

## CORE CURRICULUM DOCUMENTS- PULMONARY/CRITICAL CARE MEDICINE

### Curriculum Outline for Core Rotation Cardiology

**Goal.** Upon completion of the rotation, the fellow will develop proficiency in eliciting a history and performing a focused examination on a patient with suspected cardiovascular disease.

**Objectives:**

- The fellow will acquire the history-taking and problem-solving skills needed to recognize the clinical significance of dyspnea, chest pain, peripheral swelling, palpitations, syncope, claudication, hypertension, dyslipidemia, cardiac murmur or VHD, congenital heart disease, and CAD in a family member.
- The fellow will acquire the communication skills needed to assess the psychological aspects of cardiac diseases and implement risk factor modification.
- The fellow will acquire the examination skills needed to identify abnormal findings by inspection and palpation of peripheral pulses, inspection and palpation of the anterior chest, and auscultation of the heart.

**Goal.** Upon completion of the rotation, the fellow will be able to apply cost-effectiveness, sensitivity/specificity, and risk-benefit considerations to the diagnostic investigation of a patient with suspected cardiovascular disease.

**Objectives:**

- The fellow will acquire the problem-solving and decision-making skills needed to recognize the indications for performing an echocardiogram, ambulatory ECG (i.e., Holter and event monitor), exercise and pharmacologic stress test, and tomographic imaging (i.e., MRI, PET, and CT).
- The fellow will acquire the problem-solving and decision-making skills needed to recognize the indications for performing coronary arteriography, left and right ventricular hemodynamic assessment, and electrophysiologic evaluation.

**Goal.** Upon completion of the rotation, the fellow will be able to apply pathophysiologic and pharmacodynamic principles to the assessment and management of a patient with a known or suspected cardiovascular disease.

**Objectives:**

- The fellow will acquire the cognitive skills needed to evaluate and treat diastolic and systolic dysfunction.
- The fellow will acquire the cognitive skills needed to evaluate and treat chronic stable angina and acute coronary syndrome.

- The fellow will acquire the cognitive skills needed to evaluate and treat bradyarrhythmias, including AV block, and tachyarrhythmias, including atrial tachycardia, AF, atrial flutter, PSVT, ventricular ectopy, ventricular tachycardia, and pre-excitation syndrome.
- The fellow will acquire the cognitive skills needed to evaluate and treat ischemic, restrictive, and hypertrophic cardiomyopathy.
- The fellow will acquire the cognitive skills needed to evaluate and treat VHD, including aortic stenosis/regurgitation, mitral stenosis/regurgitation, pulmonic stenosis/regurgitation, tricuspid stenosis/regurgitation, and mitral valve prolapse.
- The fellow will acquire the cognitive skills needed to evaluate and treat acute, recurrent, and constrictive pericarditis.
- The fellow will acquire the cognitive skills needed to evaluate and treat certain congenital heart diseases, including ASD, VSD, bicuspid aortic valve, pulmonic stenosis, and coarctation of the aorta.
- The fellow will acquire the cognitive skills needed to evaluate and treat pulmonary heart disease, including cor pulmonale and primary pulmonary hypertension.
- The fellow will acquire the cognitive skills needed to evaluate and treat arterial embolism and venous thromboembolism.
- The fellow will acquire the cognitive skills needed to evaluate and treat certain infectious diseases affecting the heart, including viral myocarditis and infective endocarditis.

### **Training Experience**

The fellow will assume supervised responsibility for performing and interpreting resting ECGs, ambulatory ECGs, treadmill and pharmacologic stress tests (with and without nuclear scanning), and transthoracic echocardiography. In addition, the fellow will be exposed to certain invasive procedures including transesophageal echocardiography, left and right heart catheterization with coronary angiography, coronary angioplasty and stenting, implanting temporary and permanent pacemakers, implanting intracardiac defibrillator, pericardiocentesis, pharmacologic and electrical cardioversion, electrophysiologic testing and arrhythmia ablation, and peripheral vascular angioplasty and stenting. This training activity will occur in multiple settings including the catheterization laboratory, echocardiography laboratory, nuclear medicine department, radiology department, ECG department, pacemaker clinic, and on the coronary care unit.

### **Evaluation**

The fellow will be evaluated in all areas of clinical performance specified by the objectives in the curriculum outline, including (a) eliciting a history and performing a focused examination on a patient with suspected CV disease; (b) applying cost-effectiveness, sensitivity/specificity, and risk-benefit considerations to the investigation of a patient with suspected CV disease; and (c) applying pathophysiologic and pharmacologic principles to the assessment and management of a patient with known or suspected CV disease. In addition, the fellow will be more generally evaluated in the areas of medical knowledge, patient care, practice-based learning, interpersonal skill development, professionalism, systems-based practice, and technical skill development identified on the RMS evaluation prepared by the Office of Postdoctoral Education.

## **Curriculum Outline for Core Rotation Pulmonary Medicine Clinic**

**Goal.** Upon completion of the rotation, the fellow will acquire the interpersonal skills needed to evaluate and manage patients with pulmonary problems in the ambulatory setting.

***Objectives:***

- The fellow will be able to collect pertinent historical data during a patient's initial visit and follow-up visits using communication skills that facilitate the process of gathering subjective information.
- The fellow will be able to communicate management options to patients in a way that allows them to make informed choices about proposed tests and treatment.
- The fellow will demonstrate sensitivity to the social, cultural, and socioeconomic characteristics of the patient population served by the Pulmonary Medicine Clinic.

**Goal.** Upon completion of the rotation, the fellow will acquire the problem-solving and decision-making skills needed to assess and manage patients with pulmonary problems in the ambulatory setting.

***Objectives:***

- The fellow will be able to pursue pertinent historical information during a patient's initial and follow-up visit with appropriate thoroughness.
- The fellow will be able to pursue abnormal physical findings during a patient's initial and follow-up visit with appropriate thoroughness.
- The fellow will be able to order appropriate diagnostic tests/procedures taking into consideration the sensitivity, specificity, and cost-benefit of the study
- The fellow will be able to make well-reasoned treatment decisions based on the adverse effect, risk, and cost of the therapy.
- The fellow will be able to identify patients requiring health protection/disease prevention.

**Goal.** Upon completion of the rotation, the fellow will acquire the process skills needed to efficiently evaluate and manage patients with pulmonary problems in the ambulatory setting.

***Objectives:***

- The fellow will be able to present a patient's history, physical findings, lab/x-ray data, assessment, and plan in a logical form, permitting a full understanding of a patient's problem(s).
- The fellow will be able to electronically record information in the medical record that allows other healthcare providers to understand a patient's problem(s) and clinical course.

**Goal.** Upon completion of the rotation, the fellow will develop proficiency in applying osteopathic principles and practice to the management of patients with pulmonary diseases in the ambulatory setting.

### ***Objectives:***

- The fellow will acquire knowledge of and competence in performing osteopathic manipulation techniques used to treat patients with chronic obstructive lung disease, including exacerbations due to infection or exposure to toxins.
- The fellow will acquire knowledge of and competence in performing osteopathic manipulation techniques used to treat patients with asthma.
- The fellow will acquire knowledge of and competence in performing osteopathic manipulation techniques used to treat patients with restrictive lung disease.
- The fellow will acquire knowledge of and competence in performing osteopathic manipulation techniques used to treat patients with acute bronchitis.

### **Training Experience**

The fellow will assume supervised and unsupervised responsibility for evaluating and managing patients referred to the Pulmonary Medicine Clinic by interns and residents assigned to the internal medicine and family practice clinics for training in ambulatory care. In addition, the fellow will participate in quarterly workshops conducted by the Coordinator for Osteopathic Training devoted to acquiring the knowledge and technical skills needed to incorporate osteopathic principles and practice (OPP) in the management of patients with pulmonary diseases. During all three years of the training program, the fellow will be assigned to the outpatient department for two half days each week.

### **Evaluation**

The fellow will be evaluated in four areas of clinical performance specified in the objectives of the core curriculum, including: (a) acquiring the interpersonal skills needed to effectively evaluate/manage patients referred to the Pulmonary Medicine Clinic, (b) acquiring the problem-solving/decision-making skills needed to assess and manage patients referred to the Pulmonary Medicine Clinic, (c) acquiring the process skills needed to efficiently evaluate and manage patients referred to the Pulmonary Medicine Clinic, and (d) applying osteopathic principles and practices to the management of patients referred to the Pulmonary Medicine Clinic. Formative evaluations generated by patient visits (i.e., critical encounters) will be provided by faculty-preceptors, and summative evaluations will be completed quarterly by preceptors and submitted to the Program Director as well. The Coordinator for Osteopathic Training will evaluate the fellow's skill development in applying OPP to the management of patients with pulmonary problems during the quarterly workshops. In addition, the fellow will be evaluated by faculty in certain core competencies including medical knowledge, practice-based learning, interpersonal skills, and professionalism.

## **Curriculum for Core Rotation Pulmonary Rehabilitation**

**Goal.** Upon completion of the rotation, the fellow will develop proficiency in evaluating and managing patients referred to the Pulmonary Rehabilitation Program.

### ***Objectives:***

- The fellow will acquire the data-gathering skills needed to assess and monitor patients with chronic obstructive pulmonary disease (and other pulmonary problems suitable/appropriate for rehabilitation) by performing a focused medical history.
- The fellow will develop proficiency in performing a cardiopulmonary exercise test by determining/titrating oxyhemoglobin saturation with the use of a cutaneous pulse oximeter.
- The fellow will develop proficiency in formulating and implementing an individual care plan (i.e., standard exercise-prescription) including effective administration of inhaled medication, bronchial hygiene, breathing exercises (e.g., pursed-lip and diaphragmatic breathing), and psychosocial counseling (i.e., behavior modification).

**Goal.** Upon completion of the rotation, the fellow will acquire the leadership skills required to provide clinical supervision for pulmonary rehabilitation in the role of medical director.

### ***Objectives:***

- The fellow will develop the administrative skills needed by a medical director to maximize payment under Medicare guidelines (i.e., ICD-9 codes) and medical necessity criteria established by other third part payers for services provided by a hospital's Pulmonary Rehabilitation Program.
- The fellow will develop the organizational skills needed by a medical director to critically review policies and procedures that meet regulatory standards established by the American Association for Cardiovascular and Pulmonary Rehabilitation (AACVPR).
- The fellow will develop the organization skills needed by a medical director to assist in the planning and development of new services and programs.
- The fellow will develop the leadership skills needed to provide clinical supervision and direction to the staff's in-service education program.

**Goal.** Upon completion of the rotation, the fellow will develop proficiency in applying osteopathic principles and practice to the management of patients with obstructive and restrictive lung disease and other pulmonary problems suitable/appropriate for osteopathic manipulation therapy.

### **Training Experience**

The fellow will assist staff professionals in assessing and treating patients referred for pulmonary rehabilitation. This activity includes completing a the Pulmonary Rehabilitation Phase II

assessment form, Psychosocial Questionnaire, and six minute walk for newly enrolled patients. The fellow will assume responsibility for incorporating osteopathic concepts in the management of patients with pulmonary problems, applying the knowledge and skills acquired during quarterly workshops conducted by the Coordinator for Osteopathic Training. During the first and third years of the training program, the fellow will rotate for one month, assigned to the hospital's Pulmonary Rehabilitation Program.

### **Evaluation**

The fellow will be evaluated in two areas of clinical and non-clinical performance specified in the objectives of the core curriculum, including: (a) evaluating and managing patients referred for the pulmonary rehabilitation services and (b) acquiring the administrative/organizational skills needed to oversee the operation of a Pulmonary Rehabilitation Program in the role of medical director. These summative evaluations will be prepared by the Medical Director and manager(s) of the hospital's Rehabilitation Program at the end of the month-long rotations and submitted to the Director of the Fellowship Program. During quarterly OMM workshops, the Coordinator for Osteopathic Training will regularly evaluate the fellow's skill development in applying osteopathic principles and practice to the management of patients referred for pulmonary rehabilitation. In addition, the fellow will be evaluated by the Medical Director in certain core competencies including medical knowledge, practice-based learning, interpersonal skills, and professionalism.

## **Curriculum Outline for Core Rotation Pulmonary Function Testing**

**Goal.** Upon completion of the rotation through the Pulmonary Function Laboratory, the fellow will acquire the technical skills required to perform pulmonary function testing.

### ***Objectives:***

- The fellow will develop proficiency in performing spirometry, lung volume determination (pre and post-bronchodilator therapy), measurement of lung diffusing capacity, and pulse oximetry (at rest and after exercise).
- The fellow will develop proficiency in calibrating and “trouble-shooting” the equipment (i.e., VMAX Encore System) used in pulmonary function testing.

**Goal.** Upon completion of the rotation through the Pulmonary Function Laboratory, the fellow will acquire the knowledge needed to interpret pulmonary function tests.

**Goal.** Upon completion of the rotation through the Pulmonary Function Laboratory, the fellow will acquire the leadership skills required to provide clinical supervision for pulmonary function testing, in the role of medical director.

### ***Objectives:***

- The fellow will develop the organizational skills needed by a medical director to assist with laboratory quality improvement activities.
- The fellow will develop the organizational skills needed by a medical director to assist in the development of new laboratory services and programs.
- The fellow will develop the organizational skills needed by a medical director to critically review laboratory policies and procedures to meet regulatory standards established by external accrediting bodies.
- The fellow will develop the organizational skills needed by a medical director to maximize reimbursement for services provided by the laboratory.

### **Training Experience**

The fellow will perform pulmonary function tests under the supervision of the manager of the Pulmonary Function Laboratory. The fellow will also calibrate and “trouble shoot” the testing equipment, drawing on technical support from external resources such as Sensormedics and Viasys. In addition, the fellow will interpret test results and prepare an initial narrative report, i.e., “scout consultation,” for review by the Medical Director. During the first year of the training program, the fellow will rotate for one month through the Pulmonary Function Laboratory.

## **Evaluation**

The fellow will be evaluated in three areas of clinical and non-clinical performance specified in the objectives of the core curriculum, including: (a) performing pulmonary function tests, (b) interpreting test results, and (c) developing the leadership and organizational skills needed to oversee the operation of a Pulmonary Function Laboratory. These summative evaluations will be prepared by the manager and Medical Director of the Pulmonary Function Laboratory and submitted at the end of the month-long rotation.

## Curriculum Outline for Core Rotation Cardiothoracic Surgery

**Goal.** Upon completion of the rotation, the fellow will develop proficiency in evaluating and managing patients referred to the Cardiothoracic Surgery Service for coronary artery bypass grafting.

### **Objectives:**

- The fellow will acquire the data-gathering skills needed to perform a preoperative history and physical examination (giving special attention to evaluating cardiac function).
- The fellow will acquire the decision-making skills needed to assess a patient's comorbidities and surgical risk by ordering the appropriate laboratory studies.
- The fellow will be able to interpret a coronary angiogram in order to identify candidates for open heart surgery.
- The fellow will acquire the problem-solving and decision-making skills needed to manage cardiovascular complications during the *immediate* postoperative period (i.e., first 12-24 hours), including myocardial ischemia, low cardiac output, hypotension, hypertension, tamponade, and arrhythmias (e.g., sinus bradycardia, complete heart block, multifocal PVCs, ventricular tachycardia, atrial flutter, and atrial fibrillation).
- The fellow will acquire the problem-solving and decision-making skills needed to manage reduced pulmonary function during the *immediate* postoperative period (i.e., first 12-24 hours), including maintenance of full ventilatory support and weaning from mechanical ventilation.
- The fellow will acquire the problem-solving and decision-making skills needed to manage altered renal function during the *immediate* postoperative period (i.e., first 12-24 hours).
- The fellow will acquire the decision-making skills needed for sedation and pain management during the *immediate* postoperative period (i.e., first 12-24 hours).
- The fellow will acquire the problem-solving and decision-making skills needed to manage cardiovascular problems during the *second* 12-24 hour postoperative period, including mobilization of "third-space" fluids and "de-intensifying" therapy (e.g., changing drugs from IV to PO and removing intravascular monitoring catheters).
- The fellow will acquire the problem-solving and decision-making skills needed to manage postoperative bleeding, fever, psychological and neurologic dysfunction, gastrointestinal complications, and endocrine problems (e.g., hyperglycemia)

**Goal.** Upon completion of the rotation, the fellow will develop proficiency in evaluating and managing patients referred to the Cardiothoracic Surgery Service with valvular heart disease.

### **Objectives:**

- The fellow will acquire the data-gathering skills needed to perform a preoperative history and physical examination ( giving special attention to evaluating cardiac function).

- The fellow will acquire the decision-making skills needed to assess a patient's comorbidities and surgical risk by ordering the appropriate laboratory studies.
- The fellow will acquire the problem-solving skills needed to interpret transthoracic and transesophageal echocardiograms.
- The fellow will be able to apply the ACC guidelines for aortic valve replacement in the management of aortic stenosis and aortic regurgitation.
- The fellow will be able to apply the ACC guidelines for mitral valve repair in the management of mitral stenosis and mitral regurgitation.
- The fellow will acquire the decision-making skills needed to identify candidates for annuloplasty, mechanical prosthesis, and bioprosthesis in the management of mitral stenosis and mitral regurgitation.
- The fellow will acquire the problem-solving and decision-making skills needed to manage acute mitral regurgitation following papillary muscle rupture and chronic mitral regurgitation (i.e., indications for mitral valve repair or replacement).

**Goal.** Upon completion of the rotation, the fellow will develop proficiency in evaluating and managing patients referred to the Cardiothoracic Surgery Service with an intra-thoracic infection or following thoracic trauma.

***Objectives:***

- The fellow will be able to evaluate and manage intrathoracic bleeding (i.e., hemothorax) by choosing the appropriate imaging modality and recognizing the indications for tube thoracostomy placement, thoracotomy, and video-assisted thoracoscopic surgery (VATS).
- The fellow will be able to evaluate and manage tension pneumothorax by choosing the appropriate imaging modality and recognizing the need for immediate decompression.
- The fellow will be able to evaluate and manage esophageal perforation by choosing the appropriate imaging modality and recognizing the indications for surgical intervention.
- The fellow will be able to evaluate and manage complicated parapneumonic effusion and empyema, recognizing the indications for chest tube drainage, VATS, and thoracotomy

**Goal.** Upon completion of the rotation, the fellow will develop proficiency in evaluating and managing the mechanical complications of myocardial infarction.

***Objectives:***

- The fellow will be able to evaluate and manage ventricular septal rupture by choosing the appropriate imaging modality and recognizing the need for surgical intervention.
- The fellow will be able to evaluate and manage papillary muscle rupture by choosing the appropriate imaging modality and the need for urgent surgical repair.

**Goal.** Upon completion of the rotation, the fellow will develop proficiency in evaluating and managing patients with thoracic malignancies.

- The fellow will acquire the history-taking skills needed to gather essential information about the patient's malignancy and related co-morbidities
- The fellow will acquire the examination skills needed to collect pertinent physical findings related to the patient's malignancy and associated co-morbidities.
- The fellow will acquire the problem-solving and decision-making skills needed to assess the surgical risk of lung resection for certain sub-groups including the elderly and patients with COPD or asthma
- The fellow will be able to interpret laboratory data, including pulmonary function tests, in order to recognize the contraindications to lung resection
- The fellow will acquire the problem-solving skills needed to interpret pertinent clinical data, including CT scans and PET scans.
- The fellow will acquire the problem-solving skills needed to stage patients with resectable malignancies.

### **Training Experience**

Under the supervision of the Division Chairman, the fellow will be responsible for the initial and daily evaluation/management of patients admitted to the ICU and referred to the Cardiothoracic Surgery Service. In addition, the fellow will observe procedures performed in the operating room, at the discretion of the Chairman.

### **Evaluation**

The fellow will be evaluated in all areas of clinical performance specified by the objectives in the curriculum outline, including: (a) evaluating/managing patients requiring coronary revascularization; (b) evaluating/managing patients requiring surgical intervention for valvular disease; (c) evaluating/managing patients with intrathoracic infection; (d) evaluating/managing patients following thoracic trauma; (e) evaluating/managing patients with mechanical complications resulting from myocardial infarction; and (f) evaluating/managing patients with thoracic malignancies.

In addition, the fellow will be more generally evaluated in the areas of medical knowledge, patient care, practice-based learning, interpersonal skill development, professionalism, systems-based practice, and technical skill development identified on the RMS evaluation form prepared by the Office of Postdoctoral Education.

## **Curriculum Outline for Core Rotation Pulmonary Medicine Service**

**Goal.** Upon completion of the rotation on the Pulmonary Medicine Service, the fellow will develop proficiency in evaluating and managing patients with pulmonary problems in the hospital setting.

***Objectives:***

- Fellows will acquire the history-taking skills needed to gather essential information about the patient's problem and related co-morbidities.
- Fellows will acquire the examination skills needed to collect pertinent physical findings related to the patient's problem and associated co-morbidities.
- Fellows will acquire the problem-solving skills needed to interpret clinical data, including chest x-rays, CT scans, MRI, lung scans, and PET scans.
- Fellows will acquire the procedural skills needed to perform bronchoscopy, thoracentesis, pulmonary artery catheterization, percutaneous tracheostomy, endotracheal intubation, peak flow study and arterial puncture for blood gas determination.
- Fellows will acquire the decision-making skills needed to effectively and efficiently manage the patient's problem, applying sensitivity, specificity, cost, and risk-benefit considerations to ordering diagnostic tests and procedures.
- Fellows will acquire the decision-making skills needed to treat the patient's problem, applying risk-benefit and cost considerations to the treatment.
- Fellows will acquire the decision-making skills needed to manage a patient requiring mechanical ventilation, including the use of different protocols for weaning.

**Goal.** Upon completion of the rotation on the Pulmonary Medicine Service, the fellow will develop the interpersonal skills needed to develop an effective doctor-patient relationship.

***Objectives:***

- Fellows will acquire the attitudinal behaviors needed to incorporate patient beliefs, values, and concerns into a plan of care.
- Fellows will acquire the communication skills needed to inform a patient or family member of a serious illness, making allowances for differences in age, cultural background, ethnicity, and level of education.

- Fellows will acquire the communication skills needed to permit patients and family members to make informed choices about proposed diagnostic and therapeutic interventions.
- Fellows will acquire the interpersonal skills needed to provide effective end-of-life care for patients and family members, drawing on hospital resources such as the Ethics Consultation Team, Palliative Care Service, social services, and pastoral care.
- Fellows will acquire the communication skills needed to conduct and/or participate in a multidisciplinary patient care conference
- Fellows will acquire the communication skills needed to resolve intra-familial conflict and incongruent patient/family wishes, including those with an ethical or medical-legal dimension.
- Fellows will acquire the communication skills needed to discuss medical errors and adverse events with patients and family members.

**Goal.** Upon completion of the rotation on the Pulmonary Medicine Service, the fellow will develop the process skills needed to effectively communicate with other health professionals.

***Objectives:***

- The fellow will be able to present clinical information, in the role of consultant, in a manner that allows the referring physician (i.e., primary care physician) to thoroughly understand the patient's problem(s) and management plan.
- The fellow will be able to record clinical information in the patient's medical record that permits other health care professionals to thoroughly understand the patient's problem(s) and management plan.

**Goal.** Upon completion of the rotation on the Pulmonary Medicine Service, the fellow will be able to apply the principles of quality improvement (QI) and utilization management (UM) to the patient care process.

***Objectives:***

- The fellow will be able to apply severity of illness/intensity of care criteria to the decision to advance patients along the continuum of care at different stages in their illness, from the hyper-acute (i.e., critical care) to the acute care setting.
- The fellow will be able to use order sets, available through the system of computerized order entry (CPOE), to the management of patients.

**Training Experience**

The fellow will conduct the initial evaluation, institute a management plan, and complete a full consultation note for patients referred to the Pulmonary Medicine Service. In addition, the fellow will provide follow-up evaluation and management (i.e., interval care) for patients

referred to the Pulmonary Medicine Service. During the first year of the training program, the fellow will rotate on the Pulmonary Medicine Service for five months (in two blocks). During the second year, the fellow will rotate on the Pulmonary Medicine Service in a single two-month block and a single two-month block during the third year.

## **Evaluation**

The fellow will be evaluated in all areas of clinical performance specified by the objectives in the core curriculum including: (a) evaluating/managing patients with pulmonary problems; (b) developing an effective doctor-patient relationship; (c) communicating effectively with other health care professionals; and (d) applying the principles of QI and UM to the patient care process (see attached evaluation form). In addition, the fellow will be more generally evaluated in the areas of medical knowledge, patient care, practice-based learning, interpersonal skills, professionalism, systems-based practice, and technical skills identified in the RMS Evaluations prepared by the Office of Postdoctoral Education.

## **Curriculum Outline for Core Rotation Sleep Medicine Laboratory**

**Goal.** Upon completion of the rotation, the fellow will develop proficiency in evaluating and managing patients with various sleep disorders.

### ***Objectives:***

- The fellow will acquire the data-gathering skills needed to perform a comprehensive sleep history and focused examination.
- The fellow will acquire a thorough understanding of the pathophysiology needed to assess patients with sleep disorders including obstructive sleep apnea (OSA), obesity hypoventilation, overlap syndrome (i.e., OSA and COPD), complex sleep apnea, central sleep disorders, insomnia, circadian rhythm disorders, REM behavior disorders, and idiopathic hypersomnia.
- The fellow will be able to recognize the *indications* for performing a polysomnogram and other sleep studies including titration study, multiple sleep latency test, and wake test.
- The fellow will acquire the process skills needed to perform and interpret a polysomnogram including initial and follow-up testing, attended and non-attended testing, and scoring (i.e., sleep staging and event scoring).
- The fellow will be able to write a prescription for positive pressure or split level pressure devices.
- The fellow will acquire a thorough understanding of sleep pharmacology needed to treat sleep-disordered breathing.

**Goal.** Upon completion of the rotation, the fellow will acquire the organizational and administrative skills needed to provide medical supervision and oversight to the operations of a sleep study laboratory.

### ***Objectives***

- The fellow will develop the organizational skills needed to assist with quality improvement activities.
- The fellow will develop the organizational skills needed to assist with planning new services and program initiatives.
- The fellow will develop the administrative skills needed to critically review laboratory policies and procedures to comply with regulatory standards established by external accrediting bodies.
- The fellow will acquire the administrative skills needed to maximize reimbursement under Medicare guidelines and medical necessity criteria established by other third part payers.

## **Training Experience**

The fellow will evaluate and manage patients referred to the Sleep Study Laboratory for diagnosis and treatment of sleep disorders. In addition, the fellow will assist with the interpretation of sleep studies and the preparation of sleep study reports, i.e., “scout consultation.” The fellow will also write device prescriptions and institute pharmacologic therapy when appropriate. The fellow will be assigned to Sleep Study Laboratory for two months during the first year of the training program and for one month during the third year of the program.

## **Evaluation**

The fellow will be evaluated in several areas of clinical performance specified in the objectives of the core curriculum, including (a) performing a sleep study history and physical examination; (b) diagnosing patients with sleep disorders; (c) performing and interpreting a polysomnogram; and (d) writing a device prescription. In addition, the fellow will be evaluated in providing medical supervision and oversight to the operation of the Sleep Study Laboratory. These summative evaluations will be prepared by the Medical Director of the laboratory and submitted to the Program Director at the end of each rotation.

## **Curriculum Outline for Core Rotation Respiratory Therapy**

**Goal.** Upon completion of the rotation, the fellow will develop proficiency in evaluating and managing patients referred to the Respiratory Therapy Department for invasive and non-invasive respiratory care.

***Objectives:***

- The fellow will acquire the data-gathering and technical skills needed to provide nebulizer therapy.
- The fellow will acquire the data-gathering and technical skills needed to provide mechanical ventilation.
- The fellow will acquire the data-gathering and technical skills needed to provide non-invasive positive pressure ventilation.
- The fellow will acquire the psychomotor skills needed to perform chest physical therapy.
- The fellow will develop proficiency in applying osteopathic principles and practice to the management of patients with obstructive and restrictive lung disease and other pulmonary problems suitable/appropriate for osteopathic manipulation therapy.
- The fellow will acquire the psychomotor skills needed to perform incentive spirometry

**Goal.** Upon completion of the rotation, the fellow will acquire the leadership skills needed to serve as medical director of a hospital-based respiratory therapy program.

***Objectives:***

- The fellow will develop the organizational skills needed to assist with departmental quality improvement and utilization activities.
- The fellow will develop the organizational skills needed to critically review departmental policies and procedures that meet performance standards set by external regulators.
- The fellow will develop the organizational skills needed to assist the department in developing new programs and services.
- The fellow will develop the leadership skills needed to provide clinical supervision and direction to the hospital's respiratory therapists, including in-service educational activities.

**Goal.** Upon completion of the rotation, the fellow will develop proficiency in applying osteopathic practice and principles to the management of patients with terminal illness in the critical care setting.

***Objectives:***

- The fellow will acquire knowledge of and competence in performing osteopathic techniques used to provide end-of-life care to patients with musculoskeletal and visceral pain.

- The fellow will acquire knowledge of and competence in performing osteopathic techniques used to provide end-of-life care to patients with gastrointestinal dysfunction.
- The fellow will acquire the knowledge and competence in performing osteopathic techniques used to provide end-of-life care to patients with cardiopulmonary problems.

### **Training Experience**

The fellow will assist respiratory therapists in providing invasive and non-invasive care to patients requiring nebulizer therapy, ventilator management, physical therapy, and incentive spirometry on the medical-surgical floor, intensive care unit, coronary care unit, nursery, and in the emergency department. The fellow will assume supervised and unsupervised responsibility for incorporating osteopathic concepts in the management of patients with terminal illness in the critical care setting, applying the knowledge and skills acquired during quarterly workshops conducted by the Coordinator for Osteopathic Training. During the first year of the training program, the fellow will rotate for one month through the Respiratory Therapy Department.

### **Evaluation**

The fellow will be evaluated in three areas of clinical and non-clinical performance specified in the objectives of the core curriculum, including: (a) evaluating and managing patients requiring invasive and non-invasive respiratory care, (b) applying osteopathic principles and practice to the management of patients with terminal illness, and (c) developing the leadership/organizational skills needed to oversee the operation of a respiratory therapy department. These summative evaluations will be prepared by the manager and Medical Director of the Respiratory Therapy Department and submitted to the Program Director at the end of the month-long rotation. During quarterly OMM workshops, the Coordinator for Osteopathic Training will regularly evaluate the fellow's skill development in applying osteopathic principles and practice to the management of patients with terminal illness. In addition, the fellow will be evaluated by the Medical Director in certain core competencies including medical knowledge, practice-based learning, interpersonal skills, and professionalism.