

Internal Medicine Residency Program Rotation Curriculum

DIVISION: PULMONARY AND CRITICAL CARE MEDICINE

I. Rotation Sites

Rotation Name: Pulmonary Consultation Service

Site	Faculty Supervisor	Administrator	Phone
UCIMC	Matthew Brenner, MD	Sheryl Sandberg	714- 456-5150

II. The educational purpose or rationale for this rotation.

The purpose of the Pulmonary Consultation rotation is to teach student and residents the major aspects of understanding and managing patients with pulmonary disease in a consultative role. Physiologic, psychosocial, diagnostic, and treatment aspects of Pulmonary diseases will be addressed. The goal is to optimize the educational experience for all housestaff and provide optimal patient care to Pulmonary Consult Patients.

III. The principal teaching methods for this rotation.

Teaching rounds with attending (5 days per week), radiology rounds, consultative patient care supervised by attendings and Pulmonary fellows, conferences, subspecialty clinic, supervised procedure performance and pulmonary function testing interpretation with attending supervision.

IV. Responsibilities of each of the participants on this rotation.

a. Medical Student:

Patient Care Responsibilities: Pulmonary consult students are responsible for following of a select number of patients on the consult service and in pulmonary subspecialty clinic. Patient selection is directed by the fellow. All patient care activities of the consult student are under direct supervision of the pulmonary fellow.

Procedures: The sub-intern can perform procedures appropriate for their level of training on the consult service. All procedures will be performed under the direct supervision of the resident or fellow.

Education: The sub-interns are expected to contribute on rounds. They are expected to present their patients on rounds, and contribute to the discussion of diagnosis, management, pathophysiology, and any related basic science issues. They are expected to review pertinent medical literature. Guidance from the fellows will be provided.

Patient Care: The sub-interns will perform full consultation H&P on all new consults under their care. They will be responsible for collecting all database information, reviewing prior records, following laboratory information, and writing recommendations under direct supervision of the fellow.

b. Medical Residents: PGY 1 Residents

Patient Care Responsibilities:

Pulmonary consult residents are responsible for following of a select number of patients on the consult service and in pulmonary subspecialty clinic. Patient selection is directed by the fellow. All patient care activities of the consult student are under direct supervision of the pulmonary fellow.

Procedures:

The resident can perform procedures appropriate for their level of training on the consult service. All procedures will be performed under the direct supervision of the resident or fellow.

Education:

The residents are expected to contribute on rounds. They are expected to present their patients on rounds, and contribute to the discussion of diagnosis, management, pathophysiology, and any related basic science issues. They will present patients at conference. They are expected to review pertinent medical literature. Guidance from the fellows and senior residents will be provided.

Patient Care:

The PGY1 residents will perform full consultation H&P on all new consults under their care. They will be responsible for collecting all database information, reviewing prior records, following laboratory information, and writing recommendations under direct supervision of the fellow.

c. Senior Residents (PGY2 & 3)

Senior residents will be responsible for all activities noted for PGY1 residents. In addition, these residents will be responsible for coordinating teaching efforts for interns and medical students. The senior residents will place emphasis on Medical Knowledge Management in the context of consultation. The senior residents will participate in divisional conferences and present appropriate cases with literature review and critical appraisal. The senior residents will be available to teach medical students physical diagnosis.

The senior resident will be certified in thoracentesis and will be responsible for teaching this procedure to the PGY1 residents.

Educational Objectives: The PGY1 resident

1. Will demonstrate competence in obtaining an appropriate history for complaints of the lungs and respiratory system.
2. Will demonstrate competence to evaluate a patient for acute shortness of breath.
3. Will demonstrate competence in the reading and interpretation of chest radiography.
4. Will demonstrate competence in the evaluation of pulmonary function testing.
5. Will demonstrate competence in the evaluation and management of bronchoconstriction and other airways diseases.

Educational Objectives: The senior resident

1. Will demonstrate competence in obtaining an appropriate history for complaints of the lungs and respiratory system.

2. Will demonstrate competence to evaluate a patient for acute shortness of breath.
3. Will demonstrate competence in the reading and interpretation of chest radiography.
4. Will demonstrate competence in the evaluation of pulmonary function testing.
5. Will demonstrate competence in the evaluation and management of bronchoconstriction and other airways diseases.
6. Will demonstrate competence in the evaluation of the solitary pulmonary nodule and other pulmonary masses.
7. Will demonstrate competence in knowledge of occupational and environmental lung disease.
8. Will demonstrate competence in the evaluation of interstitial lung disease.
9. Will demonstrate competence in the evaluation of pulmonary hypertension.
10. Will demonstrate the ability to describe the uses and risks of bronchoscopy, including BAL.

Competency-based Learning Objectives for the Pulmonary Consult Service Rotation

Patient Care	PGY1	PGY2	PGY3
Complete medical data base (H&P) relevant to pulmonary diseases and good patient care overall as reflected in the educational objectives for this rotation.	Reporter & Interpreter	Manager & Educator	Competent at the level of a well-trained internist
Diagnostic decision making based upon the best evidence	Reporter & Interpreter	Manager & Educator	Competent at the level of a well-trained internist
Involving patients in decisions about their care	Most of the time	All of the time	
Working with other health care professionals to ensure the best care	All of the time		
Teaching patients and families	Most of the time	All of the time	
Patient triage and evaluation of severity	Reporter & Interpreter	Manager & Educator	Competent at the level of a well-trained internist
Response to emergencies	Reporter & Interpreter	Manager & Educator	Competent at the level of a well-trained internist
Commitment to wellness, screening & prevention.	Most of the time	All of the time	
Identification & intervention in psycho-social issues, including domestic violence & depression	Most of the time	All of the time	

Medical Knowledge	PGY1	PGY2	PGY3
Medical illnesses	Reporter & Interpreter	Manager & Educator	Competent to practice independently
Complete differential diagnoses	Reporter & Interpreter	Manager & Educator	Competent at the level of a well-trained internist
Epidemiology & biostatistics	Reporter & Interpreter	Manager & Educator	Competent at the level of a well-trained internist
ICU Medicine	Reporter & Interpreter	Manager & Educator	Competent at the level of a well-trained internist
Recognizing own limitations	All of the time		

Practice-based Learning	PGY1	PGY2	PGY3
Take advantage of patient care to read & learn	Consistently		
Use of medical information resources &	Consistently		

search tools			
Inspiring others to use Evidence-based resources and make EBM-based decisions	Basic understanding	Consistently	
Applying critical appraisal techniques consistently to patient resources I use for patient care	Basic understanding	Consistently	

Interpersonal & Communication Skills	PGY1	PGY2	PGY3
Create personal relationships with each patient by appropriately engaging them at each encounter	Most of the time	All of the time	
Use of verbal & non-verbal facilitation	Most of the time	All of the time	
Consistently demonstrate appropriate empathy & good listening skills	All of the time		
Respectful communication with colleagues & other professionals	All of the time		
Involve patients & families in discussions about care. Patient education.	Most of the time	All of the time	
I go out of my way to ensure the best possible care.	All of the time		
Enlist patients & families in health care decisions, including their feedback	Most of the time		
My ability to accept & integrate feedback from faculty & peers	All of the time		
I always sit down at the bedside to speak with my patients.	All of the time		

Professionalism	PGY1	PGY3	PGY3
Altruism: patients needs above their own	Most of the time	Most of the time	Most of the time
Confidentiality (including HIPAA)	All of the time		
Ethical behavior	All of the time		
Commitment to excellence	All of the time		
Sensitivity to age, gender, gender-preference, ethnicity, culture & disability	Most of the time	All of the time	
Awareness of duty hours, fatigue in myself & others, & other outside stresses, including substance abuse & finances	All of the time		
Commitment to education & to learning	All of the time		Accelerated
Personal insight & self-reflection	Most of the time	All of the time	
Completion of assignments	All of the time		
Timely response to pages	All of the time		
Timely completion of medical records	All of the time		
Conference attendance	Meets requirements		
Hand-offs and sign-outs	Consistently well presented	Consistently of the highest quality	
Leadership skills	Developing	Consistent	Consistent

Systems-based Practice	PGY1	PGY2	PGY3
Cost-effectiveness	Generally aware	Integrates into all plans	
Use of outside resources	Generally aware	Integrates into all plans	
Use of case-management	Generally aware	Integrates into all plans	

Attention to quality, safety, and process improvement	Generally aware	Integrates into all plans	Makes these a top priority in all areas
Identification of systems issues that affect patient care	Developing	Consistently	Consistently
Use of the incident reporting systems to identify systems issues	Developing	Consistently	Consistently
Understanding of the business of medicine, health care systems, & public policy	Developing	Generally aware	Sophisticated understanding

Teaching Skills	PGY1	PGY2	PGY3
Commitment to teaching	Generally aware; expresses importance	Strong commitment	
Use of the microskills of teaching	Developing	Skilled	Skilled
Understanding of the teachable moment	Developing	Skilled	Skilled
Patience with learners	Developing	Skilled	Skilled
Conference presentation	Developing	Basic	Skilled
Patient education & adherence	Basic	Clearly competent	

Organization Skills	PGY1	PGY2	PGY3
Patient care organization systems & practice	Uses systems	Fully integrated; multi-tasks easily	
Ability to prioritize personal issues in accord with personal values & priorities (Get my life in order)	Basic understanding	Consistent focus	
Ability to help others get organized		Advisor	Educator
Organizing for study, reading, & life-long learning	Conscious of necessity	Competent & committed	
Organizing teams to include & prioritize learning & teaching		Competent & committed	
Organizing to obtain & prepare for careers or fellowships	Aware	Competent	

d. Fellow

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The consult Fellow has overall responsibility for all patient care consultation activities on the service.

The fellow will be responsible for supervision of procedures, and will perform or assist with procedures as appropriate. The fellow on the Pulmonary Consult service is responsible for all procedures including bronchoscopies, pleural biopsies, thoracenteses, exercise treadmill testing, etc. While on the consult service. The RII will be available to assist the Consult fellow in procedures on weekday afternoons if appropriate. The Pulmonary fellow will inform the RII of all pending and follow-up pulmonary consultations assigned to the RII. The Fellow will also help instruct the RII in pulmonary function test interpretation.

The fellow will be expected to have a major role in teaching in as well.

e. Attending

The attending is responsible for all activities, clinical and teaching on the consult service. The attending will round daily, with teaching rounds 5 days per week, or more frequently if necessary. Attendings will directly supervise resident and student education, including didactic lectures, teaching rounds, resident and student presentations. The attending will supervise procedures as appropriate

V. Core Suggested Reading for this rotation.

Basic Recommended Readings for this rotation come from **Current Medical Diagnosis and Treatment**, 2009. Access these readings at

<http://www.accessmedicine.com/resourceTOC.aspx?resourceID=1>

In addition, you should be familiar with basic practice guidelines in this discipline. Access these at

<http://www.accessmedicine.com/guidelines.aspx?type=1>

Select the appropriate chapters for review. These chapters can be accessed through the Grunigen Medical Library website.

<http://www.accessmedicine.com/resourceTOC.aspx?resourceID=1>

Chapters of specific relevance for this rotation are

Chapter 9	Pulmonary Disorders [Revised April 2009]
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VI. Key physical diagnosis skills which should be reviewed during this rotation

Cardiopulmonary examination of the pulmonary consultation patients, and examination of other relevant organ systems, interpretation of chest radiographs.

VII. Key procedures which the resident should be able to *perform*.

Thoracentesis, standard medical procedures

VIII. Key tests or procedures which the resident should be able to *understand the indications for and to interpret*.

1. Airway management
 - maintenance of open airway in unconscious, paralyzed patients
 - intubation
 - oral
 - nasotracheal
2. Breathing and Ventilation
 - bag and mask
 - mechanical ventilation
 - pressure cycled
 - volume cycled
 - weaning
 - Use of reservoir masks
 - oxygen

- humidification
 - nebulization
 - Pneumothorax Management
 - needle
 - chest tube
3. Hemodynamic Monitoring and associated issues
 4. Bronchoscopy, bronchoscopic lavage, biopsy, Wang needle biopsy
 5. Pleural biopsy
 6. Pleurodesis

IX. The most important diseases or conditions which the resident should see and understand during this rotation.

- AIDS
- COPD and Asthma
- Respiratory Failure and ARDS
- Pneumonia
- Tuberculosis
- Primary and Secondary Lung Malignancies
- Hemoptysis
- Obstructive and restrictive lung disease
- Pulmonary vascular disease and rheumatologic lung diseases
- Opportunistic pulmonary infections and effects of immunosuppression on lungs
- Allergic pulmonary disease
- Fungal and Parasitic diseases

X. Evaluation Methods

Faculty will evaluate each resident's performance using the standard "Internal Medicine Resident Evaluation Form" at the end of each block rotation. Evaluation forms will be submitted to the Residency Program for review by the Program Director and by the Residency Oversight Committee.

Residents will complete evaluations of their attending faculty, their supervising residents, and the rotation itself. These evaluations will be submitted to the Residency Program for Review by the Program Directors and the Curriculum Committee. Copies of evaluations will be submitted to the Division Chiefs for their review.

XI. Core Educational Topics and Venues for this Discipline

Outlined in the attached Core Curriculum of Internal Medicine