.*

**ED-35. The objectives, content, and pedagogy of each segment of the curriculum, as well as for the curriculum as a whole, must be subject to periodic review and revision by the faculty.**

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*a. Describe the process of formal review for each of the listed curriculum elements. Include in the description how often such reviews are or will be conducted, how they are conducted, under what auspices (e.g., the department, the curriculum committee) they are undertaken, and the administrative support that exists for such reviews (for example, through an Office of Medical Education).*

- *Required courses*
- *Required clerkships*
- *Individual years or academic periods of the curriculum*
- *The entire curriculum*

#### **REQUIRED COURSES**

All required courses at the PLFSOM undergo frequent review by their respective course (and unit) committees based on feedback from students through the course evaluation system, student performance outcomes, and faculty experience. These reviews are conducted in formal and scheduled debriefing sessions.

As previously described, all course directors report to the Curriculum and Educational Policy Committee (CEPC) regarding course planning, implementation, and evaluation. Course directors are expected to identify course strengths and areas for improvement and to report on continuous quality improvement initiatives and results. In addition to annual course reviews, each course is reviewed in depth by the CEPC every three years. As previously described these reviews examine historical trends in student performance within the course, performance on national examinations in related content areas, and historical trends in student evaluations of the course. In addition, each course is evaluated as to the types of teaching modalities employed and how well topics covered by the course reflect stated course and institutional learning objectives. These reviews are based on data compiled using the Ilios curriculum management tool. The 3-year review cycle for first and second year courses was activated in November 2011 and will be completed by the end of the 2012 -13 academic year.

#### **REQUIRED CLERKSHIPS**

Required clerkships are evaluated in a manner similar to those described above for required pre-clerkship courses.

#### **INDIVIDUAL YEARS OR ACADEMIC PERIODS OF THE CURRICULUM**

The course directors for all required courses and the Scholarly Activity and Research Project program provided the CEPC with an end of year review based on student performance in the courses, the results of the Comprehensive End of Year Examination, student evaluations, and faculty observation and experience.

#### **THE ENTIRE CURRICULUM**

The entire curriculum will be reviewed in depth by the CEPC every five years. This review will rely heavily upon data generated in annual course reviews, student performance on NBME and USMLE examinations, and once available, results of the AAMC Graduation Questionnaire. Data routinely collected for curriculum management purposes will also be an important source of information as this will enable us to monitor educational content, methods, and integration. The Evaluation Committee has been

charged with developing a plan for initiating and conducting a 5-year whole curriculum review to be presented to the CEPC by the spring of 2013. A major focus on this review will be on the institutional learning objectives described in ED-1-A of this data base and student outcomes related to these objectives.

***b. Provide a copy of any standardized templates for course reviews and any standardized forms used for the evaluation of courses.***

Course directors are required to provide the following information to the CEPC when they present their end of year reviews:

- 1- An overview of the course goals and major topics
- 2- A summary of course contact hours by educational method (e.g., lecture, laboratory, small group, self-study)
- 3- Review of class performance and summary of grades earned
- 4- Review of student evaluations (numerical ratings and a summary of themes derived from free text responses)
- 5- Course director's evaluation of the course, including:
  - a. Description of course strengths
  - b. Discussion of challenges and problems
  - c. Response to student concerns
  - d. Discussion of plans for quality improvement (and for prior quality improvement plans the outcome of these efforts)

All students are asked to complete course evaluations. For faculty evaluations, students are randomly assigned to evaluate 5-7 faculty members in an effort to reduce respondent burden. Each faculty member, who has at least 5 contact hours with the students, is evaluated by 10-12 students in each administration. We expect, over the course of the year, each faculty member will be assessed by most of the students in the class. Evaluations are confidential and completed on-line. Students must complete the evaluations in order to receive course (or SPM unit) examination results.

Copies of the evaluation instruments can be found in Section II, Appendix 9.

In addition to the "official" course evaluations, the members of the Student Curriculum and Evaluation Committee, consisting of student representatives from the four Colleges, have completed a number of independent surveys of their classmates and have shared the results with the senior associate dean for medical education electronically and in meetings. The information in these surveys is consistent with that resulting from the official evaluations.

**ED-36. The chief academic officer of a medical education program must have sufficient resources and authority to fulfill his or her responsibility for the management and evaluation of the curriculum.**

*The dean often serves as the chief academic officer, with ultimate individual responsibility for the design and management of the medical education program as a whole. He or she may, however, delegate operational responsibility for curriculum oversight to a vice dean or associate dean.*

*Examples of the kinds of resources needed by the chief academic officer to ensure effective delivery of the medical education program include:*

- *Adequate numbers of teachers who have the time and training necessary to achieve the medical education program's objectives.*
- *Appropriate teaching space for the methods of pedagogy employed in the medical education program.*
- *Appropriate educational infrastructure (e.g., computers, audiovisual aids, laboratories).*
- *Adequate educational support services (e.g., examination grading, classroom scheduling, faculty training in methods of teaching and assessment).*
- *Adequate support and services for the efforts of the curriculum management body and for any interdisciplinary teaching efforts that are not supported at a departmental level.*

*The chief academic officer must have explicit authority to ensure the implementation and management of the medical education program and to facilitate change when modifications to the curriculum are determined to be necessary.*

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*a. Provide the name and title of the chief academic officer responsible for the medical education program. If the dean functions as the chief academic officer but has delegated responsibility for medical student education to an associate dean or other individual, provide the name and title of the latter individual.*

The dean of the PLFSOM is the chief academic officer of the institution. He has delegated the responsibility for medical student education to the following individual:

<b>Name:</b>	David J. Steele, PhD
<b>Title:</b>	Senior Associate Dean for Medical Education

*b. Provide a position description for the individual responsible for the medical education program leading to the M.D. degree, if this person is not the dean.*

The dean serves as the chief academic officer of the School of Medicine. In that position, he is responsible for the operation and evaluation of the educational program and for ensuring that medical students within the school have access to a curriculum that is in full compliance with the requirements of the Liaison Committee on Medical Education, and fulfills the stated institutional educational objectives. He has delegated the operational responsibilities to the senior associate dean for medical education. This individual provides day-to-day supervision of the Office of Curriculum, Evaluation, and Accreditation. He oversees the deliberations of the Curriculum and Educational Policy Committee and is an ex-officio member of the Evaluation Committee. The senior associate dean is expected to report to the dean on a regular basis (at least bi-weekly) regarding the current status of curriculum administration and any

important matters related to the curriculum. The senior associate dean for medical education is a generalist in medical education with nearly 30 years experience at four medical schools. Prior to joining the faculty at PLFSOM he has experience as a required course director, year 1-2 director, director of the Office of Medical Education, assistant dean, and associate dean for curriculum and evaluation. He also has considerable experience with the accreditation process.

*c. Briefly describe the infrastructure that is under the authority of the chief academic officer (e.g., an office of medical education) whose primary purpose is to provide administrative or academic support for the planning, implementation, evaluation, and oversight of the curriculum. List the individuals, with their titles, in this administrative structure and the percent FTE contribution of each individual to this effort. Note the reporting relationships of the directors of any such office.*

#### OFFICE OF CURRICULUM, EVALUATION AND ACCREDITATION

The Office of Curriculum, Evaluation, and Accreditation is under the immediate supervision of the senior associate dean for medical education. The personnel in this office are broadly responsible for support of the administrative officials and committees charged with oversight and review of the curriculum. Support provided by this office includes scheduling of meetings and conferences, assisting with agendas and meeting minutes, notifying key personnel concerning deadlines, and maintaining current information about accreditation requirements that relate to curriculum.

Responsibility for monitoring student assessment and for program evaluation has been delegated to the director of assessment and evaluation. The director of assessment and evaluation provides support for the evaluation of the curriculum. This includes managing the evaluation process by assisting with preparation of evaluation instruments, administering or assisting with examinations, scoring examinations, publishing results, interpreting and summarizing results, and communicating these interpretations and results to the appropriate individuals, including the College Masters, the Curriculum and Educational Policy Committee, the Evaluation Committees, the senior associate dean for medical education, and the associate dean for student affairs. The director of assessment and evaluation is also responsible for providing instruction and assistance to the faculty on evaluation methods and the evaluation of assessment instruments. This responsibility is shared with the senior associate dean for medical education, to whom she reports.

Personnel in the Office of Curriculum Evaluation and Accreditation (OCEA):

David Steele, PhD, Senior Associate Dean and Director, OCEA

Naomi Lacy, PhD, Director of Assessment and Evaluation

TBN, Senior Analyst

Barbara Stives, Unit Manager

Lourdes Davis, Year 3-4 Coordinator

Erica Rivas, Clinician Faculty Scheduling Coordinator

Claudia Vargas, Assessment Coordinator (year 2)

Norma Fuentes, Assessment Coordinator (year 1)

(Note: All are full-time employees and report directly to the senior associate dean for medical education. He reports to the dean of the school of medicine.)

*d. Indicate whether there a specific budget for the medical education program. If so, describe how the budget is determined and how and by whom the budgeted funds are allocated to departments and/or individual faculty.*

The medical education program has its own annual budget to support its operation. Medical education at the Paul L. Foster School of Medicine is well financed and reflects the commitment of the School to develop and implement a state-of-the-art four-year program leading to the MD degree that will provide excellent preparation for students to enter graduate medical education training in the specialties of their choice.

The budget is determined as follows: A written request with justification is forwarded to the associate dean for finance and administration who serves as the chief financial officer. He reviews the request and justification, solicits additional information as needed, and then refers the requests to the "Budget Advisory Committee." This committee consists of representatives of medical education (senior associate dean for medical education and chair, Department of Medical Education), research (associate dean for research, and the director of basic science research in cancer center of excellence), and the clinical practice plan (president of the physicians group and the associate dean for clinical practice), and budgetary staff members (administrator of the physician group, SOM budget officer) and the associate dean for finance and administration. This group reviews the proposed budget against available revenues and then makes recommendations about the budget that are forwarded to the dean for final approval.

The PLFSOM recently implemented an Educational Value Unit (EVU) system to align state funding and educational contributions. Through this system faculty members departments are compensated on a contact hour bases for participation as lecturers in years 1-2, small group facilitators, and participation in the medical skills course. In years 3-4, the EVU system provides 40-50% of base salary for the required clerkship directors in year 3, 30% of base salary for required clerkship directors; 20% of base salary for Sub-Internship directors, and 10% of base salary for the year 4 critical care selective directors. The EVU pool also provides full salary for a year 3-4 coordinator in each department with a required clerkship. Additional funds for educational contributions in years 3-4 are provided to the department based on contact time. The Office of Curriculum, Evaluation and Accreditation is responsible for monitoring faculty educational contact time. Beginning in the 2012-13 AY, the senior associate dean for medical education will participate in the annual review process of faculty members serving as clerkship directors, sub-internship directors, and critical care selective directors to evaluate the quality of their performance in educational leadership.

*See also information for standard ED-33, ED-35, and Required Course and Clerkship Forms.*



**ED-37. A faculty committee of a medical education program must be responsible for monitoring the curriculum, including the content taught in each discipline, so that the program's educational objectives will be achieved.**

*The committee, working in conjunction with the chief academic officer, should ensure that each academic period of the curriculum maintains common standards for content. Such standards should address the depth and breadth of knowledge required for a general professional education, the currency and relevance of content, and the extent of redundancy needed to reinforce learning of complex topics. The final year should complement and supplement the curriculum so that each medical student will acquire appropriate competence in general medical care regardless of subsequent career specialty.*

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*a. Describe the frequency with which and the means by which curricular content is monitored and the ways in which the results of the monitoring are used. For example, is a curriculum database used? Note which individuals, committees, and units (such as departments) receive the results of the reviews of curriculum content.*

As previously described (ED-33), the Curriculum and Educational Policy Committee (CEPC) meets monthly and as necessary. It reviews and approves course and clerkship syllabi annually. In November, 2011 it initiated a round of 3-year course reviews designed to evaluate course quality, educational outcomes, and to identify opportunities for continuous quality improvement. The Evaluation Committee, again, as previously described, has been charged with developing a 5-year comprehensive curriculum evaluation plan that will be implemented following the graduation of our charter class. These reviews are intended to accomplish the following:

- Ensure that course objectives are congruent with the school's institutional objectives;
- Ensure that pedagogical methods are appropriate for meeting the educational objectives of the course or unit;
- Ensure that the curriculum content is coordinated and integrated within and across academic periods of study;
- Ensure that the cumulative curriculum adequately addresses the educational objectives of individual disciplines including the identification of gaps and unplanned redundancies;
- Ensure that institutional learning goals and objectives are being adequately addressed and that student learning outcomes reflect the attainment of these goals and objectives.

Information for these reviews is gleaned from several sources, including the following:

- Planning and evaluation reports from each course committee—Reports from the various course committees include a summary of course learning objectives and their relationship to institutional learning objectives, a description of topics covered during the course, results of student evaluations, and summaries of course evaluations by the students. The reports also include observations about individual faculty performance that is outside the norm and areas of concern regarding redundancy or omission. Recommendations for curricular change are also be included;
- Curriculum Database—A curriculum database is maintained with proprietary software—Ilios developed by the University of California San Francisco, purchased by PLFSOM to serve as a resource in managing information regarding the curriculum. Ilios includes information at the session level for each course and clerkship including learning objectives, teaching and learning modalities, faculty, contact hours, and learning materials, and examination items linked to individual objectives. Course schedules are derived from this data and made

available to faculty and students through WebCT. Data entry is provided by the Office of Curriculum, Evaluation and Accreditation and summary reports are available to the Curriculum and Educational Policy Committee and the senior associate dean for medical education;

- Consultations with course and clerkship directors and their respective committees;
- Student course and clerkship evaluation data and feedback from the Student Curriculum and Evaluation Committee.

Reviews of curriculum content, educational methods and student performance are shared with the Faculty Council, the Dean's Council, and the CEPC and course and clerkship directors committees.

***b. Describe the means by which gaps and unwanted redundancies in curricular content are identified and corrected. If a curriculum database is used, identify those individuals who have access to it and who have responsibility for monitoring and updating its content.***

The Ilios curriculum management database enables us to systematically review the curriculum to identify gaps and unwanted redundancies. The faculty and administrative staff involved in the curriculum have access to the Ilios curriculum database and are able to do searches and access learning materials. It should be noted that in our highly integrated curriculum, faculty from all disciplines have participated in building the curriculum, session by session, through literally hundreds of hours of face-to-face meetings. In these meetings, the schematic representation of a given clinical presentation (e.g., sore throat) was reviewed by a clinician with the group. Following this review, basic science faculty members then identified the topics, learning objectives, and the approximate amount of time needed to address concepts and content necessary to understand the pathophysiological process associated with the clinical presentation. Course and clerkship directors, through their respective course and clerkship coordinators are ultimately responsible for updating the content of their programs in the Ilios curriculum database. Monitoring of Ilios entries for completeness and consistency is a function of the Office of Curriculum, Evaluation, and Accreditation.

***c. Describe how the monitoring of curriculum content is used to support horizontal and vertical curriculum integration (e.g., through longitudinal content themes).***

Horizontal integration of curriculum content is facilitated in a number of ways. The course and unit committees have initial responsibility for ensuring horizontal integration and this is greatly facilitated by weekly meetings of the full department of medical education in which course content, sequencing, and contact hours is discussed, "debated," and negotiated. Vertical integration is accomplished through "integration" themes that were developed during the planning phase for the required clerkships in years 3-4 by the Year 3-4 Task Force which included clerkship directors, department chairs, clerkship faculty, and representatives of the basic sciences within the department of medical education. Integration themes include such topics as: basic science, communication skills, evidence-based medicine, ethics, professionalism, palliative care, and others. In addition, the clerkships are expected to re-visit the clinical presentation "schemes" described in ED-6, 7, pages 48-49.

The CEPC is evaluating the implementation of the new required year 3 integrated clerkship blocks. A major goal of this review is to assess the status of horizontal and vertical integration. Based on its review of the syllabi, student evaluations, and clerkship director reports, the CEPC concluded that there was



insufficient evidence of the utilization of clinical schemes from years 1-2 in several of the clerkships and the clerkship directors were directed to develop specific proposals for how they would accomplish this integration in 2012-13. Each of the clerkship directors has responded positively to this direction.

The senior associate dean for medical education monitors the Ilios curriculum database to ensure that the clerkships are addressing the “integration themes” listed on the curriculum schematic reproduced in ED-5, page 37. These are all themes that have their roots in the first two years of the curriculum. He reports his findings to the course and clerkship directors and to the CEPC. This data reveals considerable vertical integration except as noted above.

*d. Illustrate how the curriculum committee would know where in the curriculum “patient safety” and “clinical nutrition” are taught. For example, if there is a curriculum database, provide print-outs of the results of searches for these two topics. If a curriculum database is not used, illustrate the information that is available and describe the sources of the information that can be used to identify the presence of these topics in the curriculum.*

Please see required searches below from the “Advanced Search” function of Ilios curriculum database.

### Nutrition

<u>Session Title</u>	<u>Type</u>	<u>Course</u>	<u>Academic Year</u>	<u>Description</u>	<u>Date</u>
<a href="#">Amenorrhea</a>	Session - Lecture	Block C- OB-GYN/Pediatrics - CP: N/A	2011-2012		<a href="#">8/22/2011</a>
<a href="#">Antepartum</a>	Session - Lecture	Block C- OB-GYN/Pediatrics - CP: N/A	2011-2012		<a href="#">7/18/2011</a>
<a href="#">Biochemistry of Collagen</a>	Session - Lecture	Scientific Principles of Medicine I - CP: Fractures- Dislocations-Joint Injuries	2011-2012		<a href="#">9/14/2011</a>
<a href="#">Child and Adolescent Nutrition</a>	Session - SelfTaught	Scientific Principles of Medicine IV - CP: Human Development Early Childhood (2-8)/Oral Health	2011-2012		<a href="#">3/20/2012</a>
<a href="#">Cystic Fibrosis in a Child</a>	Session - Lecture	Scientific Principles of Medicine II - CP: Cough and Wheezing	2011-2012		<a href="#">4/4/2012</a>
<a href="#">Dizziness</a>	Session - Workshop	Block A- Surgery/Family Medicine - CP: N/A	2011-2012		<a href="#">2/2/2012</a>
<a href="#">Dysphagia</a>	Session - LgSmallGrp	Medical Skills I - CP: N/A	2011-2012		<a href="#">11/10/2011</a>
<a href="#">Eating Disorders</a>	Session - Lecture	Scientific Principles of Medicine III - CP: Disorders of Thyroid Function	2011-2012		<a href="#">11/17/2011</a>
<a href="#">Effects of Malnutrition on Development and Behavior</a>	Session - SelfTaught	Scientific Principles of Medicine IV - CP: Human Development Early Childhood (2-8)/Oral Health	2011-2012		<a href="#">3/15/2012</a>
<a href="#">Endocrinology of Growth</a>	Session - Lecture	Scientific Principles of Medicine IV - CP: Human Development: Pre-Teen (8-12)/Teen/Abnormal Stature	2011-2012		<a href="#">3/23/2012</a>
<a href="#">Failure to Thrive</a>	Session - LgSmallGrp	Medical Skills IV - CP: N/A	2011-2012		<a href="#">3/19/2012</a>
<a href="#">Geriatric Longitudinal Selective</a>	Session - longExp	Block A- Surgery/Family Medicine - CP: N/A	2011-2012		<a href="#">7/11/2011</a>
<a href="#">Menopause</a>	Session - Lecture	Block C- OB-GYN/Pediatrics - CP: N/A	2011-2012		<a href="#">9/19/2011</a>
<a href="#">Metabolic Stress and Starvation</a>	Session - Lecture	Scientific Principles of Medicine I - CP: Wound	2011-2012		<a href="#">8/30/2011</a>

<a href="#">Normal Pregnancy Scheme Presentation</a>	<u>Session - Lecture</u>	Scientific Principles of Medicine IV - <b>CP:</b> Normal Pregnancy/Preg. Loss/Preg. Complications	2011-2012		<a href="#">2/8/2012</a>
<a href="#">Nutrition &amp; Pharmacology</a>	<u>Session - Workshop</u>	Block A- Surgery/Family Medicine - <b>CP:</b> N/A	2011-2012		<a href="#">8/18/2011</a>
<a href="#">Nutrition for Young Children-Growth Case Assessing</a>	<u>Session - Lecture</u>	Scientific Principles of Medicine I - <b>CP:</b> Periodic Health Exam- Child	2011-2012		<a href="#">8/10/2011</a>
<a href="#">Nutrition in Chronic Renal</a>	<u>Session - Lecture</u>	Scientific Principles of Medicine III - <b>CP:</b> Renal Failure: Chronic	2011-2012		<a href="#">10/20/2011</a>
<a href="#">Nutrition in Pregnancy and Lactation</a>	<u>Session - Lecture</u>	Scientific Principles of Medicine IV - <b>CP:</b> Normal Pregnancy/Preg. Loss/Preg. Complications	2011-2012		<a href="#">2/10/2012</a>
<a href="#">Nutrition in the Elderly</a>	<u>Session – Self Taught</u>	Scientific Principles of Medicine IV - <b>CP:</b> Human Development: Pre-Teen (8-12)/Teen/Abnormal Stature	2011-2012		<a href="#">3/23/2012</a>

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<u>Session Title</u>	<u>Type</u>	<u>Course</u>	<u>Academic Year</u>	<u>Description</u>	<u>Date</u>
<a href="#">Nutrition/Obesity</a>	<u>Session - Lecture</u>	Block C- OB-GYN/Pediatrics - <b>CP:</b> N/A	2011-2012		<a href="#">8/29/2011</a>
<a href="#">Nutritional Determinants of Thyroid States</a>	<u>Session - Lecture</u>	Scientific Principles of Medicine III - <b>CP:</b> Disorders of Thyroid Function	2011-2012		<a href="#">11/17/2011</a>
<a href="#">Obesity</a>	<u>Session - didactic</u>	Block A- Surgery/Family Medicine - <b>CP:</b> N/A	2011-2012		<a href="#">8/18/2011</a>
<a href="#">Sources of Organic Acids</a>	<u>Session - Lecture</u>	Scientific Principles of Medicine III - <b>CP:</b> Abnormalities of Hydrogen Ion	2011-2012		<a href="#">10/12/2011</a>
<a href="#">Type 2 Diabetes Integration</a>	<u>Session - TBL</u>	Scientific Principles of Medicine III - <b>CP:</b> Diabetes & Obesity/Metabolic Syndrome	2011-2012		<a href="#">12/2/2011</a>

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### Patient Safety

<u>Session Title</u>	<u>Type</u>	<u>Course</u>	<u>Academic Year</u>	<u>Description</u>	<u>Date</u>
<a href="#">Antipsychotic Medications</a>	<u>Session - Lecture</u>	Block B-Internal Medicine/Psychiatry - <b>CP:</b> N/A	2011-2012	Study notes by Brandon Fuqua	<a href="#">8/10/2011</a>
<a href="#">Approach to Hyponatremia</a>	<u>Session - TBL</u>	Medical Skills III - <b>CP:</b> N/A	2011-2012		<a href="#">10/3/2011</a>
<a href="#">Biopsychosocial Interviewing</a>	<u>Session - didactic</u>	Block B-Internal Medicine/Psychiatry - <b>CP:</b> N/A	2011-2012		<a href="#">7/6/2011</a>
<a href="#">Child &amp; Adolescent Psychopathology</a>	<u>Session - Lecture</u>	Block B-Internal Medicine/Psychiatry - <b>CP:</b> N/A	2011-2012		<a href="#">7/20/2011</a>
<a href="#">Coagulation Abnormalities</a>	<u>Session - StanPt</u>	Medical Skills II - <b>CP:</b> N/A	2011-2012		<a href="#">2/9/2012</a>
<a href="#">Decision-making Heuristics</a>	<u>Session - LargeGrp</u>	Masters' Colloquium I - <b>CP:</b> N/A	2011-2012		<a href="#">9/30/2011</a>
<a href="#">Decision-making Heuristics</a>	<u>Session - LargeGrp</u>	Masters' Colloquium I - <b>CP:</b> N/A	2011-2012		<a href="#">9/30/2011</a>
<a href="#">Delirium &amp; Amnestic and other Cognitive Disorders</a>	<u>Session - Lecture</u>	Block B-Internal Medicine/Psychiatry - <b>CP:</b> N/A	2011-2012		<a href="#">9/14/2011</a>

Academic Year 2011-2012

<a href="#">Dementia/Dementia Scheme</a>	Session - Lecture	Block B-Internal Medicine/Psychiatry - CP: N/A	2011-2012	<a href="#">9/14/2011</a>
<a href="#">Dissociative Disorders</a>	Session - Lecture	Block B-Internal Medicine/Psychiatry - CP: N/A	2011-2012	<a href="#">11/16/2011</a>
<a href="#">Dysphagia</a>	Session - LgSmallGrp	Medical Skills I - CP: N/A	2011-2012	<a href="#">11/10/2011</a>
<a href="#">ECT and Psychosurgery</a>	Session - Lecture	Block B-Internal Medicine/Psychiatry - CP: N/A	2011-2012	<a href="#">11/30/2011</a>
<a href="#">Fluids &amp; Electrolytes</a>	Session - Lecture	Block C- OB-GYN/Pediatrics - CP: N/A	2011-2012	<a href="#">8/1/2011</a>
<a href="#">Geriatrics Part II Falls</a>	Session - Workshop	Block A- Surgery/Family Medicine - CP: N/A	2011-2012	<a href="#">10/6/2011</a>
<a href="#">Grief and the Dying Patient</a>	Session - Lecture	Block B-Internal Medicine/Psychiatry - CP: N/A	2011-2012	<a href="#">5/2/2012</a>
<a href="#">Hypnotic &amp; Antianxiety Drugs</a>	Session - Lecture	Block B-Internal Medicine/Psychiatry - CP: N/A	2011-2012	<a href="#">8/17/2011</a>
<a href="#">Intro to the Structure of Blood</a>	Session - Lecture	Scientific Principles of Medicine II - CP: Hemoglobin Abnormal	2011-2012	<a href="#">1/17/2012</a>
<a href="#">Legal Issues</a>	Session - Lecture	Block B-Internal Medicine/Psychiatry - CP: N/A	2011-2012	<a href="#">9/21/2011</a>
<a href="#">Patient Safety</a>	Session - Lecture	Block B-Internal Medicine/Psychiatry - CP: N/A	2011-2012	<a href="#">9/14/2011</a>
<a href="#">Physicians Errors</a>	Session - LargeGrp	Masters' Colloquium IV - CP: N/A	2011-2012	<a href="#">1/31/2012</a>
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Session Title	Type	Course	Academic Year	Description	Date
<a href="#">PIM (Potentially inappropriate medication)</a>	Session - didactic	Block A- Surgery/Family Medicine - CP: N/A	2011-2012		<a href="#">7/14/2011</a>
<a href="#">PPROM</a>	Session - Lecture	Block C- OB-GYN/Pediatrics - CP: N/A	2011-2012		<a href="#">8/8/2011</a>
<a href="#">Psychiatric History</a>	Session - Lecture	Block B-Internal Medicine/Psychiatry - CP: N/A	2011-2012		<a href="#">7/8/2011</a>
<a href="#">Psychiatry of Alcohol</a>	Session - Lecture	Block B-Internal Medicine/Psychiatry - CP: N/A	2011-2012		<a href="#">8/31/2011</a>
<a href="#">Psychiatry of Drug Abuse</a>	Session - Lecture	Block B-Internal Medicine/Psychiatry - CP: N/A	2011-2012		<a href="#">8/31/2011</a>
<a href="#">Psychotropic Medication Use in Pregnancy</a>	Session - Lecture	Block B-Internal Medicine/Psychiatry - CP: N/A	2011-2012		<a href="#">11/16/2011</a>
<a href="#">Safety in Prescribing in Renal Failure</a>	Session - SelfTaught	Scientific Principles of Medicine III - CP: Renal Failure: Chronic	2011-2012		<a href="#">10/21/2011</a>
<a href="#">Sore Throat</a>	Session - StanPt	Medical Skills I - CP: N/A	2011-2012		<a href="#">8/18/2011</a>
<a href="#">STD/PID</a>	Session - Lecture	Block C- OB-GYN/Pediatrics - CP: N/A	2011-2012		<a href="#">8/15/2011</a>

Academic Year 2011-2012

<a href="#">Suicide &amp; Assaultive Behaviors</a>	<b>Session - Lecture</b>	Block B-Internal Medicine/Psychiatry - <b>CP:</b> N/A	2011-2012		<a href="#">8/3/2011</a>
<a href="#">Suturing and Skin Biopsy Workshop</a>	<b>Session - LgSmallGrp</b>	Medical Skills III - <b>CP:</b> N/A	2011-2012		<a href="#">8/22/2011</a>
<a href="#">The Febrile Patient</a>	<b>Session - StanPt</b>	Medical Skills I - <b>CP:</b> N/A	2011-2012	Focus in on the evaluation of the febrile patient. Activities include an interview and exam of a standardized patient portray of a febrile illness. Skill development includes basic chest x-ray interpretation skills in patients with fever and performance of urinalysis.	<a href="#">8/25/2011</a>
<a href="#">Weakness and Gait Disturbance</a>	<b>Session - LgSmallGrp</b>	Medical Skills I - <b>CP:</b> N/A	2011-2012		<a href="#">10/13/2011</a>
<u>1 2</u>					

**ED-38. The committee responsible for the curriculum at a medical education program, along with program's administration and leadership, must develop and implement policies regarding the amount of time medical students spend in required activities, including the total number of hours medical students are required to spend in clinical and educational activities during clinical clerkship rotations.**

*Attention should be paid to the time commitment required of medical students, especially during the clinical years. Medical students' hours should be set after taking into account the effects of fatigue and sleep deprivation on learning, clinical activities, and health and safety.*

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***a. Describe the means by which the curriculum committee or the relevant subcommittee(s), as well as course and clerkship rotation leaders, monitor the academic and clinical workload of medical students within and across individual courses and clerkship rotations.***

The Ilios curriculum management system enables us to maintain a precise listing of contact hours for each course and clerkship in the curriculum. The course committees described in ED-33 monitor hours and the course and clerkship directors are required to report contact hours to the Curriculum and Educational Policy Committee (CEPC). As part of the evaluation of each of the required clerkships, students are asked to assess whether duty hour policies are adhered to strictly. In addition, the curriculum management system enables us to track assigned readings, written assignments, special projects, and other expectations requiring the commitment of student time. The senior associate dean for medical education monitors hours and expectations and, if he has concerns, he shares them first with the course directors. If modifications are not made or if the course directors disagree with the education dean's concerns, the issue can be referred to the CEPC for discussion. Thus far, CEPC discussion has not been necessary as appropriate adjustments have been made at the course level.

***b. Describe any policies limiting the amount of scheduled time for medical students in a given week during the preclinical phase of the curriculum.***

The faculty have agreed that students will be given a minimum of 12 hours per week (3 half days) of unscheduled time for study.

***c. Summarize any medical school policies on medical student duty hours, including on-call requirements for clinical rotations. Describe the means by which these policies are disseminated to faculty, residents, and students.***

The year 3 and 4 clerkship committee reached a consensus decision that medical student duty hours will follow those adopted for first year house officers based on ACGME regulations. Duty hours and call requirements are clearly described in each Block and clerkship syllabus. The clerkship director is responsible for ensuring that faculty and residents are aware of student duty hours and that they adhere to the policy.

***d. Describe the mechanisms by which the effectiveness of duty hours policies is evaluated.***

In years 3 and 4, the clerkship director is responsible for monitoring workload including on-call responsibilities. Students are asked to report violations of duty hours expectations to the clerkship director. They are also given an opportunity to report concerns about duty hours in their confidential end of clerkship evaluation.

*e. Describe the mechanisms that exist for reporting violations of duty hours policies and the steps that are taken after a report of a violation is received.*

Students have several avenues for reporting duty hour violations including reporting such violations to the clerkship director, director of student affairs, associate dean for student affairs, and the senior associate dean for medical education. The following item also appears on the end of clerkship evaluation: “In this rotation, duty hour policies were adhered to strictly.” When concerns are raised the senior associate dean for medical education and the associate dean for student affairs will follow-up with the responsible clerkship director to determine appropriate steps for remedying any problems if needed.

*See also information for Required Courses and Clerkships, Part A, items (A.) and (B.).*

Academic Year 2011-2012

*Questions for standards ED-39 through ED-44 should be completed only by medical schools that operate geographically separate instructional sites/campuses, as defined in the instructions for completing the database.*

Paul L. Foster school of Medicine does not operate geographically separate instructional sites or campuses.

**NOTE THAT STANDARD ED-45 HAS BEEN DELETED BY LCME.**

**ED-46. A medical education program must collect and use a variety of outcome data, including national norms of accomplishment, to demonstrate the extent to which its educational objectives are being met.**

*The medical education program should collect outcome data on medical student performance, both during program enrollment and after program completion, appropriate to document the achievement of the program's educational objectives. The kinds of outcome data that could serve this purpose include performance on national licensure examinations, performance in courses and clerkship rotations and other internal measures related to educational program objectives, academic progress and program completion rates, acceptance into residency programs, and assessments by graduates and residency directors of graduates' preparation in areas related to medical education program objectives, including the professional behavior of its graduates.*

*a. Check all indicators used by the medical school to evaluate educational program effectiveness:*

In the table below, indicators preceded by an 'X' are those that will be used to evaluate program objectives until such time as we have a graduating class. From that point on, program objective indicators preceded by an asterisk (\*) will also be employed to track the progress of students graduating from the Paul L. Foster School of Medicine.

X	Results of USMLE/MCC or other national examinations
X	Student scores on internally developed examinations
X	Performance-based assessment of clinical skills (e.g., OSCEs)
*	Student responses on AAMC Medical School Graduation Questionnaire
X	Student evaluation of courses and clerkships
X	Student advancement and graduation rates
*	NRMP Match results
*	Specialty choices of graduates
*	Assessment of residency performance of graduates
*	Licensure rates of graduates
*	Specialty certification rates
*	Practice location of graduates
*	Practice type of graduates
X	Other: "Progress Test" assessing diagnostic reasoning longitudinally

*For each checked item, indicate*

*i. The means by which the data are collected (including response rates for questionnaires).*



The staff of the Office of Curriculum, Evaluation, and Accreditation is responsible for collecting, collating, and summarizing the results of each of the indicators described above. As we have yet to graduate a class, we do not have response rate data to report. The following data is being collected:

#### **USMLE (AND ALL NBME ADMINISTERED EXAMINATIONS)**

Exam scores for the NBME customized exams, NBME Comprehensive Basic Science exams, clinical science NBME subject exams, and the USMLE Step exams are reported to the school by the National Board. NBME scores are used for analyzing the effectiveness of instruction, particularly with respect to performance against national norms. NBME item analyses reports for the subject exams allow course and clerkship directors to assess more accurately instructional strengths and weaknesses in their individual curricula and to make appropriate adjustments. Performance on Steps 1 and 2 of the USMLE is monitored by the Office of Curriculum, Evaluation, and Accreditation, and by the Curriculum and Educational Policy Committee for overall school performance, including identification of any overall positive or negative trends and comparison of the school's performance against national norms. The curriculum will continue to be examined for ways to enhance integration and improve program quality.

#### **INTERNAL EXAMINATIONS**

Student performance on course exams is monitored by course and clerkship directors, the college masters, the associate dean for student affairs, and the Office of Curriculum, Evaluation, and Accreditation. Exam content and structure as well as student performance are also included in the in-depth review process.

#### **PERFORMANCE BASED ASSESSMENT**

- OSCEs in years 1, 2 and 3
- Clinical assessment of student performance in required clerkships
- Direct observation in required clerkships
- USMLE Step 2 CS

#### **STUDENT EVALUATION OF COURSES**

Student evaluation of courses is a standard part of the curriculum evaluation process. A standardized on-line evaluation is used for all courses. The Office of Curriculum, Evaluation and Accreditation compiles course evaluation data and develops reports that are issued at least quarterly to the Curriculum and Educational Policy Committee, course directors, department chairs as appropriate, and the Dean. Course committees use the results of student evaluations as the basis for a qualitative assessment of the course, and this assessment complements the objective or quantitative data provided by examination scores. The Curriculum and Educational Policy Committee uses the evaluation results to assess the relationships between curricular features and outcomes and to help assess the degree to which curricular integration improves these outcomes. Response rates for all student evaluations are reported in the table below:

<i>Course</i>	<i>Class of 2013</i>	<i>Class of 2014</i>	<i>Class of 2015</i>	<i>Course Average Response Rate</i>
Master's Colloquium	69% 90%	96%	85%	
Medical Skills	73% 90%	94% 86%		
SCI	68% 88%	99%	85%	
SPM	69% 91%	95%	85%	
Clerkship Block 1	91%	--	--	92%
Clerkship Block 2	88%	--	--	
Clerkship Block 3	95%	--	--	
Class Average Response Rate	74%	90%	96%	86%

### **STUDENT ADVANCEMENT AND GRADUATION RATES**

This information is collected by the Office of Curriculum, Evaluation, and Accreditation and reported to the Grading and Promotions Committee and the Curriculum and Educational Policy Committee on an annual basis at the conclusion of each academic year. College masters are provided specific data for the students in their own college and summary data for the whole school. Trends in pass rates may signal that some curricular modification is necessary or that a certain segment of students may require extra attention with respect to academic difficulties. Efforts to address such issues will typically focus on enhancing learning skills, developing an appreciation for individual learning styles, and modifying approaches to learning in the medical school environment.

### **PROGRESS TEST**

PLFSOM has joined with 6 other medical school in the U.S. in a "Progress Test Collaborative" which is coordinated by the Department of Medical Education at Southern Illinois University School of Medicine. The progress test consists of a total of 150 validated items that address diagnostic pattern recognition and clinical data interpretation. The progress test is given at matriculation (time 0) and is repeated annually up to graduation (time 4). This test enables schools to monitor student "progress" in diagnostic and clinical reasoning and to compare the performance of their students with that of students at other schools

*ii. The groups or individuals that review the data (e.g., curriculum committee, department chairs) and the frequency with which the reviews occur.*

The data derived from the sources indicated above is reviewed by the Curriculum and Educational Policy Committee. This data is also summarized and reported to the Faculty Council and to the Dean's Council annually.

*b. Describe the means by which the results of the reviews are used for curriculum evaluation and revision.*

PLFSOM is committed to continuous quality improvement. If results derived from any of the sources listed above suggest problems in the educational program, these problems will be carefully investigated

and solutions will be developed. The CEPC has primary responsibility for conducting such investigation and has the authority to appoint task forces and special committees to address particular problems. Once solutions are implemented, the CEPC is also responsible for monitoring outcomes to determine their effectiveness.

*c. Provide evidence that educational program objectives in the domains of knowledge, skills, behaviors, and attitudes are being achieved.*

### **Knowledge Measures (Examples)**

#### **Pre-Clerkship**

The curriculum at PLFSOM is highly integrated. Basic science content is “threaded” throughout the first two years in the context of clinical presentations associated with appropriate organ system units. Nonetheless we track student performance in each discipline by using discipline as one of the key words attached to each question in our item pool. See results below.

<i>Discipline Analysis</i> <i>Percent Correct Average</i> <i>on All Summative Exams</i> <i>Years 1-2</i>	<i>M1 Exams</i>			<i>M2 Exams</i>		
	Class of 2013	Class of 2014	Class of 2015	Class of 2013	Class of 2014	Class of 2015 (Pending)
Anatomy 79		74	70	64	74	--
Behavior 68		81	83	77	86	--
Biochemistry 68		74	79	68	76	--
Cell and Molecular Biology	77	79	71	62	89	--
Embryology 79		67	61	66	76	--
Histology 81		74	75	79	79	--
Immunology 83		73	77	75	87	--
Medical Genetics	78	81	79	76	74	--
Microbiology 79		70	75	70	82	--
Neuroscience / Special senses	91	61	76	51	69	--
Nutrition 81		78	69	71	84	--
Pathology 79		76	81	85	91	--
Pharmacology 81		71	68	74	80	--
Physiology 88		76	77	77	85	--
Scheme 87		86	82	78	79	--

### Year 3 Clerkships

Knowledge attainment in the required clerkships in year 2 is assessed by NBME Shelf Exams. Please note: PLFSOM has a semi-integrated approach to clerkships. Students complete 3 16 week blocks. Each block consists of two clerkships that are integrated and include shared didactics and other learning experiences. Our students complete two shelf examinations at the end of each block.

### NBME Shelf Examination Performance Blocks 1-3

Clerkship	PLFSOM Average Score	National Average (Q1-3)
Family Medicine (Core)	69.5	70.0
Surgery 75.5		74.1
Internal Medicine	76.2	75.5
Psychiatry 80.8		78.7
OB/GYN 74.9		74.4
Pediatrics 77.2		76.9

### Progress Test

PLFSOM is part of a multi-school “progress testing collaborative” in which each school administers the same set of exams (150 total items) annually to students to track their “progress” in Clinical Data Interpretation (CDI) and Diagnostic Pattern Recognition (DPR). Results to date are summarized below.

<i>Progress Testing Results By Year</i>				
<i>Test-Administration Period</i>	<i>Measure</i>	<i>Class of 2013</i>	<i>Class of 2014</i>	<i>Class of 2015</i>
CDI – Baseline	Median	55%	57%	51%
	Mean	55%	55%	51%
	Standard Deviation	10%	10%	11%
CDI – Beginning of M2 year	Median	74%	72%	
	Mean	74%	70%	--
	Standard Deviation	6%	9%	
CDI – Beginning of M3 year	Median	80%		
	Mean	78%	-- --	
	Standard Deviation	11%		
DPR – Baseline	Median	49%	46%	43%
	Mean	51%	46%	43%
	Standard Deviation	12%	12%	10%
DPR – Beginning of M2 year	Median	76%	73%	
	Mean	74%	71%	--
	Standard Deviation	9%	8%	
DPR – Beginning of M3 year	Median	83%		
	Mean	81%	-- --	
	Standard Deviation	9%		

**Behaviors/Skills**

<i>Students Receiving a “YES” Final Grades for Behavioral &amp; Attitudinal Measures in the Professionalism Set</i>		
	Block 1	Block 2
Behavior demonstrates concern about the needs of others.	100	100
Displays compassion in interactions with patients regardless of age, race, gender, ethnicity, culture, sexual orientation, socioeconomic status and disability(Prof - 3)	100	100
Is nonjudgmental	100	100
Preserves patient's dignity (Prof-8)	100	100
Uses respectful language when talking about others (ICS9)	100	100
Demonstrates advocacy for the interests and needs of patients (Prof- 9)	100	100

<i>Communicate clearly with patients, families, (ICS-1)</i>		
Percent receiving score of:	Block 1	Block 2
“Clearly assists the patient and family in understanding health issues.”	86%	80%
“Most of the time communicates in language that patient and family understand.”	14%	20%
“Rarely communicates in language that patient and family understand.”	0%	0%

<i>Treat plan addresses biopsychosocial issues</i>		
Percent receiving score of:	Block 1	Block 2
Consistently (> 80%)	73%	75%
Most of the time (50 - 80%)	27%	25%
Rarely (<50%)	0%	0%

**Attitudinal Measures**

We employ a number of attitudinal measures in a longitudinal survey addressing attitudes toward psychosocial and cultural issues in medicine. We also administer the Jefferson Empathy Scale (see summary below). A complete summary of this large data set will be available for on-site inspection if desired.

<i>Jefferson Empathy Scale Scores</i>					
Administered Metric		Class of 2013	Class of 2014	Class of 2015	
Start M1 Year	Median	115.5	113.0	116.0	6.0
	Mean	115.8	114.2	115.8	2.8
	Standard Deviation	11.5	11.4	11.0	.0
Start M2 Year	Median	118.5	117.0	--	--
	Mean	122.0	113.5	--	--
	Standard Deviation	16.1	11.8	--	--
Start M3 Year	Median	115.0	--	--	--
	Mean	114.2	--	--	--
	Standard Deviation	16.0	--	--	--

*d. If available, provide summary data on the performance of the medical school's graduates in the following areas:*

Not applicable

*i. USMLE Step 3 or MCCQE Part II*

*ii. Graduate medical education (e.g., from surveys of graduates or residency program directors)*

*For U.S. Medical Schools only:*

*e. Indicate if students at your institution will be required to take or required to pass USMLE Steps 1 and 2. (check)*

Take		Pass
Step 1	X	X
Step 2 CK	X	X
Step 2 CS	X	X

*f. Supply graphs provided by the National Board of Medical Examiners that compare the performance of national and medical school first-time takers for USMLE Steps 1 and 2 for the past three academic years.*

At this point only our charter class of 2013 has taken USMLE Step 1. The NBME score profile is attached (next page).

*g. For each of the past three academic years, provide results for REPEAT (not first-time) takers of USMLE Steps 1 and 2.*

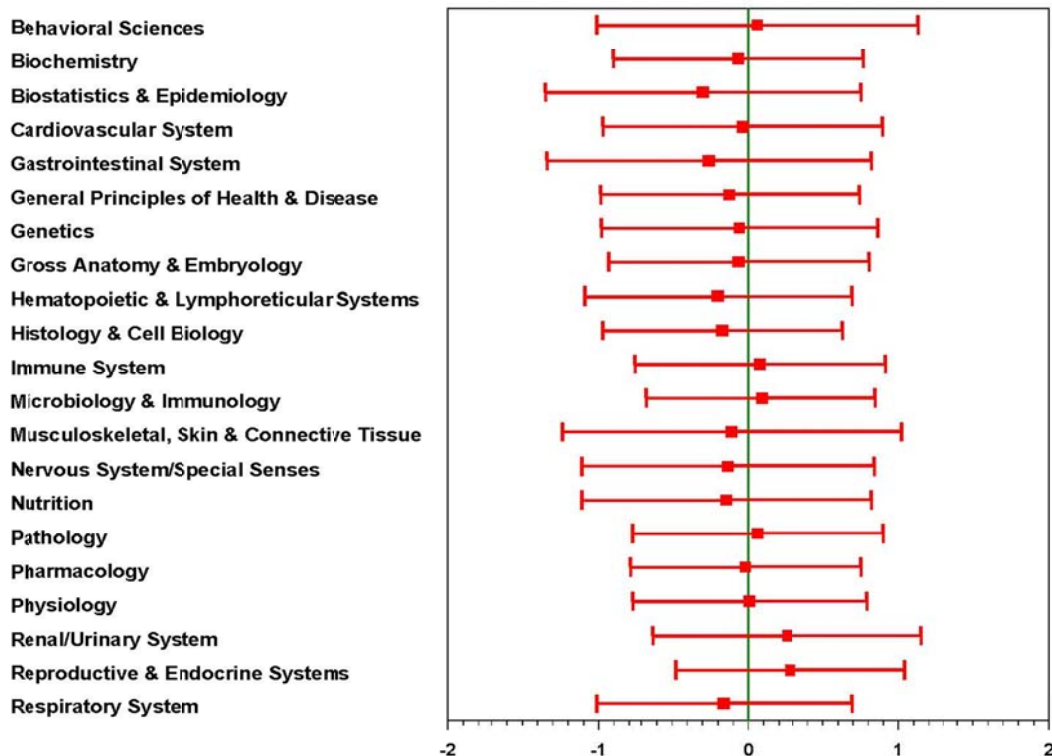
**STEP 1**

Year	Number Examined	Percent Passing	Mean Total Score and S.D.		National Mean Total Score and S.D.	
			Score	S.D. Score	Score	S.D.
2011	35 97	224		19	224	(22)

## NATIONAL BOARD OF MEDICAL EXAMINERS®

### Performance of Examinees Taking USMLE® Step 1 for the First Time in 2011

**Medical School: 044-200 Paul L. Foster School of Medicine**



The above graph provides information regarding the score distribution of first takers from your medical school relative to the distribution for all U.S./Canadian first takers in each discipline and organ system. All scores are scaled in standard score units based on the performance of U.S./Canadian first takers: the mean and standard deviation (SD) for this group are 0 and 1, respectively, for each discipline and organ system. To facilitate interpretation, the reliability of each score category has been used in adjusting the standard scores. This adjustment helps to make the differences in standard scores a better reflection of true differences in student performance. The mean performance of U.S./Canadian first takers is represented by the vertical solid green line at 0.0. Roughly 68% of U.S./Canadian first takers scored within one SD of the mean, between -1.0 and 1.0. The distribution of performance for first takers from your school is represented by the red boxes and horizontal lines. The red box depicts the mean performance of first takers from your school. The distance from the red box to one end of the red line indicates one SD for your school. The interval spanned by each red line represents your school mean plus/minus one SD; approximately 68% of your students scored in this interval.

By comparing the locations of the red boxes, you can determine the disciplines and organ systems in which the performance of your students was relatively strong or weak. Because many of the scores are based on a relatively small number of items, differences smaller than a few tenths of an SD are not likely to be meaningful. In addition, because Step 1 test items are deliberately designed to be integrative with many items contributing to the calculation of scores in more than one discipline, caution should be used in attributing mean differences in student performance to individual courses at your school.



Academic Year: 2011-12

**ED-47. In assessing program quality, schools must consider student evaluations of their courses and teachers, as well as a variety of other measures.**

*It is expected that the medical education program will have a formal process to collect and use information from medical students on the quality of courses and clerkship rotations. The process could include such measures as questionnaires (written or online), other structured data collection tools, focus groups, peer review, and external evaluation.*

*a. Summarize the means by which information is collected from students on course and clerkship rotation quality. Include the methods that are used (e.g., questionnaires, focus groups) and average response rates.*

1. Students are asked to complete an electronic standardized survey about their courses. This survey includes Likert scale responses as well as open-ended response prompts. The survey instruments are included in Section II, Appendix 9.
2. *2011-2012 Course Evaluation System Response Rates*

<i>Course</i>	<i>Class of 2013</i>	<i>Class of 2014</i>	<i>Class of 2015</i>	<i>Course Average Response Rate</i>
Master's Colloquium	69% 90%	96%	85%	
Medical Skills	73% 90%	94% 86%		
SCI	68% 88%	99%	85%	
SPM	69% 91%	95%	85%	
Clerkship Block 1	91%	--	--	92%
Clerkship Block 2	88%	--	--	
Clerkship Block 3	95%	--	--	
Class Average Response Rate	74%	90%	96%	86%

3. The Student Curriculum and Evaluation Committee also meets with the senior associate dean for medical education and the director of assessment and evaluation to discuss student perspectives and to review outcome of the survey described above to provide explanation of students' comments on the course.
4. Informally the Student Curriculum and Evaluation Committee have chosen to collect information from their fellow students and provide the results of their own survey to the senior associate dean for medical education.

*b. Describe if evaluation data are being collected on faculty, residents, and others who provide teaching or supervision in required courses and clerkship rotations.*



As described elsewhere in this data base, student are asked to complete confidential on-line evaluations on faculty and residents in all courses and clerkships. This data is reviewed by the director of assessment and evaluation, the senior associate dean for medical education, and faculty members' department chair, and the course or clerkship director in which the faculty member or resident teaches or otherwise supervises students. Please see Section II Appendix 9 for example forms and the items included on these surveys.

*c. Describe any other individuals or groups providing information about course quality or the quality of faculty teaching (such as through peer assessment of teaching or course content).*

The course committees (unit committees for the Scientific Principles of Medicine Course) meet at the end of the semester (or unit in the case of SPM) to review student evaluations, student performance on summative examinations and quizzes, and to share perceptions of course strengths, weaknesses, and recommendations for future changes.

The senior associate dean for medical education has implemented a Student Curriculum and Evaluation Committee consisting of two students from each of the 4 colleges in years 1-4. He and the director of assessment and evaluation meet with each year's committee periodically (approximately once every 6-8 weeks) to review the results of student on-line confidential evaluations, and to discuss issues of concern to the students, including their recommendations for course and program improvement. A sub-set of this group regularly attends CEPC meetings to provide student perspective. Member of the Student Curriculum and Evaluation Committee regularly solicit input from their constituents and they frequently make contact with the senior associate dean by e-mail or in person to discuss issues and concerns.

*See also information for ED-35.*

**END OF SECTION II**

## 2011-2012 Scientific Principles of Medicine I and II Clinical Presentations

SPM Semester I	SPM Semester II
<p><b>Unit 1 Introduction to Health and Disease</b></p> <ul style="list-style-type: none"><li>• Periodic Health Exam-Adult</li><li>• Periodic Health Exam-Child</li><li>• Sore Throat</li><li>• Fever</li><li>• Wound</li></ul> <p><b>Unit 2 Musculoskeletal and Dermatology</b></p> <ul style="list-style-type: none"><li>• Bone Fractures</li><li>• Joint Pain</li><li>• Lumps and Masses</li><li>• Limp and Deformity</li><li>• Weakness</li><li>• Skin Lesions</li><li>• Pruitus</li><li>• Hair and Nail Disorders</li></ul> <p><b>Unit 3 Gastrointestinal System</b></p> <ul style="list-style-type: none"><li>• Dysphagia</li><li>• Vomiting/Nausea</li><li>• Diarrhea</li><li>• Constipation</li><li>• Abdominal Pain</li><li>• GI Bleed</li></ul>	<p><b>Unit 4 Liver and Hematology</b></p> <ul style="list-style-type: none"><li>• Abnormal Liver Function Tests</li><li>• Abdominal Distension</li><li>• Abnormal Hemoglobin</li><li>• Abnormal White Blood Cells</li><li>• Lymphadenopathy</li></ul> <p><b>Unit 5 Cardiovascular/Respiratory</b></p> <ul style="list-style-type: none"><li>• Chest Discomfort</li><li>• Mediastinal Mass</li><li>• Abnormal Heart Sounds</li><li>• Heart Murmurs</li><li>• Syncope</li><li>• Palpitations</li><li>• Abnormal Arterial Pulse</li><li>• Abnormal Blood Pressure</li><li>• Dyspnea</li><li>• Coughing and Wheezing</li><li>• Cyanosis</li><li>• Hemoptysis</li></ul> <p><b>Unit 6 Integration of Systems</b></p>

## 2011-2012 Scientific Principles of Medicine III and IV Clinical Presentations

SPM Semester III	SPM Semester IV
<p><b>Unit 7 CNS and Special Senses</b></p> <ul style="list-style-type: none"> <li>• Gait Disturbances</li> <li>• Movement Disorders</li> <li>• Headache</li> <li>• Seizure and Epilepsy</li> <li>• Stroke and Aphasia</li> <li>• Delirium, Stupor and Coma</li> <li>• Eye Redness</li> <li>• Visual Disturbances</li> <li>• Diplopia/Strabismus</li> <li>• Smell and Taste Disorders</li> <li>• Hearing Loss and Tinnitus</li> <li>• Vertigo and Dizziness</li> </ul> <p><b>Unit 8 Renal System</b></p> <ul style="list-style-type: none"> <li>• Abnormalities of Renal Function</li> <li>• Disorders of Serum Sodium</li> <li>• Intrinsic Renal Disease</li> <li>• Abnormalities of Hydrogen Ion Concentration</li> <li>• Renal Failure: Acute</li> <li>• Renal Failure: Chronic</li> </ul> <p><b>Unit 9 Endocrine System</b></p> <ul style="list-style-type: none"> <li>• Hypertension</li> <li>• Hypothalamus/Pituitary Axis</li> <li>• Disorders of Thyroid Function</li> <li>• Diabetes and Obesity</li> </ul>	<p><b>Unit 10 Reproduction</b></p> <ul style="list-style-type: none"> <li>• Infertility</li> <li>• Male Reproductive System</li> <li>• Abnormal Menstrual Cycle</li> <li>• Contraception</li> <li>• Menopause</li> <li>• Pelvic Floor Relaxation</li> <li>• Screening and Prevention</li> <li>• Sexually Transmitted Diseases</li> <li>• Abnormal Genital Tract Bleeding</li> <li>• Pelvic Mass</li> <li>• Normal Pregnancy</li> <li>• Pregnancy Loss/Pregnancy Complications</li> </ul> <p><b>Unit 11 The Mind and Human Development</b></p> <ul style="list-style-type: none"> <li>• Human Development: Infant to Toddler (Part I)</li> <li>• Human Development: Infant to Toddler (Part II)</li> <li>• Human Development: Early Childhood</li> <li>• Human Development: Pre-Teen</li> <li>• Human Development: Teen</li> <li>• Mood Disorders</li> <li>• Panic and Anxiety</li> <li>• Psychosis and Disordered Thought</li> <li>• Substance Abuse, Dependence and Withdrawal</li> <li>• Dementia</li> <li>• Sleep and Circadian Rhythm Disorders</li> </ul>

Student Name

Faculty Name

Event and date:

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## HISTORY & INTERVIEWING SKILLS

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Addresses Patient's agenda(PC-3, ICS- 2, Prof- 9)

- Patient's agenda not addressed
- Addresses patient's agenda
- Prioritizes patient problems by patient agenda
- Cannot Assess

Completes an appropriate history(PC-3, ICS- 2)

- Rarely (< 50%)
- Most of the time (50-80%)
- Consistently (> 80%)
- Cannot Assess

Asks pertinent review of systems questions without prompting(PC-3, ICS- 2)

- Rarely (< 50%)
- Most of the time (50-80%)
- Consistently (> 80%)
- Cannot Assess

Appropriately documents findings(PC-3, ICS- 2)

- Case note is missing important information, sx/s/problems
- Case note contains all important information
- Case notes are clear, detailed, and comprehensive
- Cannot Assess

## EXAMINATION SKILLS

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Exam is appropriate in scope (PC- 3)

- Rarely (< 50%)
- Most of the time (50-80%)
- Exams Consistently (> 80%)
- Cannot Assess

Independently perform exam with proper technique (PC- 3)

- Rarely (< 50%)
- Most of the time (50-80%).
- Consistently (> 80%).
- Cannot Assess

Identifies pertinent physical findings (PC- 1,2,3 & 6)

- Rarely (< 50%)
- Most of the time (50-80%)
- Consistently (> 80%)
- Cannot Assess

Exam linked to history (PC- 3,6)

- Rarely (< 50%).
- Most of the time (50-80%).
- Consistently (> 80%).
- Cannot Assess

## FUND OF KNOWLEDGE / CLINICAL REASONING

---

Can independently apply knowledge to identify problem (mk1,2)

- Rarely (< 50%).
- Most of the time (50-80%).
- Consistently (> 80%).
- Cannot Assess

Generate a list of diagnostic considerations based on the integration of historical, physical and laboratory findings (PC-6)

- Incomplete list of diagnostic considerations
- Comprehensive list of diagnostic considerations
- Prioritizes comprehensive list of diagnostic considerations
- Cannot Assess

Identify life-threatening conditions that require immediate and specific interventions (PC-2)

- Misses life threatening conditions
- Identifies life-threatening conditions
- Identifies life threatening conditions and proposes appropriate interventions
- Cannot Assess

Identifies biopsychosocial issues relevant to patient (PC-1)

- Rarely (< 50%)
- Most of the time (50-80%)
- Consistently (> 80%)
- Cannot Assess

Develops a treatment plan appropriate to the patient (PC-1)

- Requires assistance in developing plan

- Develops reasonable plan,
- Develops detailed plan consistent with diagnostic considerations;
- Cannot Assess

Independently identifies appropriate medical tests needed to reach a diagnosis (mK3, PC-5)

- Rarely (< 50%).
- Most of the time (50-80%).
- Consistently (> 80%).
- Cannot Assess

Accurately interprets commonly used laboratory test results (PC-5)

- Rarely (< 50%).
- Most of the time (50-80%).
- Consistently (> 80%)
- Cannot Assess

## COMMUNICATION

---

Communicate clearly with patients, families, (ICS-1)

- Rarely (< 50%) adjusts language to communicate clearly with patients and their families.
- Most of the time (50-80%) communicates in language that patient and family understand.
- Clearly assists the pt and family in understanding health issues.
- Cannot Assess

Presentations to attending or resident are organized (ICS- 1)

- Rarely (< 50%).
- Most of the time (50-80%).
- Consistently (> 80%).
- Cannot Assess

## PRACTICE-BASED LEARNING & SYSTEMS-BASED PRACTICE

---

Demonstrate sophistication in the use of digital resources for patient care, self-education, and the education of patients and their families (PBL-5)

- Does not use digital resources or uses poor quality resources
- Uses high quality digital resources
- Uses multiple high quality resources, integrating and critically assessing the information
- Cannot Assess

Demonstrates knowledge of current peer-reviewed literature in relation to patient management (PBL-2)

- Has not read sufficient current peer-reviewed literature
- Has read current peer-reviewed literature but cannot always apply it to patient management
- Applies information from current peer-reviewed literature to patient management
- Cannot Assess

Takes the initiative in increasing clinical knowledge and skills (PBL- 7)

- Rarely (< 50%)
- Most of the time (50-80%)
- Consistently (> 80%)
- Cannot Assess

Effectively utilizes medical care systems and resources to benefit patient health (SBP- 1)

- Cannot identify medical care systems and resources to benefit patient health
- Aware of medical care systems and resources to benefit patient health
- Utilizes both medical care systems and social resources to benefit patient health
- Cannot Assess

## PROFESSIONALISM

---

Demonstrates honesty in professional matters (Prof-6)	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unable to Assess
Recognize when to take responsibility and when to seek assistance (PBL-4)	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unable to Assess
Appropriately acknowledges mistakes	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unable to Assess
Recognizes and avoids conflicts of interest(Prof -2)	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unable to Assess
Displays compassion in interactions with patients regardless of age, race, gender, ethnicity, culture, sexual orientation, socioeconomic status and disability(Prof - 3)	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unable to Assess
Preserves patient's dignity (Prof-8)	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unable to Assess
Handles confidential information discretely (ICS-3)	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unable to Assess
Behaves respectfully to others(ICS9)	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unable to Assess
Is nonjudgmental (ICS9)	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unable to Assess
Uses respectful language when talking about others (ICS9)	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unable to Assess
Behavior demonstrates concern about the needs of others.	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unable to Assess
Demonstrates advocacy for the interests and needs of patients (Prof- 9)	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unable to Assess
Is receptive to constructive criticism	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unable to Assess
Follows through with tasks (ICS-3)	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unable to Assess

Answers emails, pages, etc (ICS-3)	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unable to Assess
Is on time	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unable to Assess
Dress and grooming are appropriate for the setting	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unable to Assess

Please discuss what the student can do to most improve his/her performance (required field)

Please discuss the clerk's 2-3 strongest skills - (Required field)



# October 07, 2012 - October 13, 2012

October 2012						November 2012							
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6					1	2	3
7	8	9	10	11	12	13	4	5	6	7	8	9	10
14	15	16	17	18	19	20	11	12	13	14	15	16	17
21	22	23	24	25	26	27	18	19	20	21	22	23	24
28	29	30	31				25	26	27	28	29	30	

	7 Sun	8 Mon	9 Tue	10 Wed	11 Thu	12 Fri	13 Sat			
		4:00am <b>Unit 2 Neuromusculoskeletal and Integumentary Systems Week 5</b> 4:30am								
6 am										
7 <sup>00</sup>		<b>Neurological Deficits of the</b> Dr. Black	<b>Cell Cycle Drugs</b> Dr. Quest							
8 <sup>00</sup>		<b>Musculoskeletal Lumps and</b> Dr. Boman	<b>Self Study</b>	<b>Deformity and Limp Scheme</b> Dr. Machen	<b>Comple and alternat</b>	<b>Spanish - A</b>	<b>MC- Decisio Heurist</b> Red and Blue College			
9 <sup>00</sup>		<b>Upper Limb II</b> Drs. Beale, Black and Brower	<b>Introduction to Neoplasia</b> Dr. Padilla	<b>Case Discussions of Limp</b> Dr. Machen	<b>Comple and alternat</b>	<b>Spanish - B</b>	<b>Muscul Lumps and Masses WCE</b> MEB 4120			
10 <sup>00</sup>	<b>Musculoskeletal Lumps and Masses Parts I and II</b> Dr. Padilla		<b>Scientific Basis of Deformity</b> Drs. Beale, Hogg a	<b>Med Skill Join Pain Shot &amp; Upp</b>	<b>Self Stud</b>	<b>Forn Exar Lum</b>	<b>MC- Decisio Heurist</b> Green and Gold College			
11 <sup>00</sup>			<b>Radiculopathies, Plexopathies</b> Dr. Black			<b>Self Stud</b>	<b>Muscul Lumps and Masses WCE</b> MEB 4120			
12 pm										
1 <sup>00</sup>		<b>Bacteri: Identifi by Antibio Sensitiv Acid</b> Drs. Bra	<b>MP- AP Virtual Lab</b> Drs. Janssen and	<b>Self Study</b>	<b>Self Study</b>	<b>Med Skill Join Pain Shot &amp; Upp</b>	<b>Self Stud</b>	<b>Forn Exar Lum</b>	<b>Self Stud</b>	<b>STS 6 Deep Back Prep</b> Drs. Beale and
2 <sup>00</sup>										
3 <sup>00</sup>		<b>Bacteri: Identifi by Antibio Sensitiv Acid</b> Drs. Bra	<b>MP- AP Virtual Lab</b> Drs. Osborne and			<b>Med Skill Join Pain Shot &amp; Upp</b>	<b>Self Stud</b>	<b>Forn Exar Lum</b>	<b>Self Stud</b>	<b>Option: Anator Lab- Brain Remov:</b> Dr. Beale
4 <sup>00</sup>										
5 <sup>00</sup>										
6 <sup>00</sup>										

# October 21, 2012 - October 27, 2012

October 2012						November 2012							
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6					1	2	3
7	8	9	10	11	12	13	4	5	6	7	8	9	10
14	15	16	17	18	19	20	11	12	13	14	15	16	17
21	22	23	24	25	26	27	18	19	20	21	22	23	24
28	29	30	31				25	26	27	28	29	30	

	21 Sun	22 Mon	23 Tue	24 Wed	25 Thu	26 Fri	27 Sat	
		4:00am	<b>Unit 2 Neuromusculoskeletal and Integumentary Systems Week 7</b>				4:30am	
6 am					<b>Genetics Review</b> Dr. Coue			
7 <sup>00</sup>					<b>Case based discussion on</b> Dr. Quest			
8 <sup>00</sup>		<b>Weakness and Loss of Motion</b> Dr. Brower	<b>Neuroanatomy and</b> Dr. Black	<b>Proprioception Basic Spinal</b> Dr. Osborne	<b>Spanish - A</b>		<b>MC-Self Study</b> NO COLLOC	<b>Weakness WCE Session</b> MEB 4120
9 <sup>00</sup>	<b>Neuroanatomical Aspects of Loss of Motion</b> Dr. Black	<b>Histology and Mechanics of Skeletal Muscle</b> Drs. Pfarr and Osborne	<b>Pathology of Weakness</b> Dr. Baston	spanish - B				
10 <sup>00</sup>	<b>Immunology of the CNS and Neuromuscular Systems</b> Dr. Piskurich			<b>Mechanics of Skeletal Muscle</b> Drs. Janssen and C	<b>Infectious Myelitis</b> Dr. Bramblett	<b>Med Skill Wea</b>	<b>Self Stud</b>	<b>Forn Exar Wea</b>
11 <sup>00</sup>							<b>Self Stud</b>	
12 pm								
1 <sup>00</sup>		<b>Recurrent Risks for Mendelian Disorders/Linkag analysis</b> Dr. Coue	Self Study	Self Study	<b>Med Skill Wea</b>	<b>Self Stud</b>	<b>Forn Exar Wea</b>	Self Study
2 <sup>00</sup>								
3 <sup>00</sup>		<b>Muscle Metabolism and</b> Drs. Trott and Hoc			<b>Med Skill Wea</b>	<b>Self Stud</b>	<b>Forn Exar Wea</b>	
4 <sup>00</sup>								
5 <sup>00</sup>								
6 <sup>00</sup>								
						3:00am - 4:00am P		
						4:00am - 5:00am		

# August 05, 2012 - August 11, 2012

August 2012						September 2012							
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3	4						1
5	6	7	8	9	10	11	2	3	4	5	6	7	8
12	13	14	15	16	17	18	9	10	11	12	13	14	15
19	20	21	22	23	24	25	16	17	18	19	20	21	22
26	27	28	29	30	31		23	24	25	26	27	28	29
							30						

	5 Sun	6 Mon	7 Tue	8 Wed	9 Thu	10 Fri	11 Sat
		6:00am <b>Unit 7 CNS and Special Senses; Week 3</b> 6:30am					
7 am				<b>Drugs for Headache</b> Dr. Quest		<b>Neurophysiology and Basic</b> Dr. Brower	
8 <sup>00</sup>		<b>SCI</b>	<b>CP1 Gait Disturb</b> <b>CP2 Movem Disorde</b> WCE Se:	<b>MC-Healthc Costs and Sustain</b> Red and	<b>Self Study</b>	<b>Self Study</b>	<b>Somatoform Disorders and Psychosomatic Medicine</b> Dr. Arana and Dr. Weisman
9 <sup>00</sup>							
10 <sup>00</sup>		<b>Med Skills</b>	<b>Formati 1</b>	<b>CP1 Gait Disturb</b> <b>CP2 Movem Disorde</b> WCE Se:	<b>MC-Healthc Costs and Sustain</b> Green and	<b>Self Study</b>	<b>Acute Meningitis</b> Dr. Bramblett
11 <sup>00</sup>							
12 pm							
1 <sup>00</sup>		<b>Med Skills</b>	<b>Formati 2</b>	<b>Self Study</b>	<b>CP3 Headache Scheme</b> Dr. Brower	<b>Clinical Embryology of</b> Drs. Beale and Pac	<b>CP4 Seizure and Epilepsy Scheme</b> Dr. Brower
2 <sup>00</sup>					<b>Self Study</b>	<b>CSF Analysis</b> Dr. Baston/ Dr. Spartz and Dr.	<b>Pediatric Nervous System</b> Dr. Padilla
3 <sup>00</sup>		<b>Med Skills</b>	<b>Formati 3</b>	<b>Self Study</b>	<b>Neuroanatomy of Headache</b> Dr. Black	<b>Pathology of Headache</b> Dr. Padilla	<b>Self Study</b>
4 <sup>00</sup>							
5 <sup>00</sup>							
6 <sup>00</sup>							

# August 12, 2012 - August 18, 2012

August 2012							September 2012						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3	4						1
5	6	7	8	9	10	11	2	3	4	5	6	7	8
12	13	14	15	16	17	18	9	10	11	12	13	14	15
19	20	21	22	23	24	25	16	17	18	19	20	21	22
26	27	28	29	30	31		23	24	25	26	27	28	29
							30						

	12 Sun	13 Mon	14 Tue	15 Wed	16 Thu	17 Fri	18 Sat	
		6:00am <b>Unit 7 CNS and Special Senses; Week 4</b> 6:30am						
7 am								
8 <sup>00</sup>		SCI	CP3 Headac CP4 Seizure & Epilepsy WCE Se:	MC- Leaders Red and Blue College	Self Study	Self Study	Speech Pathology (guest speaker)	
9 <sup>00</sup>							Neuroanatomical Aspects of Dr. Black	
10 <sup>00</sup>		Med Skills	Formati 1	CP3 Headac CP4 Seizure & Epilepsy WCE Se:	MC- Leaders Green and Gold College	Self Study	Neuropsychology of Learning, Memory, and Language Dr. Arana	
11 <sup>00</sup>								Self Study
12 pm								
1 <sup>00</sup>		Med Skills	Formati 2	Self Study	CP5 Stroke and Aphasia Scheme Presentation Dr. Maud	Pathology of Stroke Dr. Baston	Neuroplasticity Dr. Bramblett and Dr. Arana	
2 <sup>00</sup>								Self Study
3 <sup>00</sup>					Blood Supply of the Brain Dr. Black	Neuroanatomical Aspects of Stroke and Aphasia Dr. Black	Principles of Neuroimaging?? Dr. Brower, Dr. Bla	
4 <sup>00</sup>		Med Skills	Formati 3	Self Study				
5 <sup>00</sup>								
6 <sup>00</sup>								

**DEMR Grading Rubric—Scientific Principles of Medicine, PLFSOM**

Revised: 2/21/2012

Team's Tank # and Donor:

Evaluator's name / Date:

Please mark the phrases that best describe this DEMR:

Order and Clarity	<ul style="list-style-type: none"> <li>• SOAP note element(s) are frequently missing or misplaced:                             <ul style="list-style-type: none"> <li>○ Subjective</li> <li>○ Objective</li> <li>○ Assessment</li> <li>○ Plan</li> <li>○ Name of Recorder</li> <li>○ Names of team members present</li> <li>○ Date of SOAP Note entry</li> </ul> </li> <li>• One or more SOAP Note(s) is/are missing</li> <li>• Notes are jotted down with little care/ownership</li> <li>• Rambling style makes it hard to find the important details</li> <li>• Does not identify pathological process</li> <li>• Hypotheses often missing and/or not supported by evidence</li> <li>• Plans to test hypotheses are often missing or not appropriate</li> <li>• Figures are often missing where needed or are unclear</li> </ul>	<ul style="list-style-type: none"> <li>• SOAP note elements are complete and in the correct place:                             <ul style="list-style-type: none"> <li>○ Subjective</li> <li>○ Objective</li> <li>○ Assessment</li> <li>○ Plan</li> <li>○ Name of Recorder</li> <li>○ Names of team members present</li> <li>○ Date of SOAP Note entry</li> </ul> </li> <li>• There is a SOAP Note entry for every lab session</li> <li>• Notes are orderly and thoughtful</li> <li>• Notes are clear and succinct</li> <li>• Identifies pathologic processes</li> <li>• Poses sound hypotheses that are supported by evidence</li> <li>• Plans to test hypotheses are appropriate</li> <li>• Figures add clarity with informative titles and clear legends</li> </ul>
'Holmesian' Logic	<ul style="list-style-type: none"> <li>• Observations &amp; implications not extended to pathophysiology</li> <li>• Observations and implications not extended to patient's life</li> <li>• The looping pattern of scientific method logic is frequently missing (failure to "close the loop")</li> </ul>	<ul style="list-style-type: none"> <li>• Extends observations and implications to pathophysiology</li> <li>• Extends observations and implications to patient's life</li> <li>• There is a looping pattern of observation, question, explore, and answer (i.e., scientific method logic consistently used)</li> </ul>
Scheme-Inductive Reasoning	<ul style="list-style-type: none"> <li>• Assessments are not tied to schemes</li> </ul>	<ul style="list-style-type: none"> <li>• Notes are regularly tied to existing or newly created schemes</li> </ul>
Learning Prescriptions	<ul style="list-style-type: none"> <li>• Seemingly appropriate learning opportunities often ignored</li> <li>• Perfunctory or unrelated to observations</li> <li>• There is little or no follow-up research or it is superficial</li> <li>• Citation errors: they are not relevant to the question or they do not allow the reader to easily find the cited work</li> </ul>	<ul style="list-style-type: none"> <li>• Written consistently when appropriate</li> <li>• Thoughtful and clearly follow from observations</li> <li>• Every prescription followed by thoughtful research</li> <li>• Research includes relevant citations with sufficient detail to allow the reader to easily find the cited work</li> </ul>
Teamwork	<ul style="list-style-type: none"> <li>• Not all members contributed an even share</li> </ul>	<ul style="list-style-type: none"> <li>• Workload is shared by the entire team.</li> </ul>

What was the greatest strength of this DEMR?

What area should the students work on improving?

Other comments:

**Tankside Grand Rounds Evaluation Rubric**  
**Paul L. Foster School of Medicine**

**Group:**

**Evaluator:**

Please circle the phrases that best describe the group's proficiency in each area:

<b>Attitudinal</b>	One or more individuals failed to participate equally	Individuals were cooperative/shared presentation load
	Presentation feels perfunctory	Presentation is thoughtful and engaged
	Inadequate preparation/practice	Team adequately prepared for presentation
	Presentation feels sterile/impersonal and lacks empathy	Presentation demonstrates that the team thought of their donor as a unique individual (empathy)
<b>Knowledge Understanding, &amp; Application</b>	Presentation / Q&A demonstrates inadequate ability to: <ul style="list-style-type: none"> <li>• identify structures</li> <li>• articulate functions</li> <li>• identify the pathological processes</li> <li>• discuss the implications of the pathology</li> </ul>	Presentation/ Q&A demonstrates ability to <ul style="list-style-type: none"> <li>• identify structures</li> <li>• articulate functions</li> <li>• identify the pathological processes</li> <li>• discuss the implications of the pathology</li> </ul>
<b>Presentation Skills</b>	Presentation lacks logical flow	Presentation flow made sense
	Not all SOAP elements were included	All SOAP elements were included
	SOAP Elements out of order	SOAP elements were in the expected order
	Could not complete presentation within time limit	Presentation was completed within time limit
	Slides were hard to read: <ul style="list-style-type: none"> <li>• had poor contrast</li> <li>• too small a type</li> <li>• too much information per slide</li> <li>• too busy (e.g., excessive animations, etc)</li> </ul>	Slides were easy to read
	Struggles to answer questions	Handled the questions well
<b>Investigatory and Analytic Thinking</b>	No Scheme identified or created	Tied to existing scheme(s) or creates new scheme(s)
	Progress through scheme nodes unsupported	Progress through scheme nodes supported by observation and/or references information sources
	Findings not extended to pathophysiology	Findings extended to pathophysiology
	Findings not extended to patient's life	Findings extended to patient's life

Please describe the greatest strengths:

Please describe suggestions for improvement:

**Tankside Grand Rounds Evaluation Rubric**  
**Paul L. Foster School of Medicine**

Evaluator:

Group:

Individual:

Please circle the phrases that best describe the individual's performance:

<b>Individual Presentation</b>	Unprepared	Prepared
	Poorly organized	Organized
	Passive (little participation) or Excessively dominates group	Contributed fairly to group presentation
	At times seemed disrespectful	Respectful



Please describe the greatest strengths:

Please describe suggestions for improvement:

**Tankside Grand Rounds Evaluation Rubric**  
**Paul L. Foster School of Medicine**

Evaluator:

Group:

Individual:

Please circle the phrases that best describe the individual's performance:

<b>Individual Presentation</b>	Unprepared	Prepared
	Poorly organized	Organized
	Passive (little participation) or Excessively dominates group	Contributed fairly to group presentation
	At times seemed disrespectful	Respectful



Please describe the greatest strengths:

Please describe suggestions for improvement:



**Tankside Grand Rounds Evaluation Rubric**  
**Paul L. Foster School of Medicine**

Evaluator:

Group:

Individual:

Please circle the phrases that best describe the individual's performance:

<b>Individual Presentation</b>	Unprepared	Prepared
	Poorly organized	Organized
	Passive (little participation) or Excessively dominates group	Contributed fairly to group presentation
	At times seemed disrespectful	Respectful



Please describe the greatest strengths:

Please describe suggestions for improvement:

**Tankside Grand Rounds Evaluation Rubric**  
**Paul L. Foster School of Medicine**

Evaluator:

Group:

Individual:

Please circle the phrases that best describe the individual's performance:

<b>Individual Presentation</b>	Unprepared	Prepared
	Poorly organized	Organized
	Passive (little participation) or Excessively dominates group	Contributed fairly to group presentation
	At times seemed disrespectful	Respectful



Please describe the greatest strengths:

Please describe suggestions for improvement:

**Tankside Grand Rounds Evaluation Rubric**  
**Paul L. Foster School of Medicine**

Evaluator:

Group:

Individual:

Please circle the phrases that best describe the individual's performance:

<b>Individual Presentation</b>	Unprepared	Prepared
	Poorly organized	Organized
	Passive (little participation) or Excessively dominates group	Contributed fairly to group presentation
	At times seemed disrespectful	Respectful



Please describe the greatest strengths:

Please describe suggestions for improvement:

**Tankside Grand Rounds Evaluation Rubric**  
**Paul L. Foster School of Medicine**

Evaluator:

Group:

Individual:

Please circle the phrases that best describe the individual's performance:

<b>Individual Presentation</b>	Unprepared	Prepared
	Poorly organized	Organized
	Passive (little participation) or Excessively dominates group	Contributed fairly to group presentation
	At times seemed disrespectful	Respectful



Please describe the greatest strengths:

Please describe suggestions for improvement:

## UNIT 6 SIMULATION EVALUATION RUBRIC—MAY 2012

Group:

Evaluator:

Simulation (please circle): MJ DR MM EK

Team Leader:

Please **circle** the phrases which best describe the team's performance:

General principles of emergency medicine	Misses ABCs	Applies ABCs correctly
	Misses appropriately focused history	Completes appropriately focused history
	Misses other general principles	Applies other general principles
Basic Science knowledge	Does not or cannot apply knowledge to simulation experience	Applies knowledge to simulation experience
Analysis of results	Cannot explain what happened and why from a basic science perspective	Can explain what happened and why from a basic science perspective
Group Dynamics	Poor group dynamics created problems during the exercise	Group dynamics are functional

What was the greatest strength of the team (write on back of page if needed)?

What area should the team work on improving (write on back of page if needed)?

## Individual Assessment

Student Name:

Team Leader: Yes No

Evaluator:

Simulation (please circle): MJ DR MM EK



Please **circle** the phrases which best describe the student's performance:

<b>Communication</b>	Doesn't participate in team discussion	Participates in team discussion
	Doesn't communicate well with team	Communicates well with team
<b>Teamwork</b>	Hangs back – doesn't contribute to team	Fully contributing team member
	Disrupts team dynamics	Good team player
<b>Respectful behavior</b>	Disrespectful of teammates, patient, patient's family, and/or faculty	Respectful of teammates, patient, patient's family, and/or faculty
<b>Knowledge base</b>	Did not contribute to the team's application of knowledge	Contributes to team's application of knowledge
	Fails to demonstrate knowledge base	Demonstrates good knowledge base

What was the greatest strength of the student (write on back of page if needed)?

What area should the student work on improving (write on back of page if needed)?

## SARP PROJECT PLAN PART-B EVALUATION RUBRIC

Instructions for Reviewer: Please use the following category descriptors to give the student feedback on the quality of his/her project plan (highlight or circle the appropriate statements). This matrix is meant to provide the student with a feel for how well they did relative to both their peers and your expectations for a project at this stage of their career. Few students are expected to meet the level of exemplary.

<b>Criterion</b>	<b>Unacceptable</b>	<b>Acceptable</b>	<b>Exemplary</b>
<b>Research Question or Project Theme</b>	The project is poorly specified and/or is completely specified by the faculty advisor with no development or contribution by the student.	The student has identified a general project suggested by faculty advisor.	The student has independently identified and developed a project.
<b>Literature Review</b>	The information lacks relevance, quality, depth and balance. All sources are from secondary sources.	The literature review uses a variety of sources.	The literature review is consistent with an experienced scholar (integrated, high quality, scholarly sources).
<b>Rationale &amp; Specific Aims</b>	The logic underlying the project is incorrect, poorly explained, or missing entirely. No clear Specific Aims addressing the question are provided.	Project Rationale and Specific Aims are a logical extension of the literature review.	Project Rationale and Specific Aims are a logical extension of the literature review. Specific Aims are focused and likely to answer the research/project question.
<b>Project Design</b>	The project design is not clearly derived from the Specific Aims. Methodology is inadequate for answering the question.	The project design is derived from the Specific Aims. Methodology is adequate to meet the aims. As appropriate, the design includes sampling, independent and dependent variable(s).	The project design is sophisticated and at a level consistent with an experienced scholar.
Analysis Plan	The analysis plan is absent, or inappropriate for the project.	The analysis plan contains sufficient details and is appropriate for the project.	The analysis plan is at a level consistent with an experienced scholar (very clearly detailed and appropriate for the project).
<b>Writing</b>	Writing is poorly organized and difficult to follow. There are significant spelling and grammatical errors (the reader may wonder if the author bothered to proof read his/her work).	Writing is organized. There are some minor grammatical and spelling problems.	Writing is at a level consistent with an experienced scholar.
<b>Integrity</b>	The student has not demonstrated adequate intellectual and/or personal integrity.	The student has demonstrated adequate intellectual and/or personal integrity.	The student has demonstrated adequate intellectual and/or personal integrity.

COMMENTS for the scholar (please continue on another page if you need more space):

## SARP EXPERIENCE EVALUATION

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Instructions for Mentor: Please use the following category descriptors to give the student feedback on his/her participation and attitude while executing their SARP project under your guidance.

<b>Effort</b>	Does not put in effort to complete tasks.	Makes a substantial effort to complete task	Unable to Assess
<b>Reliable</b>	Does not always follow-through with tasks	Follows through with tasks	Unable to Assess
<b>Teamwork</b>	Not a team player, does not participate in team efforts, does not listen to or help others.	Good team member, contributes to the group effort, listens to others, helps others	Unable to Assess
<b>Respectful</b>	Observed behavior is not always respectful of others	Consistently behaves respectfully to others	Unable to Assess
<b>Accepts Criticism</b>	Rejects constructive criticism	Accepts constructive criticism	Unable to Assess

**Describe the student's behaviors that resulted in your ratings on effort, reliability, teamwork, respect, and acceptance of criticism.**

**Describe the student's level of engagement in both the project and process.**

**Describe the student's development of self-directed learning skills during this project (independence, quality of hypotheses, identification of sources of information, ability to find high quality literature, ownership of the project, etc).**





## SARP FINAL REPORT EVALUATION

**Instructions for Reviewer:** Please use the following category descriptors to give the student feedback on the quality of his/her project. Highlight or circle the appropriate statements for each criterion. This matrix is meant to provide the student with a feel for how well they did relative to both their peers and your expectations for a project at this stage of their career. Few students are expected to meet the level of exemplary. Additional written feedbacks below the rubric or on a separate page would be greatly appreciated!

Criterion	Unacceptable	Acceptable	Exemplary
<b>Research Question or Project Theme</b>	The project continues to be poorly developed. Issues raised about Project Plan Part B have not been addressed.	The student contributed to the development of project suggested by faculty advisor. Project has been refined to address any concerns raised about Project Plan Part B.	The student has independently identified and developed a project.
<b>Literature Review</b>	The information is not relevant or of poor quality. Issues raised about Project Plan Part B have not been addressed.	Literature review is organized and integrated but lacks a critical analysis. Literature sources are mostly secondary with a few highly relevant primary sources.	The literature review is at a level consistent with an experienced scholar. The review is integrated, organized, and includes a critical analysis of the literature.
<b>Rationale &amp; Specific Aims</b>	The logic underlying the project is incorrect, poorly explained, or missing entirely. The Specific Aims do not address the research/project question. Issues raised about Project Plan Part B have not been addressed.	The Specific Aims are a logical extension of the literature review. Concerns raised about Project Plan Part B have been addressed.	The Specific Aims are a logical extension of the literature review and theory. Specific Aims are focused and able to answer the research/project question.
<b>Project Design</b>	The Project Design is not clearly derived from the Aims or will not address the Specific Aims. Issues raised about Project Plan Part B have not been addressed.	The Project Design is derived from the Specific Aims and is appropriate. When required, the design includes sampling, independent and dependent variable(s).	The Project Design is at a level consistent with an experienced scholar.
<b>Analysis</b>	The analysis is inadequate.	The analysis contains sufficient detail and is appropriate for the project.	The analysis is at a level consistent with an experienced scholar (very clearly detailed and appropriate for the project).
<b>Writing</b>	Writing is poorly organized and difficult to follow. Lack of proof reading is a significant issue. Issues raised about Project Plan Part B have not been addressed.	Writing is organized with few grammatical and spelling problems.	Writing is at a level consistent with an experienced scholar. Writing is clear and organized. Few grammatical issues.
<b>Integrity</b>	The student has not demonstrated adequate intellectual and/or personal integrity.	The student has demonstrated adequate intellectual and personal integrity.	The student has demonstrated adequate intellectual and personal integrity.

COMMENTS for the student (please continue on another page if you need more space):

## SARP Poster Evaluation Rubric

<b>Student's name:</b>	<b>Scores</b>			
	<b>Poor (0)</b>	<b>Improvement needed (1)</b>	<b>Good (2)</b>	<b>Excellent (3)</b>
<b>Appearance</b>				
1. Poster attracts viewer's attention.				
2. Poster is easy to read from an appropriate distance (3-5 feet).				
3. Poster is well organized and easy to follow.				
4. Graphics and other visuals enhance presentation and convey message effectively.				
5. Poster is neat and appealing to look at.				
<b>Content</b>				
1. Title is catchy and reflects poster content.				
2. Research/scholarly question is clearly stated.				
3. Context and significance of the question is demonstrated.				
4. Materials and methods are clear and concise and appropriate for the question.				
5. Results are easily interpreted.				
6. Conclusions are clear and supported by results.				
<b>Presentation and Communication Style</b>				
1. Ability to describe the key elements of the research/scholarly question				
2. Ability to relate results back to big-picture context				
3. Ability to demonstrate knowledge of subject matter and project				
4. Ability to answer questions precisely, succinctly and accurately				
<b>Total Score</b>				

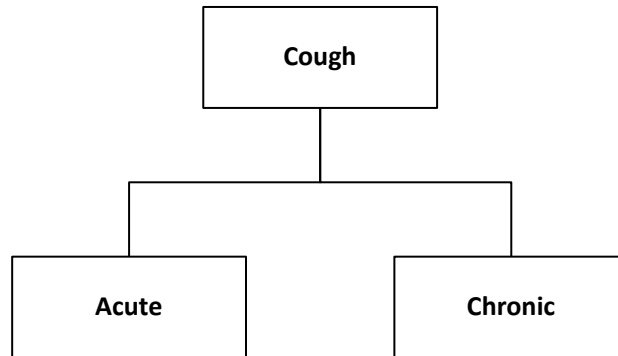
**Clinical Presentation: Cough**

**Name: Dr. Nadah B. Zafar**

**Dr. Harold Hughes**

**Date: December 13, 2010**

**UNIT FOUR – COUGH**



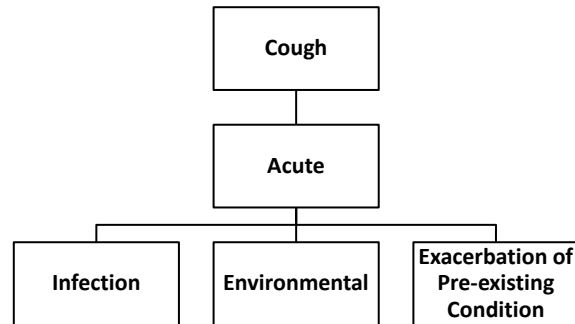
**COMMENTS**

Coughing is an important defensive reflex that protects from aspiration of foreign materials and enhances clearance of secretions and particulates from the airways.

For purpose of diagnosis and management, it is useful to consider cough as either an acute or chronic symptom. “Acute” cough does not persist beyond three weeks and is commonly due to an infectious etiology such as rhinitis, bronchitis, or pneumonia. Chronic cough usually lasts for greater than three weeks. The three most common causes of chronic cough are post nasal drainage, asthma (reversible obstructive airway disease), and gastroesophageal reflux.

**Diagnoses to consider:**

- Acute Cough
- Chronic Cough



### Differentiate towards Acute Cough

#### COMMENTS

Viral infections of the upper respiratory tract are the most common causes of acute cough. Other causes include exposure to environmental irritants or aspiration of foreign objects or food. Cough can also be caused by exacerbation for preexisting conditions.

#### CLINICAL CLUES

##### Ask About (History):

- Signs relating primarily to the nasal passages: rhinorrhea, sneezing, nasal obstruction and post nasal drip with or without fever suggesting infectious etiology like “the common cold (viral rhinosinusitis)”
- Above symptoms with chest pain and dyspnea suggesting infectious etiology like acute bronchitis
- Cough with dyspnea ,fever, chills and pleuritic chest pain suggesting infectious etiology like pneumonia
- Hoarse voice, barking cough ,fever, stridor with symptoms worse at night suggests infectious etiology (croup)
- Exposure to smoke, dust chemicals
- History of choking on a foreign body/food (usually obvious)
- History of asthma, bronchiectasis (congenital or acquired disorder of the large bronchi characterized by permanent, abnormal dilation and destruction of bronchial wall), chronic obstructive pulmonary disease (COPD), upper airway cough syndrome (formerly post nasal drip syndrome )and congestive heart failure suggesting exacerbation of preexisting conditions
- Dyspnea, orthopnea, paroxysmal nocturnal dyspnea, with bilateral leg swelling suggesting preexisting conditions like CHF

##### Look for (Physical Exam):

- **Vital signs:** fever, tachycardia and hypoxemia suggesting infection
- **HEENT exam:**
  - Horse voice suggesting infection
  - Stridor
  - Drooling
- **Chest Exam:**
  - Barrel Chest suggesting chronic expiratory airflow obstruction

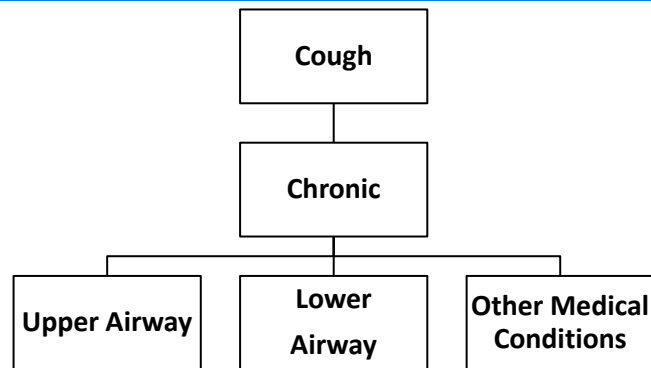
- **Heart Exam:**
  - Abnormal heart sounds S3/S4
  - Cardiac murmurs
- **Lung exam:** Adventitious lung sounds (abnormal)
  - Bilateral crackles suggesting preexisting conditions like CHF
  - With fever, chills, bronchial breath sounds and rhonchi suggesting pneumonia
  - Wheezes with history of asthma/COPD suggesting exacerbation of preexisting disease
- **Extremity exam:**
  - Bilateral leg swelling suggestive of congestive heart failure (CHF)
  - Clubbing (abnormal curvature of the nail bed )suggesting chronic respiratory diseases

### Investigations

- CBC to look for leukocytosis suggestive of infection
- Chest x-ray to evaluate for pneumonia or CHF
- Soft tissue x-ray of the neck to evaluate airway patency

### Diagnoses to consider:

- **Infection:**
  - “The common cold (viral rhinitis/sinusitis)”
  - Laryngitis
  - \*Laryngotracheobronchitis: viral (Croup), bacterial
  - Bronchitis : viral, bacterial
  - Pneumonia (viral ,bacterial)
- **Environmental**
  - Irritants (smoke, dust. chemicals)
  - Aspiration (food, foreign objects)
- **Exacerbation of preexisting conditions**
  - Asthma
  - Chronic obstructive pulmonary disease (COPD)
  - Bronchiectasis
  - Congestive Heart Failure



### Differentiate towards Chronic Cough

#### COMMENTS

Chronic cough lasting for greater than three weeks can be divided into processes involving either the upper airway, lower airway or other medical conditions whose origins are primarily non-respiratory. The three most common causes of chronic cough are post-nasal drainage or “upper airway cough syndrome” (upper respiratory tract), asthma (lower respiratory tract), and gastro-esophageal reflux disease/GERD (non-respiratory).

#### CLINICAL CLUES

##### Ask About (History):

- Frequent nasal discharge, sensation of liquid dripping into the back of the throat frequent throat clearing, especially associated with seasonal allergies suggesting upper airways(upper airway cough syndrome/post nasal drip)
- Atopic family history of asthma
- Cough with dyspnea suggests lower airway
- Cough worse with cold exercise suggests lower airway
- Cough with sputum, blood tinged suggests lower airway
- Cough with weight loss suggest lower airway
- Smoking history, exposure to second hand smoke
- Occupational or home environmental exposures
- Dyspnea, orthopnea, paroxysmal nocturnal dyspnea with leg swelling suggesting non-respiratory etiology
- Heart burn ,regurgitation and dyspepsia suggesting GERD

##### Look For (Physical Exam):

- **HEENT exam:**
  - Erythematous nasal turbinates suggesting the upper airways
- Cobblestone appearance of posterior pharynx the suggesting upper airways
- Facial pain over maxillary dentition (maxillary sinus),between eyes(ethmoid sinus), over the forehead
- Barrel chest suggesting lower airway pathology
- **Lung exam:** Adventitious lung sounds (crackles, wheezes)
- **Heart exam:**

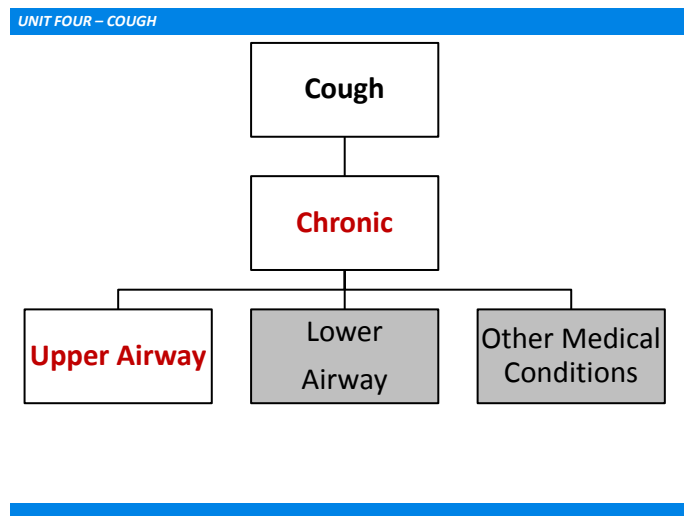
- Abnormal heart sounds S3/S4
- Murmurs
- **Extremity exam**
  - Bilateral leg edema
  - Clubbing

**Investigations:**

- Chest radiograph to evaluate for lower airway conditions such as, lung infection, CHF and bronchiectasis

**Diagnoses to Consider:**

- Upper airway
- Lower airway
- Other medical disorders



**Under Chronic cough - differentiate towards the Upper Airway**

**COMMENTS**

Chronic nasal drainage, the “upper airway cough syndrome” is one of the most common causes of chronic cough and may be caused by rhinitis (allergic, perennial or vasomotor) or sinusitis.

For the purpose of the scheme, as in dyspnea, the upper airways are considered to be from the nasal passages/pharynx to the thoracic inlet.

**CLINICAL CLUES**

**Ask About (History):** See previous section

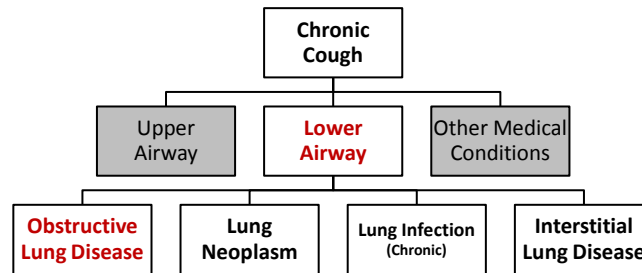
**Look for (Physical Exam):** See previous section

**Investigations:** See previous section

**Diagnoses to consider**

- Upper airways cough Syndrome (UACS)/Post nasal drip syndrome (PNDS)
  - Allergic rhinitis
  - Perennial non-allergic rhinitis
  - Vasomotor rhinitis
  - Acute nasopharyngitis
- Sinusitis





### Under chronic cough - differentiate towards the Lower Airway - **OBSTRUCTIVE LUNG DISEASE**

**COMMENTS:** Obstructive lung diseases are due to airflow limitation caused by air flow obstruction.

#### Ask about (History):

- Cough associated with wheezing, dyspnea and chest tightness which may be worse at night especially is suggestive of asthma
- Cough with cold and exercise is suggestive of asthma
- History of smoking suggestive of COPD
- Cough dyspnea and sputum production (careful history reveals symptoms have been present prior to the acute exacerbation) suggests chronic obstructive pulmonary disease (COPD)
- Chronic cough with sputum and hemoptysis suspect bronchiectasis
- Family history of asthma
- Cough with history of gastrointestinal (GI) disorders (pancreatitis) and infertility problems suggestive of cystic fibrosis
- Cough following initiation of beta-blocker therapy is suggestive of asthma

#### Look for (Physical Exam):

- **Vital signs:** Resting hypoxemia
- **Chest exam:**
  - Barrel chest suggestive of hyperinflation (COPD)
- **Lung exam:**
  - Wheezing in general is suggestive of obstructive diseases
- **Heart exam:**
  - Distant heart sound suggestive COPD

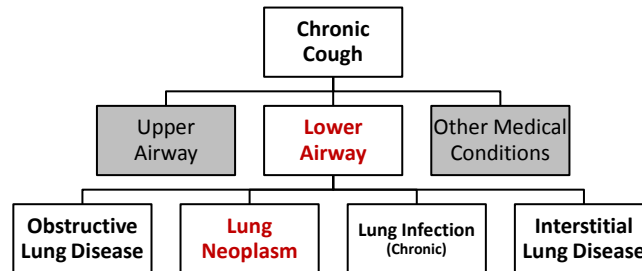
#### Investigations

- Chest x-ray obvious bullae, paucity of markings, hyperlucency and flattened diaphragm suggestive COPD
- Pulmonary function test
- CT scan for presence or absence of emphysema, bronchiectasis
- Genotyping for cystic fibrosis
- Sweat chloride test for cystic fibrosis

## Diagnoses to consider

- Asthma( Common cause of cough, especially in children and young adults cough- variant asthma)
- Chronic Obstructive Pulmonary disease (COPD), especially chronic bronchitis
- **Bronchiectasis** is a disorder of the large bronchi characterized by permanent, abnormal dilation and destruction of bronchial walls. It may be congenital but is commonly acquired in the setting of recurrent pneumonias.
- Cystic Fibrosis

### UNIT FOUR – COUGH



## Under chronic cough - differentiate towards the Lower Airway - LUNG NEOPLASM

### COMMENTS

Lung cancer can cause cough and often is accompanied by heavy smoking, with a history of symptoms of hemoptysis (coughing up blood) and weight loss.

Lung cancer for the most part is symptomatic at the time of diagnosis. The clinical presentation depends on the type and location of the primary tumor, the extent of local spread and the presence of distant metastases and any paraneoplastic syndrome (incompletely understood patterns of organ dysfunction related to immune mediated or secretory effects of neoplasms).

### CLINICAL CLUES

#### Ask about (History):

- In a smoker, a recent change in chronic cough or cough persisting >1 month after smoking cessation or associated with hemoptysis
- Cough with dyspnea, anorexia, hemoptysis and weight loss
- The above symptoms with pain referred to the bones may indicate metastasis
- History of second hand smoke exposure

#### Look for (Physical Exam):

- **Lung exam:**
  - Localized wheezing or diminished breath sound in a current or former smoker suggestive of focal airway obstruction from tumor in the large airways

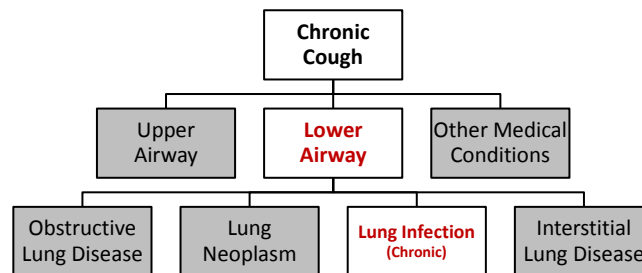
#### Investigations:

- Chest x-ray may show pulmonary nodule, mass, persistent opacity, atelectasis or pleural effusion
- CT scan of the chest
- Thoracentesis and analysis of pleural effusion
- Diagnosis of cancer depends on examination of tissue or cytologic of specimens.
- CBC may show anemia

### Diagnoses to consider:

- Bronchogenic cancer

#### UNIT FOUR – COUGH



### Under chronic cough - differentiate towards the Lower Airway - CHRONIC LUNG INFECTION

#### COMMENTS

Chronic lung infections with persistent cough include tuberculosis and lung abscess.

Cough following transient viral or other respiratory tract infection can persist for a protracted period. Such cases increase in frequency during outbreaks of *mycoplasma pneumoniae*, *Chlamydomphila* (formerly Chlamydia) pneumonia and *Bordetella pertussis*. Several interrelated mechanisms may be responsible including persistent post nasal drainage (the upper airway cough syndrome) and airway inflammation leading to hyper-responsiveness.

#### CLINICAL CLUES

##### Ask About (history):

- Chronic cough especially with fever, night sweats, weight loss, anorexia, general malaise weakness and blood streaked sputum is suggestive of pulmonary tuberculosis

##### Look For (Physical Exam);

- Chronically ill appearing with no specific findings on lung exam is suggestive of tuberculosis.
- Poor dentition often seen with lung abscess

##### Investigations:

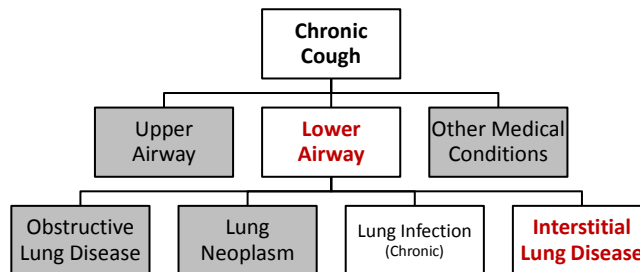
- Chest x-ray:
  - Apical pulmonary infiltrates for tuberculosis,
  - Lung abscess
- CT scan of the chest

- Tuberculin skin test
- Sputum smear and culture for acid fast acid fast bacilli

**Diagnosis to consider:**

- Pulmonary Tuberculosis
- Lung Abscess

UNIT FOUR – COUGH



**Under chronic cough - differentiate towards the Lower Airway - INTERSTITIAL LUNG DISEASE COMMENTS**

Patients with interstitial lung diseases (ILD) typically present with persistent cough that is accompanied by progressive shortness of breath. ILDs are a diverse group of lung diseases that have widely differing etiologies yet often share common clinical and radiologic features.

**CLINICAL CLUES**

**Ask about (History):**

- Persistent cough that is accompanied by progressive shortness of breath with past medical history of the following:
  - Dust, chemical, animal exposures (at home and at work)
  - History of use of medications: antibiotics, chemotherapy, amiodarone, gold
  - History of connective tissue disorders, arthritis, rash, photosensitivity
  - Systemic disorders like sarcoidosis

**Look for (Physical Exam):**

- **Lung exam:** Crackles
- **Extremity exam:** Digital clubbing, Joint deformities
- **Skin exam:** Rash

**Investigations:**

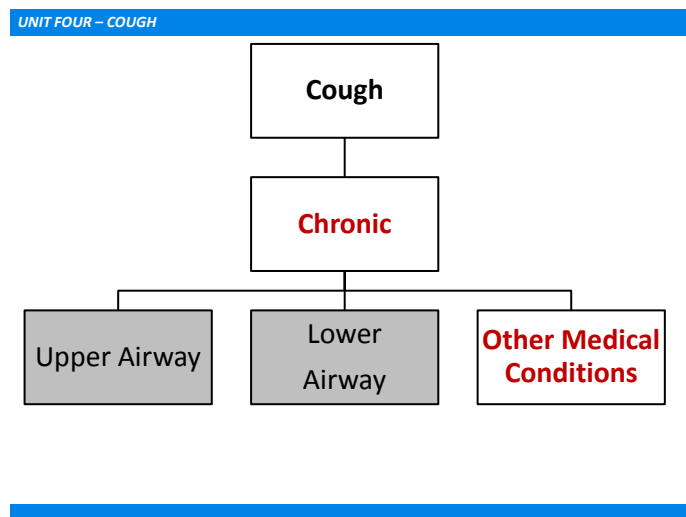
- Chest x-ray
- High resolution CT scan of the chest
- Serologic studies for connective tissue disorders
- Bronchoscopy or surgical lung biopsy

**Diagnosis to Consider:**

**Interstitial Lung disease**

- **Fibrosing**

- Idiopathic interstitial pneumonias
    - Idiopathic pulmonary fibrosis (IPF)
  - Associated with collagen vascular disease (connective tissue)
    - Rheumatoid arthritis, Systemic Lupus Erythematosus (SLE), scleroderma, polymyositis
  - Environmental exposures
    - Asbestos, fumes/gasses, drugs, radiation
  - Pulmonary hemorrhage syndromes
  - Eosinophilic pneumonias
- **Granulomatous**
    - Sarcoidosis, hypersensitivity pneumonitis



**Under chronic cough, differentiate towards Other Medical Conditions**

**CLINICAL CLUES**

**Ask about (History):**

- Medication use: recent addition of angiotensin converting enzyme inhibitor(ACEI)
- Heart burn or sour taste in the mouth
- Associated dyspnea, orthopnea, paroxysmal nocturnal dyspnea(PND) and lower extremity swelling suggestive of congestive heart failure
- If the patient is a young child with history of recurrent pneumonia consider asking about small toys like Barbie doll shoes (aspiration of a foreign object)

**Look for (Physical Exam):**

- **Lung exam:** bilateral crackles
- **Heart exam:**
  - Abnormal heart sounds S3/S4
  - Cardiac murmurs
- **Extremity exam:** bilateral leg edema

**Investigations:**

- ECG evaluate for ischemic changes
- CK- MB, troponin for ischemic changes
- Chest x-ray to evaluate for congestive heart failure
- Prolonged (24 hr) esophageal pH monitoring to evaluate for GERD

**Diagnosis to consider:**

- [Gastro-esophageal reflux disease \(GERD\)](#)
- Medication Associated Cough( Angiotensin converting enzyme (ACE) inhibitors and B-blockers)
- Cardiac: Congestive Heart Failure(CHF)
- Aspiration of a foreign object

## Appendix /Definitions/Glossary/Concepts etc.

**Angiotensin converting enzyme (ACE) inhibitors** (ACEI) cause the accumulation of bradykinin which can stimulate airway c-fibers and lead to cough in approximately 15% of patients. The cough is easy to discern by its chronological association with ACEI and is remedied by discontinuing its use.

**Bronchitis:** Inflammation of bronchial tubes or bronchi

**Bronchiectasis** is a disorder of the large bronchi characterized by permanent, abnormal dilation and destruction of bronchial walls. It may be congenital but is commonly acquired in the setting of recurrent pneumonias.

**Coughing** is an important defensive reflex that protects from aspiration of foreign materials and enhances clearance of secretions and particulates from the airways. This is initiated by the irritation of the cough receptors that exist not only in the epithelium of the upper and lower respiratory tracts but in the pericardium, esophagus, diaphragm and stomach. Chemical receptors sensitive to heat and capsaicin-like compounds trigger the cough receptors. In addition, mechanical receptors can be triggered by touch and displacement. Laryngeal and tracheal bronchial receptors respond to both mechanical and chemical stimuli. Like with many clinical presentations the symptom of acute cough is usually not life threatening but it may accompany serious medical conditions (e.g. congestive heart failure, pneumonia, pulmonary embolism). Therefore like all clinical presentations it is important is to determine whether it is caused by a potentially life threatening condition.

**Digital clubbing** (when the angle between the normal nail base and finger is straightened to more than 180°; normal is about 160°)

**GERD (gastro-esophageal reflux disease)** is one of the three most common causes of chronic cough even though gastric contents rarely come into direct contact with the airways. A significant percentage of patients do not have common GERD symptoms such as heartburn or dyspepsia. Several factors are potentially responsible for cough associated with GERD.

- Stimulation of receptors in the upper respiratory tract (larynx)
- Aspiration of gastric contents, leading to stimulation of receptors in the lower respiratory tract

- A esophageal-tracheobronchial cough reflex induced by reflux acid into the distal esophagus

**Sarcoidosis** (systemic disorder of unknown etiology characterized by granulomatous inflammation of the lung and other organs)

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## COMMUNITY CLINIC EXPERIENCE

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**CORE ACTIVITY #5:** The pharmacy experience

Student's name:

Date & time:

Preceptor's Signature:

Preceptor's name:

Date and time:

Instructions for Preceptor: Thank you for participating in the community and clinical experiences program at the Paul L. Foster School of Medicine. Your participation provides our students with valuable opportunities to learn in the real world. We know your time is valuable but we would like brief feedback from you about the student's performance today. For each statement, please circle the appropriate descriptors

<b>Criterion</b>				
<b>Timeliness</b>	On time		Arrived late Left early	
<b>Dress</b>	Appropriate		Inappropriate	
<b>Respectful conduct</b>	Respects beliefs, rights, roles, abilities, and values of Patients, Staff, Preceptor		Disrespectful of Patients, Staff, Preceptor	
<b>Spanish</b>	Excellent	Practiced while here	Did not use any Spanish	Not applicable
<b>Skills (Identify elements of a prescription written correctly or incorrectly)</b>	Better than expected	What I expected	Worse than I expected	Not applicable
<b>Communication with you, staff &amp; patients</b>	Courteous Respectful Appropriate Vocabulary		Discourteous Disrespectful Uses Jargon with Pts	Insulting Patronizing Does not answer pt questions
<b>Professionalism</b>	Maintains Confidentiality  Maintains professional boundaries Honest Behaves with equity to all pts		Discloses information where might be overheard Minor boundary violations Stretches truth Does not treat all patients equally	Discloses information in public setting Egregious boundary violations Lies outright Publically discriminates

Other feedback for student:

**STUDENT COMMENTS:** Based on the preceptor's feedback, reflect and briefly list and describe strategies for improvement.

**Work Case Example One:  
Mr. Robert Maidana**

**Dr. Juan Figueroa**

**Prepared by Dr. Nadah B. Zafar**

# WCE One: Mr. Robert Maidana

- **Clinical Presentation/Chief complaint:**
- Robert Maidana is a 37 year-old man with no past medical history. He presents with a 3 day history of cough productive of muco-purulent sputum, sharp pain on deep inspiration over the left lower lateral hemithorax, and fever. He also reports dyspnea with mild exertion. He denies trauma or similar symptoms in the past.
- **History of present illness:** As above
- **PMH/PSH/FH:** Unremarkable
- **Social history:** Does not smoke or use illicit drugs. He drinks alcohol occasionally.
- **Medications:** He takes no medications.

# WCE One: Mr. Robert Maidana

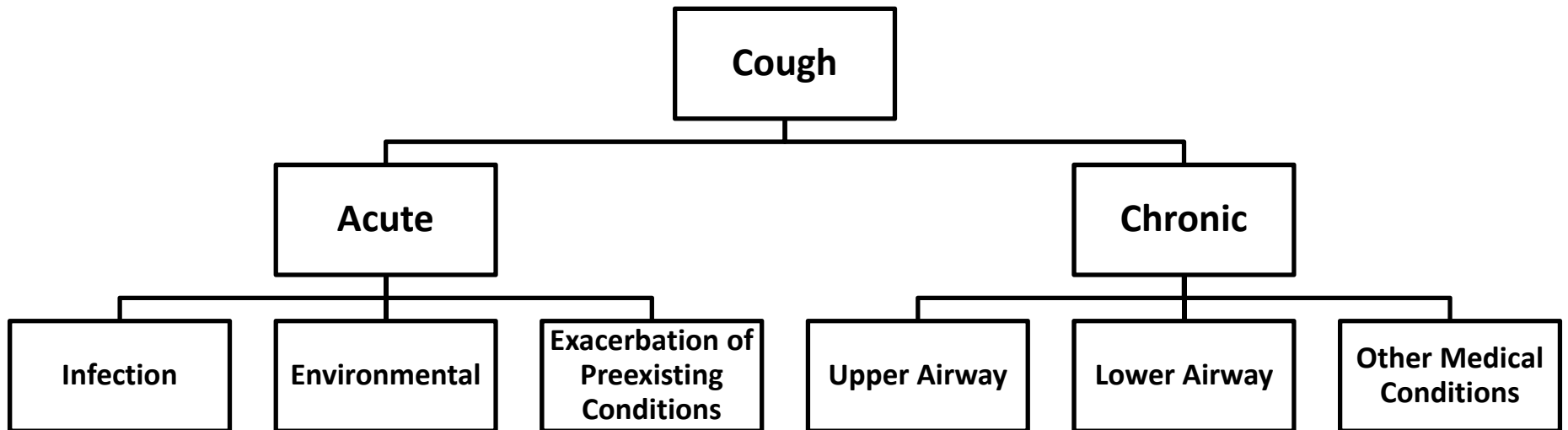
- **Physical Exam:**
- **General:**
  - Well built, in no respiratory distress at rest, appears tachypneic with shallow respirations.
- **Vital signs:** Pulse 115/min, RR 30/min, BP 125/58mm Hg., Temp 102.3<sup>F</sup> **HEENT:** Slight supra-sternal retraction. Trachea is midline.
- **Lung exam:**
  - Increased transmission of breath sounds
  - Inspiratory crackles in the left lower posterior hemithorax.
- **Cardiac exam:** Tachycardic, regular no extra heart sounds.
- **Abdominal exam:** Normal
- **Extremities exam:** No edema.
- **Remainder of the exam is unremarkable**

# **Summarize History & PE: Mr. Robert Maidana**

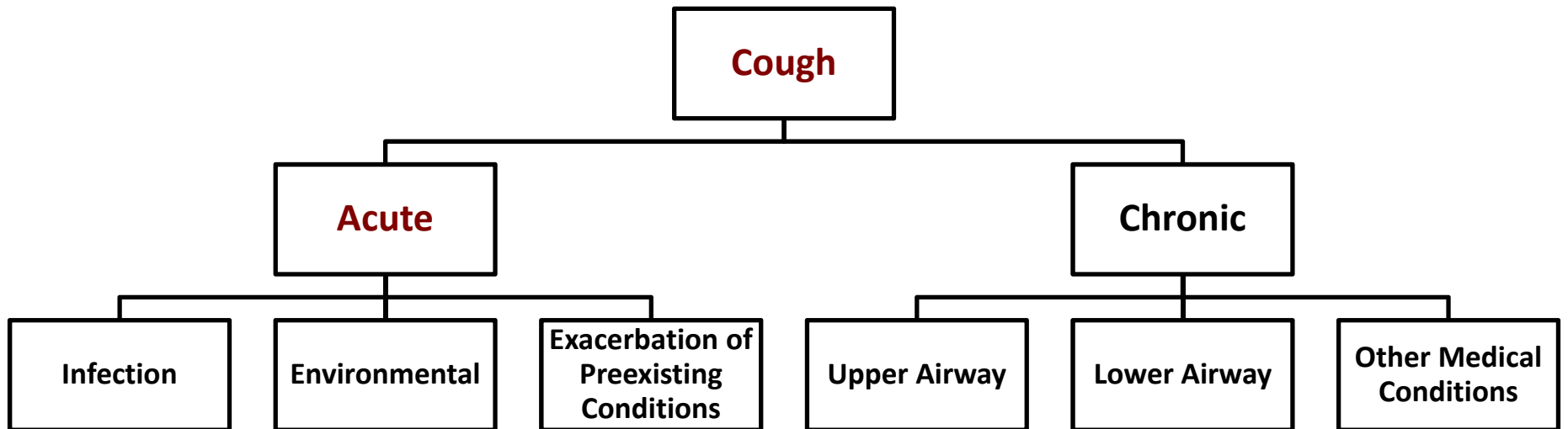
# Summary-History & PE: Mr. Robert Maidana

- **History:**
  - 3 day history of cough productive of muco-purulent sputum
  - Sharp pain on deep inspiration over the left lower lateral hemithorax
  - Fever
  - Dyspnea with mild exertion.
  - He denies trauma or similar symptoms in the past.
  
- **Physical Exam:**
  - Shallow respirations.
  - **Vital signs:** Pulse 115/min, RR 30/min, Temp 102.3<sup>F</sup>
  - **HEENT:** Slight supra-sternal retraction.
  - **Lung exam:**
    - Increased transmission of breath sounds
    - Inspiratory crackles in the left lower posterior hemithorax.

Based on the clinical clues, what is the initial branch point?



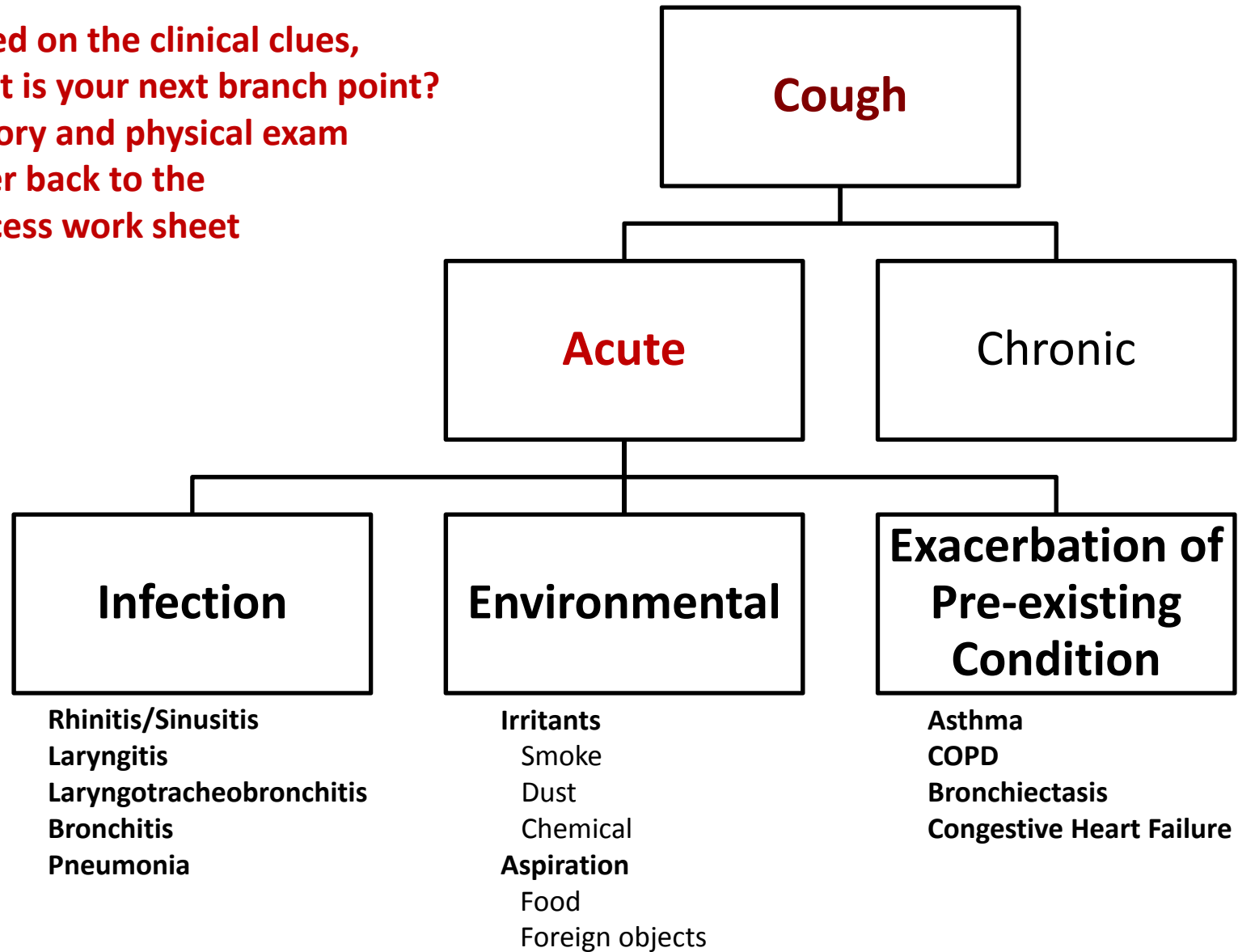
**UNIT FOUR – COUGH**

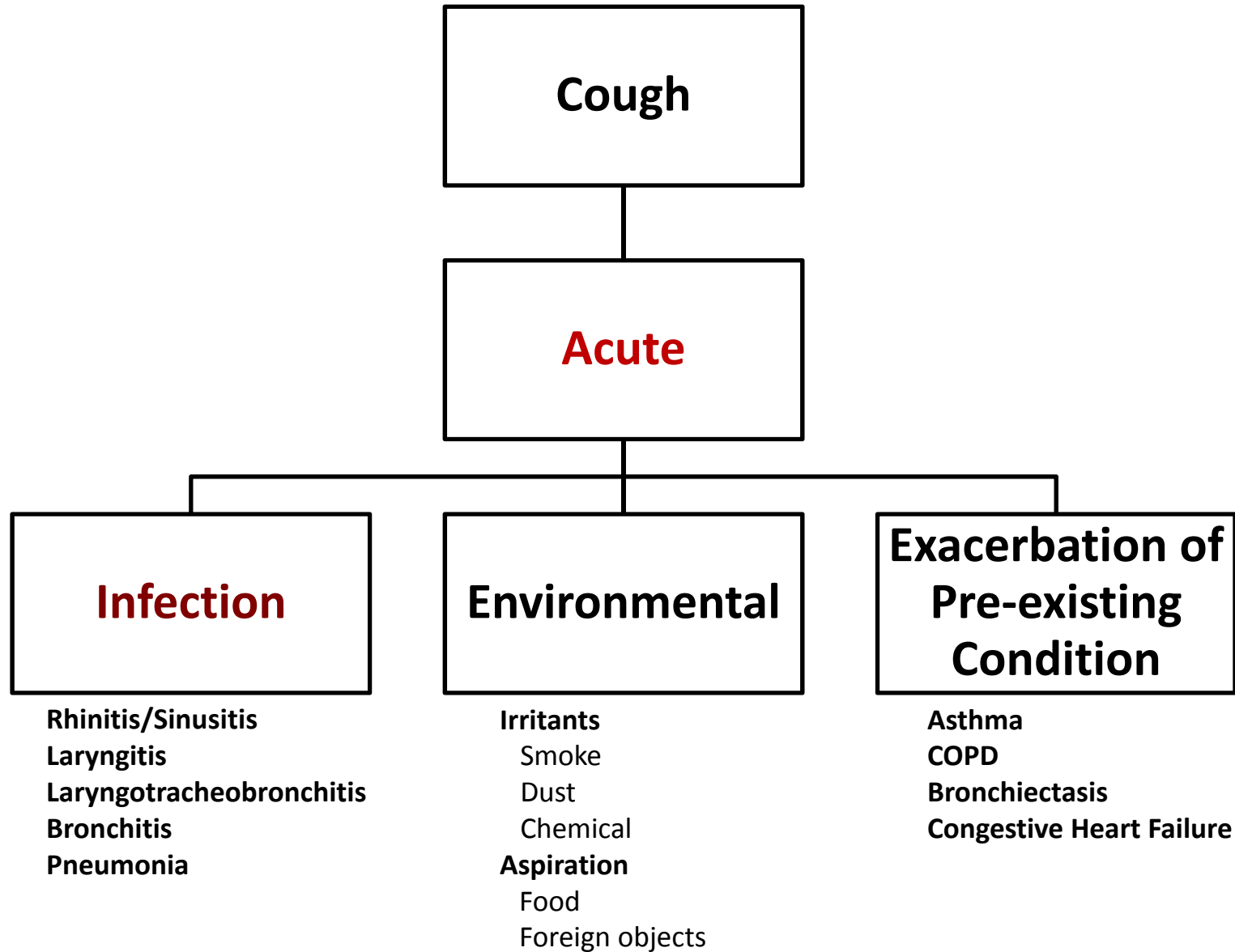




## UNIT FOUR – COUGH

Based on the clinical clues,  
what is your next branch point?  
History and physical exam  
Refer back to the  
process work sheet





# Investigations?

# **Investigations**

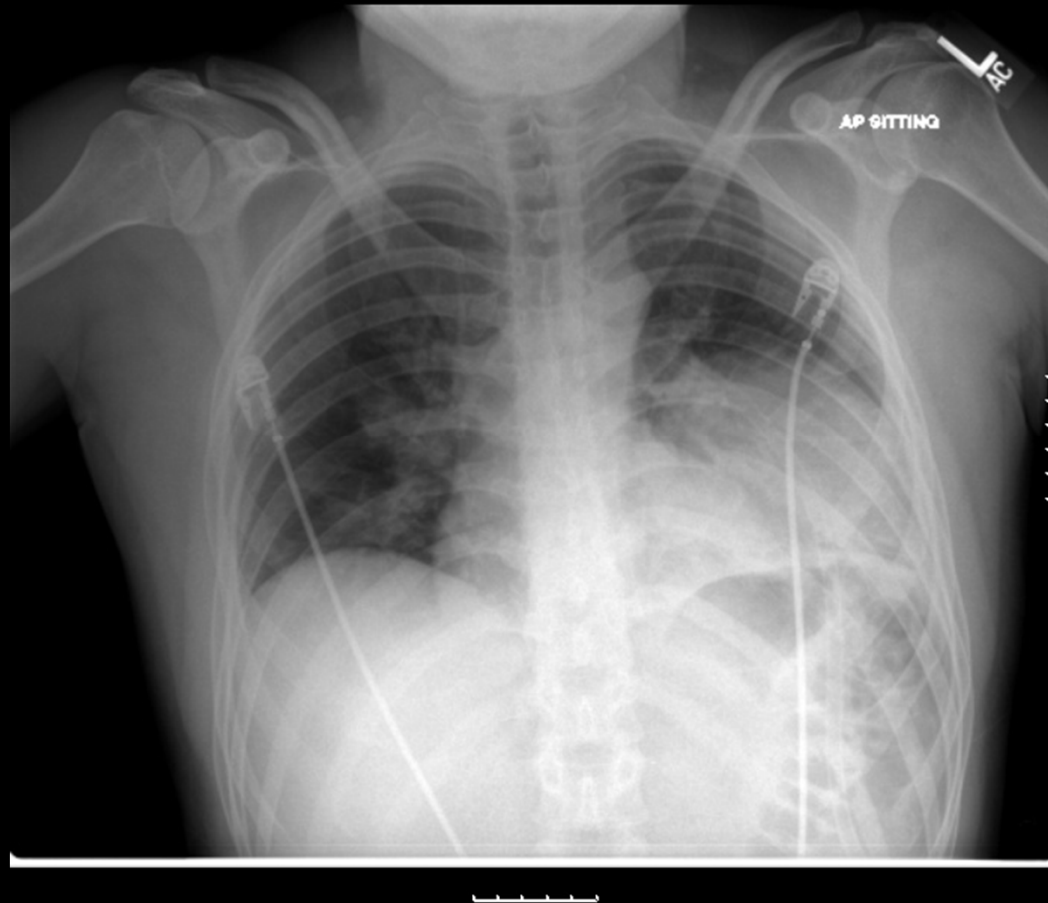
- **Pulse oximetry/ABG**
- **CBC**
- **Chest x-ray**

**Investigations:**

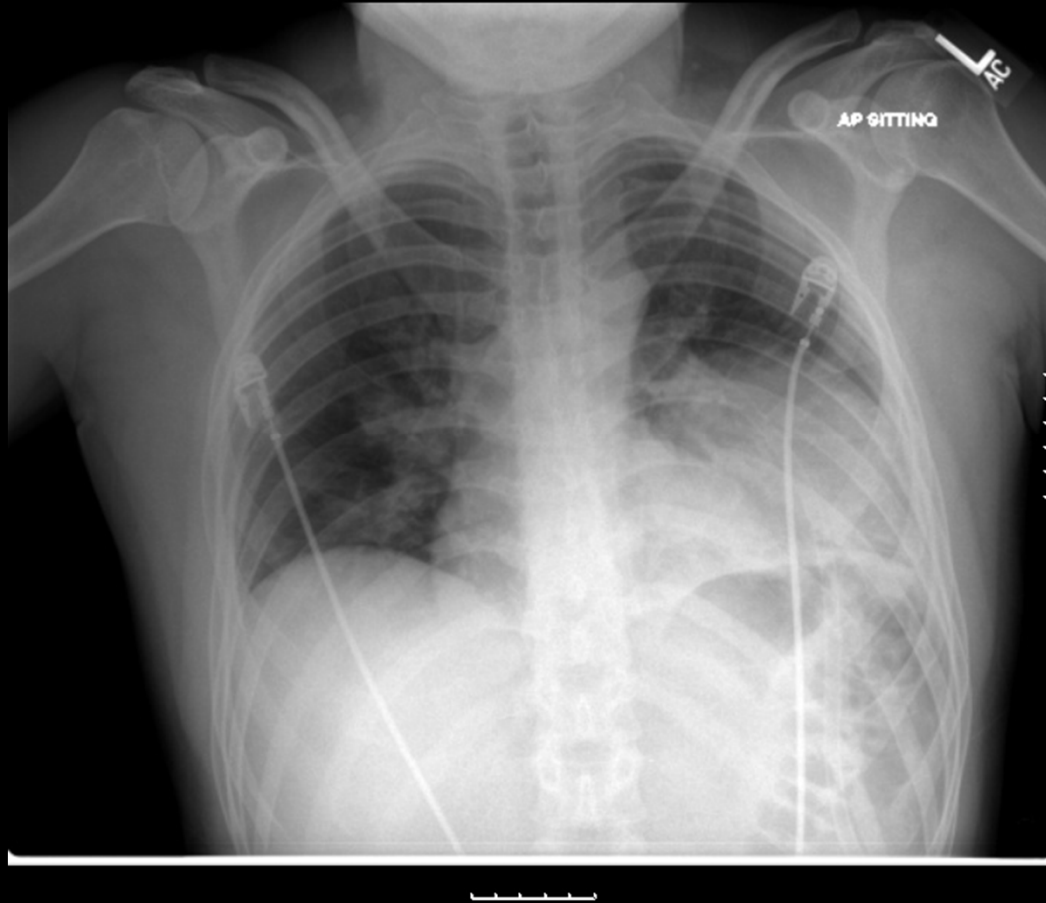
**ABG:** pH 7.44, PaCO<sub>2</sub>: 30 mmHg, PaO<sub>2</sub> 46 mmHg and SaO<sub>2</sub>, 81% (RA)

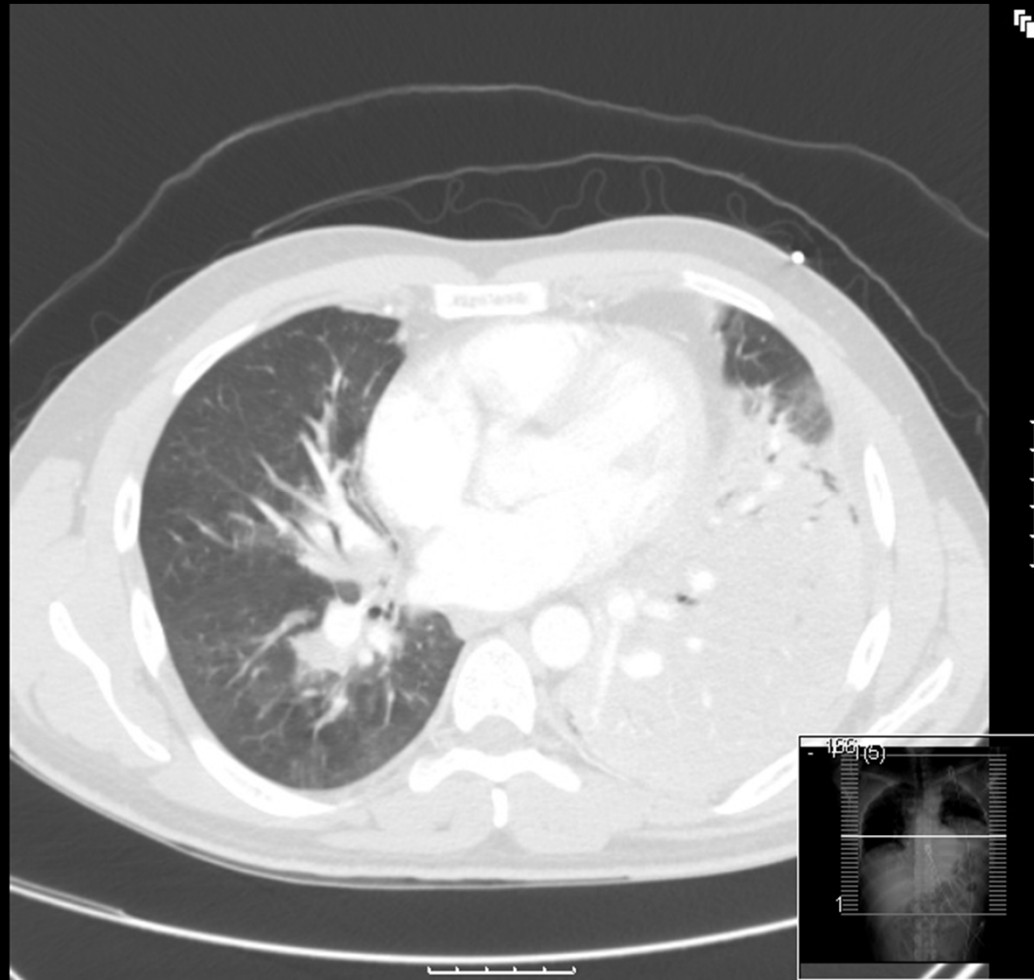
- **WBC:**
  - 22,000/mm<sup>3</sup> (3 % metamyelocytes, 38 % bands, 20% neutrophils, 31% lymphocytes)
  - Normal=(4500-11000/mm<sup>3</sup>)
- **Hemoglobin:** 13.3 g/dl (13.5-17.5 g/dL)
- **Creatinine:** 0.5 mg/dl. (.6-1.2 mg/dl)

UNIT FOUR



Left lower lobe consolidation with air bronchograms

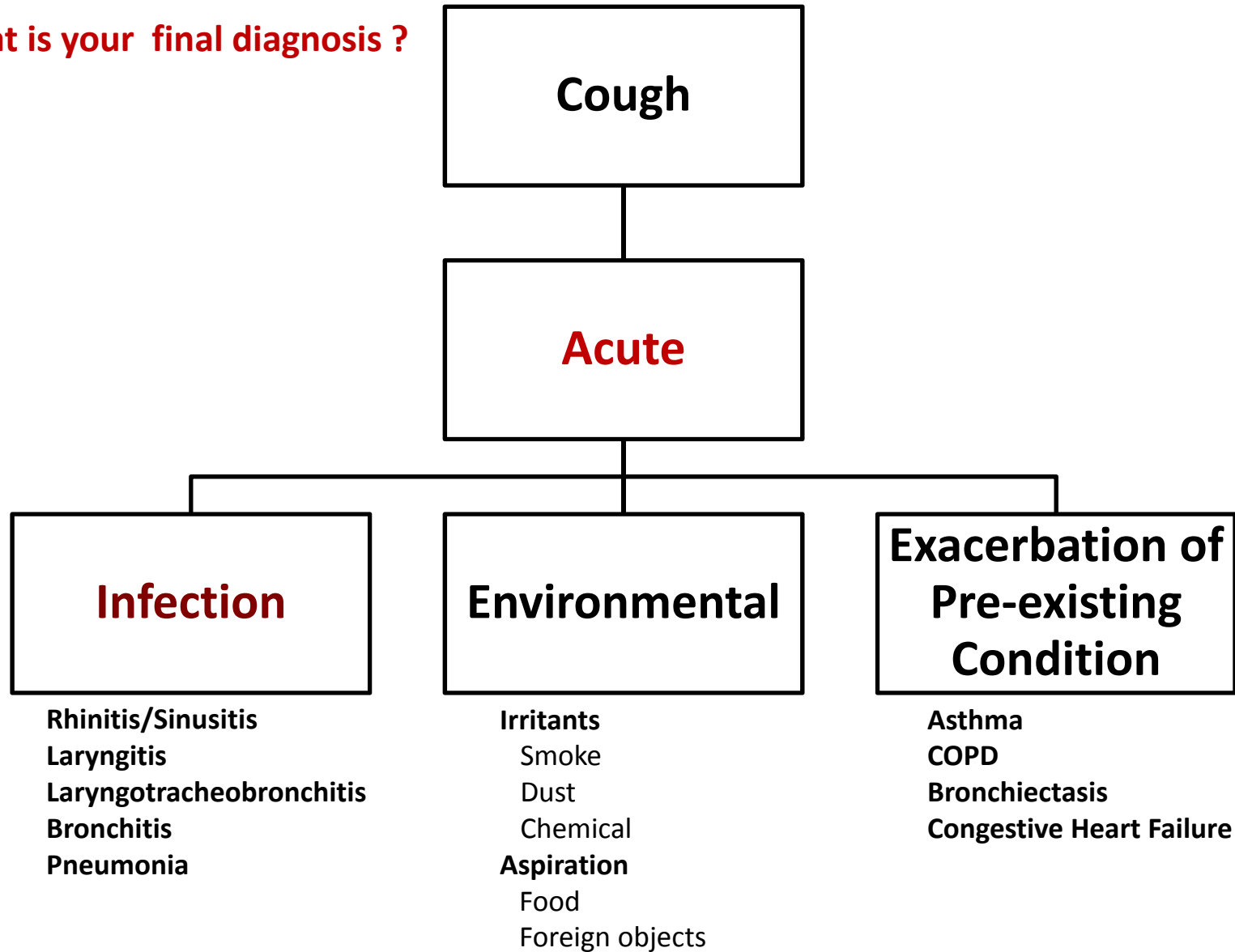




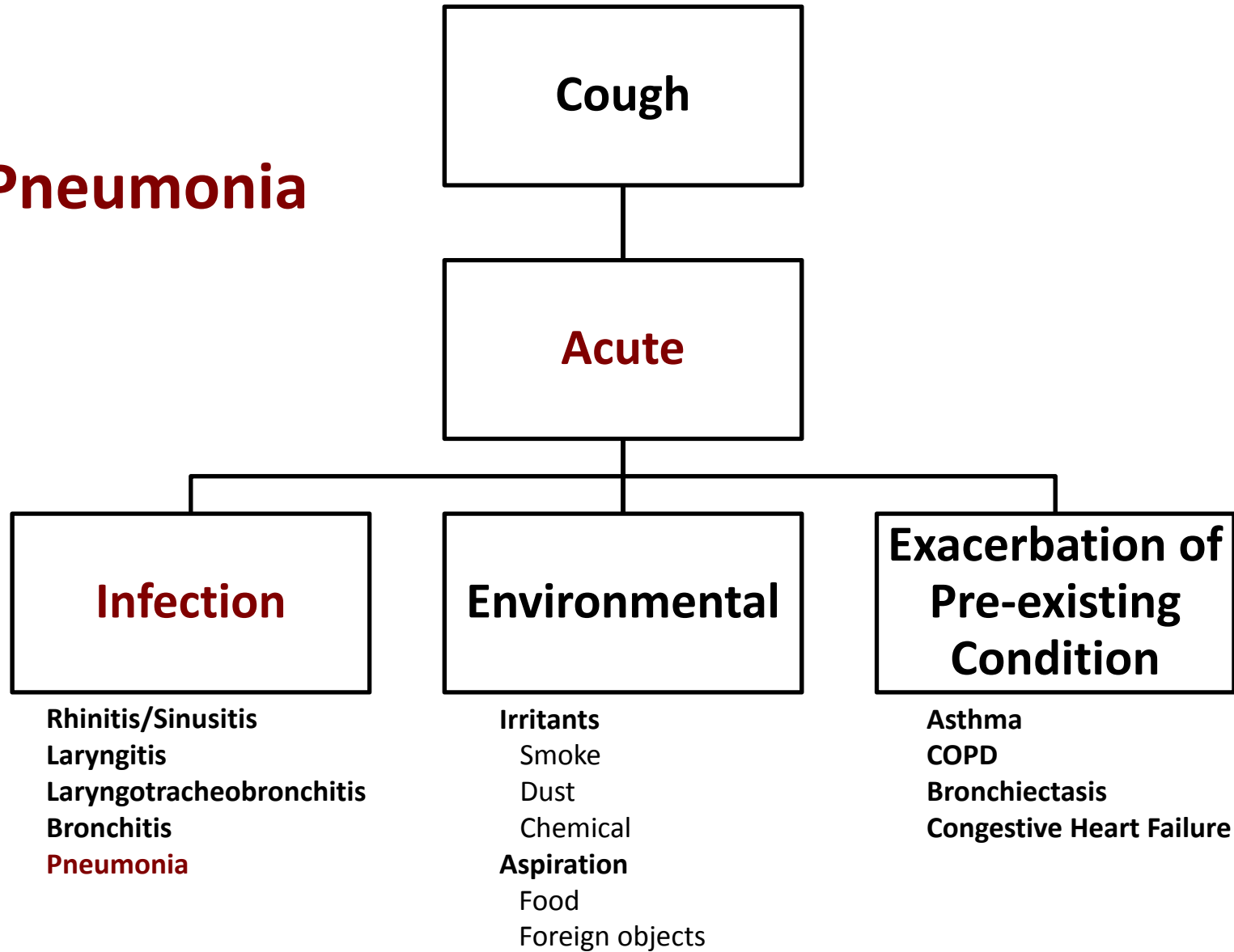
Left basilar consolidation which can be obscured by the cardiac silhouette.



What is your final diagnosis ?



**Pneumonia**



# **Questions**

**What are the most common micro-organisms that cause pneumonia in healthy people?**

# Questions

**What are the most common micro-organisms that cause pneumonia in healthy people?**

*Streptococcus pneumoniae*

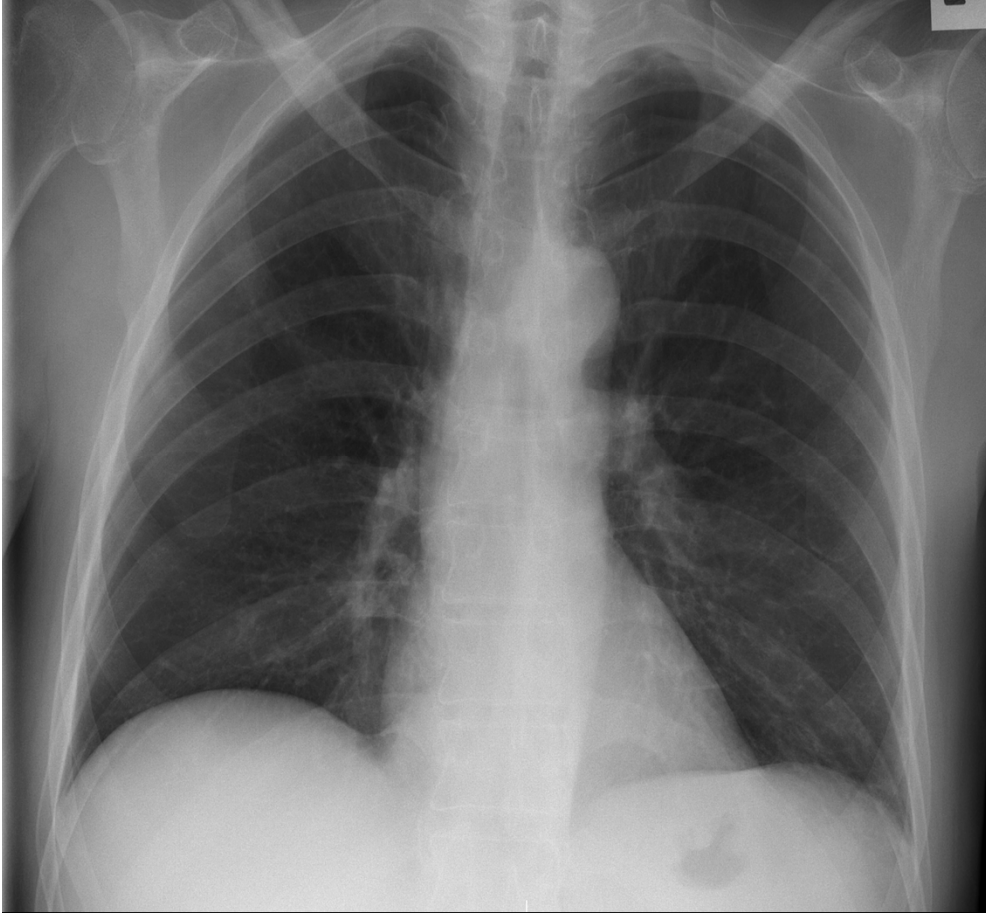
*Haemophilus influenzae*

*Chlamydophila pneumoniae*

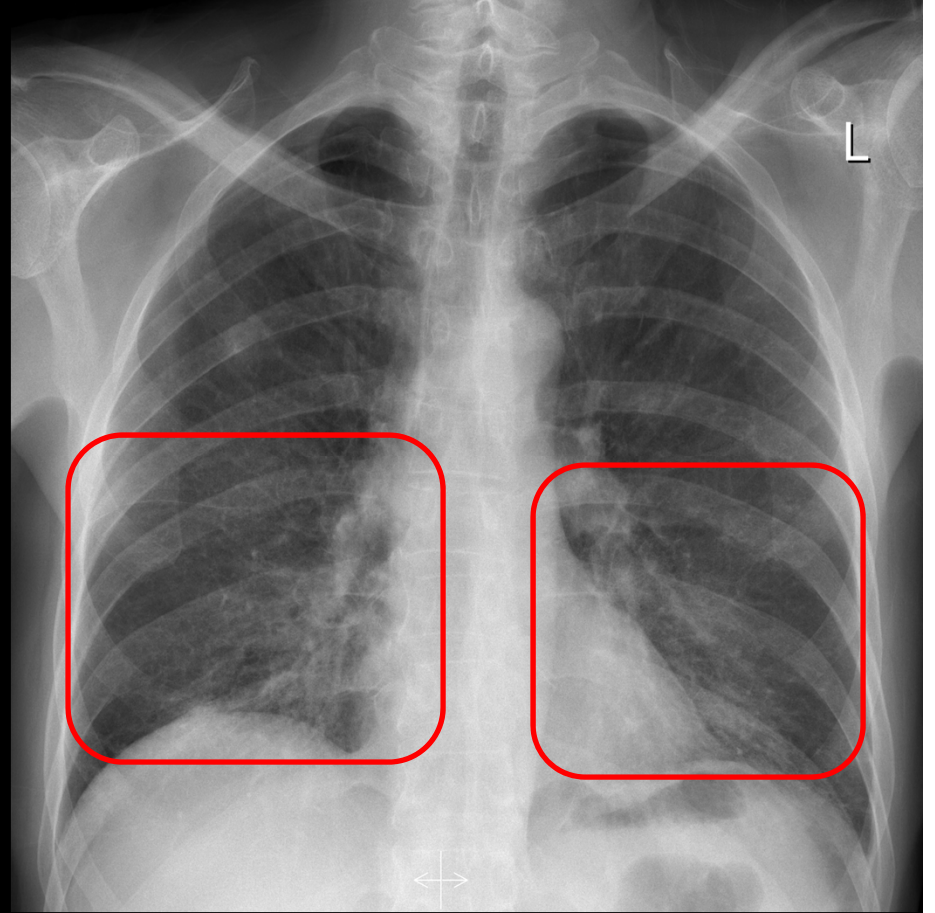
*Mycoplasma pneumoniae*

*Respiratory viruses*

# Example of ??

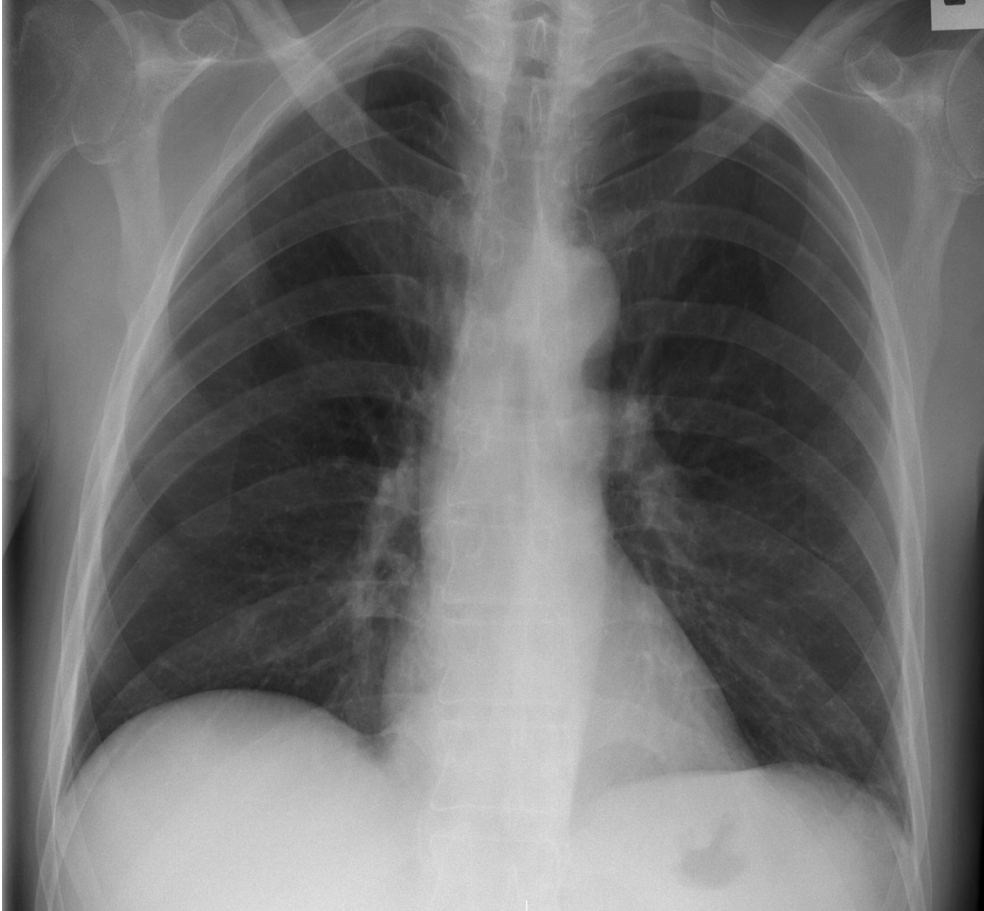


Normal

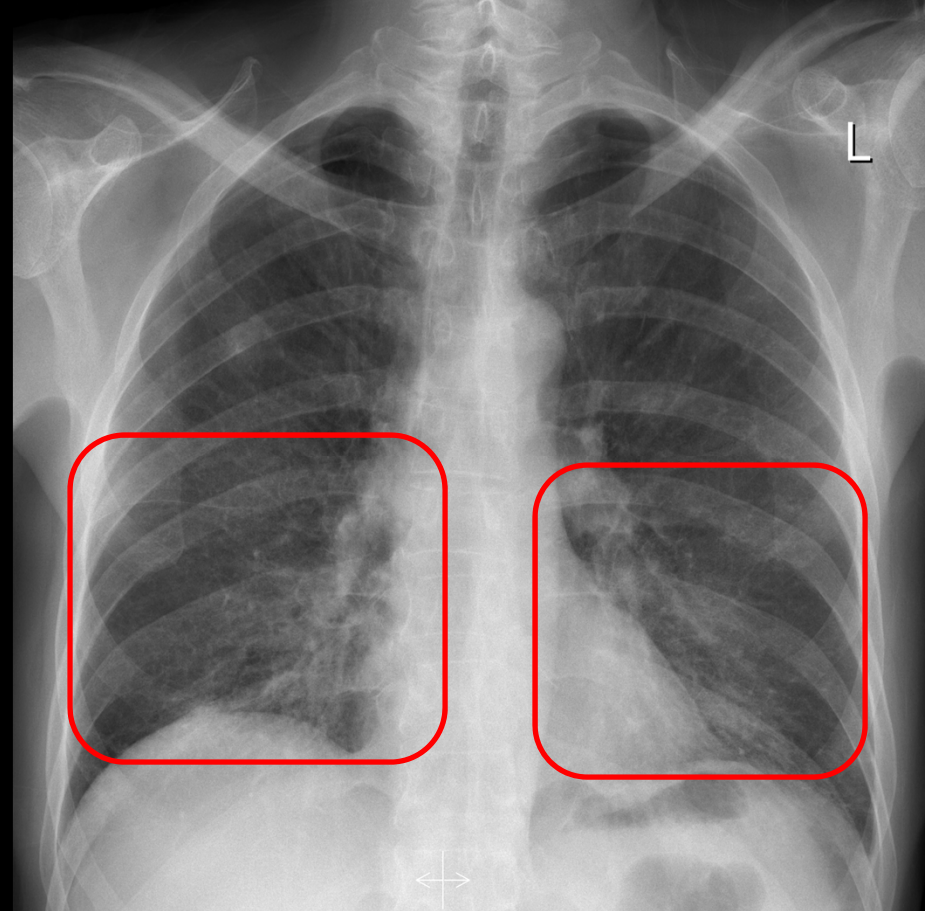


Abnormal

**Example of Chest x-ray of the 18 year male shows fine reticular lines in both lower lobes suggestive of interstitial pneumonia.**



Normal

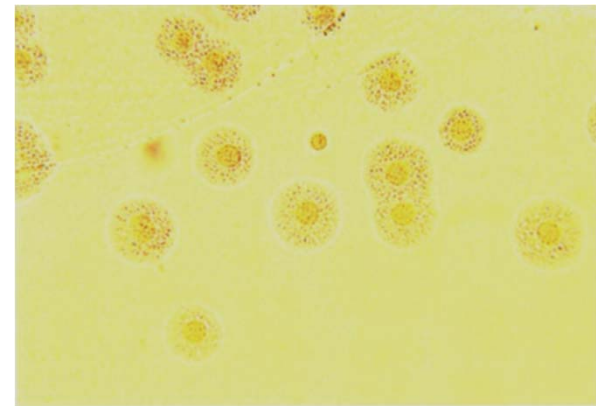
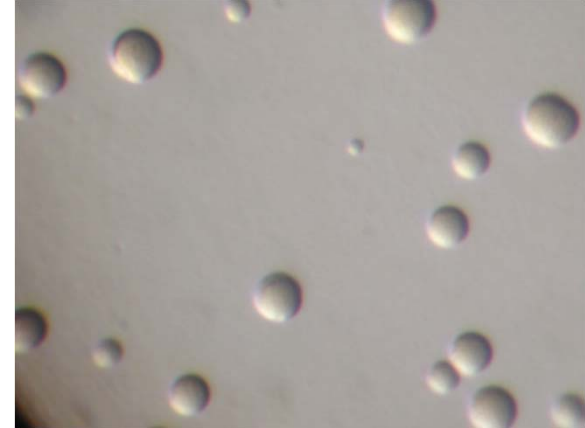


Abnormal

# *Mycoplasma pneumoniae*

- The most common cause of atypical pneumonia; most likely to occur in children over five and adolescents.
- Very difficult to culture and even then takes 2 to 3 weeks to grow.
- *Mycoplasma pneumoniae* colonies are small spherical with a homogenous granular appearance
- It has no cell wall and without peptidoglycan it does not gram-stain. Microscopy is not useful.
- Virulence factor: P1 adhesion and ciliostasis
- Detection by complement fixation

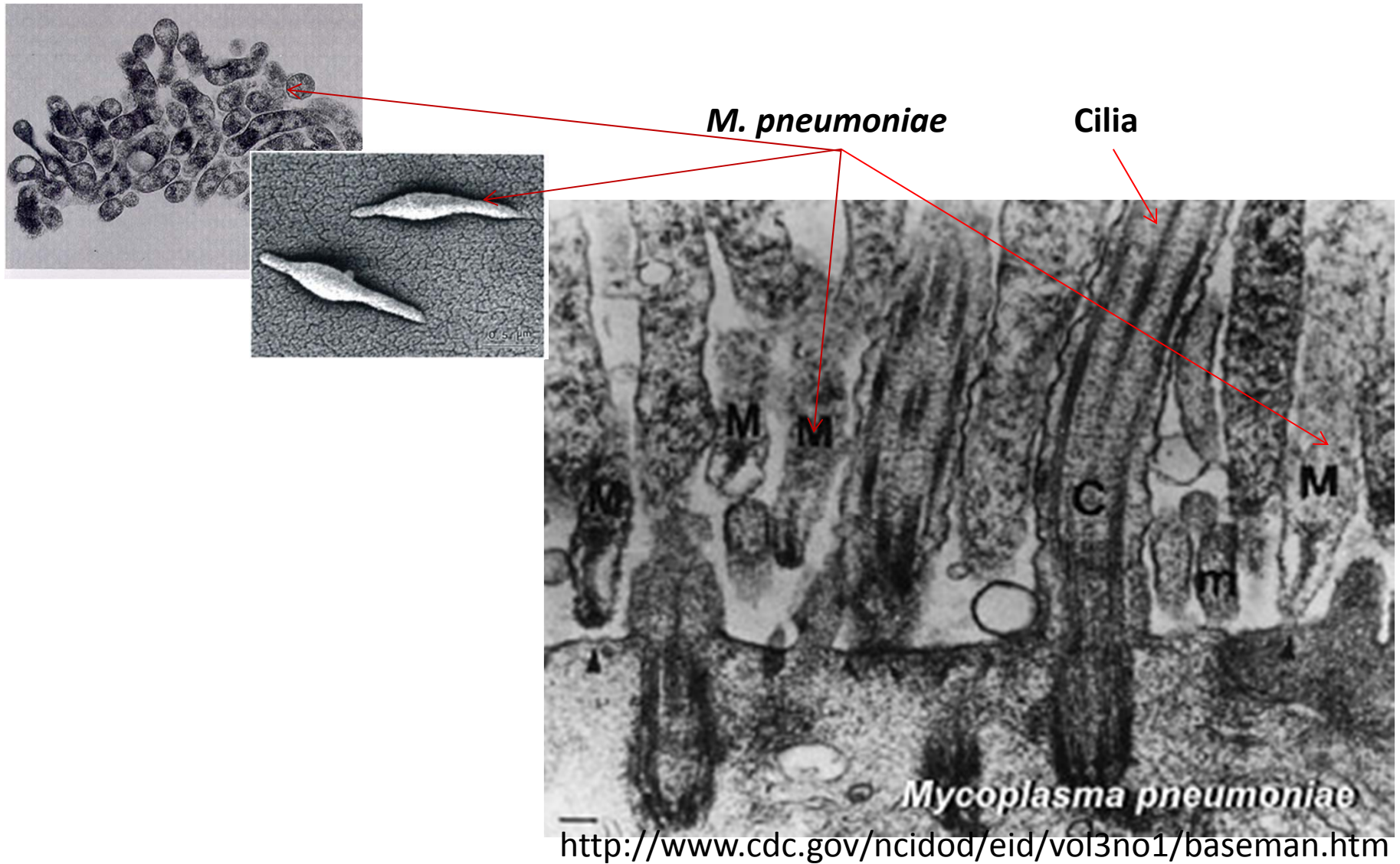
*Mycoplasma* Colonies



Other *Mycoplasma* spp colonies have a “fried-egg” appearance



# Electron micrographs of Mycoplasma in ciliated epithelium





# **Questions**

**What should be the initial appropriate antibiotic? And why?**

# **Community Acquired**

**What should be the initial appropriate antibiotic? and why**

**Third - generation cephalosporin**

**+**

**Macrolide (to cover atypical organisms)**

**or**

**Floroquinolone – Levofloxacin**

# **Question**

**Name an example of a macrolide antibiotic?  
What is the mechanism of action?**



# Follow up: Mr. Robert Maidana

Admitted to the hospital  
Blood cultures positive for  
***Streptococcus Pneumoniae.***

## SPM GENERIC UNIT EVALUATION

---

*In this section: Please indicate the extent to which you agree with each of the following statements.*

This unit was well organized.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

The learning objectives were clearly identified.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

The course met the identified learning objectives.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

The order of clinical presentations made sense to me.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

The basic science material was well integrated.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

The amount of material presented was reasonable.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

I knew what I was supposed to be learning and why.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

The methods used to evaluate my performance during this unit provided fair measures of my effort and learning.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

*In this section, we would like you to consider how helpful elements of the course were and how much knowledge you gained during the unit. Please pick the description that most closely matches your experience.*

The Clinical presentation "schemes" contributed to my learning in this unit.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

The process work sheets contributed to my learning in this unit.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

The self-taught modules contributed to my learning in this unit.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

The lectures helped me learn the material.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

The Work Case Examples helped me learn the material.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Anatomy Labs helped me learn the material.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Physiology Labs helped me learn the material.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Overall, I learned useful knowledge and/or skills during this unit.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

---

*We would like to know what you think this unit did well and how it can be improved.*

In the space below, please describe 2-3 features you consider to be the major strengths of this unit. (Please provide enough detail that the course and unit director will know what to keep).

Please describe up to 3 changes that would improve the least successful features of this course, making the course even more effective? (Please describe the unsuccessful feature with enough detail that the course and unit director will have an idea about it might be addressed.)



## MEDICAL SKILLS COURSE - UNIT EVALUATION

---

*In this section: Please indicate the extent to which you agree with each of the following statements.*

This unit was well organized.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

The learning objectives were clearly identified.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

The course met the identified learning objectives.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

I knew what I was supposed to be learning and why.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

The amount of material presented was reasonable.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

The materials posted on WebCT adequately prepared me for the learning sessions.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

The methods used to evaluate my performance during this unit provided fair measures of my effort and learning.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

The material covered is relevant to the practice of medicine.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

*In this section, we would like you to consider how helpful elements of the course were and how much knowledge you gained during the unit. Please pick the description that most closely matches your experience.*

The preparation materials helped me learn the material.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

The Standardized Patient Encounters helped me learn the material.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

The group skill building activities helped me learn the material.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

The feedback I received helped me learn the material.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

This course encourages me.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

Overall, I learned useful knowledge and/or skills during this unit of Medical Skills.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

*Finally, we would like to know what you think this unit did well and how it can be improved.*

In the space below, please describe 2-3 features you consider to be the major strengths of this unit (please be specific) and explain how these features are beneficial.

Please describe up to 3 changes that would improve the least successful features of this course, making the course even more effective. (Please describe the unsuccessful feature with enough detail that the course and unit director will have an idea about it might be addressed.)



## SCI SEMESTER EVALUATION

*Throughout the semester, you have had opportunities to evaluate the Spanish portion of SCI. In this evaluation, we are interested in knowing your opinion of the entire SCI course. Please indicate the extent to which you agree with each of the following statements.*

- 1) SCI was well organized.
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 2) The learning objectives were clearly identified.
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 3) The course met the identified learning objectives.
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 4) The amount of material presented was reasonable.
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 5) I knew what I was supposed to be learning and why.
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 6) The methods used to evaluate my performance during SCI provided fair measures of my effort and learning.
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree

- 7) SCI broadens my perspectives.
1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 8) The material covered by SCI is relevant to the practice of medicine.
1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree

*In this section, we would like you to consider how helpful elements of the course were and how much knowledge you gained during the unit.*

- 9) The lectures helped me learn the material.
1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 10) The community clinic experience is a worthwhile component of the curriculum.
1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 11) Spanish is a worthwhile component of the curriculum.
1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 12) Overall, I learned useful knowledge and/or skills during SCI.
1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree

*Finally, we would like to know what you think SCI did well and how it can be improved.*

In the space below, please describe 2-3 features you consider to be the major strengths of SCI. (Please provide enough detail that the course director will know what to keep).

Please describe up to 3 changes that would improve the least successful features of this course, making the course even more effective? (Please describe the unsuccessful feature with enough detail that the course director will have an idea about how it might be addressed.)

## MASTERS COLLOQUIUM EVALUATION

---

*In this section: Please indicate the extent to which you agree with each of the following statements.*

- 1) Masters Colloquium was well organized.
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 2) The learning objectives were clearly identified.
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 3) Masters Colloquium met the identified learning objectives.
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 4) The amount of material presented was reasonable.
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 5) I knew what I was supposed to be learning and why.
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 6) The methods used to evaluate my performance during Masters' Colloquium provided fair measures of my effort and learning.
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree



- 7) I understand how the Masters' Colloquium content is applicable to the practice of medicine.
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 8) The course format is appropriate.
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 9) Masters' Colloquium broadens my perspectives.
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 10) Masters' Colloquium challenges my assumptions.
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 11) Masters' Colloquium helps me understand what is expected of me as a doctor.
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 12) Overall, I learned useful knowledge and/or skills during Masters' Colloquium.
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 13) I feel the Masters Colloquium has been valuable to me
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree

*Finally, we would like to know what you think Masters' Colloquium did well and how it can be improved.*

In the space below, please describe 2-3 features you consider to be the major strengths of Masters' Colloquium. (Please provide enough detail that the course Masters will know what to keep).

Please describe up to 3 changes that would improve the least successful features of Masters' Colloquium, making the course even more effective? (Please describe the unsuccessful feature with enough detail that the Masters will have an idea about how it might be addressed.)

**Block Specific**

*In this section: Please indicate the extent to which you agree with each of the following statements about the block in general.*

This block was well organized.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

The learning objectives were clearly identified.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

The block met the identified learning objectives

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

The amount of material presented during the block was reasonable.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

Shared learning experiences between the two disciplines in this block contributed to my understanding of clinical medicine.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

**Clerkship 1**

4 June 2012

*Clerkship Content*

*In this section: Please indicate the extent to which you agree with each of the following statements about clerkship1 in general.*

The first two years of medical school adequately prepared me for *clerkship1*.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

In *clerkship1*, the methods used to evaluate my performance provided fair measures of my effort and learning.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

In *clerkship1*, duty hour policies were adhered to strictly.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

During *clerkship1*, I was subjected to negative or offensive behaviors.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

Please describe any negative or offensive behavior you experienced.

*In this section, we would like you to consider how helpful elements of the clerkship were and how much knowledge you gained during the clerkship. Please pick the description that most closely matches your experience.*

In *clerkship1*, I had appropriate exposure to ambulatory patients.

- Strongly Disagree
- Disagree

4 June 2012

Neutral  
Agree  
Strongly Agree

In *clerkship1*, I had enough patient management opportunities.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

In *clerkship1*, I received sufficient supervision during my clinical interactions.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

In *clerkship1*, I received sufficient oral feedback on my performance.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

In *clerkship1*, I received sufficient oral feedback on my performance.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

In *clerkship1*, the clinical presentation schemes helped me organize my approach to patient care.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

Overall, I learned useful knowledge and/or skills during *clerkship1*.

Strongly Disagree  
Disagree

Neutral  
Agree  
Strongly Agree

*clerkship1* provided appropriate preparation for the shelf exam.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

In *clerkship1*, I was observed delivering patient care.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

*In this section, we would like to know what you think this clerkship did well and how it can be improved:*

What areas of knowledge tested on the NBME need better coverage during *clerkship1*?

What clinical skills and/or patient activities need more emphasis in *clerkship1*?

Please describe any changes to the first 2 years of medical school that would have better prepared you for *clerkship1*.

In the space below, please describe 2-3 features you consider to be the major strengths of *clerkship1*. (Please provide enough detail that the clerkship director will know what to keep).

Please describe up to 3 changes that would improve the least successful features of *clerkship1*, making *clerkship1* even more effective? (Please describe the unsuccessful feature with enough detail that the clerkship director will have an idea about how it might be addressed.)

### **Clerkship Instruction**

Clerkships involve teaching by multiple faculty and residents. We would like to know your impression of the overall clerkship instruction. This section asks you to rate the clerkship's faculty and then to rate the residents separately.

#### *Faculty*

*clerkship1* faculty gave me useful feedback on my clinical skills

4 June 2012

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

*clerkship1* faculty treat students with respect

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

*clerkship1* faculty encourage questions

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

*clerkship1* faculty show interest in student learning

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

*clerkship1* faculty use schemes as an integral part of their teaching

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

*clerkship1* faculty are approachable for help

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

*clerkship1* faculty model professional behavior

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

Who were the best faculty members you worked with during *clerkship1*? Please describe the behaviors that made them outstanding teachers.

## Residents

*clerkship1* residents gave me useful feedback on my clinical skills

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

*clerkship1* residents treat students with respect

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

Clerkship1 residents encourage questions

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

Clerkship1 residents show interest in student learning

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

Clerkship1 residents use schemes as an integral part of their teaching

Strongly Disagree  
Disagree  
Neutral



Agree  
Strongly Agree

Clerkship1 residents are approachable for help

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

Clerkship1 residents model professional behavior

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

Who were the best residents you worked with during clerkship1 ? Please describe the behaviors that made them outstanding teachers.

## **Clerkship 2**

### *Clerkship Content*

*In this section: Please indicate the extent to which you agree with each of the following statements about clerkship1 in general.*

The first two years of medical school adequately prepared me for *clerkship2* .

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

In *clerkship2*, the methods used to evaluate my performance provided fair measures of my effort and learning.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

In *clerkship2*, duty hour policies were adhered to strictly.

Strongly Disagree

4 June 2012

Disagree  
Neutral  
Agree  
Strongly Agree

During *clerkship2*, I was subjected to negative or offensive behaviors.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

Please describe any negative or offensive behavior you experienced.

*In this section, we would like you to consider how helpful elements of the clerkship were and how much knowledge you gained during the clerkship. Please pick the description that most closely matches your experience.*

In *clerkship2*, I had appropriate exposure to ambulatory patients.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

In *clerkship2*, I had enough patient management opportunities.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

In *clerkship2*, I received sufficient supervision during my clinical interactions.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

In *clerkship2*, I received sufficient oral feedback on my performance.

Strongly Disagree  
Disagree

4 June 2012

Neutral  
Agree  
Strongly Agree

In *clerkship2*, I received sufficient oral feedback on my performance.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

In *clerkship2*, the clinical presentation schemes helped me organize my approach to patient care.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

Overall, I learned useful knowledge and/or skills during *clerkship2*.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

*clerkship2* provided appropriate preparation for the shelf exam.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

In *clerkship2*, I was observed delivering patient care.

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

*In this section, we would like to know what you think this clerkship did well and how it can be improved:*

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What areas of knowledge tested on the NBME need better coverage during *clerkship2*?

What clinical skills and/or patient activities need more emphasis in *clerkship2*?

Please describe any changes to the first 2 years of medical school that would have better prepared you for *clerkship2*.

In the space below, please describe 2-3 features you consider to be the major strengths of *clerkship2*. (Please provide enough detail that the clerkship director will know what to keep).

Please describe up to 3 changes that would improve the least successful features of *clerkship2*, making *clerkship2* even more effective? (Please describe the unsuccessful feature with enough detail that the clerkship director will have an idea about how it might be addressed.)

### Clerkship Instruction

Clerkships involve teaching by multiple faculty and residents. We would like to know your impression of the overall clerkship instruction. This section asks you to rate the clerkship's faculty and then to rate the residents separately.

#### Faculty

*clerkship2* faculty gave me useful feedback on my clinical skills

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

*clerkship2* faculty treat students with respect

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

*clerkship2* faculty encourage questions

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

*clerkship2* faculty show interest in student learning

- Strongly Disagree

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Disagree  
Neutral  
Agree  
Strongly Agree

*clerkship2* faculty use schemes as an integral part of their teaching

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

*clerkship2* faculty are approachable for help

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

*clerkship2* faculty model professional behavior

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

Who were the best faculty members you worked with during *clerkship2*? Please describe the behaviors that made them outstanding teachers.

## Residents

*clerkship2* residents gave me useful feedback on my clinical skills

Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

*clerkship2* residents treat students with respect

Strongly Disagree  
Disagree  
Neutral  
Agree

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Strongly Agree

Clerkship2 residents encourage questions

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

Clerkship2 residents show interest in student learning

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

Clerkship2 residents use schemes as an integral part of their teaching

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

Clerkship2 residents are approachable for help

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

Clerkship2 residents model professional behavior

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

Who were the best residents you worked with during clerkship2 ? Please describe the behaviors that made them outstanding teachers.

# Faculty Evaluation - (Name here)

---

**Have you observed this faculty member's teaching?**

Yes

No

I am not certain

*In this section, please indicate the extent to which you agree with each of the following statements.*

- 1) **This faculty member clearly conveys his/her objectives**
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
  6. Not Applicable
  
- 2) **This faculty member adequately addressed his/her objectives.**
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
  6. Not Applicable
  
- 3) **Materials required by this faculty member helped me meet the learning objectives.**
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
  6. Not Applicable
  
- 4) **This faculty member provided materials in a timely fashion.**
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
  6. Not Applicable

- 5) **This faculty member presents material in a well organized fashion.**
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
  
- 6) **This faculty member encourages me to actively think about the material he/she presents.**
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
  
- 7) **I knew what this faculty member expected me to learn**
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
  
- 8) **This faculty member has good public speaking skills (e.g., volume, pace, pitch, intonation).**
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
  
- 9) **Slides/handouts and other AV materials are helpful in promoting learning.**
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
  6. Not Applicable
  
- 10) **This faculty member treats students with respect**
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree



- 11) **This faculty member is mindful of the schedule**
1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 12) **This faculty member encourages questions**
1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 13) **This faculty member shows interest in student learning**
1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 14) **This faculty member is approachable for help outside of class**
1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree

*For the following section, please provide descriptive feedback to help your faculty member know what they can do to become a better teacher.*

**Please describe 2-3 major strengths of this faculty member (consider what you want this faculty member to continue doing).**

**Please provide 2-3 constructive recommendations on how this faculty member can improve his or her teaching (please be respectful).**

Thank you very much for providing us information upon which to improve our educational programs.

# Facilitator Evaluation - (Name here)

---

**Have you observed this faculty member's facilitating a group?**

Yes

No

I am not certain

*In this section, please indicate the extent to which you agree with each of the following statements.*

- 1) **This faculty member provides group members an opportunity to demonstrate what they are learning.**
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 2) **This faculty member ensures all group members have an opportunity to contribute to the discussion.**
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 3) **This faculty member provides adequate direction without dominating the group.**
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
- 4) **This faculty member encourages the group to critically evaluate ideas and to articulate reasoning process.**
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree

- 5) **This faculty member asks challenging questions without intimidating me.**
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
  
- 6) **This faculty member treats students with respect**
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
  
- 7) **This faculty member is mindful of the schedule**
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
  
- 8) **This faculty member encourages questions**
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree
  
- 9) **This faculty member shows interest in student learning**
  1. Strongly Disagree
  2. Disagree
  3. Neutral
  4. Agree
  5. Strongly Agree

*For the following section, please provide descriptive feedback to help your faculty member know what they can do to become a better teacher.*

**This faculty member's strengths as a facilitator are (consider what you want this faculty member to continue doing).**

**Please provide 2-3 constructive recommendations on how this faculty member can improve his or her facilitation (please be respectful).**

Thank you very much for providing us information upon which to improve our educational programs.

# Clerkship Faculty Evaluations

Discusses the pathophysiology of diseases

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

Brought to my attention physical findings that I had previously not seen.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

Improved my understanding of pharmacology

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

Uses community resources

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

Demonstrates the value of respecting patient preferences

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

Models good communication with patients.

Instructs me at my own level of expertise

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

Encourages questions  
Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

Asks questions in a non-threatening way  
Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

Actively listens to me.  
Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

Made me feel part of the team  
Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

Provides a good role model  
Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

Behaves respectfully to others  
Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

Gave me constructive feedback  
Strongly Disagree

Disagree  
Neutral  
Agree  
Strongly Agree

Treats students with respect  
Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

Is mindful of the schedule  
Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

Is approachable for help  
Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

Shows interest in student learning  
Strongly Disagree  
Disagree  
Neutral  
Agree  
Strongly Agree

*For the following section, please provide descriptive feedback to help your faculty member know what they can do to become a better teacher.*

**Please describe 2-3 major strengths of this faculty member (consider what you want this faculty member to continue doing).**

**Please provide 2-3 constructive recommendations on how this faculty member can improve his or her teaching (please be respectful).**

Thank you very much for providing us information upon which to improve our educational programs.