

## CURRICULUM

**TITLE:** San Antonio Uniformed Services Health Education Consortium (SAUSHEC) Pulmonary Disease/Critical Care Medicine Fellowship Program

**LOCATION:** Brooke Army Medical Center (BAMC), Ft. Sam Houston, Texas and Wilford Hall Medical Center (WHMC), Lackland AFB, Texas

**DATE PREPARED:** June 25, 2003 (1<sup>st</sup> revision October 1996, 2<sup>nd</sup> revision December 10, 1996, 3<sup>rd</sup> revision May 31, 1999, 4<sup>th</sup> revision March 3, 2003)

- I. Purpose of Training.** The goal of this fellowship program is to provide trainees with experience and training so that they will be able to manage a broad range of patients suffering from a wide variety of pulmonary disease processes and critical illness. *Training will be accomplished within a framework which emphasizes the six competencies of the American College of Graduate Medical Education (ACGME): (1) patient care, (2) medical knowledge, (3) practice-based learning and improvement, (4) interpersonal and communication skills, (5) professionalism, (6) systems-based practice.* Attainment of this goal will result in the development of fully qualified, clinically competent pulmonologists and intensivists who are eligible for board certification by the American Board of Internal Medicine (ABIM).
- II. Overview.** The separate accredited pulmonary disease/critical care medicine fellowships at both BAMC and WHMC developed a merged curriculum into a single program addressed with the internal medicine residency program at BAMC beginning in July 1997. This combined program has a total of 12 Pulmonary/Critical Care Medicine fellows (normally 4 in each year of fellowship from either the Army or the Air Force). The fellowship is a structured, closely supervised 3-year program that provides internal medicine specialists with comprehensive training in the subspecialties of pulmonary and critical care medicine. The program closely follows the guidelines and requirements of the ACGME as published on the website [www.acgme.org](http://www.acgme.org). At the completion of the first 2 years of training, fellows are eligible to take the pulmonary board examination followed 1 year later by the critical care medicine board examination. The fellowship provides broad exposure to clinical and research activities in both fields. Additionally, a training option is available for fellows to become board eligible for Sleep Medicine board examinations. Normally, four fellows will be accepted at each year level. The program is affiliated with the University of Texas Health Science Center at San Antonio (UTHSC), and the Audie Murphy Veteran's Administration Hospital. Time and funding will be allocated so that each trainee will attend one national meeting during each year of the fellowship in the disciplines of pulmonary medicine, critical care medicine, or sleep medicine. Fellows may also have the opportunity to attend pulmonary and critical care board review courses, Army and Air Force regional meetings, and selected educational conferences depending upon funding availability and the

fellow's professional interests. Fellows are expected to present their clinical/basic science research projects at national meetings. Funding for these meetings will normally come from each fellow's service hospital.

**III. Health Care Setting.** (*applies in general to competency 6*) BAMC is the major US Army medical center supporting Army bases the central one third of the United States. WHMC is the largest Air Force medical center in the world. It is also the worldwide medical referral center for Air Force personnel with complicated or difficult medical problems. The Pulmonary/Critical Care Services at both hospitals manage a diverse population of patients with pulmonary disorders and illnesses requiring intensive care. On the average, a fellow at either institution will see approximately 200-250 patients in inpatient pulmonary and critical care consultations and will attend approximately 150-200 outpatient clinics each year (*competency 1*). Although fellows often will perform many more of the following procedures, minimum procedural requirements (*competencies 1 and 3*) are as listed:

- 75 bronchoscopies with
  - 6 transbronchial needle aspirations
  - 6 bronchoalveolar lavage procedures
  - 10 transbronchial biopsies (at least 5 with fluoroscopic guidance)
  - 3 on mechanically ventilated patients
- 6 endotracheal intubations using fiberoptic bronchoscopes
- 6 thoracentesis
- 6 chest tube insertions
- 6 transthoracic needle biopsies
- 6 arterial catheterizations
- 6 central venous catheterizations
- 6 pulmonary artery catheterizations
- 50 polysomnogram interpretations
- 15 cardiopulmonary exercise test interpretations
- 70 intravenous conscious sedations
- 100 pulmonary function test interpretations

In addition to these procedures, fellows will be given the opportunity for exposure to laser bronchoscopy, endobronchial brachytherapy, endobronchial stent placement, Argon-plasma coagulation via bronchoscopy, percutaneous tracheotomy, and ultrasound directed intravenous and pleural catheter placement.

Each fellow will spend at least 7 months in medical intensive care units at BAMC, WHMC, and UTHSC and will perform (*competencies 1 and 3*) or supervise (*competencies 1 and 4*) many of the procedures listed above as well as being involved in cardiopulmonary resuscitation. Fellows will spend a month in the Cardiac Care Unit, several months in Surgical ICUs gaining experience in related surgical disciplines, and a month of Anesthesiology/Burn Critical Care (*competencies 1 and 2*). During rotations in the Sleep laboratory, each fellow will

participate in the evaluation of patients with a wide variety of sleep disorders, and will learn about the performance and interpretation of polysomnography (*competencies 1,2, and 3*). During rotations in the pulmonary function lab and rehabilitation programs, and during outpatient rotations, fellows will become well versed in the procedures performed in the PFT lab to include: spirometry, plethysmography, diffusion capacity, and arterial blood gas analysis (*competencies 1,2, and 3*). Each fellow will perform and interpret exercise studies on patients suffering from dyspnea secondary to both cardiac and pulmonary etiologies. Pulmonary Rehabilitation Programs are available in both hospitals. Fellows are involved in conducting the program and follow their clinic patients through the Pulmonary Rehabilitation Program (*competencies 1,2, and 6*). A complete listing of training rotations is given below.

Fellows are also involved in Quality Improvement and Risk Management activities at both hospitals (*competencies 5 and 6*). These activities may include chart audits and reviews, maintenance of service wide QI databases, and participating in service QI conferences. The service QI directors at each site assign specific tasks to appropriately supervised fellows.

**IV. Selection Procedures.** Applications for this fellowship are limited to active duty military physicians in accordance with joint service agreements. A tri-service selection board that includes the program director and the associate program director makes the selection. Applicants should initiate the application process by contacting either the Army or Air Force Office of Graduate Medical Education. The tri-service selection process follows formal procedures that requires submission of a designated application form and requires an interview with the program director or associate program director either in person or telephonically. The tri-service selection board meets annually at the end of November or in early December. Applicants should contact the appropriate GME office in regards to verifying application deadlines.

**V. Workload, Duty Hours, and Personal Responsibility**

Fellows must have a keen sense of personal responsibility. Obligations to patients are not discharged at any set time. In no case should the fellow go off duty until the proper care and welfare of patients is assured. However, when averaged over 4 weeks, the fellow should spend no more than 80 hours per week in patient care duties. Fellows are also required to have a schedule that allows them one day out of seven free of patient care duties when averaged over a two-week interval. At the end of each rotation, the fellow must sign a signature block verifying adherence to these rules during the preceding rotation (*competency 5*).

**VI. Mortality and Morbidity Reviews.** (*competencies 1,3 and 6*). Autopsies should be requested on all deaths and performed whenever possible. Fellows should attend autopsies or arrange times with the pathologist to review pathologic specimens at the time autopsies are performed. Fellows are required to review

autopsy reports on their patients. Both internal medicine departments conduct formal Mortality and Morbidity (M & M) reviews and fellows are expected to attend conferences that include patients that they have cared for.

**VII. Training rotations.** *(This section is directly applicable to competencies 1, 2, 3, and 6).* The three-year fellowship is divided into 39 four-week blocks (13 per year). Excluding the rotations done outside the two military hospitals, about one half of the clinical rotations will be done at BAMC and one half will be done at WHMC. The overall rotation plan for the three year fellowship is as follows:

- (1) Pulmonary Inpatient Consultation Service - 6 or 7 units
- (2) Pulmonary Outpatient Consultation - 6 or 7 units (to total 13 units with the inpatient consultation experience)
- (3) Medical Intensive Care Unit - 6 units
- (4) Surgical Intensive Care Unit - 2 or 3 units
- (5) Anesthesiology/Burn Critical Care - 1 unit
- (6) Medical Intensive Care Unit (UTHSC) - 1 unit
- (7) Coronary Care Unit - 1 unit
- (8) Basic/Clinical Research - 6 units (may be combined with 6 unit sleep option)
- (9) Pulmonary Function Lab/Pulmonary Rehabilitation Program - 1 unit
- (10) Sleep Disorders Lab (WHMC) - 2 units (option: 6 units sleep with board eligibility)
- (11) Texas Center for Infectious Disease (Tuberculosis/Leprosy) - 1 unit
- (12) Nephrology/dialysis - 1 unit
- (13) Electives - 3 units

The breakdown of these rotations on a year by year basis is as follows (there will be minor variations for some fellows):

First Year - Pulmonary Consultation (inpatient and outpatient) - 8 units  
MICU - 2 units  
Sleep Laboratory - 1 or 2 units  
PFT/Rehab - 1 unit  
Elective - 0 or 1 unit

Second Year - Pulmonary Consultation (inpatient and outpatient) - 3 units  
Research - 6 units (may be combined with 6 unit sleep option)  
MICU - 1 or 2 units  
SICU - 0 or 1 unit  
Anesthesia - 1 unit  
TCID - 1 unit

Third Year - Pulmonary Consultation (inpatient and outpatient) - 2 units  
MICU - 3 units  
MICU at UT - 1 unit  
CCU - 1 unit

SICU - 2 units  
Nephrology - 1 unit  
Elective - 3 units

**VIII. Learning Objectives.** The program is structured within a framework of the 6 *ACGME competencies* to satisfy subspecialty board requirements set forth by the Pulmonary and Critical Care Medicine subsection of the American Board of Internal Medicine. Fellows will meet eligibility requirements to take the pulmonary board examination after 24 months of fellowship training. The critical care medicine board examination may be taken after satisfactory completion of the pulmonary board examination and after an additional 12 months of fellowship training. *In order to achieve satisfactory performance, the fellow will have to demonstrate proficiency in the ACGME 6 core competencies: patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice. Proficiency in these core competencies will be assessed by mechanisms outlined in subsequent sections of this curriculum.* Each fellow will spend approximately one-sixth of the fellowship (e.g. 6 units) in protected time for academic research with the remaining time spent in a clinical setting. Fellows are required to write a formal paper and present the results of their research at a national medical meeting in order to graduate from the program. In addition to clinical and procedural skills, fellows will receive instruction in pertinent Occupational Safety and Health Administration (OSHA) guidelines and Health Care Regulations, Radiation Safety, Continuous Quality Improvement Programs, Risk Management and Legal Medicine, Administration and Committee participation, Ethical Issues in Medicine, Psychosocial and Economic issues as they effect the broad practice of medicine (*competencies 5 and 6*). Most of this instruction is institutionally based through BAMC and WHMC.

**IX. Procedural Training.** Procedural training will include supervised training in the following (*competencies 1-3*):

Pulmonary Disease. Fiberoptic bronchoscopy and associated procedures (to include transbronchial biopsy, bronchoalveolar lavage, transbronchial needle biopsy, cytology brushing, tracheal intubation using fiberoptic bronchoscopy, laser endobronchial ablation, argon-plasma coagulation of endobronchial lesions, endobronchial brachytherapy, and endobronchial stent placement); transthoracic percutaneous fine needle biopsy; intravenous conscious sedation; mechanical ventilator management (including respiratory mechanics monitoring and noninvasive ventilation techniques); thoracentesis (with and without real-time ultrasound guidance); percutaneous pleural biopsy; arterial puncture; placement of pulmonary artery balloon flotation catheters; calibration and operation of hemodynamic recording systems; pulmonary function and inhalation challenge testing; progressive cardiopulmonary exercise testing; insertion and management of chest tubes; polysomnogram interpretation.

Critical Care Medicine. Endotracheal intubation to include fiberoptic bronchoscopy assisted intubation; mechanical ventilator management including experience with various modes of mechanical ventilation; intravenous conscious sedation; use of neuromuscular blocking drugs and monitoring of pharmacologic neuromuscular blockade; insertion and management of chest tubes; advanced cardiac life support; placement of arterial, central venous, and pulmonary balloon flotation catheters; and calibration and operation of hemodynamic recording systems.

Each fellow will maintain a procedural log and computer data base to document procedures (*competencies 3 and 5*).

**X. Clinical Responsibilities by Postgraduate Year Level.** During consultation rotations, the fellow will serve primarily as a consultant working directly with a pulmonary staff member (*competencies 1-6*). During ICU rotations, he/she will serve as a primary supervisor of internal medicine residents, interns, and medical students (*competencies 4 and 5*). He/she will be expected to take an active role in the evaluation and management of the pulmonary patients seen on the consultation service and in the outpatient clinic (*competencies 1, 3, and 5*), but will be under the supervision of a pulmonary staff physician; this supervision will be close during the first year, with more independence being allowed during the second year as the trainee displays more proficiency (*competency 3*). The first year will be devoted to developing clinical skills with rotations on the inpatient and outpatient pulmonary consultation services and the ICU. The second year of the fellowship will allow opportunities to consolidate clinical learning, practice clinical judgment more independently than in the first year, and to gain exposure to new areas of clinical medicine related to pulmonary and critical care medicine. After the second year, fellows who have completed the required number of procedures listed above and who are proficient in the judgment of the service chief and program director may apply for credentials to perform the procedures independently (*competencies 3 and 5*). The third year of the fellowship will have an ICU emphasis with the fellow directing patient care provided by internal medicine residents and, in turn, being supervised by a critical care staff physician (*competencies 1, 3-5*).

**XI. Meetings and Conferences.** (*This section applies to competencies 2, 4, and 5*) All fellows and staff are expected to attend the conferences at the military hospital in which they are rotating. Fellows on rotations at the affiliated hospitals (e.g. TCID, UTHSC) are expected to attend the conferences required for that rotation as outlined in the rotation curriculum of that institution. The conferences that are required are listed below.

A. Pulmonary/Critical Care Physiology/Basic Science/Pathology Conference (Every Wednesday, 0730-0830 and one Thursday per month, 1200-1300, BAMC; every Tuesday 0800-0900, WHMC). The focus of this conference is to cover a broad range of didactic topics in pulmonary pathology, physiology,

and basic science through the use of a lecture format, textbook chapter review with monthly tests, and "state of the art" article reviews (*competencies 2 and 4*). This conference time will also be utilized to include expert guest speakers on a range of topics to include: Risk Management and Legal Medicine, Ethical issues in medicine, Medico-economics and Utilization Review, Continuous Quality Improvement, OSHA guidelines, lecture/slide/poster presentation techniques, Biostatistics and Research design. The conference will be coordinated between the two institutions to cover similar topics. (required attendance: All fellows and staff)

- B. Critical Care Multi-disciplinary Patient Management Conference. (Every Wednesday, 1300-1400, WHMC). The focus of this conference is to provide the Pulmonary/CCM fellow with in-depth experience in the multidisciplinary nature of critical care practice (*competencies 1, 4-6*). Representatives from critical care nursing, respiratory therapy, clinical nutrition, social work services, utilization review (discharge/transfer planning), and hospital pastoral care meet on a weekly basis to review patient progress and plans. The Pulmonary/CCM fellow is expected to present a brief synopsis of each critical care patient to the group and lead the planning discussion (required attendance: ICU fellow)
  
- C. Combined Medicine-Surgical Thoracic Tumor Conference (Every Thursday 0800-0900, WHMC; Every Wednesday 1500-1600, BAMC). The focus of this weekly conference is to present thoracic tumor cases for discussion of diagnostic and management approaches (*competencies 1-4*). Attendance includes representatives from thoracic surgery, medical oncology, radiation oncology, pathology, and radiology (*competency 6*). Pulmonary/CCM fellows are expected to present a synopsis of their cases, followed by presentation of radiologic studies by the radiologist, and pathologic material by the pathologist (if applicable). A representative from the Hospital Tumor Board records minutes of the proceedings and recommendations. In addition to thoracic tumor cases, non-malignant cases requiring a surgical opinion will also be presented to include: open lung biopsies for interstitial lung disease, lung transplantation and lung volume reduction surgery candidates. (required attendance: All fellows and selected staff)
  
- D. UTHSC/BAMC/WHMC Pulmonary Critical Care Combined Conference (Every Friday 0730-0930). This weekly conference consists of two 45-minute lectures held at the University of Texas Health Science Center/Audie Murphy VA Hospital. One lecture at each conference is devoted to pulmonary topics and the other lecture is focused on a critical care topic (*competency 2*). Fellows and staff from the SAUSHEC and UTHSC pulmonary/critical care fellowship training programs attend the conference. Core lectures at the beginning of the year are given by Pulmonary/CCM faculty followed by fellow lectures through the remainder of the year (*competencies 4 and 5*). This conference provides an opportunity for the fellow to develop oral and

audio-visual presentation skills as well as stimulating an in-depth review of the assigned topic (*competencies 2 and 4*). The fellow for each lecture will prepare a lecture outline/handout with references. A staff mentor is assigned to each fellow giving a lecture. One of the program directors or an assigned faculty member will complete a lecture critique form for each lecture which will be included in the fellow's training folder. (required attendance: all fellows and staff)

- E. Medicine Grand Rounds (Every Friday 1200-1300, BAMC; Every Wednesday 1200-1300, WHMC). The grand rounds series of lectures provides fellows with an ongoing method to maintain competency in general internal medicine as well as the opportunity to hear visiting distinguished professors from medical centers throughout the country (*competencies 2 and 5*). The Pulmonary/CCM services at each hospital are assigned sponsorship of several grand rounds slots each year. (required attendance: all fellows and staff)
- F. Pulmonary/Critical Care Medicine Case Conference, Journal Club, Fellows and Staff Meeting (Every Friday 1200-1400, WHMC). The format for this conference will include a monthly Journal Club (an assigned staff and fellow will lead the discussion of the chosen article - *competencies 2 and 4*). The other conferences each month will involve case presentations for group discussion chosen from the consultation services (inpatient and outpatient), ICU, or sleep laboratory (*competencies 1, 2, 4*). Additionally, the time may be used for informal or formal (minutes) Staff and Fellow meetings (*competency 6*). (required attendance: All fellows and staff rotating at WHMC)
- G. Pulmonary/Critical Care Medicine Case Conference (Every Monday and Tuesday, 0730-0830, BAMC). These conferences are similar to the WHMC case conferences. They involve case presentations for group discussion chosen from the consultation services (inpatient and outpatient), and ICU (*competencies 1, 2, 4*). Fellows present cases as unknowns followed by general discussion aimed at the development of a differential diagnosis and a management plan. (required attendance: All fellows and staff rotating at BAMC)
- H. Pulmonary/Critical Care Medicine Journal Club (One Wednesday per month, 1800-2000, BAMC sponsored). This conference consists of the presentation of recent journal articles by an assigned staff person or senior fellow to the audience followed by a general discussion (*competencies 2 and 4*). This conference is usually held at an off-campus location. (required attendance: All fellows and staff assigned at BAMC).
- I. Division of Medicine Morning Report (Monday-Friday 0800-0900, BAMC; Monday and Wednesday 0815-0900, WHMC). Attendance at medicine morning report by fellows and staff is encouraged. This conference provides

an excellent format for continuing medical education in general internal medicine using the case presentation method. The Wednesday morning report at WHMC is dedicated to a critical care topic and is required attendance for staff and fellows at WHMC. (*competencies 2 and 6*). (attendance encouraged for staff and fellows)

- J. Morbidity and Mortality Conference (Wednesday 0800-0900, WHMC; Thursday 0800-0900, BAMC). The focus of this conference is to review cases selected by the Chief Medical Resident for morbidity and mortality occurrences. Examples of types of cases include procedural complications, unanticipated deaths, unusual autopsy findings, etc. Representatives from Pathology, Radiology, and Risk Management participate in this conference as appropriate (*competencies 1, 2, 3, and 6*). (attendance required for fellows and staff with cases being presented)

**X. Program Director and Teaching Staff**

Kenneth N. Olivier, Lt Col, USAF, MC, FS  
Program Director  
Pulmonary/CCM Fellowship  
SAUSHEC

Daniel R. Ouellette, COL, MC, USA  
Associate Program Director  
Pulmonary/CCM Fellowship  
SAUSHEC

Julia A. Morgan, COL, MC, USA  
Chief, Pulmonary/CCM Service  
BAMC

Walter C. Rustmann, Maj, USAF, MC, FS  
Flight Commander, Pulmonary/CCM  
WHMC

Jackie Hayes, LTC, MC, USA  
Director, Respiratory Therapy and RT School  
BAMC

Ken Kemp, LTC, MC, USA  
Program Director, Transitional Internship Program  
Pulmonary Staff  
BAMC

John C. Chaney, Maj, USAF, MC, FS  
Pulmonary/CCM Faculty

Ethan Emmons, MAJ, MC, USA  
Pulmonary/CCM Faculty

William Frey, MAJ, MC, USA  
Pulmonary/CCM Faculty

Vincent Mysliwicz, MAJ, MC, USA  
Pulmonary/CCM Faculty

Patrick Perkins, MAJ, MC, USA  
Pulmonary/CCM Faculty

James Smith, Maj, MC, USAF  
Pulmonary/CCM Faculty

Michael W. VandeKieft, Maj, USAF, MC  
Pulmonary/CCM Faculty

Steve Derdak, DO  
Pulmonary/CCM Faculty

James Henderson, Col, USAF, MC  
Pulmonary/CCM Adjunct Faculty

Mike Morris, LTC, MC, USA  
Pulmonary/CCM Adjunct Faculty

John Linfoot, MAJ, MC, USA  
Pulmonary/CCM Adjunct Faculty

- XI. **Facilities and Resources.** BAMC and WHMC are both modern medical facilities that provide staff support and material consistent with a tertiary care referral hospital. The patient population is diverse with a large contingent of retired personnel and their dependents living in the immediate San Antonio area. BAMC also serves as the primary military inpatient referral hospital for Ft. Hood, TX, Ft. Polk LA, Ft. Sill, OK, Ft. Carson, CO, Ft. Leavenworth and Ft. Riley, KS. WHMC serves as the primary military inpatient referral facility for Lackland, Kelly, Brooks, and Randolph Air Force Bases. Additionally, patients are referred to WHMC from worldwide facilities via the USAF aeromedical evacuation system. Both hospitals have medical libraries providing an excellent selection of current Pulmonary/Critical Care Medicine textbooks and journals. In addition,

the University of Texas Health Science Center at San Antonio's Briscoe Library provides a world class medical library to which all fellows have access. Both hospitals have Clinical Investigation divisions with state of the art research facilities for cellular, molecular, and animal research. In addition, two biostatisticians are available to provide expert assistance and instruction in research design and statistical analysis. Complete audiovisual laboratories are available to provide assistance with slide making, poster presentations, publication quality photography, etc.

**XII. Research Requirement and Scholarly Activity.** A requirement for satisfactory completion of the fellowship is completion of a 6-month basic or clinical research block. This research rotation may be conducted under the auspices of either Clinical Investigations Divisions at BAMC, WHMC, or UTHSC; the BAMC Institute of Surgical Research, the Texas Center for Infectious Disease, or the Southwest Biomedical Foundation Laboratories. The fellow may choose to become involved in any one of a wide variety of basic projects, including clinical trials of pulmonary-related medications or procedures, animal trials of new applications or studies of basic physiology, or molecular biology bench research projects. In addition, opportunities are available for studies of sleep and exercise physiology or trials of various investigational devices in critical care. A summary of research goals and final evaluation will be provided by the staff research mentor to the program director for inclusion in the fellows training record. Presentation of research results at a national meeting and production of a written manuscript suitable for publication are graduation requirements of the fellowship program.

**XIII. Special Activities and Electives.**

- A. In addition to the previously listed required rotations, elective rotations are available in the Cardiothoracic Surgery ICU, Radiology, Nuclear Medicine, Otolaryngology, Pediatric Critical Care, Aerospace Medicine, Hyperbaric Medicine, Emergency Medicine, Infectious Disease Medicine, and Occupational Medicine. Other electives will be allowed by the program director based on individual interests and applicability to the overall learning objectives (*competencies 1 and 2*).
- B. Both Level 1 and Level 2 training in Sleep Medicine is provided. All fellows will meet criteria for Level 1 training. Fellows desiring Level 2 training must arrange elective rotations and the research block in order to meet eligibility requirements for certification as a Diplomat in Sleep Disorders Medicine. A supplemental curriculum for the Sleep Fellowship under the supervision of the Director of the Sleep Disorders Center is attached (*competencies 1, 2*).
- C. A primary objective at both military hospitals is to support the medical readiness mission of the US Army, the USAF, and the Department of Defense. All Pulmonary/Critical Care fellows will participate in unique critical care military medical training activities as determined by the Program Director (*competency 6*). These training activities may include the Tri-

Service Combat Casualty Care Course/Advance Trauma Life Support Course (Ft. Sam Houston and Camp Bullis, TX), Joint Military Medical Training Program (Ft. Polk, LA), Critical Care Aeromedical Transport Team Course and Exercises (Brooks AFB and Wilford Hall Medical Center), Aeromedical Evacuation Contingency Operations Course (Shepherd AFB, TX), Battlefield Medicine Course (Camp Bullis, TX), and the Medical Unit Readiness Training (Camp Rizzington, Lackland AFB, TX).

XIV. **Competencies and Assessment Procedures.** The curriculum for the Pulmonary/CCM fellowship program is structured around the 6 ACGME core competencies. These competencies are patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice. The applications of these competencies to the structure of the curriculum and the fellowship program have been indicated by italic highlights in this document. For each competency, several **methods** have been developed for the application of the competency to the training program. For each **method** developed, an assessment **tool** has been designed to gauge successful attainment of the competency. A matrix displaying the competencies, methods, and tools used in this fellowship program is depicted below.

### Matrix for Evaluation Tools for the General Competencies Pulmonary and Critical Care Medicine

General competencies	List Evaluation Tools Used or In Development by the Program			
	A	B	C	D
<b>I. Patient Care</b>	Method: Fellow presentation of all new and some continuing patients to staff plus chart review.  Tool: Monthly evaluation, chart co-signature	Method: Patient presentations by fellow at Case conferences*  Tool: Conference report form and monthly evaluation	Method: Direct observation by faculty of medical care on ICU and ward rounds and during procedures.  Tool: Monthly evaluation	Method: CEX evaluation of fellow by faculty  Tool: CEX report form
<b>II. Medical Knowledge</b>	Same as I A-D	Method: Seminar presentations during Case conferences*  Tool: Conference report forms	Method: Formal didactic lectures** presented by fellows  Tools: Lecture critique form	Method: Monthly reading exam  Tool: Graded exam

<b>III. Interpersonal &amp; Communication skills</b>	Same as I A-D in regards to interactions with patients and peers	Same as II B and C in regards to professional discourse with peers		
<b>IV. Professionalism</b>	Same as I A and C	Method: Attendance at Case conferences* and Lectures**  Tools: Conference report form	Method: Ethics reading assignments  Tool: Quiz	
<b>V. Practice Based Learning</b>	Same as I A-C	Method: Participation in Service QI activities.  Tool: QI memorandum, Monthly evaluation report		
<b>VI. Systems Based Practice</b>	Method: Case conferences* focused on home care and health care delivery systems.  Tool: Conference report form	Method: Laboratory and rehabilitation rotation  Tool: Monthly evaluation		

\*Case conferences take place MTW 0730-0830 at BAMC, F 1300-1500 WH

\*\*Lectures take place each Friday 0730-0930 at the San Antonio VA

### **Description of Assessment Tools**

*Monthly Evaluation Form-* The form used for this tool is a standard ACGME form that assesses the trainees progress in the context of the six core competencies. This form is completed for each fellow each month by the designated faculty who is most closely working with the trainee during that month. When fellows have rotations away from the primary institutions, this form is sent to the designated faculty person at the site of the rotation who completes and returns this form. The assessment included in the completion of the form should include not only an assessment of the fellow's clinical training during that month, but also all other activities that pertain to that fellow's training during the indicated period. Thus, the monthly evaluation includes aspects of training such as attendance at conferences, proficiency with lectures, teaching ability, interaction with colleagues, etc, even when such activities fall outside the mandates of the clinical rotation or service in which the trainee is participating that month. This evaluation form/assessment should be accompanied by two face-to-face counseling sessions between the attending faculty and the fellow. The counseling sessions are to be structured in a way so that the six core competencies are reviewed and the trainee's

performance is highlighted with regard to these competencies. One counseling session is to take place at mid-month, and the other is to be at the end of the month.

*Conference Report Form-* This is a generic form created within the SAUSHEC Pulmonary/CCM program to provide an assessment tool of conference and meeting activities. This form is to be completed by the Program Director or designated faculty at each conference or meeting that involves trainees. Included on this form are entries for time and date of the activity, type of activity, main facilitator, topics covered, relationship of topics to the six ACGME competencies, and an attendance roster. Completed forms are maintained in the department offices.

*CEX report form-* This is a standard ACGME form used to record an evaluation for the CEX assessment. These forms are distributed to each attending of a clinical service at the beginning of each rotation. The attending physician will schedule a CEX with the fellow for a mutually agreeable time during the rotation.

*Lecture Critique Form(under development - conference support form currently used)-* This is a generic form created within the SAUSHEC Pulmonary/CCM program to provide an assessment of trainee performance of a formal lecture. These lectures are usually given as part of a citywide conference on Fridays, as previously described. Areas assessed include preparation, performance factors, and adequacy of the handout. Application to the competencies and an overall critique score are given.

*Graded exams-* The fellowship requires the trainee to complete monthly reading requirements. As part of the assessment process, regularly administered exams are given to the trainees. These exams are prepared within the Department by faculty who participate in the reading program. Following administration of the exam, the answers are reviewed by group discussion. Graded tests are then included in the fellows' training file.

### **Trainee Progress and Attainment of Competency**

Each quarter, the Pulmonary and Critical Care Medicine Education Committee(s) meet and assess trainee progress. The committees consist of all faculty at BAMC and at WHMC in the Pulmonary/CCM services. Although the BAMC and WHMC subcommittees may meet independently on some occasions, at least one joint meeting per year is held of the entire committee membership. Each fellow has his progress and training file reviewed. The Program Director completes a Quarterly Report form for each fellow as a progress assessment. Scheduled interviews are held following this meeting with the Program Director and each fellow during which the fellow's progress is reviewed. The Quarterly Report Form is included in the fellow's training file. Once per year (June-July), the quarterly review and report is given added status and constitutes a global assessment for the preceding year of training. This review generally coincides with a joint meeting of the combined faculty.

*New Developments:* In order to bring the SAUSHEC training program into compliance with the newly instituted ACGME competencies, new procedures are being developed. A form that is a modification of the ACGME monthly report form will replace the Quarterly Report Form. This form will be used to assess the trainee's attainment of the six competencies. The quarterly assessment will be based approximately 75% on the monthly report forms, and 25% on other assessment tools. Numeric scores will be assigned for each competency for each fellow for the quarter in question. A computer database will be kept of competency scores for each fellow so that each fellow's progress can be accurately monitored.

### **Program and Attending Assessment**

Evaluation of the fellowship and specific attending physicians will be carried out on a regular basis. Each month, fellows will receive evaluation forms based on standard ACGME forms. These forms are to be completed and returned to the fellow representative to the Education Committee at BAMC or WHMC. The fellow representative will be present at each of the Pulmonary/Critical Care Education Committee meeting and report on feedback from the fellows in a fashion designed to keep the feedback anonymous. The fellow representative is further charged with bringing fellow suggestions for program improvement to the committee, and with keeping the Program Director apprised of urgent measures which effect the trainees.

### **Fellow Representation**

Every year in May or June, a pulmonary/critical care medicine trainee at BAMC and a trainee at WHMC are chosen by their peers to represent the trainees on councils and committees. An important role for the representative is to provide anonymous feedback to the Program Director and faculty of fellow concerns, problems, and ideas for program improvement.

### **Military Assessment**

Each fellow in the SAUSHEC program is a military officer. As such, they will receive annual military evaluations in accordance with military regulations via a defined "rating scheme" of senior military personnel. Such assessments are important to trainees' careers and are complimentary to, but do not replace academic evaluations.

### **Unsatisfactory Performance**

Fellows who are not making satisfactory academic progress or who have other deficiencies in their clinical or professional activities will have their progress reviewed at the quarterly education meeting as described above. Initially, if the problems with performance appear to be easy to correct, fellows will be advised of their deficiencies by the Program Director in counseling sessions and subsequently monitored. If a fellow has persistently poor performance despite counseling, or if the problems with performance are severe, then remedial action may be required. Remedial action follows specific

protocols outlined by SAUSHEC GME regulations and usually proceeds in a stepwise fashion with accordance given to due process. The first type of remedial action is called Program level remediation. This action follows a decision by the Pulmonary/CCM education committee and the Program Director to initiate remediation and consists of a specific action plan that includes mentorship and the attainment of specific goals in a defined time frame. If Program level remediation fails, then formal probation may be recommended by the Pulmonary/CCM Education Committee to the SAUSHEC Graduate Medical Education Committee. Probation will result in the institution of a formal remediation process. Failure to meet the goals a formal probationary program could result in extension in training or more severe sanctions such as dismissal from the program. Such serious consequences require consultation with the SAUSHEC GME committee, military GME authorities, and proper consideration of due process, within the confines of SAUSHEC published regulations regarding these matters.

### **Program Assessment**

In accordance with ACGME requirements, the SAUSHEC Pulmonary/CCM program is regularly reviewed by the ACGME in an established cycle and has a mid-cycle interim review that is conducted by SAUSHEC committees in a fashion similar to the ACGME review.

**XV. Absence from the Training Program.** All types of leave or absence are governed by military regulations. Any absence from duty must be coordinated with and approved by the Program Director. Normally, leave will be limited to 30 days per year even if the fellow enters the program with leave days already accrued. Only under exceptional circumstances will leave be granted during major clinical rotations (pulmonary outpatient consultation services, critical care rotations). Emergency leave is leave which is charged against the trainee's leave allotment, but which is processed in an expedited fashion because of personal or family emergencies. Paternity and maternity leave is governed by specific SAUSHEC regulations and is allowed within the confines of these regulations and in consultation with the Program Director. Short-term absences from duty because of illness may be handled informally on many occasions by notification of the Program Director. However, the Program Director may request that the trainee seek medical evaluation and receive a Quarters statement, which is the military's formal mechanism for allowing absence from duty for reasons of illness. Prolonged illness should lead the trainee to seek formal medical advice, and activate proper military mechanisms of allowed absence from duty and limitations to duty, including Quarters, Convalescent leave, and Profile statements. These mechanisms are well established and governed by military regulation. Prolonged illness that results in extended absence from the training program is cause for an extension in training.

**XVI. Military Unique Curriculum.** Fellows from this training program will be taking positions in the United States Armed Forces that require special expertise. For this

reason, the curriculum is designed to meet the requirements of the ACGME but also the requirements of the armed forces. In this program, the selection of the rotations in the SICU (3 units to include the Burn Unit at BAMC and neurological trauma at both hospital SICUs) and Anesthesia service are specifically for the purpose of preparing Pulmonary/Critical Care specialists to work effectively in caring for trauma patients. In a wartime mass casualty environment, surgeons are occupied for prolonged periods with operative procedures leaving the care of critically ill trauma patients both before and after the operation and during transport to other physicians. Our graduates will be uniquely qualified for this role. In addition to these required rotations, a number of related electives are available such as on the Thoracic Surgery service, ENT service, Emergency Medicine service, etc. There is also a formal series of monthly SAUSHEC lectures concerning military unique subjects that fellows are required to attend.

**XVII. Other Information.** (Please see SAUSHEC Graduate Medical Education Policy Statements)

- A. Resignation: A fellow has the right to resign from the training program at any time. Upon resignation, the fellow will be made available for assignment as appropriate to their training at that point.
- B. Medical Illness/Disability: All service members are entitled to coverage for medical care as governed by service specific and DoD regulations.
- C. Substance Abuse: Substance abuse is not consistent with the professional conduct of active duty military officers and physicians. All service members are subject to random and command directed urine screening for illegal substances. If a trainee is suspected to be involved with illicit substances, he will be asked to enroll in the local Impaired Provider Program in a fashion consistent with SAUSHEC regulations. Such occurrences may result in other disciplinary action as outlined in section XIV.

Daniel R. Ouellette, COL, MC, USA  
Associate Program Director  
Pulmonary/Critical Care Fellowship  
SAUSHEC

Kenneth N. Olivier, Lt Col, USAF, MC, FS  
Program Director  
Pulmonary/Critical Care Medicine Fellowship  
SAUSHEC