

# Pulmonary Consult A

## Legend for Educational Activities

- |                                      |                               |
|--------------------------------------|-------------------------------|
| FR – Faculty Rounds                  | RR – Radiology Rounds         |
| DSP – Directly Supervised Procedures | EBM - Evidence Based Medicine |
| FS – Faculty Supervision             | M&M-Morbidity & Mortality     |
| MR – Morning Report                  | DL- Didactic Lectures         |
| DPC – Direct Patient Care            | GR – Grand Rounds             |
| BRL --Board Review Lectures          | JC – Journal Club             |
| MJ – Medical Jeopardy                | PC–Professionalism Curriculum |

## Legend for Evaluations

- FE - Faculty Evaluations
- DSP – Directly Supervised Procedures
- ITE – In-Training Exam
- PDR–Program Director’s Review (twice annually)
- PR – Peer Review

**Pulmonary Consult A is a 4 week rotation for PGY2 residents, offering experience both in the inpatient and sub-specialty clinic. The residents will be supervised by a board certified Pulmonologist on this rotation while providing consultative care to adult patients on General medicine wards and critical care units. One half day a week will be protected time for resident’s continuity clinic and one half day would be protected for Weekly Didactic lecture series where attendance is mandatory. The educational goals for this rotation are indicated for each of the six ACGME competencies.**

**A. Patient Care**

	Educational Goals	Educationa l Activities	Evaluation Tools
1.	Ability to take a complete medical history and perform a careful and accurate physical examination	DPC, FR	FE
2.	Ability to write concise, accurate and informative histories, physical examinations and progress notes.	DPC, FR	FE
3.	Effectively evaluate and manage patients with critical medical illness, including those on mechanical ventilation and vasopressors.	DPC, DL, GR,	FE
4.	Effectively evaluate and manage patients with critical neurological illness.	DPC	FE
5.	Ability to formulate comprehensive and accurate problem lists, differential diagnoses and plans of management for a critically ill patient	DPC, FR, DL, GR	FE, ITE

6.	Insert central venous lines and arterial lines with proper technique.	DSP	FE, DSP
7.	Ability to perform basic procedures: venipuncture, arterial puncture, placement of central venous lines, lumbar puncture, abdominal paracentesis, thoracentesis, arthrocentesis, and nasogastric intubation.	DPC, FR, DSP DPC, FR, DSP	FE, DSP FE, DSP
8.	Ability to perform endotracheal intubation under close supervision.	DSP, DPC DPC, DSP	FE, DSP FE
9.	Ability to perform basic ventilator management.	DSP, FR DPC, FR	FE FE
10.	Insertion and basic management of pulmonary arterial catheters under close supervision.	DPC, DSP, FR DPC, DSP, FR	FE, DSP FE, DSP
11.	Ability to make basic interpretation of chest and abdominal x-rays and electrocardiograms.	DPC, FR DPC, FR	FE FE
12.	Ability to perform cardiopulmonary resuscitation and advanced cardiac life support.	DSP, DPC, FR DPC	FE FE
13.	Participation in and later leadership of discussion of end-of-life issues with families.	DPC, FR, DL	FE

## B. Medical Knowledge

	Educational Goals	Educational Activities	Evaluation Tools
1.	Expand clinically applicable knowledge base of the basic and clinical sciences underlying the care of patients with critical medical and neurological illness	DPC, FR, DL, GR	FE, ITE
2.	Access and critically evaluate current medical information and scientific evidence relevant to medical and neurological critical care	DPC, DL, JC	FE
3.	Understand the physiologic and pathophysiologic principles of invasive hemodynamic monitoring including indications	DPC, DSP	FE
4.	Understanding the basic pathophysiology, clinical manifestations, diagnosis and management of severe and life-threatening medical illnesses.	DPC, FR, DL DPC, FR	FE, ITE
5.	Familiarity with the basic principles of ventilator management.	DPC, FR, DL DPC, FR	FE FE
6.	Familiarity with the basic principles of pathophysiology, diagnosis and management of respiratory failure.	DPC, FR DL DPC, FR	FE FE
7.	Familiarity with the basic principles of pathophysiology, diagnosis and management of sepsis and the syndrome of multiple organ failure.	DPC, FR, DL DPC, FR	FE, ITE FE, ITE
8.	Familiarity with indications for performance and basic interpretation of blood counts, coagulation studies, blood chemistry tests, urinalysis, body fluid analyses, microbiologic tests, spirometry and arterial blood gases.	DPC, FR, DL	FE, ITE
9.	Basic familiarity with indications for and interpretation of chest and abdominal X-ray, electrocardiograms, and pulmonary function tests.	DPC, FR DPC, FR	FE FE

## C. Interpersonal Skills and Communication

	Educational Goals	Educational Activities	Evaluation Tools
1.	Communicate effectively with patients and families in a stressful critical care environment, including discussion of end-of-life issues and limits of care.	DPC, FR, DL	FE

2.	Communicate effectively with physician colleagues and members of other health care professions to assure timely, comprehensive patient care	DPC, FR, DL	FE, PR
3.	Communicate effectively with colleagues when signing out DPC, TR patients or turning over care to another Service	DPC	FE, PR

#### D. Professionalism

	Educational Goals	Educational Activities	Evaluation Tools
1.	Interact professionally toward patients, families, colleagues, and all members of the health care team.	DPC, FR, DL	FE, PR
2.	Acceptance of professional responsibility as the primary care physician for patients under his/her care.	DPC, FR, DL	FE, PR
3.	Appreciation of the social context of illness.	DPC, FR, DL	FE, PR

#### E. Practice-Based Learning and Improvement

	Educational Goals	Educational Activities	Evaluation Tools
1.	Identify and acknowledge gaps in personal knowledge and skills in the care of patients with critical medical and neurological illness	DPC, FR	FE
2.	Develop real-time strategies for filling knowledge gaps that will benefit patients in the medical intensive care unit	DPC, FR	FE
3.	Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine	FR, JC, DL	FE, ITE

#### F. Systems-Based Practice

	Educational Goals	Educational Activities	Evaluation Tools
1.	Understand and utilize the multidisciplinary resources necessary to care optimally for critically ill medical and neurological patients.	DPC, FR	FE
2.	Collaborate with other members of the health care team to assure comprehensive care for patients with critical medical and neurological illness.	DPC, FR, DL	FE, PR
3.	Use evidence-based, cost-conscious strategies in the care of patients with critical medical and neurological illness.	DPC, JC, DL	FE
4.	Knowing when to consult a medical subspecialist.	DPC, FR	FE
5.	Knowing when to ask for help and advice from senior residents and attending physicians	DPC, FR	FE, PR

6.	Effective professional collaboration with residents, fellows and faculty consultants from other disciplines such as Radiology and Surgery.	DPC, DL	FE, PR
7.	Learning by participation in ward rounds, teaching conferences and other educational activities.	DPC	FE
8.	Effective collaboration with other members of the health care team, including residents at all levels, medical students, nurses, clinical pharmacists, occupational therapists, physical therapists, nutrition specialists, patient educators, speech pathologists, respiratory therapists, social workers, case managers, discharge planners, clinical pharmacists and providers of home health services.	DPC, DL	FE, PR
9.	Effective utilization of medical consultants, including knowing when and how to request consultation, and how best to utilize the advice provided.	DPC	FE, PR
10.	Consideration of the cost-effectiveness of diagnostic and treatment strategies.	DPC	FE
11.	Ability to lead team, including, medical students, nurses, clinical pharmacist, case manager, and social worker.	DPC, DL	FE
12.	Willingness and ability to teach medical students	DPC, DL	FE

## PG2 - Pulmonary/Critical Care - DETAILED GOALS AND OBJECTIVES

<b>Common Clinical Presentations – it is expected that the resident learns the differential diagnosis and the ability to perform a cost-effective work-up of these conditions.</b>				
		Extensive understanding of full differential. Knowledge of the full w/u and ability to carry out a prioritized, cost effective w/u.		
	Hemoptysis			PG2
	Pleural effusion			PG2
	Stridor, hoarseness			PG2
	Excessive daytime sleepiness			PG2
<b>Physical Diagnosis – it is expected that the resident develops competency in these specific physical exam skills.</b>				
	Observation			
		Cheyne-Stokes respiration		PG2
		Kussmaul's respiration		PG2
	Abdominal paradox/respiratory alternans			
	Palpation			
		Crepitations		PG2

	Percussion			
		Diaphragmatic excursion		PG2
	Auscultation			
<b>Procedural Skills – it is expected that the resident develops competency in these specific procedures.</b>				
	Intubation/CPAP/BiPAP			PG2
	Spirometry and peak flow assessment			PG2
<b>Ordering and Understanding of Tests – it is expected that the resident learns the indications and a basic understanding of these tests; however, specific test interpretation would generally require the assistance of a sub-specialist.</b>				
	Advanced pulmonary function tests			
	Imaging			
		CT thorax, HRCT and Helical CT		PG2
		Decubitus and special views of the chest		PG2
		Ultrasound		PG2
		MRI & PET		PG2
	Diagnostic studies for venous thrombosis and thromboembolism			
		Lower extremity doppler		PG2
		Pulmonary angiography & CT angiogram		PG2
		Ventilation/perfusion scans		PG2
	Polysomnography (Sleep studies)			
	Sputum studies (including collection, processing and interpretation)			
		Fungal culture & stains		PG2
		Mycobacterial culture & stains		PG2
		Sputum cytology (malignant and infectious)		PG2
		Viral culture & antigen detection		PG2
	Invasive tissue/culture procedures			

<b>Pulmonary-Critical Care - ADDITIONAL OBJECTIVES:</b>	
Diagnose a malignant pleural effusion.	
Diagnose abdominal compartment syndrome.	
Diagnose asbestos-related pleural plaques.	
Diagnose cystic fibrosis in an adult.	
Diagnose hypersensitivity pneumonitis.	

Diagnose idiopathic pulmonary fibrosis.		
Diagnose respiratory failure in the setting of restrictive lung disease.		
Diagnose right main-stem bronchus intubation.		
Evaluate a pulmonary nodule.		
Manage an acute asthma exacerbation.		
Manage anticoagulation after a pulmonary embolism.**		
Manage Candida albicans in the sputum.		
Manage delirium in the intensive care unit.		
Manage exercise-induced asthma.**		
Manage fluids in acute respiratory distress syndrome.		
Manage ventilator weaning in a patient with COPD.		
Treat a patient with COPD.		
Treat a pleural effusion.		
Treat an overdose of a tricyclic antidepressant.		
Treat anaphylactic shock.		
Treat community-acquired pneumonia.		
Treat hypothermia-related bradycardia.		
Treat hypoxemic respiratory failure.		
Treat intensive care unit–acquired weakness.		
Treat moderate persistent asthma.		
Treat pulmonary edema.		
Treat respiratory failure due to COPD.		
Treat stable COPD.		
Treat transfusion-related acute lung injury.		
Use D-dimer measurement to exclude pulmonary embolism.**		