

The Ohio State University Pulmonary and Critical Care Medicine Fellowship Program
 Medical Intensive Care Unit 11 ICU Service OSU University Hospital

This chart details the minimum curricular goals for each year of fellowship.
 Competency at each post graduate year includes continued demonstration of the preceding year's competency goals.
 Methods of evaluation for each competency are listed.

Competency	F1	F2	F3
Patient Care:			
History Taking <ul style="list-style-type: none"> • Global Faculty Rating • Mini CEX 	Demonstrates the ability to obtain and document an accurate and complete history from patient and/or care taker. Specific focus on: <ul style="list-style-type: none"> • Symptoms of respiratory diseases • Symptoms of critical illness including sepsis, respiratory failure, and acute renal failure • Identification of risk factors for development of critical illness • Previous ICU admissions • Pre-ICU management including hemodynamic support, fluid management, and respiratory care • Common exposures to occupational/environmental agents including tobacco • Necessary information from pulmonary function studies and past charts • Review of current treatments pertinent to the pulmonary /sleep medicine problems, such as medications, ventilator strategy, respiratory care • Intra-operative and Post- 	Demonstrates the ability to obtain and document an accurate and complete history from patient and/or care taker. Specific focus on: <ul style="list-style-type: none"> • Symptoms of respiratory diseases • Symptoms of critical illness including sepsis, respiratory failure, and acute renal failure • Identification of risk factors for development of critical illness • Previous ICU admissions • Pre-ICU management including hemodynamic support, fluid management, and respiratory care • Common exposures to occupational/environmental agents including tobacco • Necessary information from pulmonary function studies and past charts • Review of current treatments pertinent to the pulmonary /sleep medicine problems, such as medications, ventilator strategy, respiratory care • Intra-operative and Post- 	Demonstrates the ability to obtain and document an accurate and complete history from patient and/or care taker. Specific focus on: <ul style="list-style-type: none"> • Symptoms of respiratory diseases • Common exposures to occupational/environmental agents including tobacco • Necessary information from pulmonary function studies and past charts • Review of current treatments pertinent to the pulmonary /sleep medicine problems, such as medications, ventilator strategy, respiratory care • Intra-operative and Post-operative management including hemodynamic support, fluid management, and respiratory care

	operative management including hemodynamic support, fluid management, and respiratory care Achieve these objectives with moderate faculty input	operative management including hemodynamic support, fluid management, and respiratory care Achieve these objectives with occasional faculty input	Achieve these objectives independently
Physical Exam • Global Faculty Rating • Mini CEX	With moderate faculty input, can describe and document major abnormalities in the physical exam, including the presence of: <ul style="list-style-type: none"> • Venous and Arterial access • Endotracheal tube • Chest tubes • Thoracic surgical scars • Tracheostomy 	With occasional faculty input, can describe and document major abnormalities in the physical exam, including the presence of: <ul style="list-style-type: none"> • Venous and Arterial access • Endotracheal tube • Chest tubes • Thoracic surgical scars • Tracheostomy 	Accurately describes and documents the objectives with rare faculty input. Teaches about the important aspects of physical exam in pulmonary medicine.
Ventilator Management • Global Faculty Rating • Mini CEX	With modest faculty input, can: <ul style="list-style-type: none"> • Describe the different modes of ventilation • Identify appropriate modes for different patient scenarios • Interpret wave forms • Choose appropriate initial ventilator settings for different patient scenarios • Interact effectively with respiratory therapy in managing the ventilator • Describe complications of mechanical ventilation • Effectively documents ventilator changes • Mechanical ventilation using pressure cycled and volume cycled mechanical ventilators • Use of reservoir masks and CPAP 	With occasional faculty input, can: <ul style="list-style-type: none"> • Describe the different modes of ventilation • Identify appropriate modes for different patient scenarios • Interpret wave forms • Choose appropriate initial ventilator settings for different patient scenarios • Interact effectively with respiratory therapy in managing the ventilator • Describe complications of mechanical ventilation • Effectively documents ventilator changes • Mechanical ventilation using pressure cycled and volume cycled mechanical ventilators • Use of reservoir masks and CPAP 	Accurately describes and documents the objectives with rare faculty input. Teaches about the important aspects of ventilator management.

	<p>masks for delivery of supplemental oxygen, humidifiers, nebulizers and incentive spirometry</p> <ul style="list-style-type: none"> • Weaning and respiratory care techniques 	<p>masks for delivery of supplemental oxygen, humidifiers, nebulizers and incentive spirometry</p> <ul style="list-style-type: none"> • Weaning and respiratory care techniques 	
<p>Test interpretation</p> <ul style="list-style-type: none"> • Global Faculty Rating • Conference evaluations 	<p>Masters the cognitive skills for:</p> <ul style="list-style-type: none"> • Chest roentgenogram • Computed axial tomograms • Cardiac output determination by thermodilution • Interpretation of antibiotic levels and sensitivities • Monitoring and assessment of metabolism and nutrition • Interpretation of antibiotic levels and sensitivities • Radionuclide scans • Pulmonary angiograms • Calculation of oxygen content, intrapulmonary shunt, and alveolar arterial gradients <p>With moderate faculty input</p>	<p>Masters the cognitive skills for:</p> <ul style="list-style-type: none"> • Chest roentgenogram • Computed axial tomograms • Cardiac output determination by thermodilution • Interpretation of antibiotic levels and sensitivities • Monitoring and assessment of metabolism and nutrition • Interpretation of antibiotic levels and sensitivities • Radionuclide scans • Pulmonary angiograms • Calculation of oxygen content, intrapulmonary shunt, and alveolar arterial gradients <p>With occasional faculty input</p>	<p>Interprets and teaches essential skills of common tests in critical care, pulmonary and sleep medicine.</p> <ul style="list-style-type: none"> • Chest roentgenogram • Computed axial tomograms • Cardiac output determination by thermodilution • Interpretation of antibiotic levels and sensitivities • Monitoring and assessment of metabolism and nutrition • Calculation of oxygen content, intrapulmonary shunt, and alveolar arterial gradients • Radionuclide scans • Pulmonary angiograms • Interpretation of antibiotic levels and sensitivities <p>With minimal/no faculty input</p>
<p>Procedural Skills</p> <ul style="list-style-type: none"> • Global Peer and Faculty Ratings • Procedure Log • Bronchoscopy 	<p>Masters the cognitive, counseling, and technical skills for:</p> <ul style="list-style-type: none"> • Establishment of airway • Maintenance of open airway in nonintubated, unconscious, 	<p>Masters the cognitive, counseling, and technical skills for:</p> <ul style="list-style-type: none"> • Establishment of airway • Maintenance of open airway in nonintubated, unconscious, 	<p>Accurately describes and documents the objectives and findings with rare faculty input. Teaches about the important aspects of procedures and</p>

<p>competency tests</p> <ul style="list-style-type: none"> • 360 evaluation • Mini CEX 	<p>paralyzed patients.</p> <ul style="list-style-type: none"> • Oral and nasotracheal intubation • Tracheostomy tube changes • Breathing, ventilation • Ventilation by bag or mask • Management of pneumothorax (needle insertion and drainage systems) • Maintenance of circulation • Arterial puncture and blood sampling • Insertion of central venous, arterial and pulmonary artery balloon flotation catheters • Basic and advanced cardiopulmonary resuscitation • Cardioversion • Diagnostic and therapeutic procedures including thoracentesis, flexible fiberoptic bronchoscopy and related procedures, and chest tubes. • Calibration and operation of hemodynamic recording systems. <p>With moderate faculty input</p>	<p>paralyzed patients.</p> <ul style="list-style-type: none"> • Oral and nasotracheal intubation • Tracheostomy tube changes • Breathing, ventilation • Ventilation by bag or mask • Management of pneumothorax (needle insertion and drainage systems) • Maintenance of circulation • Arterial puncture and blood sampling • Insertion of central venous, arterial and pulmonary artery balloon flotation catheters • Basic and advanced cardiopulmonary resuscitation • Cardioversion • Diagnostic and therapeutic procedures including thoracentesis, flexible fiberoptic bronchoscopy and related procedures, and chest tubes. • Calibration and operation of hemodynamic recording systems. <p>With occasional faculty input</p>	<p>findings in pulmonary medicine. Accurately describes and interprets information obtained from procedures.</p>
<p>Medical Knowledge</p> <ul style="list-style-type: none"> • Global Faculty Rating • Mini CEX 	<p>Masters the cognitive and counseling skills in the following domains:</p> <ul style="list-style-type: none"> • Physiology, pathophysiology, molecular biology, diagnosis, and therapy of disorders of the cardiovascular, respiratory, renal, gastrointestinal, genitourinary, neurologic, endocrine, hematologic, musculoskeletal and 	<p>Masters the cognitive and counseling skills in the following domains:</p> <ul style="list-style-type: none"> • Pathophysiology, molecular biology, diagnosis, and therapy of disorders of the cardiovascular, respiratory, renal, gastrointestinal, genitourinary, neurologic, endocrine, hematologic, musculoskeletal and 	<p>Accurately describes and documents the objectives and findings with rare faculty input. Teaches about the important aspects of each domain pulmonary medicine and critical care medicine. Makes accurate recommendations for diagnosis and management of each disease</p>

	<p>immune systems as well as of infectious disease.</p> <ul style="list-style-type: none"> • Electrolyte and acid base physiology, pathophysiology, diagnosis and therapy. • Metabolic, nutritional, and endocrine affects of critical illnesses. • Hematologic and coagulation disorders secondary to critical illness. • Critical obstetric and gynecologic disorders. • Management of the immunosuppressed patient. • Management of anaphylaxis and acute allergic reactions. • Trauma • Indication, limitation and complications for: <ul style="list-style-type: none"> • Parenteral nutrition • Monitoring/bioengineering including utilization, zeroing, calibration of transducers • Pericardiocentesis • Transvenous pacemaker insertion • Peritoneal dialysis • Peritoneal lavage • Intracranial pressure monitoring • Pharmacokinetics, pharmacodynamics, drug metabolism and excretion in critical illness. 	<p>immune systems as well as of infectious disease.</p> <ul style="list-style-type: none"> • Electrolyte and acid base physiology, pathophysiology, diagnosis and therapy. • Metabolic, nutritional, and endocrine affects of critical illnesses. • Hematologic and coagulation disorders secondary to critical illness. • Critical obstetric and gynecologic disorders. • Management of the immunosuppressed patient. • Management of anaphylaxis and acute allergic reactions. • Trauma • Indication, limitation and complications for: <ul style="list-style-type: none"> • Parenteral nutrition • Monitoring/bioengineering including utilization, zeroing, calibration of transducers • Pericardiocentesis • Transvenous pacemaker insertion • Peritoneal dialysis • Peritoneal lavage • Intracranial pressure monitoring • Pharmacokinetics, pharmacodynamics, drug metabolism and excretion in critical illness. 	<p>entity.</p>
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	<ul style="list-style-type: none"> • Use of paralytic agents • Indications and complications of transportation of critically ill patients • Ethical, economic and legal aspects of critical illnesses. • Psychosocial and emotional affects of critical illnesses. • Iatrogenic and nosocomial problems in critical care medicine. • Personal development, attitudes and coping skills of physicians and other health care professionals who care for critically ill patients. • <p>With moderate faculty input</p>	<ul style="list-style-type: none"> • Use of paralytic agents • Indications and complications of transportation of critically ill patients • Ethical, economic and legal aspects of critical illnesses • Psychosocial and emotional affects of critical illnesses • Iatrogenic and nosocomial problems in critical care medicine • Personal development, attitudes and coping skills of physicians and other health care professionals who care for critically ill patients. <p>With occasional faculty input</p>	
Interpersonal Skills and Communication <ul style="list-style-type: none"> • Global Faculty Ratings • Mini CEX • 360 evaluations 	<ul style="list-style-type: none"> • Effectively establishes rapport with patients and families and initiates communication with them on a regular basis. • Presents on rounds in an organized and articulate fashion. • Appropriately communicates with other health care professionals. • Works easily and communicates effectively with respiratory therapy. • Functions as an effective team member 	<ul style="list-style-type: none"> • Effectively carries out difficult discussions, such as end of life care decisions with moderate faculty input. • Provides teaching and feedback to more junior team members on their communication styles. • Functions as an effective team leader. 	<ul style="list-style-type: none"> • Able to deal with the most challenging patients and families. • Coordinates team communication to optimize patient care. • Functions as an effective team leader. • Able to facilitate resolution to conflicts with team members.
Professionalism <ul style="list-style-type: none"> • Global Faculty 	Identifies Ethical Issues <ul style="list-style-type: none"> • Strives for patient care 	Identifies Ethical Issues and the resources available to solve them	Identifies Ethical Issues and the resources available to solve them

<p>Ratings</p> <ul style="list-style-type: none"> • Mini CEX • 360 evaluations 	<p>and knowledge excellence</p> <ul style="list-style-type: none"> • Reliably accomplishes assigned tasks • Demonstrates integrity <p>With moderate faculty input</p>	<ul style="list-style-type: none"> • Strives for patient care and knowledge excellence • Reliably identifies and accomplishes necessary tasks • Demonstrates integrity <p>With occasional faculty input</p>	<ul style="list-style-type: none"> • Strives for patient care and knowledge excellence • Reliably identifies and accomplishes necessary tasks • Provides counseling on professionalism issues for more junior team members • Sets a tone of respect and collegiality for the team • Demonstrates integrity <p>With minimal/no faculty input</p>
<p>Practice Based Learning and Improvement</p> <ul style="list-style-type: none"> • Global Faculty Ratings • Mini CEX • 360 Evaluations 	<ul style="list-style-type: none"> • Uses textbooks to build a strong foundation of medical knowledge in pulmonary medicine and post-operative critical care management. • Supplements textbook learning with primary literature. • Critically appraises primary literature and uses principles of evidence-based medicine to formulate care plans. <p>With moderate faculty input</p>	<ul style="list-style-type: none"> • Uses primary literature to assist in care of patients. • Often sites primary literature with only occasional prompt from faculty. • Critically appraises primary literature and uses principles of evidence-based medicine to formulate care plans. <p>With occasional faculty input</p>	<ul style="list-style-type: none"> • Critically appraises primary literature and uses principles of evidence-based medicine to formulate care plans. • Critically appraises primary literature and uses principles of evidence-based medicine to formulate care plans. <p>With minimal/no faculty input</p>
<p>Systems Based Practice</p> <ul style="list-style-type: none"> • Global Faculty 	<ul style="list-style-type: none"> • Effectively communicates with nurses, respiratory 	<ul style="list-style-type: none"> • Able to coordinate care for chronic respiratory 	<ul style="list-style-type: none"> • Instructs junior team members on optimizing

<p>Ratings</p> <ul style="list-style-type: none"> • Mini CEX • 360 evaluations 	<p>therapists and other professionals to optimize patient care</p> <ul style="list-style-type: none"> • Writes effective notes • Appropriately transitions patients to the next level of care <p>With moderate faculty input</p>	<p>disease patients between inpatient and outpatient units</p> <ul style="list-style-type: none"> • Participates in activities designed to optimize pulmonary consultative services <p>With occasional faculty input</p>	<p>care at transition points</p> <ul style="list-style-type: none"> • Initiates and participates in activities designed to optimize pulmonary consultative services <p>With minimal/no faculty input</p>
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