Critical care – ICU 3 A/B

Legend for Educational Activities

FR – Faculty Rounds
DSP – Directly Supervised Procedures
FS – Faculty Supervision
MR – Morning Report
DPC – Direct Patient Care
BRL --Board Review Lectures
MJ – Medical Jeopardy
RR – Radiology Rounds
EBM - Evidence Based Medicine
M&M-Morbidity & Mortality
DL- Didactic Lectures
GR – Grand Rounds
JC – Journal Club
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 relived at 5 pm daily and the subsequent call would be managed by the upper level resident on ICU 2 A/B or ICU 3A/B. 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	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.	Develop and demonstrate proficiency 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.	Develop and demonstrate proficiency to perform endotracheal intubation under close supervision.	DSP, DPC DSP, DPC	FE, DSP FE
9.	Develop and demonstrate proficiency to perform basic ventilator management.	DSP, FR DSP, FR	FE FE
10.	Proficiency in insertion and management of pulmonary arterial catheters under supervision.	DPC, DSP, FR DPC, DSP, FR	FE, DSP FE, DSP
11.	Develop and demonstrate proficiency to make basic interpretation of chest and abdominal x-rays and electrocardiograms.	DPC, FR DPC, FR	FE FE
12.	Ability to lead a team during 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.	Develop and demonstrate in-depth knowledge of the basic pathophysiology, clinical manifestations, diagnosis and management of severe and life-threatening medical illnesses.	DPC, FR, DL DPC, FR	FE, ITE
5.	Develop and demonstrate in-depth knowledge of with the basic principles of ventilator management.	DPC, FR, DL DPC, FR	FE FE
6.	Develop and demonstrate in-depth knowledge of with the basic principles of pathophysiology, diagnosis and management of respiratory failure.	DPC, FR DL DPC, FR	FE FE
7.	Develop and demonstrate in-depth knowledge of 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.	Develop and demonstrate in-depth knowledge of 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.	Develop and demonstrate in-depth knowledge of 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 PGY2 residents, medical students, nurses, clinical pharmacist, case manager, and social worker.	DPC, DL	FE
12.	Willingness and ability to teach medical students and PGY 2 residents.	DPC, DL	FE

PG3 - 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.		
	Pulmonary pre-op evaluation			
Physical Diagnosis – it is expected that the resident develops competency in these specific				
physical exam skills.				
	Observation			
		Sniff maneuver		
	Abdominal paradox/respiratory alternans			
	Palpation			
		Tracheal deviation and descent		

Procedural Skills – it is expected that the resident develops competency in these				
specific procedures.				
	Thoracentesis			
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.				
	Complete pulmonary function tests (spirometry; measurement of lung volumes, diffusing capacity, flow volume loop)			
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.				
	Advanced pulmonary function tests			
		Oxygen titration testing (Linde walker testing)		
		Cardiopulmonary exercise testing		
	Imaging			
		Gallium lung scans		
		Ultrasound		
	Invasive tissue/culture procedures			
		Bronchoscopy, including bronchoalveolar lavage and transbronchial biopsy		
		Percutaneous fine needle aspiration		
		Mediastinoscopy & mediastinotomy		
		Pleural biopsy and pleuroscopy		
		Thoracotomy & thoracoscopy		
Clinical Conditions – it is expected that the resident be familiar with all of the conditions				
listed. These conditions are divided into 3 categories:				
A – these are conditions that the resident is expected to develop competence in				
the diagnosis and management of without the need for consultation.				
B – these are conditions that the resident is expected to develop a basic understanding				
of the diagnosis and management to enable him/her to co-manage with a				
subspecialty consultant.				
C – these are conditions that the resident is expected to recognize and formulate a				
differential diagnosis, but management would almost always be carried out by a consultant.				
	Obstructive airways disease			
		Asthma		A
			Hyperreactive airway disease	A
			Cough variant asthma	A

			Status asthmaticus	B
		COPD		A
			Emphysema	A
			Chronic bronchitis	A
			Small airways obstruction	A
			Pulmonary rehab	B
		Bronchiectasis		B
		Alpha1-antitrypsin deficiency		C
		Cystic fibrosis		C
		Upper airway obstruction		C
	Diffuse interstitial and alveolar inflammatory diseases			
		Interstitial inflammation and fibrosis		
			Collagen vascular disease associated	C
			Drug induced	C
			Idiopathic pulmonary fibrosis	B
			Eosinophilic lung	C
			Goodpasture's syndrome	C
		Interstitial inflammation and fibrosis with granulomata		
			Sarcoidosis	B
			Hypersensitivity pneumonitis	C
			Wegener's granulomatosis	C

	Pulmonary thromboembolism and other pulmonary vascular diseases			
		Deep vein thrombosis and pulmonary embolus		A
			Associated with oral contraceptives	B
			Associated with pregnancy	B
		Pulmonary hypertension and cor pulmonale		B
		Pulmonary vasculidities		C
	Occupational and environmental lung disease			
		Asbestos-related		B
		Occupational asthma		B
		Silicosis		B
	Respiratory tract infections			
		Upper respiratory infections		
			Colds, laryngitis and pharyngitis	A
			Sinusitis	A
			Epiglotitis	C
		Acute bronchitis		A
		Pneumonia		
			Community-acquired	A
			Hospital-acquired	A
			Immunosuppressed host	A
			Aspiration pneumonia	A
		Lung abscess		B
		Tuberculosis		A
		Atypical mycobacteria		B
		Empyema		B
		Pulmonary mycoses		B
	Lung neoplasms			

		Confirmed lung cancer		B
		Evaluation of a solitary nodule		A
		Paraneoplastic syndromes		B
		Mediastinal and pleural malignancies		C
	Diseases of the pleura, mediastinum, chest wall and diaphragm			
		Effusions secondary to neoplasm		B
		Parapneumonic effusions and empyema		A
		Pneumothorax		A
		Transudative effusions		A
		Diaphragmatic weakness and paralysis		B
		Neuromuscular restrictive lung disease		B
	Prevention			
		Smoking cessation		A
	Acute respiratory failure (see critical care)			
		Hypoxemic		
			Adult respiratory distress syndrome	B
			Cardiogenic pulmonary edema	A
		Hypercapneic		A
	Sleep-disordered breathing			A
	Misc.			
		Pulmonary disease in pregnancy		B
		Preoperative evaluation		
			Cardiac &	A
			General anesthesia	A

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.**		