Acute Care Surgery and Surgical Critical Care Fellowship Handbook

VANDERBILT UNIVERSITY MEDICAL CENTER



Welcome to Vanderbilt University Medical Center!

We are excited that you have joined our Surgical Critical Care/Acute Care Surgery Fellowship Program. This handbook contains the nuts and bolts of the program as it pertains to information you will need to know as a fellow. We hope to help you to get the most of your training with us.

Your Program Team

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First Year (SCC) Fellow Expectations

The first year is designed to provide a comprehensive education in Surgical Critical Care and to introduce you to the Vanderbilt Trauma system. During the first year, you will expand your skills in research, administration, quality improvement and surgical education. The Surgical Critical Care Fellowship year is an ACGME certified training program, thus it is bound by ACGME requirements and standards. After the completion of the SCC year, the VUMC fellow is expected to sit for and successfully pass the American Board of Surgery Surgical Critical Care Certifying Examination.

Fellows are required to have 48 weeks of full-time clinical activity during the Surgical Critical Care fellowship year of which 9 months must be ICU rotations with core faculty. Fellows will complete rotations in the VUMC Surgical ICU, Trauma ICU, Cardiovascular ICU, and Burn ICUs. Nightfloat rotations will be in the Trauma ICU +/- Surgical ICU.

See Appendix I for a quick, cheat sheet of expectations of fellows

Clinical Expectations:

Primary daytime responsibilities: direct the clinical critical care of all patients within the unit you are assigned to under the faculty's direct and indirect supervision. Fellows should work towards functioning in an attending role in all ICUs and should learn to manage the care team and the ICU.

Primary nighttime responsibilities: All night ICU rotations except BICU are in-house, Sunday through Thursday nights. The night fellow will oversee and direct the clinical critical care of all patients within the unit(s) to which you are assigned under the direct and indirect supervision of the faculty critical care attending. At night, the PRIMARY responsibility of the first-year fellow is to the ICU patients. A SECONDARY responsibility of the nighttime fellow is responding to the resuscitation and operative management of acute trauma or emergency surgery patients.

Triage of responsibilities and delegation of clinical care is a critical skill for Acute Care Surgeons. As such, the nighttime fellow should learn to evaluate where and when they are needed most at times of competing patient care interest. Fellows are expected to communicate with both the ICU teams and the Attending Faculty to ensure appropriate clinical care is delivered.

Fellows are expected to:

- -Supervise and direct the patient care delivery for those patients in the ICU to which you are assigned for the rotation.
- -Be present/available within the unit to which you are assigned beginning at the time specified by the Medical Director of that service and remain in the unit to the degree required to enable your direction of the resuscitation and management of critically ill or injured patients.

- -Participate in the daily ICU rounding process and, in collaboration with faculty, direct ICU rounds including the education of resident housestaff, ancillary staff and medical students.
- -Attain the skills and judgement to supervise invasive procedures according to institutional and service-specific performance standards and guidelines including:
 - 1. Central lines, arterial lines, PA catheters
 - 2. Bronchoscopy and bronchoalveolar lavage
 - 3. Percutaneous tracheostomies
 - 4. Chest tube placement
 - 5. Airway management intubation, cricothyrotomy
 - 6. Bedside laparotomy
 - 7. Paracentesis and Thoracentesis
- -Oversee the admission and/or transfer of new patients to the ICU to which you are assigned, while keeping in mind appropriate use of resources (limiting over/undertriage to ICUs) and coordinate patient flow into/out of ICU in conjunction with unit charge nurse and administrator in charge (AC).
- -Coordinate patient plans of care with primary team and ensure two-way flow of communication regarding patient clinical status
- -Conduct family meetings and goals of care conversations when necessary and ensure appropriate balance of patient autonomy, shared decision making, resource utilization and prognosis.
- -Demonstrate knowledge, expertise and application of critical care topics/principles to the satisfaction of clinical critical care faculty.
- -Fellows are expected to be professional and engaged in their own education and should seek out or discuss with critical care faculty and/or the program directors any areas where they feel they need additional training.

Clinical Electives:

There are multiple options for clinical electives, and the fellow should use elective time to improve areas of clinical weakness or advance areas of clinical interest. The ACGME requires that electives during the accredited SCC year <u>must be critical care-related</u>. Any elective is allowable if it fits within the realm of critical care and it is approved by the PD. **See Appendix II** for a list of available electives. Popular electives in the past have included: Prehospital Care/LifeFlight, Burn Surgery, ECMO, Ultrasound/Echo, Anesthesia and Neuro ICU. Please note that Research is an allowable elective, but must have an associated plan and is not recommended in the first half of the year.

Fellows must submit written goals and learning objectives for their selected elective rotation no later than 30 days prior to the elective start date and receive approval from the PD.

Educational Expectations:

Ч	COMPLETE ALL AAST EDUCATIONAL MODULES by the end of the first
	year of fellowship. https://www.aast.org/acute-care-surgery/education-
	resources
	Attend and participate in the AAST Meet the Masters sessions
	Attend and lead educational conferences specific to the unit/service to which you
	are assigned for the rotation
	Attend Division and Department educational conferences.
	Attend simulation labs as scheduled
	Take the MCCKAP critical care in-service exam (administered Spring of first
	year, usually April, official date TBD)
	Take the AAST exam annually (Fall each year)
	Become certified instructors and/or course directors for all common American
	College of Surgeons courses – ATLS, ASSET, ATOM, and BEST
	Formulate a plan and complete Self-Directed Learning via a personalized reading
	program

*Educational conferences are considered mandatory and should be considered a priority over routine patient care. Attendance will be reviewed at periodic meetings with the program director. Fellows may be required to miss occasional educational conferences for *life threatening patient care emergencies* or rare clinical opportunities, but these should be discussed with the ICU faculty on service.

Basic literature expectations:

Fellows are expected to become experts in surgical critical care and obtain mastery in the primary literature that is foundational for evidence-based critical care. **As a part of adult education, fellows are expect to create an educational reading plan.**

The Eastern Association for the Surgery of Trauma (EAST) website has links to landmark papers in multiple areas of Surgical Critical Care, Trauma and Acute Care Surgery. https://www.east.org/education-career-development/publications/landmark-papers-in-trauma-and-acute-care-surgery

Suggested Surgical Critical Care Texts:

Critical Care – Joseph M. Civetta, Robert W. Taylor, Robert R. Kirby

The ICU Book - Paul Marino, Kenneth M. Sutin

Principles of Adult Surgical Critical Care - Niels D. Martin & Lewis J. Kaplan

Surgical Critical Care – Joseph A. Moylan

Pulmonary Physiology and Pathophysiology: An Integrated, Case-Based Approach – John West

Please be prepared to discuss relevant educational topics that arise at morning report and educational conference. Fellows (beginning with first years and moving up) will be asked to speak to the applicable studies and information.

Administrative Expectations:

- -Maintain a current and accurate ACGME Critical Care case log which is required for surgical critical care board eligibility. Case logs are mandatory. Case log completion is an **expectation** and failure to maintain an up-to-date case log may result in loss of elective time or removal from clinical services.
 - Absolute minimum number of CC cases required is 200 for ABS board eligibility.
 - Given the patient volume at VUMC, fellows are expected to log a minimum of 350 CC cases
- -We also use the ACGME System for the AAST operative case requirements. All operative cases from first and second year of fellowship should be logged in both systems. Required AAST case numbers can be found on the AAST website.

The American Association for the Surgery of Trauma (aast.org)

- Please remember to log US cases (FAST, echo, US guided procedures)
- -Maintain a current and accurate Duty Hours Log in New Innovations. See Duty Hours section of this handbook for additional information and requirements.
- -Log Continuing Medical Education (CME) credits using the <u>Vanderbilt University</u>
 <u>Medical Center Continuing Education (cloud-cme.com)</u> system. CME credit will be used to help track attendance to M&M, conferences, morning report, etc.

Academic Expectations:

Attend one national conference/meeting – <u>must communicate choice by October of first year</u> and ensure entry on the fellows' call and coverage schedule with the 1st year fellow assigned to maintain the fellows' call schedule, as well as notify the Program Director, the Associate Program Director(s), and the Program Coordinator.

- -Maintain active membership in ≥ 1 national society/association such as EAST, AAST, WTA, SCCM or ACS
- -Identify and develop an academic niche under the guidance of your faculty mentor

Research Expectations:

The research program/curriculum spans both first year and second year of the fellowship. Fellows are expected to:

- Participate in monthly division research meeting and curriculum
- Work with your assigned faculty research mentor or identify another faculty member to begin an individual research project as outlined in the research curriculum.
- -Produce a "publication quality" manuscript by the time of graduation
- -Participate in one national multicenter trial or practice management guideline

Mentorship and Supervision During the First Year

<u>Professional Development Coordinator – 1st Year.</u> Dr. Robel Beyene

- -Fellows will be assigned a faculty mentor to serve as mentor for both academic and professional pursuits throughout the 2 years of the fellow. Fellows are welcome to identify other individuals on the ACS faculty or within the institution with similar academic or clinical pursuits in addition to their assigned mentor.
- -Fellow should meet at least <u>quarterly</u> with their assigned mentor to discuss clinical and academic progress, identify and address any problems or conflicts, and define a career niche and direction.
 - Mentees and mentors may decide who will document each meeting, which should be sent to the PD and program coordinator.
- -Fellow will meet at least three times per year with the Program Director/APD to discuss the fellow's performance on the above expectations.

Administrative Roles for First Year Fellows:

As part of your professional development, each fellow is assigned an administrative role similar to the types of administrative roles you will have as a faculty member. These administrative roles are not glamorous but necessary to the functioning of an academic surgical division.

Fellow 1:

- SICU resident call schedule
 - Make the SICU resident PGY2 and PGY1 schedule ensuring compliance with ACGME work hour regulations and manage any scheduling conflicts
- SICU resident and student evaluation process
 - Assist with evaluations of the SICU residents as needed
 - Faculty:
- SICU M&M and PI reporting
 - Assist faculty with the SICU PI process and ensure SICU M&M is handled by the fellow on rotation that month
 - Instructor:
 - Faculty:

Fellow 2:

- Surgical Critical Care (1st year) Fellow Call schedule
 - Ensure continuous in-house fellow coverage of SICU and TICU
 - Make the weekend fellow call schedule for AY24-25 and ensure call schedule compliance with ACGME work hour regulations for SCC fellows
- Manage fellow Vacation and Time Away schedule Bi-annual deadlines of 9/1 and 3/1
 - Instructor:
 - Faculty:

Fellow 3:

- SICU/TICU Resident Lecture Series
 - Organize monthly lecture schedule and coordinate faculty participation
 - Ensure resident attendance and timely completion of online modules
 - Responsible for distribution of schedule to all interested parties
 - Instructor:
 - Faculty:
- Supports the Trauma Research Conference as needed
 - Faculty:

Fellow 4:

- Multidisciplinary Critical Care Fellows' Conference (Thursday at 12 pm)
 - Responsible for organizing weekly fellow lecture series for a comprehensive critical care education
 - Responsible for scheduling faculty speakers
- Assist with Transitions for incoming and advancing fellows 2025
 - Instructor:
 - Faculty:

Fellow 5:

- Program Evaluation Committee
 - Participate in PEC meetings
 - Assist PD staff in responding to fellow feedback & program improvement
 - Assist in monitoring fellow compliance for case logs, duty hours, etc *Instructor:*

Faculty:

- HSAC (Housestaff Advisory Council)
 - Attend all HSAC meetings

Second Year Fellow Expectations

The second year of the fellowship is designed to provide thorough education in Acute Care Surgery and provides exposure to a variety of complex cases in trauma and emergency general surgery with attending-level clinical responsibilities (admitting and operative privileges) and in-depth clinical, academic and professional mentoring. Full development of subspecialty clinical expertise in Trauma and Emergency General Surgery is expected by the end of the second year.

The second-year fellows are also known as Clinical Instructors. The academic appointment is 60:40 Fellow:Clinical Instructor. That is, it is expected that ~40% of the activities may fall within your training from General Residency and the remaining 60% are considered 'training cases' that benefit from additional fellowship training. Fellows may function independently and bill for cases that fall under 'non-training' cases. This is further outlined in the supervision policy available in the fellowship teams channel. Clinical activity that would be considered more complex EGS and advanced trauma fall under the fellowship training designation and should involve faculty for the purposes of supervision/education as well as for billing.

Clinical Expectations:

The fellow (instructor) will participate in the clinical service and call schedule with the other Acute Care Surgery faculty, though instructor service assignments are focused toward high-educational and high-volume areas. The instructors will work together to maintain an equitable service and call schedule.

- Typical Clinical Service coverage during the 2nd year of fellowship:
 - 10-12 weeks of daytime coverage of the T2 Trauma service (new activations and consults, stepdown patients and operative trauma cases, paired with Division faculty on T3)
 - o 12-14 weeks of EGS service (paired with Division faculty on EGS2)
 - 3 weeks of vacation during non-clinical weeks
 - 2 weeks Interventional Radiology rotation
 - 1-2 weeks of Vascular Surgery
 - 2 weeks Burn Surgery
 - Overnight call averaging q10d (typically a Friday-Saturday-Sunday on average every 4th week)
 - When not assigned to a clinical service, instructors are expected to spend weekdays covering trauma fellow clinic (Tuesdays AM), doing scheduled elective general surgery cases (Wed/Fri), attending educational conferences, teaching courses and developing academic/research pursuits. So-called "academic" weeks are <u>not</u> to be treated as time off for fellows unless specified vacation time.

- Fellows may change call or service coverage with each other but are expected discuss this with their co-fellow and notify the PD and scheduling administrative assistant.
- Fellows should work to schedule their elective rotations as early as possible to fit in all the necessary requirements
- 2nd year fellows are considered (and should consider themselves) part of the
 divisional faculty and as such, are responsible for managing their own clinical
 and administrative schedule, keeping up with required paperwork and seeking
 academic opportunities
- Be present! Seize opportunities for assisting with traumas, operating with faculty

Call responsibilities during 2nd year: instructors take in-house attending surgeon call with in-house faculty proctoring or at-home backup. All instructors begin the academic year on focused provider practice evaluation (FPPE) for 3 months after which the fellowship clinical competency committee (CCC) will determine if an instructor has demonstrated ability to progress to ongoing PPE (OPPE), based on review of evaluations and performance. Level of supervision and assistance will vary based on FPPE vs OPPE status, case complexity, availability, etc. with default of Level 1 (in-person) supervision. All instructors' clinical activity is subject to a minimum of Level 3 (retrospective review) supervision. This is outlined in the supervision policy available on Fellowship Teams Channel.

Educational Expectations:

- Attend AAST Meet the master's online sessions whenever possible
- Faculty-level participation in service-specific conferences, seminars, etc
- Attend, contribute and/or lead Trauma Service or EGS Morning Report when on service
- Regular **in-person** attendance at educational and required division/section conferences
- Self-directed education and completion of appropriate reading program

Suggested Acute Care Surgery Texts:

Trauma – Kenneth Mattox, David Feliciano, Earnest Moore

Management of Trauma – Robert Wilson, Alexander Walt

Curren Therapy of Trauma and Surgical Critical Care – Asensio and Trunkey

Expected Readings/Curriculum:

Eastern Association for the Surgery of Trauma Landmark Papers: https://www.east.org/education-career-development/publications/landmark-papers-intrauma-and-acute-care-surgery

Research/Academic Expectations:

- Complete the research curriculum run by Faculty

- Complete research curriculum requirements as outlined (Publication quality manuscript, participation in national PMG or MCT)
- -Attend one national conference/meeting <u>must communicate choice by September of second year</u> after notifying the Program Director, the Associate Program Director(s), and the Program Coordinator. Academic time away for conferences does not count as vacation time but is counted in PTO, thus must be logged into RedCap by your AA. Follow the travel reimbursement policies!!
- -Continue to develop your academic niche with guidance from your assigned faculty mentor and/or supplemental mentors. Identifying your academic niche is a key part of packaging yourself for a faculty position.

<u>Administrative Expectations for Second Year Fellows</u>

In addition to the explicit administrative activities listed below, all second-year fellows must complete procedural and operative case logs in the AAST Case Log system biweekly, log duty hours in New Innovations, and log CME. Instructors are additionally expected assist the first-year fellows with the administrative role they previously provided, as well as provide support for Trauma Education and Outreach as part of their administrative time. Fellows are highly encouraged to pursue course director status in the common trauma courses during their instructor year.

As part of your professional development, each fellow is assigned an administrative role similar to the administrative roles you will have as a faculty member. Fellows are assigned to help with the PI process for one of the acute care surgery disciplines and help with one conference/educational series.

	<u>Aug-Jan</u>	Feb-July
Trauma PI	Fellow 1	Fellow 2
EGS PI	Fellow 3	Fellow 4
Burn PI	Fellow 5	Fellow 1
Fellows Conference	Fellow 2	Fellow 3
Research Conference	Fellow 4	Fellow 5
Burn Education	Fellow 1	Fellow 2

Conference and Meeting Schedules for All Fellows

Name	Day	Time	Location (if not virtual)		
Educational Conferences					
Trauma Resuscitation	Monday	11AM – 12PM			
Crit Care Fellows Journal Club	Tuesday	12PM – 1PM			
ACS Fellows Conf	Wednesday	12PM – 1PM			
SCC Fellows Conf	Thursday	12PM – 1PM			
SCC Conf Series (SICU rotation - specific)	Tues – Thurs	1PM – 2PM			
Surgery Grand Rounds	Friday	7AM – 8AM			
Morbidity and Mortality Conferences					
SICU M&M Conf/PI/QA	2 nd Tuesday	2:30PM – 4PM			
Surgery M&M Conf	Wednesday	6:30AM - 7:30AM			
QMMIC	Quarterly in place of Grand Rounds	6:30AM – 8AM			
Administrative Conferences					
TPOPPS (Trauma QI/PI)	4 th Wednesday	3PM – 4PM			
ACS Faculty Meeting	3 rd Wed	3PM – 4PM			
Multidisciplinary SCC (SICU) Monthly Mtg	4 th Tuesday	3PM – 4PM			

Monthly Trauma Topics

Aug: Penetrating Trauma

Sept: Resuscitation and Hemorrhagic Shock

Oct: Trauma Screening Protocol

Nov: Traumatic Brain Injury/Spinal Cord Injury

Dec: ICU medications/Prophylaxis

Jan: Thermal Injuries

Feb: Thoracic Injuries

Mar: Blunt Solid Organ Injuries

Apr: Orthopedic Trauma

May: Infectious Disease

June: Hematologic Issues: coagulation to anticoagulation

July: Trauma Adjuncts REBOA, FAST, etc

MONTHLY EGS TOPICS

August – Appendicitis, Necrotizing Soft Tissue Infections

September – Acute mesenteric ischemia

October – Cholecystitis/acute biliary pathology

November - Diverticular disease

December - Damage Control for EGS

January – GI bleeding/PUD

February – Bowel obstruction

March - Abdominal wall closure

April – Bariatric surgery emergencies

May - Hernia disease-traumatic and other

June - Pancreatitis

July - Clostridium difficile

Duty Hours and Time Away Policies

Duty Hours

Clinical work hours are to be logged via the New Innovations online system for ALL fellows (1st and 2nd year). **Duty hours must be logged biweekly at a minimum.** The fellowship program is committed to ensuring *full* compliance with duty hour policies set forth by the ACGME for SCC fellows including:

- Duty hours of ≤ 80 hours per week (averaged over a 4-week period).
- ≥8 hours off between shifts
- ≥14 hours off after a 24h shift.
- At least one full 24-hour period per week without clinical duties (averaged over a 4-week period)
- On-call duties must be compliant with the 24+4 hours requirement mandated by the ACGME
- Nightfloat: fellows may not work more than 6 nights in a row. The fellowship nightfloat system is scheduled for Sun-Thur nights thus is fully compliant with ACGME requirements.
- Fellows must not have overnight call more frequently than every third (q3) night: the fellowship has <u>no</u> intermittent call shifts scheduled for the entire year thus is fully compliant with the ACGME requirements.
- Second year fellows/instructors are required by the institution to log duty hours however are not bound by the ACGME duty hour policies as listed above given they have a faculty appointment at VUMC. If an instructor is not able to perform their assigned clinical duties due to fatigue, the instructors must notify their faculty proctor/backup immediately, as well as the fellowship PD or APDs.

Work hour violations can nearly always be anticipated, and it is the responsibility of the fellow to notify the program director and program coordinator if there will be or have been duty hour violations.

The SCC fellows are responsible for organizing and maintaining their schedule and ensuring that vacations and meetings are scheduled such that the above duty hour requirements can be fulfilled. The schedule should incorporate the actual hours of clinical responsibility to facilitate timely departure from the hospital. Schedules are to be reviewed by the program director or associate program director prior to publication, and the program director is to be notified in advance if conflicts arise that do not allow SCC fellow coverage of clinical obligations as outlined above.

Vacation/Sick Time Reporting

Vacation and sick time reporting are a requirement of the GME office. Three weeks of vacation are allotted per year, plus one sick day for each month of training completed for GME. First-year fellows are discouraged from taking vacation during the months they are assigned to CVICU or night float.

Instructors are held to the faculty standard, with a limit of 22 vacation days and 20 days of PTO/Away time (i.e. conference attendance, interviewing for faculty positions). Instructors are responsible for managing their service/call schedule such that vacation time or time away is not schedule concurrent with service weeks.

Leave of Absence/FMLA

Requests for leave will be facilitated through the GME office for both years. The program coordinator can assist with all requests for FMLA and is done in accordance with the GME recommendations. Please note that GME requires documentation of any leave greater than 1 week, including vacations. Whenever possible, leave requests should be submitted to the program director at least 30 days in advance. Emergency requests should be submitted as soon as the situation allows. Each case will be considered on an individual basis and approved by the program director. In addition, the fellow will be fully informed as to his/her responsibilities during the absence, as well as the effect of the absence on completion date for the program and subsequent board eligibility for board certification. It is the fellow's responsibility to complete the paperwork necessary for FMLA once the program coordinator sends the information. https://www.vumc.org/gme/sites/default/files/public_files/Benefits-Outline-for-Recruits.pdf

VUMC GME Parental leave for trainees has been updated to correlate with faculty policies. The American Board of Surgery now allows for 47 weeks of full-time clinical activity during a Surgical Critical Care training program to qualify for graduation, in the event of **documented leave** to care for a new child, whether for the birth, the adoption, or placement of a child in foster care; to care for a seriously ill family member (spouse, child, or parent); to bereave the loss of a family member (spouse, child, or parent); or to recover from the trainee's own serious illness.

https://www.absurgery.org/default.jsp?policysccleave#:~:text=ABS%20will%20accept% 2047%20weeks,option%20if%20taken%20as%20outlined.

Lactation support provisions will follow ACGME program requirements, and the fellowship does support those efforts.

Moonlighting

Moonlighting is allowed in both fellowship years for in-house moonlighting. Prerequisites are listed below:

- 1. Full Tennessee medical license
- Permission from the Program Director/GME.

The Program Coordinator can help point you to the correct form submission necessary to facilitate this. In-house moonlighting DOES count toward duty hours, and those must not be in violation. Moonlighting opportunities are generally filled by the surgical residents but may have limited availability to fellows. There is currently no opportunity to moonlight at an attending level.

<u>Time Away Requests (for meetings, interviews, etc)</u>

All requests for time away for conferences, faculty position interviews, or any other reasons outside of scheduled vacation **MUST** be approved by the program director in writing. Once the approval is in writing, notify the program coordinator that you will be travelling, especially if you will be seeking reimbursement for conference attendance. Only after you have notified the program coordinator with the approval in writing may travel be booked.

IMPORTANT

- **YOU MUST BOOK ALL FLIGHTS FOR CONFERENCE TRAVEL VIA WORKDAY THROUGH PROGRAM MANAGER if you do not book via Workday you WILL NOT be reimbursed for any flights.
- ** Please discuss travel plans with one of the AA's prior to booking to ensure you are following the necessary procedures.

Call Schedule Postings

Faculty and resident call schedules are available on Synergy at the end of each month for the upcoming month. Any subsequent changes to that schedule should be communication to the program director.

Other Administrative Responsibilities

Licensure and Credentialing

IMPORTANT

Application for Tennessee Medical License is required for all moonlighting and matriculation to the second year. First year fellows are expected to begin the application and submission process in September/October with the goal of being fully licensed by December.

The program will cover any costs associated with obtaining the medical and DEA licenses, including the annual professional tax (\$400) that is assessed to all licensed physicians in the state of Tennessee each June.

In February, first year fellows will start the credentialing process for the second year. Fellows are expected to have completed all faculty and hospital appointment paperwork as directed by the credentialing office. VUMC credentialing will reach out to you to complete the One Packet, which is the credentialing packet for faculty positions at VUMC and **REQUIRED** for promotion to the second year.

Examinations

<u>First year fellows</u> will take the MCCKAP online exam (critical care "in-training" exam), usually it is in late March or early April. This will be arranged by the program coordinator and we will communicate the dates as soon as determined. Please do not schedule vacation once the exam date is known.

It is highly encouraged that fellows pass the ABS Qualifying Exam and Certifying Exam for General Surgery as soon as able. The online qualifying exam is only offered in July, and the certifying exam's earliest administration date is typically October, which requires an ACTIVE medical license in order to register.

First year fellows will register for the Surgical Critical Care boards in ~June and take the exam in September (currently a one-time yearly offering) of their second year. The program will cover fees associated with the exam – however – **fellows must register for the early bird pricing**. If late registration occurs, the fellow will only be reimbursed for the early bird price.

<u>First and Second year fellows</u> will take the AAST Acute Care Surgery examination. This exam is 100 questions with a 2-hour time limit.

Expense Reimbursement

Several expenses are covered outright by the fellowship program throughout your training. These are required expenses (eg. Medical license registration), which are necessary for continuation in the program. All purchases and travel are to first be approved by the program coordinator in writing.

Program/GME Will Pay:	Professional Expense Provisions	
 Medical License application and professional tax (TN only) DEA application MCCKAP Examination Fee Board exam fees for Surgical Critical Care Lab coats Pager Basic onsite Parking ATLS Instructor Course Fee (as applicable) Desktop computer/office supplies 	 Academic meeting and travel associated (EAST, WTA, AAST, or SCCM) – 1 non-participatory meeting (full conference) only per year, and/or 1 participatory meeting with travel limited to around presentation date/time. Textbooks/subscription (1 trauma and 1 critical care textbook only) Memberships/dues (EAST, SCCM, etc) Total budget is \$4000. Any reimbursements over must be pre-approved by the PD and Chief.	

Appendix I: Fellowship Expectations Cheat Sheet

- 1. Attend **in-person** and participate in fellowship conferences (trauma resuscitation, Wed ACS fellows conference, Thursday CC conferences) unless on nights rotation or engaged in emergent, life-saving patient care.
- 2. Attend **in-person** all department conferences (M&M conference and Grand Rounds)
- 3. Log duty hours (at a minimum of biweekly)
- 4. Log CC cases (minimum 350)
- 5. Log all procedures (US echo, CVL, chest tubes, bronchs, intubations. Minimum expectation of double the AAST requirement)
- 6. Log operative cases (minimum biweekly)
- 7. Complete all AAST modules by end of first year
- 8. Attend a majority of AAST Meet the Masters sessions
- 9. Take AAST exam annually (expectation of middle third or better performance)
- 10. Take MCCKAP exam (spring first year)
- 11.Log CME activities

Appendix II - Electives

First year electives may be a full block or can be broken up into two-week intervals. Elective time lasting a single week are discouraged due to insufficient exposure/experience. The following is an incomplete list of electives and their goals. Other electives than those listed below are allowed but should be arranged in conjunction with the Fellowship PD staff.

Research – (Faculty Contact:) – The goal of this rotation is to advance an existing research project or program. Fellows should plan on starting their projects prior to the elective to complete any potential delays (i.e. IRB). In conjunction with faculty, the project will be evaluated objectively for scientific value and measures of success.

Anesthesia/Airway – (Faculty Contact:) – Fellows should discuss their specific goals with the PD staff and faculty prior to the rotation but should expect to be involved in airway management as well as the administration of anesthesia. The delivery of anesthesia will be largely observational for the fellows in this program.

Prehospital Critical Care - (Faculty Contact: faculty) – Fellows will participate in prehospital care with LifeFlight and/or with Nashville Fire Department. During this rotation fellows should plan to also participate in any trauma outreach or education that is occurring. As this rotation is both popular and can be seasonal, fellows should contact faculty well in advance of their rotation.

Neuro Intensive Care Unit (Faculty Contacts: faculty) Fellows will participate in NICU rounds and patient care in the fellow role. They are expected to gain expertise in the management of patients with acute neurologic critical illness such as stroke, seizures, traumatic brain injury, neuro-malignancy and encephalopathy.

Burn Surgery (Faculty Contact: faculty) Fellows will join burn surgery faculty from the ACS division and the department of Plastic and Reconstructive surgery to gain firsthand experience in burn excision, grafting, and reconstruction. When not in the operating room, fellows will also join the rounding faculty to gain experience in ward management of burns, pre- and post-operatively, including wound care, pain management, management of complications. ABLS certification encouraged. **Palliative Care** (Faculty Contact: faculty) Fellows will make rounds and see consults with the palliative care team and gain additional insight and expertise in end-of-life counseling and care, hospice care, advanced care directives and conflict resolution. A didactic curriculum in palliative care is also a part of the elective

Trauma System Administration (Faculty Contact: faculty) Fellows will learn the fundamentals of trauma system administration including the roles/responsibilities of the trauma medical director, trauma program manager and PI director. Completion of the TOPIC and OPTIMAL courses during the elective is expected, as well as engagement in a PI process such as PMG creation or update, research project or PI deep dive. This elective will help orient fellows to the TQIP standards and ACS verification process and gain a solid foundation for a career as a TMD

Rural/Critical Access Critical Care (Faculty Contact: faculty) - Anchorage, AK: In this rotation, fellows will be housed in Anchorage, Alaska and will work as ACS fellows with the faculty in that location. The goal of this rotation is to learn effective clinical, triage and transfer strategies in a relatively isolated, high quality critical access hospital. Fellows *may* also be asked to assist in rural trauma teaching in smaller town and village trauma centers where resources are limited. This is highly recommended as a rotation for those fellows planning on pursing careers in rural trauma. Military fellows will require special approval from their command prior to embarking on this rotation.

Pediatric Critical Care – Fellows will rotate with one of the PICU teams at Vanderbilt Children's hospital. They are expected to gain experience in strategies of resuscitation the pediatric population, and may participate in pediatric trauma and burn resuscitations if available.

Appendix III - First year fellow administrative roles

SICU resident and student call schedule and evaluation process

- > The fellow assigned to this task is responsible for completing the
 - 1. SICU resident call schedule
 - This includes determining the needs of the residents and developing schedule
 - Forwarding schedule to administrative coordinator to publish appropriately
 - 2. SICU resident and student evaluation process
 - The fellow responsible for the process will ensure that fellows within the SICU for that month are aware of the evaluation process and complete in a timely fashion

SICU Morbidity & Mortality Conference

➤ **Purpose**: to identify and discuss serious adverse events that may indicate process or knowledge deficiencies, to educate fellows regarding prevention of adverse events in complex settings, and to identify and prepare for the MDSCC/SICU presentation in the Department of Surgery's M and M conference.

Methods:

- The Fellow responsible for the overall management of the conference will ensure that the fellows rotating each month understand the access to data, recording, and presentation methods.
- The SICU daytime fellow each month will be responsible for the identification and management of the data daily.
- Utilize data collection sheets provided to record admission information and appropriate events on all patients with whom the ICU service is in consultation
- Monthly reports consisting of total admissions, morbidities and mortalities will be formatted for presentation at the last educational conference of each rotation.
- Data maintained in *Excel* file for management.

Presentation: The end of the month presentation will consist of three parts:

- 1. an overview of morbidities and mortalities
- 2. a brief discussion of the morbidities with appropriate responsibility assessed for each M & M.
- 3. 30 minute presentation covering one topic represented by the M & M findings. The presentation should contain a literature review of the topic and two to three relevant articles for discussion. The literature should be prepared prior to the conference for distribution to the entire faculty and all fellows. A list of topics will be kept avoiding repetition over the course of a 12-to-24-month period.

Attendance: The <u>attendance of the conference is mandatory when on SICU the current or previous month (will be expected to present SICU M&M the month following</u>

the rotation.) Invited guests will include the entire faculty for the SICU and any residents interested in the topic.

Multidisciplinary Critical Care Fellows Conference

- Fellow assigned to administer this conference will work with the assigned faculty mentor to select topics, presenters (faculty within Division of Trauma and Surgical Critical Care, Anesthesia Critical Care, external faculty, and critical care fellows), format to cover topic outlined in a broad-based critical care format. (Currently on Thursdays at 12 pm)
- > Scheduled topics: Ideally, topics will cover a comphrensive range of subjects of importance to critical care. Topics should address those areas outlined in the "Educational Goals and Objectives for Surgical Critical Care" section of the manual.
- ➤ Participants: This is the fellow's critical care conference and is directed to them. All Anesthesia CC and Trauma CC faculty, fellows, R-4s and anesthesia residents on the service will be invited. The junior residents and students will not be invited.
- ➤ Attendance Policy: No conflicting obligations are to be scheduled during conferences if possible. Availability of Critical Care faculty and timing of conferences generally should enable the Critical Care fellows to attend conferences most of the time. Occasional acute care situations that arise during conferences may require a specific Critical Care fellow's attention. The Multidisciplinary Critical Care Residents Conference is specifically provided for their education and therefore, faculty generally cover acute issues that arise at that time.

1) Administrative Responsibilities:

- 1. Faculty will be the faculty supervisors.
- 2. The program coordinator will provide administrative support and distribute schedules.
- 3. The **assigned fellow** is responsible for determining the format each week, selecting the speakers, topics, or articles for the conference with assistance and supervision by faculty.
- 4. Attendance records and evaluations will be maintained for RRC and CME documentation purposes

1st year fellows' call, vacation, meeting and time away schedule

- > The fellow assigned to this role is responsible for
 - Completing the fellows call schedule each month
 - Working with fellowship coordinator to manage and publish schedule
 - Ensuring compliance with ACGME resident work hour guidelines
 - Ensuring continuous coverage in-house at night
 - Communicating and problem solving with Program Director in a timely fashion if goals cannot be met

- Maintaining an excel log with administrative coordinator of the vacations, meetings, time away for the year
 - Should develop a draft plan for the year by September 1

> Administrative Responsibilities:

- 1. Associate Program Director, will be the faculty supervisor.
- 2. Pogram coordinator will provide administrative support and distribute schedules.

SICU/TICU Resident Orientation and Lecture Series

Didactic conference for residents and students rotating in the SICU and TICU. Each Tuesday, Wednesday, and Thursday, Faculty and surgical critical care fellows provide lectures and supervisory roles.

Participants: Faculty, fellows, residents, students rotating in the SICU and TICU. Monday and Friday teaching in a Socratic style on rounds will be primarily encouraged.

> Administrative Responsibilities:

- 1. **Faculty** will be the faculty supervisor.
- 2. The fellowship coordinator will provide administrative support and distribute schedules.

Appendix IV: 2nd Year Fellow Administrative Descriptions:

Trauma Performance Improvement

➤ The assigned fellow will work closely with Director of Trauma PI and PI team in the ongoing PI process for the trauma program. The goal for the fellow assigned will be that they can develop, implement, and manage a performance improvement plan approved by the American College of Surgeons.

Responsibilities will include the following.

- 1. Reviewing cases that have been identified through the PI process. This will include morbidities and mortalities.
- 2. Identifying/selecting cases to be presented at the appropriate peer review setting (General surgery M & M MDTC, TPOPPS etc.)
- 3. Work to develop solutions for problems identified through the PI process, this may include Practice management guideline development, system/process changes, and counseling sessions for involved team members from identified cases.

Deliverables:

- 1. Working knowledge of TRACS system
- 2. Understand PEER REVIEW process
- 3. PMG updates

Trauma Education

- ➤ The assigned fellow will work closely with Trauma Outreach Educators and faculty in our trauma educational process. The goal for the fellow assigned will be to develop the ability to create, implement and manage a comprehensive trauma educational program. Their responsibilities will include the following.
 - Training as instructor for ATLS, ATOM and ASSET, Coordinate and instruct for ATLS, ATOM, and ASSET.
 - Develop an internal educational process based on identified cases from our PI process to disseminate to our providers and our subspecialty colleagues. This will meet the need for our colleagues who do not obtain enough trauma-specific CME for our ACS Level 1 Verification. The fellow will disseminate monthly to all providers a newsletter with trauma specific educational issues identified from the PI process.

Deliverables:

- Director status for ATLS, ATOM and ASSET
- Monthly educational materials database for recurrent use over a 24-month system

Outreach

- ➤ All second-year fellows will work with Trauma Outreach Educator, Trauma Program Manager and faculty. The goal for the fellow will be a complete understanding and management of a lead trauma center in a large regional trauma system. Their responsibilities will include.
 - a. Insuring appropriate follow up and feedback to our referring hospitals, physicians, and EMS providers.
 - b. Will communicate and/or travel to outside institutions for educational programs and academic detailing when our PI process has identified performance issues at institutions.
 - c. Will attend and participate in regional and state level trauma system meetings/processes
 - d. Rural Trauma Team Development course (RTTDC) involvement

Deliverables:

- a. Regional level presence at the STATE and ACS COT region 9 meetings
- b. Outreach letters for Positive and Negative outcomes for regional distribution
- c. Outreach CME credit lecture for use at regional outreach activities

Appendix V: Educational Conference Descriptions

Trauma Service and Emergency General Surgery Morning Reports:

The problem of safe and efficient transfer of care has increased over the past decade as resident work hour restrictions have been implemented, an ever-increasing number of diagnostic tools has become available, and an increasing percentage of complex patients has become concentrated at fewer and fewer facilities. To accomplish these educational responsibilities, centralize information handling, and facilitate the management and transfer of patient care information, a formalized morning report system will be conducted. This will improve the quality of the information transferred during the sign-out process, enhance resident and physician extender efficiency, provide an open forum for discussing the diagnostic work-up and management of the acutely injured patient, and improve the quality of the resident didactic experience. An organized sign out process will utilize the presence of post-call team members, a large chalk/marker board to organize and identify patient encounters (listed by alias), and a digital viewer allowing access to previous radiographic studies obtained over the previous 24-hour period.

Trauma Resuscitation Conference:

This is a joint EM/Trauma quality assurance/process improvement conference that reviews the trauma bay course and resuscitation of critically ill trauma patients. Videos of resuscitations are reviewed for assessment of quality and performance improvement purposes. This is coordinated and moderated by Program Manager and Faculty.

Critical Care Fellows Journal Club:

Biweekly conference administered and hosted by Anesthesia Critical Care that alternates formats, covering both a journal club format of seminal articles related to critical care. First year fellows are not expected to participate or attend PBLD conferences.

Acute Care Surgery (ACS) Fellows Conference:

Weekly conference administered by the Trauma Division and designed to provide Acute Care Surgery Fellows with in-depth knowledge of topics pertinent to the advanced delivery of care and operative management in trauma and emergency general surgery. The format is intended to be a fellow/attending level discussion of up-to-date topics in Acute Care Surgery with majority participation of faculty and trainees when possible. The conference combines topics such as surgical management, administrative issues, epidemiology, citizenship and social media, billing/coding/business and in-depth case reviews in a roundtable session to maximize participation and engagement.

Multidisciplinary Critical Care Fellows Conference:

A weekly conference administered by the Division of Trauma, designed to provide Anesthesia and Surgical Critical Care Fellows with in-depth knowledge of topics pertinent to the advanced delivery of Critical Care Medicine. The conference may alternate in format between Socratic topic reviews provided by invited speakers or Critical Care Faculty, topic review seminars provided by the Critical Care Fellows, and journal club format in which the first-year fellows pick articles to be discussed. Handouts for the seminars and recent and/or landmark articles relevant to the topic with be selected and provided for review by attendees prior to the meeting.

Surgical Critical Care Resident's Conference:

This didactic conference is for residents and students rotating in the SICU. Each Tuesday, Wednesday, and Thursday, from 1P-2P in the SICU 9T3 Conference Room, lectures incorporating material from the resident intensive care unit education course from the Society of Critical Care Medicine will be given. Faculty and instructors provide lectures and supervisory roles.

Acute Care Surgery Divisional Research Conference:

The goal of the Research Conference is to provide research training incorporating elements of study design, biostatistics, funding mechanisms, ethics and resources available at divisional, institutional and departmental level.

SICU Morbidity and Mortality (M&M) Conference:

The goal of M&M is to identify and discuss serious adverse events that may indicate process or knowledge deficiencies amongst team members in the SICU. It provides a venue for fellow education regarding prevention of adverse events in complex settings and allows preparation for the SICU presentation in the Department of Surgery's M & M conference. The SICU fellow for the month will be responsible for the identification and management of the morbidity and mortality data daily. Admission data will be provided by the Process Improvement nurse prior to the conference. Please see Appendix 11 in the fellows' manual for additional detail.

SICU Process Improvement and Quality Assurance Conference:

Intensivist/physician driven efforts to improve the delivery of care within the ICU realm are mandatory if patient care is to be maximized. Such efforts are complex, labor intensive and mandate involvement of multiple care groups and harmonious interfaces with broader systems within the hospital. The SICU has a well-formed and established Process Improvement system and committee. All fellows are encouraged to attend the meeting, but attendance is mandatory during their SICU rotation and when systems issues identified in M & M require presentation at the PI/QA level. The organizational structure is shown below. Fellows in the SICU for the month should review and present all morbidities and mortalities.

MDTC/TPOPPS (Trauma PI) Conference:

Monthly quality review, assessment of performance measures, and referral for process improvement of cases identified and reviewed by trauma coordinator and PI chair. All faculty and second year fellow/instructors are required to attend a minumum of 75% of these meetings.

Division of Trauma Faculty Meeting:

Monthly meeting of all <u>faculty</u>, <u>fellows</u>, <u>and administrative support</u> from the Division of Trauma for the discussion of quality, educational, administrative, financial, and personnel issues that affect the Division related to Trauma, EGS, RGS, and SICU. First and second year fellows should make every effort to attend.

Fellows are expected to attend all the above conferences when they are available, and those are considered protected time except in cases of dire patient emergencies and no other available coverage. The night fellows are excused except for Grand Rounds and M&M, with the remaining fellows expected to attend in person. Additional conferences are available throughout the medical center. The Fellows will be invited to additional conferences through the Anesthesia Critical Care program and are invited to attend if they are available and the topic is relevant to surgical critical care or otherwise interested.