

Critical Care ICU1

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

There will be one Critical care/ICU team composed of one Intern and 4 Upper level residents. Critical care/ICU team will be on call and take new admissions from 7 am through 6 am the following morning. The admission cap for the team is 5/ 24 hours. The intern on ICU 1 rotation would be relieved at 5 pm daily and the subsequent call would be managed by the upper level resident. The team census would cap at 20 patients. Teaching rounds would occur daily from 8.30 am to 11.30 am under the supervision of Pulmonary Critical Care attending. The rounds will start with discussion of new patients and those being followed by the post call residents to allow them to be relieved of all responsibilities by 10 am at the latest. Following completion of teaching rounds, the team would join the IM ward residents for MR. One half day a week is spent in the continuity clinic and a half day at Weekly didactic lectures where attendance is mandatory.

A. Patient Care

	Educational Goals	Educational 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 be a team player in a team, including PG-2/3 residents, medical students, nurses, clinical pharmacist, case manager, and social worker.	DPC, DL	FE
12.	Willingness and ability to teach medical students	DPC, DL	FE

PG1 - Pulmonary/Critical Care - DETAILED GOALS AND OBJECTIVES				
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.				
		Extensive understanding of full differential. Knowledge of the full w/u and ability to carry out a prioritized, cost effective w/u.		
	Dyspnea, acute and chronic			PG1
	Cough with and without sputum			PG1
	Pleuritic chest pain			
		Pleuropulmonary		PG1
		Musculoskeletal and distinction from cardiac		PG1
		Gastrointestinal and psych		PG1
	Hypoxemia			PG1
	Febrile patient with infiltrate			PG1
	Abnormal chest radiograph			PG1
	Wheezing			PG1
	Pulmonary edema			PG1
Physical Diagnosis – it is expected that the resident develops competency in these specific physical exam skills.				
	Observation			

		Cyanosis			PG1
		Respiratory rate			PG1
	Abdominal paradox/respiratory alternans				
	Palpation				
		Tactile fremitus (99's)			PG1
		Use of accessory respiratory muscles			PG1
	Percussion				
		Flatness, dullness, hyperresonance, tympany			PG1
	Auscultation				
		Bronchial breath sounds			PG1
		Crackles (rales) fine and course			PG1
		Egophony (E to A changes)			PG1
		Gurgles (ronchi)			PG1
		Inspiratory squeaks			PG1
		Pleural friction rub			PG1
		Stridor			PG1
		Vesicular breath sounds			PG1
		Wheezes			PG1
		Whispered pectoriloquy			PG1
Procedural Skills – it is expected that the resident develops competency in these					
specific procedures.					
	Arterial blood gases				PG1
	Pulse oxymetry				PG1
	Skin test for anergy, tuberculosis				PG1
	Sputum collection and Gram stain				PG1
Primary Interpretation of Tests – it is expected that the resident understands the indications for ordering these tests and is able to interpret the results without the need for consultation.					
	Arterial blood gas				PG1
	Pleural fluid studies				PG1
	Chest X-ray				PG1
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.					
		Antigens			PG1
		Bacterial cultures & stains			PG1

Pulmonary-Critical Care - ADDITIONAL OBJECTIVES:	
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.**	