



DEPARTMENT OF SURGERY  
CRITICAL CARE FELLOWSHIP

2020-2021

# Department of Surgery Critical Care Fellowship

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# Department of Surgery Critical Care Fellowship

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## **MISSION**

The mission of the Critical Care Fellowship program, located in the Department of Surgery at Eastern Virginia Medical School (EVMS), is to provide the highest quality of patient care, provide the highest caliber of training and education in an academic and clinical environment, and perform the research that investigates and develops new ideas to advance effective clinical treatment in the care of critical care patients.

## **OVERALL PROGRAMMATIC GOALS**

The goal of the Critical Care Fellowship at EVMS is to produce Surgical Intensivists who are well trained in all of the following components of Surgical Critical Care: a) total patient management, including resuscitation from shock states of all varieties; diagnosis and manage complex cardio dysfunction; diagnosis and manage respiratory failure, including the application of advanced ventilator modalities; assess patients' nutritional needs; perform appropriate placement and management of enteral and parenteral access devices; diagnosis and manage renal insufficiency, infectious disease, and critical neurologic dysfunction; b) provide thorough cognitive and technical knowledge of the placement and management of invasive monitoring devices for the cardiac, respiratory and nervous systems (management only), as well as interpretation of the data these devices provide; c) promote leadership and administration of critical care services, emphasizing process improvement and resource management; and, d) perform basic science and clinical research.

The successful graduate will possess the cognitive and technical skills necessary to assume a leadership role in surgical critical care and provide optimal patient care in an academic tertiary or community environment.

A collaborative and multidisciplinary approach is the hallmark of this educational milieu. The primary venues at which the Critical Care Fellow rotates include the Burn Trauma Unit (BTU), NICU, GICU and Cardiovascular ICU at Sentara Norfolk General Hospital (SNGH) The ICU's are attended by a group of Board Certified General Surgeons with Certificates of Additional Qualification in Surgical Critical Care. The practices of this group center on the provision of Trauma and Critical Care. A PharmD, Registered Dietitian, Respiratory Therapists, Physical and Occupational Therapists and Physical Medical Physicians work with this service.

## **ADMISSIONS**

The EVMS Critical Care Fellowship program recruits one Fellow per year. Eligible applicants will receive, or have received; their MD or DO degree from a medical or osteopathic school approved by the Liaison Council for Medical Education or have received an equivalent degree from a medical school recognized by the World Health Organization with valid possession of a Standard Certificate from the Educational Commission for Foreign Medical Graduates. Applicants should have completed at least three years of residency to apply.

The EVMS Critical Care Fellowship participates in NRMP Match. Additionally, selection for this program is based on the applicant's preparedness, ability, aptitude, academic credentials, communication skills and personal qualities such as motivation and integrity.

The Department of Surgery at EVMS is an equal opportunity employer and considers applicants without regard to race, nation of origin, religion, gender, age, or disability.

## CORE ROTATION GOALS AND OBJECTIVES

### 1. Burn Trauma Unit

#### Goals

Participation in the BTU (and Acute Care Surgery) rotation will facilitate the Fellow's learning in the following areas:

- Evaluation and diagnosis of shock
- Indication for invasive monitoring
- Evaluation of invasive monitoring data
- Evaluation of respiratory insufficiency and acute lung injury
- Ventilator management
- Cardiovascular support
  - Inotropes
  - Vasopressors
- Management of pain and agitation
- Nutritional support
  - Principles of enteral and parenteral nutritional support
  - Management and care of nutritional support access devices

#### Objectives

Upon completion of this rotation, the Fellow will be able to:

- Accurately assess the critically ill patient with respect to shock states
- Appropriately implement and interpret data generated from invasive hemodynamic monitors
- Assess, diagnose, and support respiratory insufficiency and acute lung injury using a variety of routine and advanced support techniques
- Demonstrate understanding of the indications, pharmacology, and adverse effects of various cardiovascular support medications and use these agents appropriately in the clinical setting
- Assess and manage pain and agitation in the critically ill/injured patient
- Assess and support the critically ill patient's nutritional status

## **ELECTIVE ROTATIONS**

### **NICU**

#### **Goals**

- Evaluation and diagnosis of shock
- Indication for invasive monitoring
- Evaluation of invasive monitoring data
- Evaluation of respiratory insufficiency and acute lung injury
- Ventilator management
- Cardiovascular support
  - Inotropes
  - Vasopressors
- Management of pain and agitation
- Nutritional support
  - Principles of enteral and parenteral nutritional support
  - Management and care of nutritional support access devices
- Evaluation and management of head injury and stroke

#### **Objectives**

Upon completion of this rotation, the Fellow will be able to:

- Accurately assess the critically ill patient with respect to shock states
- Appropriately implement and interpret data generated from invasive hemodynamic monitors
- Assess, diagnose, and support respiratory insufficiency and acute lung injury using a variety of routine and advanced support techniques
- Demonstrate understanding of the indications, pharmacology, and adverse effects of various cardiovascular support medications and use these agents appropriately in the clinical setting
- Assess and manage pain and agitation in the critically ill/injured patient
- Assess and support the critically ill patient's nutritional status

### **Infectious Disease**

#### **Goals**

Participation in the Infectious Disease rotation will enhance the Fellow's learning in the following areas:

- Analysis of complex infectious problems using:
  - Historical culture data
  - Culture techniques and interpretation
  - Sensitivity testing
- Drug resistant organisms
  - Alternative agents
  - Multi-drug regimens

#### **Objectives**

Upon completion of this rotation, the Fellow will be able to:

- Analyze and diagnose complex infectious problems
- Diagnose and treat drug resistant organisms

## **Renal**

### **Goals**

Participation in the renal rotation will enhance the Fellow's learning in the following areas:

- Evaluation of oliguria/anuria
- Diagnostic algorithm for renal insufficiency
- Renal supplementation therapy
  - Henodialysis
  - Continuous Hemofiltration with Dialysis
  - Peritoneal Dialysis

### **Objectives**

Upon completion of this rotation, the Fellow will be able to:

- Evaluate oliguria/anuria
- Evaluate and manage renal insufficiency
- Demonstrate familiarity with renal supplementation techniques

## **Cardiovascular/ Cardiovascular Surgery ICU**

### **Goals**

Participation in the cardiovascular surgery rotation will enhance the Fellow's learning in the following areas:

- Assessment and management of cardiac surgery patients in the immediate postoperative period
- Pathophysiology and management of valvular heart disease
- Assessment and management of heart failure
  - Pharmacologic
  - Mechanical
    - Intra-aortic Balloon Pump
    - Ventricular assist devices

### **Objectives**

Upon completion of this rotation, the Fellow will be able to:

- Assess and manage cardiac patients in the immediate postoperative period
- Further understand the pathophysiology and management of valvular heart disease
- Demonstrate thorough understanding of the assessment and management of heart failure that includes both pharmacologic and mechanical techniques
- Demonstrate thorough understanding of complex aortic, carotid, and peripheral vascular disease

## **GICU**

### **Goals**

Participation in the pulmonary rotation will enhance the Fellow's learning and skills in the following areas:

- Spirometric studies
- Management of chronic restrictive and obstructive lung disease
- Noninvasive ventilation strategies
- Performance of flexible bronchoscopy
- Routine cardiac dysrhythmia
- Complex cardiac dysrhythmia



- Role of electrophysiologic mapping
- Role of transophageal and transthoracic echocardiography

### Objectives

Upon completion of this rotation, the Fellow will be able to:

- Interpret and use spirometric studies
- Manage chronic restrictive and obstructive lung disease
- Demonstrate familiarity with the indications and use of noninvasive ventilation strategies
- Demonstrate proficiency with performance of flexible bronchoscopy
- Diagnose cardiac dysrhythmia
- Manage routine dysrhythmia
- Demonstrate familiarity with complex dysrhythmia
- Demonstrate an understanding of the role of electrophysiologic mapping in the diagnosis and management of cardiac dysrhythmia
- Demonstrate an understanding of the role of transophageal and transthoracic echocardiography in the evaluation of cardiac dysfunction and discussing this as it related to critical illness

### Anesthesia

#### Goals

Participation in the anesthesia rotation will enhance the Fellow's learning and skills in the following areas:

- Standard and alternative airway management techniques
  - Endotracheal intubation
  - Nasotracheal intubation
  - Laryngeal Mask Airway
  - Fiberoptic intubation
- Sedative, analgesic, and anesthetic agents

### Objectives

Upon completion of this rotation, the Fellow will be able to:

- Demonstrate knowledge and facility in the performance of multiple routine and emergent airway management techniques
- Demonstrate an enhanced understanding of the pharmacology, indications, and use of various sedative, analgesic, and anesthetic agents, especially for use in the Critical Care environment

### Research

#### Goals

Participation in the research rotation will enhance the Fellow's learning and skills in the following areas:

- Preparation of abstracts and/or manuscripts
- Research design and statistical analysis

### Objectives

Upon completion of this rotation, the Fellow will be able to:

- Prepare abstracts and manuscripts suitable for publication
- Demonstrate an enhanced understanding of the essentials of research,

including

- Study design
- Statistical analysis
- Human Subjects Protection
- Federal regulations concerning the ethical performance of research

## **FACULTY**

Faculty members involved in the Critical Care Fellowship are comprised of full-time academic and community surgeons, dedicated to excellence in surgical education.

The full-time academic faculty in the EVMS Department of Surgery involved in the Critical Care Fellowship includes the following surgeons:

### **L.D. Britt, MD, MPH, FACS, FCCM**

- Brickhouse Professor and Chairman, Department of Surgery, Eastern Virginia Medical School
- Surgical Program Director, Surgical Assistant Program, Eastern Virginia Medical School

**Areas of Specialty:** Trauma, Critical Care, General Surgery, Endocrine Surgery

#### **Training:**

MD: Harvard Medical School, 1977

General Surgery Internship: Barnes Hospital/Washington University, 1977-79

Research Fellowship: Washington University, 1979-81

General Surgery Residency: University Hospital, Cook County Hospital, Chicago, 1981-84

Trauma and Critical Care Fellowship: University of Maryland, 1984-86

### **Rebecca C. Britt, MD, FACS**

- Associate Professor of Surgery, Eastern Virginia Medical School
- Program Director, General Surgery Residency Program, Eastern Virginia Medical School
- Associate Program Director, General Surgery

**Areas of Specialty:** Advanced Laparoscopic Surgery, General Abdominal Surgery, Critical Care Surgery, Breast Surgery

#### **Training:**

MD: Eastern Virginia Medical School, 1998

General Surgery Internship and Residency: Boston Medical Center, 1998 - 2003

Trauma and Critical Care Fellowship: Eastern Virginia Medical School, 2003 - 2005

### **Jay N. Collins, MD, FACS**

- Professor of Surgery, Eastern Virginia Medical School
- Medical Director, Shock/Trauma Center, Sentara Norfolk General Hospital

- Chief of Surgery, Sentara Norfolk General

**Areas of Specialty:** Trauma, Critical Care, General Surgery, Minimally Invasive Surgery, Advanced Laparoendoscopic Surgery

**Training:**

MD: University of California –Irvine 1987

General Surgery Internship: University of California – Irvine, 1987-1988

General Surgery Residency: University of Southern Alabama, 1989-1994

Trauma and Critical Care Fellowship: Eastern Virginia Medical School, 1997-1998

**Jessica Burgess, MD, FACS**

- Assistant Professor, Department of Surgery, Eastern Virginia Medical School
- Program Director, Critical Care Fellowship, Eastern Virginia Medical School
- Director of Surgical Education for Health Profession Programs

**Areas of Specialty:** Trauma, Critical Care, General Surgery, Minimally Invasive Surgery, Breast Surgery, Small and Large Intestine Disease, Acute Care Surgery

**Training:**

MD: Eastern Virginia Medical School, 2009

General Surgery Internship and Residency: Eastern Virginia Medical School, 2010-15

Critical Care Fellowship: Eastern Virginia Medical School, 2012-13

**Michael Martyak, MD, FACS**

- Assistant Professor, Department of Surgery, Eastern Virginia Medical School

**Areas of Specialty:** Trauma, Critical Care, General Surgery, Advanced Laparoendoscopic Surgery

**Training:**

MD: Eastern Virginia Medical School, 2011

General Surgery Internship and Residency: Eastern Virginia Medical School, 2011-17

Critical Care Fellowship: Eastern Virginia Medical School, 2014-15

**Charles Griqsbay, MD**

- Assistant Professor, Department of Surgery, Eastern Virginia Medical School

**Areas of Specialty:** Trauma, Emergency General Surgery, Critical Care, General Surgery, Minimally Invasive Surgery

**Training:**

MD: Medical College of Georgia, Augusta, GA, 2013

General Surgery Internship and Residency: Medical College of Georgia, 2013-18

Surgical Critical Care Fellowship: Virginia Commonwealth University, 2018-19

## **Alexa Sout, MD**

- Assistant Professor, Department of Surgery, Eastern Virginia Medical School

**Areas of Specialty:** Trauma, Emergency General Surgery, Critical Care, General Surgery, Minimally Invasive Surgery

### **Training:**

MD: Eastern Virginia Medical School, 2014

General Surgery Residency: Eastern Virginia Medical School, 2014-19

Critical Care Fellowship: John H. Stroger Jr. Hospital of Cook County, 2019-20

## **GENERAL FELLOW RESPONSIBILITIES**

The EVMS Critical Care Fellow must demonstrate an understanding and acceptance of their personal role in the following:

- Developing a personal program of self-study and professional growth with guidance from the faculty that includes attention to lifelong learning
- Managing time before, during, and after clinical assignments
- Monitoring patient care performance improvement indicators
- Honest and accurate reporting of duty hours, patient outcomes, and clinical experience data
- Recognizing impairment including illness and fatigue, in themselves and in their peers
- Under supervision, participate in effective and compassionate patient care, commensurate with his/her level of ability and responsibility and assurance of the safety and welfare of patients entrusted to their care
- Participating fully in the program's educational and scholarly activities, inclusive of teaching and supervising medical students and residents
- Participating in institutional programs and activities that involve the medical staff, adhering to established practices, procedures, and policies of the institution
- Participating in institutional committees and councils, especially those related to patient care review activities
- Provision of patient- and family-centered care
- Assurance of fitness for duty
- Participating in evaluating the quality of education provided by the program, which included the completion of rotation evaluation forms and faculty evaluation forms upon completion of each rotation

- Developing an understanding of ethical, socioeconomic, and medical/legal issues that impact patient care, including knowledge of how to apply cost containment measures
- Completing medical records in an accurate and timely fashion, inclusive of dictating operative reports
- Regularly attend Surgical Grand Rounds, Morbidity and Mortality Conferences, Critical Care and General Surgery Curriculum Conferences, Critical Care Journal Club, and any additional educational conferences specific to each Critical Care rotation. The Fellow is also expected to participate in teaching rounds.
- Consistently, and conscientiously, observe universal precautions and other infection control measures, including immunization against Hepatitis B. All patients are assumed to have infectious blood and bodily fluids that contain transmissible disease. The following universal precaution barriers must be used in any patient contact where exposure to blood or other bodily fluids is anticipated: impervious gown, gloves, goggles or other approved eye protection, and/or booties to cover footwear. **These requirements are Occupational Safety and Health Administration (OSHA) laws!**

The fellow must demonstrate responsiveness to patient needs that supersedes self-interest. They must recognize that under certain circumstances, the best interests of the patient may be served by transitioning that patient's care to another qualified and rested provider.

### **ACGME COMPETENCIES:**

#### **Patient Care and Procedural Skills**

- The fellow must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health
- The fellow must be able to competently perform all medical, diagnostic, and surgical procedures considered essential for the area of practice

#### **Medical Knowledge**

- The fellow must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care

#### **Practice-based Learning and Improvement**

- The fellow is expected to develop skills and habits to be able to meet the following goals:
  - Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement; and,
  - Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems

#### **Interpersonal and Communication Skills**

- The fellow must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals

### **Professionalism**

- The fellow must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles

### **Systems-based Practice**

- The fellow must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care

## **PROGRESSIVE FELLOW RESPONSIBILITY**

This training program is designed to allow the fellow maximum responsibility, and experience, in the examination, diagnosis, and management of critically ill and injured patients, under attending supervision.

The fellow is expected to demonstrate independence in patient management, clinical decision making, and operative performance (where necessary and appropriate). The educational objectives attained during this year include:

- Demonstrate knowledge and skills commensurate with goals and objectives of various rotations
- Provide supervision of residents when performing patient care responsibilities
- Demonstrate ability to communicate the details of patient progress or complications to the attending surgeon(s)/intensivists(s)
- Comprehensively understand the pathophysiology of the patient's disease processes
- Comprehensively understand the scientific principles of critical illness
- Demonstrate appropriate interpersonal and communication skills when dealing with patients, families, peers, attendings, students and allied health professionals
- Demonstrate leadership

### **Additional Requirements**

Maintain a log of cases. The fellow must keep track and log all cases utilizing the ACGME case log system. This information is submitted to the American Board of Surgery upon completion of the fellowship. Documented information must include the following items: hospital ID#; age of patient; principal diagnoses; length of stay; operations (if any); role of Fellow; type of critical care (i.e., cardiac resuscitation, nutritional support, etc.); and outcome  
<http://www.acgme.org/acgmeweb/>

## **ANNUAL EXAMS**

Fellows are required to take the MCCKAP exam, ABSITE exam and the Surgical Critical Care Certifying Exam. The MCCKAP is usually held the last week February thru the first week in March.  
***The Education Specialist will register you for this exam and it will be proctored in the department.***

The ABSITE (Inservice) exam is held the last week in January. The ABSITE is prepared by the

American Board of Surgery to evaluate the academic progress of all surgical residents in the United States. The ABSITE is administered annually in January. This is a computer based exam that is held in the Brickell Library computer lab. ***Cell phones, Ipads and/or electronic devices are not allowed in the testing room. Testing sessions are videotaped.***

***Fellows are also expected to take the SCC exam and it is the fellow's responsibility to register and pay for this exam.***

### **Surgical Critical Care Certifying Examination - Overview**

The Surgical Critical Care (SCC) Certifying Examination is a computer-based examination offered annually by the ABS. It is required to achieve board certification in surgical critical care. The exam consists of approximately 200 multiple-choice questions designed to assess the applicant's cognitive knowledge and clinical judgment. It is a one-day exam lasting five hours and is held at computer-testing facilities across the U.S. Results are posted and mailed approximately four weeks after the examination. Applicants who complete an ACGME-accredited surgical critical care or anesthesiology critical care (ACC) fellowship after completing three progressive years of general surgery or integrated vascular surgery residency may apply for SCC certification and take the exam while still in residency. A full and unrestricted medical license is not required at time of application. The SCC certificate is not awarded, however, until certification in surgery or vascular surgery is achieved. When entering the SCC or ACC program, applicants must have a guaranteed categorical residency position in an accredited general surgery or vascular surgery program available to them upon completion. \*More information can be found on the American Board of Surgery website.

### **SUPERVISION OF CRITICAL CARE FELLOW**

The core attendings of the Critical Care Fellowship provide direct supervision of the Fellow until proficiency is established. The Critical Care Fellow has completed at least three years of general surgery residency training and therefore, arrives with an expected degree of proficiency in the required skills for this fellowship program. ***“Real-time” procedural proficiency documentation is kept in New Innovations.*** These attendings provide supervision in airway management and endoscopy, invasive cardiac monitoring, application and interpretation of neurologic monitoring, ventilator management, gastrointestinal intubation and endoscopy, application and management of nutritional support, evaluation of renal function, evaluation and management of infectious disease. The Fellow spends time on specialty rotations and is supervised by the specialty attendings to gain experience in transesophageal echocardiography, intravenous pacing, cardiac assist devices and renal supplementation. The fellow should inform patients of their respective role in each patient's care.

### ***Protocols Defining Common Circumstances Requiring Faculty Involvement***

1. The supervision and communication between the attending surgeon and any fellow should exceed that required to ensure that the clinical care delivered meets the established community standard of care.
2. The fellow can identify and contact a responsible attending surgeon for a given patient **at all times.**

3. In the event that an attending surgeon is not available to provide supervision, he or she must designate an alternate or covering attending and identify that person to the resident.
4. For ambulatory or non-urgent care, an attending surgeon is required to be available on-site at the facility during daytime hours of operation.
5. For inpatient admissions, an attending surgeon will be notified of the admission and such notification will be documented in the admitting resident's admission note. An attending surgeon will personally see and evaluate each assigned inpatient admission within twenty-four (24) hours of admission, and co-sign the fellow's admitting note or create their own written or printed documentation.
6. For inpatients, fellows should maintain ongoing communication **at least one (1) time per day** with the designated attending surgeon. The attending surgeon should document such communication by co-signing the fellow's progress note, or the fellow will include in his progress note that the case has been discussed with the attending surgeon.
7. It is assumed that there is a **mutual responsibility** on the part of both the fellow and attending surgeon to recognize the need for increased frequency and quality of communication, and attending surgeon participation. The following are circumstances and events where fellows must communicate with supervising faculty:
  - a. ICU transfers, DNR or other end of life decisions
  - b. Unexpected patient death
  - c. Cardiac arrest, new arrhythmia, hemodynamic instability
  - d. Significant neurological changes
  - e. Major wound complications (dehiscence or evisceration)
  - f. Any clinical problem requiring an invasive procedure or operation for treatment
  - g. Unplanned blood transfusions
  - h. All new patient encounters in intensive care or critical care units or inpatient units
  - i. If requested to do so by other faculty attending in any primary or specialty program
  - j. If specifically requested to do so by patients or family
  - k. If any error or unexpected serious adverse event is encountered at any time
  - l. If the resident is uncomfortable with carrying out any aspect of patient care for any reason
  - m. higher risk of complication or mortality associated with the clinical intervention being considered

### FELLOW WORK HOURS

Highlights of the ACGME work hour mandate include the following:

- Minimum of one day free of duty every week (when averaged over four weeks). At-home call cannot be assigned on these free days
- Duty periods may be scheduled to a maximum of 24 hours of continuous duty in the hospital
- Fellows must not be assigned additional clinical responsibilities after 24 hours of continuous in-house duty
- In unusual circumstances, fellows, on their own initiative, may remain beyond their scheduled period of duty to continue to provide care to a single patient. Justifications for such extensions of



duty are limited to reasons of required continuity for a severely ill or unstable patient, academic importance of the events transpiring, or humanistic attention to the needs of a patient or family. Under these circumstances, the fellow must:

- Appropriately hand over the care of all other patients to the team responsible for their continuing care; and,
  - Document the reasons for remaining to care for the patient in question and submit that documentation in every circumstance to the program director (through New Innovations).
- 
- Fellows should have eight hours free of duty between scheduled periods; however, there may be circumstances when the fellow must stay on duty to care for patient or return to the hospital with fewer than eight hours free of duty. These instances should be documented in New Innovations and will be monitored by the program director.
  - Fellows must not be scheduled for more than six consecutive nights of night float
  - Fellows must be scheduled for in-house call no more frequently than every-third-night (when averaged over a four week period).
  - Time spent in the hospital

The fellow, regardless of his/her clinical assignments, is expected to participate in the didactic portion of the program. In general, educational conferences are considered “protected time” and alternative coverage should be arranged with the attending faculty. If this cannot be arranged, the fellow should contact the Program Director.

### **ALERTNESS MANAGEMENT/FATIGUE MITIGATION**

Fellows need to have enough time without clinical responsibilities to stay well-rested and avoid fatigue while on duty. Fellows receive instruction annually on issues of fatigue, sleep, and napping during their biannually meetings with their faculty advisor.

Fellows that have fatigue symptoms at any point could jeopardize patient care. These symptoms include falling asleep, irritability, apathy, and careless medical errors. Fellows are required to consult immediately with other members of the team including service faculty, and inform the program director so that the fellow may be immediately be relieved of duty. Patient care should then be delivered by other members of the team or by a faculty member. Call rooms at each site are available 24 hours a day for strategic napping. It is the responsibility of the fatigued fellow to take advantage of time away for rest.

## PROCEDURAL SKILLS

The following skills will be achieved by the Critical Care Fellow:

### **1) Respiratory**

- i. Airway management
- ii. Endoscopy
- iii. Management of airways systems

### **2) Circulatory**

- i. Invasive and non-invasive monitoring techniques
  1. transesophageal ultrasound
  2. transthoracic ultrasound
  3. PA and central venous catheters – placement and evaluation of data from invasive monitors
- ii. Transvenous and external pacemakers

### **3) Neurological**

- i. Performance of complete neurologic examination
- ii. Use of intracranial pressure monitoring techniques
- iii. Electroencephalogram evaluation of cerebral function
- iv. Application of hypothermia in the management of cerebral trauma

### **4) Renal**

- i. Evaluation of renal function
- ii. Peritoneal dialysis
- iii. Hemofiltration and dialysis
- iv. Knowledge of the indication and complication of hemodialysis

### **5) Gastrointestinal**

- i. Utilization of gastrointestinal intubation and endoscopic techniques
- ii. Application of enteral feedings
- iii. Management of stomas, fistulas, and percutaneous catheter devices
- iv. Evaluation and management of GI hemorrhage

### **6) Hematologic**

- i. Application of autotransfusion
- ii. Assessment of coagulation status
- iii. Use of blood component therapy

### **7) Infectious Disease**

- i. Classification of infections
- ii. Application of isolation techniques
- iii. Pharmacokinetics
- iv. Drug interactions
- v. Management of antibiotic therapy during organ failure
- vi. Nosocomial infections
- vii. Indications for applications of hyperbaric oxygen therapy

### **8) Nutrition**

- i. Application of parenteral and enteral nutrition
- ii. Monitoring and assessing metabolism and nutrition

**9) Monitoring/Bioengineering**

- i. Use and calibration of transducers, amplifiers, and recorders

**10) Miscellaneous**

- i. Use of special beds for specific conditions
- ii. Employment of pneumatic antishock garments, traction, and fixation devices

**MOONLIGHTING**

Fellows are not permitted to moonlight.

**VACATION & LEAVE POLICY**

Guidelines

1. Fellows are permitted three weeks of vacation annually. A week is defined as seven (7) days that includes five (5) business days (Monday through Friday) and one weekend (Saturday and Sunday). Vacations must be taken in seven day blocks.

2. Fellows invited to present papers or posters at professional meetings are not required to use vacation time. However, fellows are expected to be away only for the time needed to travel and present.

Requests for vacation should be submitted in writing to the Program Director for approval.

**EMERGENCY LEAVE POLICY**

The Department of Surgery recognizes that a Fellow may need to be away from his/her assigned service for emergency reasons, such as illness, maternity, or family emergency.

In the event that a Fellow requests emergency leave, these procedures **must** be followed:

- Discuss the reason for leave with the Program Director.
- The fellow must never leave the service without directly informing the Educational Site Director of that service
- Be prepared to give the details of the amount of time you are requesting, when you plan to return, and where you will be, including a telephone number where you can be reached.

## **EVALUATION**

The Fellow's performance is assessed throughout his/her tenure in the training program to ensure appropriate development of skills and competencies. Methods used will provide assessment of competencies in Patient Care, Medical Knowledge, Professionalism, Systems-based Practice, Practice-based Learning and Improvement and Interpersonal and Communications Skills. Evaluation of fellow's performance on each rotation will address each of these areas as appropriate while addressing the specific learning objectives of the rotation.

### **Evaluation Meetings**

**Biannual reviews:** Regular and timely performance feedback is provided to the Fellow through monthly evaluations per rotation, biannual evaluations with the Program Director and biannual evaluations with the Department Chairman.

**Residency Review Committee:** The fellow's performance is discussed at quarterly meetings of the departmental Residency Review Committee, as well as at regular Faculty and Education Committee meetings. This Committee also reviews the curriculum, noting opportunities for enhancement.

### **Critical Care Site Directors' Committee**

This committee meets 2-4 times per year to assess and evaluate the program, as well as the fellow's performance, review the fellow evaluations of the faculty and of his/her experience on each rotation; and seek input for the internal review process.

### **Evaluation of Fellow**

**Clinical rotation performance:** Educational Site Directors formally evaluate the fellows performance on each rotation utilizing New Innovations. Verbal feedback is encouraged throughout the duration of the rotation.

### **Fellow's Evaluation of Program and Faculty:**

Fellows have several structured opportunities to evaluate the program and faculty.

- Upon completion of each rotation, the fellow is asked to complete an "Evaluation of Service" form and an "Evaluation of Faculty" form. This information is reviewed by the Program Director.
- The Fellow is encouraged to discuss any concerns during their semiannual evaluation reviews.
- The Program Director reviews all evaluations and will discuss concerns with the appropriate faculty, or in the appropriate committee meetings, as deemed necessary. All evaluations, including narrative comments, are kept confidential.
- The Fellow also submits an annual evaluation of the program through New Innovations.

### **Program Evaluation**

The last faculty, RRC, and Critical Care committee meeting of each year is dedicated to the evaluation of the residency and fellowship programs. These sessions include a review of program goals and objectives, evaluative tools, resident/fellow comments as reported on the various evaluative measures, and review

of individual resident/fellow progress. Strategies for enhancement of the program, as well as implementation processes, are discussed.

### **FACULTY EVALUATION POLICY**

Faculty members will be evaluated on an annual basis by the Program Director. Evaluation data to be used will include a review of teaching abilities, commitment to the educational program, clinical knowledge and scholarly activities. The fellow will complete confidential evaluations on faculty upon completion of each rotation. Confidentiality is provided through these forms, which in turn, are submitted to the Education Specialist.

Data to be used in the evaluation of faculty members includes:

- Teaching Abilities
  - Resident evaluation of faculty members
  - Rotation evaluations
  - Goals and objectives for rotations
- Commitment to Educational Program
  - Committee participation
  - Conference attendance
  - Enthusiastic participation in teaching
- Clinical Knowledge
  - Resident evaluation of faculty members
  - Other as designated by Chair
- Scholarly Activity of Faculty Members
  - Scholarly activity of faculty members will be reviewed and documented in the following categories:
    - Scholarship of Discovery** as evidenced by peer-reviewed findings or publication of original research in peer reviewed journals
    - Scholarship of Dissemination**, as evidenced by review articles or chapters in books
    - Scholarship of Application**, as evidenced by the publication or presentation at local, regional or national professional and scientific society meetings, for example, case reports or clinical series
    - Active participation** of teaching staff in clinical discussions, rounds, journal club and research conferences in a manner that promotes a spirit of inquiry and scholarship; offering of guidance and technical support, i.e., research design, statistical analysis for residents involved in research; and provision of support for resident participation as appropriate in scholarly activity.

These evaluations will be used to help ensure the quality of teaching within the residency program. Faculty members with low evaluations will be reviewed by the Residency Training Committee to determine his/her status in the educational program.

## **RESEARCH EXPERIENCE**

The Critical Care Fellowship offers an elective in research. This elective opportunity allows close contact with the Fellow's research faculty advisor. The Fellow is encouraged to present research results at regional and national surgical research forums and submit manuscripts for publication during his/her fellowship.

## **PROMOTION OF CRITICAL CARE FELLOW**

The Critical Care Fellowship is a one year program. The Fellow is considered eligible for graduation provided that he/she has met all criteria required for the program, received good to excellent evaluations from all faculty, fulfilled an appropriate number of patient experiences, and participated in all educational aspects of the fellowship program. Additionally, the Critical Care fellow must consistently demonstrate adherence to the ACGME General Competencies.

## **TERMINATION/DISMISSAL OF FELLOWSHIP CONTRACT**

The Critical Care Fellow is expected to successfully complete the clinical and educational requirements of the program. The Fellow is required to provide safe, effective, and compassionate patient care. Non-compliance with these expectations may result in immediate termination of the contract and dismissal.

Grounds for termination/dismissal include the following situations:

- Failure to rectify deficiencies for which the fellow has been placed on probation within the allotted time of the probationary period;
- Performance that presents a serious compromise to acceptable standards of patient care and/or jeopardizes the welfare of a patient;
- Unethical conduct;
- Illegal conduct for which the fellow has pled or been found guilty, pled no lo contendere or has been granted immunity from prosecution; and/or
- Failure to report for scheduled clinical assignments without advanced notice and permission by the Program Director.

A fellow who may be subjected to termination/dismissal will receive verbal and written notification of the decision and the rationale for pursuing the process of termination. The Program Director of the Critical Care Fellowship will provide written recommendation of termination to the Assistant Dean for Graduate Medical Education. The Assistant Dean for Graduate Medical Education will then notify the Dean for Graduate Medical Education. A fellow subject to termination/dismissal of his/her contract will receive formal notification from the Dean of Graduate Medical Education indicating specific reasons for the decision. Such formal notification will indicate the due process policy and grievance procedure available to the resident.

Per the Office of Graduate Medical Education, a resident/fellow has the right to appeal any adverse decision made regarding their professional and educational development.

## CONFERENCE ATTENDANCE POLICY

Attendance at all Department of Surgery educational conferences is mandatory, unless the fellow is on vacation or educational leave. Such educational conferences include, but are not limited, to the following:

- **Grand Rounds**
  - Consists of presentations by full-time and community faculty, as well as faculty from other institutions. Such lectures include content that provides a multi-disciplinary approach to surgical patient care.
  
- **Mortality and Morbidity conferences**
  - Case presentations that discuss complications and causes of death in patients admitted to the surgical teaching services.
  - Held weekly for one hour
  
- **Visiting Professor Lecture Series**
  - Visiting Professors are scheduled approximately four times per year.
  
- **Journal Club**
  - In conjunction with the assigned faculty member, residents present four journal articles regarding current patient management trends and new operative procedures. Of most importance, this forum provides residents with the ability to critically review journal articles as they relate to research design, methodology, statistics, and implications for patient treatment.
  - Held on the first Thursday of each month from 5pm-7pm (Journal Club is not held Nov-Jan, June-July)
  - **The fellow is encouraged to attend, but attendance is not mandatory**
  
- **Fellow Journal Club**
  - The fellow participates in three sessions per month with various faculty members for a Critical Care topical journal club.
  - This session lasts between 30 minutes to an hour.

## ANNUAL EDUCATION CONFERENCE ATTENDANCE

Fellow is permitted to attend one education conference, such as the Critical Care Congress, ACS Clinical Congress, and Southeastern Surgical Congress during their year of training. Fellow will be reimbursed for registration, airfare, hotel that are within a reasonable amount. *Any travel over \$2500 must be preapproved.*