PROGRAM REQUIREMENTS FOR GRADUATE MEDICAL EDUCATION IN ACUTE CARE SURGERY

Sponsored by:

American Association for the Surgery of Trauma (AAST)

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The Program Requirements were approved at the AAST Board of Managers meeting on March 30, 2007, updated in May 2010, June 24, 2014, and August 28, 2020.

These requirements are not intended to replace the professional judgment and ethics of the practicing or instructing surgeon.

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I Introduction

A Program Overview

Acute care surgery is the subspecialty of surgery that manages complex emergency general surgery, traumatic injuries, and critically-ill surgical patients. The goal of the 2-year fellowship is to prepare the fellow to independently provide care to the most injured and ill emergency general surgery and trauma patients. This fellowship focuses on clinical experience, didactics, research, and professional development to prepare the fellows for independent practice in the subspecialty.

B Duration and Scope of Training

Institutions offering fellowships in Acute Care Surgery must provide education to fellows in the care of patients, in teaching, and in research. Surgeons admitted to each fellowship are required to have completed the core training requirements of a Resident Review Committee (RRC)-approved residency in General Surgery and/or be American Board of Surgery eligible. Thus, the fellows should have already developed a satisfactory level of clinical maturity, technical skills, and surgical judgment that will enable them to begin a fellowship in the field of Acute Care Surgery. The period of training is two sequential years and the program must comply with these requirements for fellowship training. The key components of this training include trauma surgery, surgical critical care, and complex emergency general surgery. The surgical critical care component of the fellowship must meet the requirements of an ACGME accredited Surgical Critical Care Fellowship.

II Institutional Support

A Sponsoring Institution

Sponsoring institution must assume responsibility for the program and this responsibility extends to fellow assignments at all participating institutions. The sponsoring institution must house an ACGME accredited surgical critical care (SCC) fellowship program.

B Participating Institutions

i Assignment to an institution must be based on a clear educational rationale, integral to the program curriculum, with clearly stated activities and objectives. When multiple participating institutions are used, there should be assurance of the continuity and quality of the education experience.

ii Assignment to a participating institution requires a letter of agreement with the sponsoring institution that provides an educational experience. In instances where two or more participating institutions in the program function as a single unit under the authority of the program director, letters are not necessary. Such a letter of agreement should:

a Identify the faculty who will assume both educational and supervisory responsibilities for fellows;

b Specify their responsibilities for teaching, supervision, and formal evaluation of fellows, as specified later in this document per sections III.B. and VII.A. of the Program Requirements;

c Specify the duration and content of the educational experience; and

d State the policies and procedures that will govern fellow education during the assignment.

iii Assignments at participating institutions must be of appropriate length to ensure a quality educational experience and should provide sufficient opportunity for continuity of care. Although the number of participating institutions may vary with the various specialties' needs, all participating institutions must demonstrate the ability to promote the program's goals and educational activities. Exceptions must be justified in writing and pre-approved by the AAST.

III Program Personnel and Resources

A Program Director

i There must be a single program director responsible for the program. The person designated with this authority is accountable for the operation of the program.

ii Qualifications of the program director are as follows:

a The program director must possess the requisite specialty expertise, as well as documented educational and administrative abilities.

b The program director must be certified in General Surgery and Surgical Critical Care by the American Board of Surgery.

c The program director must have a faculty appointment in good standing.

d The program director must be a faculty member for 5 years and be a member of the AAST.

e The program director must show evidence of ongoing scholarly activity.

iii The program director, together with the faculty, is responsible for the general administration of the program, and for the establishment and maintenance of a stable educational environment. Adequate lengths of appointment for both the program director and faculty are essential to maintaining such an appropriate continuity of leadership.

iv The PD should have time protected to devote to the administration of the program a minimum of 0.1 FTE equivalent.

v Responsibilities of the program director are as follows:

a The program director must oversee and organize the activities of the educational program in all institutions that participate in the fellowship program. This includes selecting the faculty and other program personnel at each participating institution, appointing a local site director, and monitoring appropriate fellow supervision at all participating institutions.

1 the program director may appoint an associate program director(s) to assist with administrative duties related to the fellowship program.

b The program director is responsible for preparing an accurate statistical and narrative description of the program as requested by the Acute Care Surgery committee of the AAST, as well as annually updating both program and resident records through the ACGME's Accreditation Data System, and a similar system of the AAST.

c The program director must ensure the implementation of fair policies, grievance procedures, and due process, as established by the sponsoring institution and in compliance with the Institutional Requirements.

d The program director must seek the prior approval, in writing, from the AAST for any changes to the program that may significantly alter the educational experience of the fellows. Examples of such changes include:

1 The addition or deletion of a participating institution;
2 A change in the format of the educational program;
3 An addition of an international rotation;
4 A change in the approved fellow complement;
5 Designation of a new program director.

On review of a proposal for any such major change in a program, the AAST may determine that a focused site visit is necessary.

B Faculty

i At each participating institution, there must be a sufficient number of faculty with documented qualifications to adequately instruct and supervise all fellows in the program. A minimum number of 1 faculty per fellow must be present at each participating institution.

ii The faculty must devote sufficient time to the educational program to fulfill their supervisory and teaching responsibilities. They must demonstrate a strong interest in

the education of fellows, and must support the goals and objectives of the Acute Care Surgery fellowship.

iii Qualifications of the physician faculty are as follows:

a The physician faculty must possess the requisite specialty expertise and competence in clinical care and teaching abilities, as well as documented educational and administrative abilities and experience in their field.

b The physician faculty must be certified in the specialty by the American Board of Surgery, or possess qualifications judged to be acceptable by the AAST.

c The physician faculty must be appointed in good standing to the staff of an institution participating in the program.

iv The responsibility for establishing and maintaining an environment of inquiry and scholarship rests with the faculty, and an active research component must be included in each program. Scholarship is defined as the following:

a The scholarship of discovery, as evidenced by peer-reviewed funding or by publication of original research in a peer-reviewed journal;

b The scholarship of dissemination, as evidenced by review articles or chapters in textbooks;

c The scholarship of application, as evidenced by the publication or presentation of, for example, case reports or clinical series at local, regional, or national professional and scientific society meetings.

d Complementary to the above scholarship is the regular participation of the teaching staff in clinical discussions, rounds, journal clubs, and research conferences in a manner that promotes a spirit of inquiry and scholarship (e.g., the offering of guidance and technical support for fellows involved in research such as research design and statistical analysis); and the provision of support for fellow's participation, as appropriate, in scholarly activities.

v Qualifications of the non-physician faculty are as follows:

a Non-physician faculty must be appropriately qualified in their field; and possess qualifications judged to be acceptable by the AAST.

b Non-physician faculty must possess appropriate institutional appointments.

C **Other Program Personnel**

Additional necessary professional, technical, and clerical personnel must be provided to support the program. This includes the dedicated time of a program coordinator.

D Facilities and Resources

The program must ensure that adequate resources (e.g., sufficient laboratory space and equipment, research support, computer and statistical consultation services) are available. Fellows must have ready access to all major trauma, critical care and general surgery journals and textbooks either at the institution where the fellows are located or through arrangement with convenient nearby institutions. Texts and journals must be readily available during nights and weekends.

IV Fellow Appointments

A **Eligibility Criteria**

The program director must comply with the criteria for fellow eligibility as specified in the Institutional Requirements. Candidates for fellowship must have finished an RRC-approved General Surgery residency and/or be ABS eligible in General Surgery.

B **Number of Fellows**

The AAST will approve the number of fellows based upon criteria that include the adequacy of resources for fellow education (e.g., the quality and volume of patients and related clinical material available for education including operative cases), faculty-fellow ratio, institutional support, and the quality of faculty teaching.

C **Appointment of Fellows and Other Students**

The appointment of AAST Acute Care Surgery fellows must not dilute nor detract from the educational opportunities available to general surgery residents in an RRC-approved residency program.

V Program Curriculum

A Program Design

i Format

The program design and sequencing of educational experiences will be approved by the AAST as part of the review process.

ii Goals and Objectives

The program must possess a written statement that outlines its educational goals with respect to the knowledge, skills, and other attributes of fellows for each major assignment and for each year of the program. This statement must be distributed to fellows and faculty, and must be reviewed with fellows prior to their assignments.

B **Curriculum Design**

The program must possess a well-organized and effective curriculum, both didactic and clinical. The curriculum must provide fellows with direct experience in progressive responsibility for patient management. The content of this curriculum must be consistent with the Acute Care Surgery curriculum defined by the AAST. It is the responsibility of the program to meet the major goals and educational opportunities outlined by this

curriculum, particularly the operative curriculum. The program has the responsibility to present a detailed plan for curricular activities, including clinical rotations, didactic teaching, reading assignments, and competency in technical procedures. In addition, the program must have in place a method for curricular evaluation.

C **Fellows' Scholarly Activities**

Each program must provide an opportunity for fellows to participate in research or other scholarly activities, and active fellow participation in scholarly activities must be documented.

D **ACGME Core Competencies and the ACGME/ABS Milestone Project**

The fellowship program must require its fellows to obtain competence in the six areas listed below. Programs must define the specific knowledge, skills, behaviors, and attitudes required, in keeping with the AAST Acute Care Surgery curriculum outline, and provide educational experiences as needed in order for their fellows to demonstrate the following:

i *Patient care* that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health;

ii *Medical knowledge* about established and evolving biomedical, clinical, and cognate sciences, as well as the application of this knowledge to patient care;

iii *Practice-based learning and improvement* that involves the investigation and evaluation of care for their patients, the appraisal and assimilation of scientific evidence, and improvements in patient care;

iv *Interpersonal and communication skills* that result in the effective exchange of information and collaboration with patients, their families, and other health professionals;

v *Professionalism,* as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to patients of diverse backgrounds; and

vi *Systems-based practice,* as manifested by actions that 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.

The fellowship program should also evaluate its fellows using milestones, which provide a framework for the assessment of the development of the fellow in key dimensions of the elements of physician competency. The milestones will include the following practice domains: Care for diseases and conditions, performance of operations or procedures, coordination of care, teaching, self-directed learning, improvement of care, maintenance of physical and emotional health, and performance of assignments or

administrative tasks. The milestones will be linked to the six core competencies in a manner similar to that put forth by the ACGME and ABS.

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E Didactic Components

i Fellows in Acute Care Surgery should be given the opportunity to obtain sufficient knowledge of those aspects of trauma, surgical critical care, and emergency surgery to develop overall competence as a specialist. Such training is best accomplished in cooperation with all clinical departments.

ii Teaching contributes to the educational process, and therefore should be a regular part of the training program. The fellow should assist when possible in the instruction of general surgical residents and medical students, as well as nurses and other allied health professionals. It is important to include instruction in trauma system design, disaster management, surgical critical care, and recognition and management of surgical emergencies. Fellows are encouraged to become ATLS instructors and participate in ASSET and COT sponsored courses.

F Clinical Components

i The program should supply the necessary volume and variety of trauma, critical care, and general surgery to assure adequate training of fellows. If there is insufficient volume or variety in the primary institutions, arrangements should be made for an affiliation with a participating institution to correct the inadequacy.

ii Each fellow must have ample opportunity and responsibility for the care of patients with acute surgical problems, and the operative experience consistent with developing competency in technical skills and procedures required to provide acute surgical care.

iii Each institution may offer a variety of clinical and operative experiences designed to enhance the fellows' breadth of experience. This may include elective general surgery, international surgical rotations, focused ultrasound curricula, trauma system development, advanced endoscopy, and enhanced exposure to subspecialty rotations.

iv EGS call and trauma call are mandatory components of the training curriculum. Fellows will take a minimum of 52 night calls during the 2-year fellowship.

v Operative experience in thoracic, vascular, and complex hepatobiliary/pancreatic procedures is expected as a means of developing competency in the management of acute surgical emergencies in these anatomic regions.

vi Exposure to the diagnosis, management and operative treatment of neurosurgical and orthopedic injuries is encouraged.

vii Experience with the use of interventional radiology techniques is encouraged.

viii Further details of the clinical components, specifically the operative curriculum and designated case numbers, are given in the Appendix.

VI Duty Hours and the Working Environment

Providing fellows with a sound didactic and clinical education must be carefully planned and balanced with concerns for patient safety and fellow well-being. Each program must ensure that the learning objectives of the program are not compromised by excessive reliance on fellows to fulfill service obligations. Didactic and clinical education must have priority in the allotment of fellow's time and energy. Duty hour assignments must recognize that faculty and trainees collectively have responsibility for the safety and welfare of patients.

A Supervision of Fellows

i All patient care must be supervised by faculty credentialed by the hospital. The program director must ensure, direct, and document adequate supervision of fellows at all times. Fellows must be provided with rapid, reliable systems for communicating with supervising faculty.

ii Supervision within the SCC year is provided according to ACGME SCC CPRs. Supervision in the 2nd year is guided by the AAST supervision policy.

iii Faculty schedules must be structured to provide fellows with continuous supervision and consultation.

iv Faculty and trainees must be educated to recognize the signs of fatigue, and adopt and apply policies to prevent and counteract its potential negative effects.

B Duty Hours

i Duty hours are defined as all clinical and academic activities related to the fellowship program, including but not limited to: patient care (both inpatient and outpatient), administrative duties relative to patient care, the provision for transfer of patient care, time spent in-house during call activities, and scheduled activities such as conferences. Duty hours do not include reading and preparation time spent away from the duty site.

ii Duty hours must be limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities.

iii Fellows must be provided with one (1) day in seven (7) free from all educational and clinical responsibilities averaged over a four-week period, inclusive of call. *One day* is defined as one (1) continuous 24-hour period free from all clinical, educational, and administrative duties.

iv Adequate time for rest and personal activities must be provided. This should optimally consist of a ten-hour time period provided between all daily duty periods and after in-house call.

C On-Call Activities

The objective of on-call activities is to provide fellows with continuity of patient care experiences throughout a 24-hour period. *In-house call* is defined as those duty hours beyond the normal work day, when fellows are required to be immediately available in the assigned institution.

i In-house call must occur no more frequently than every third night, averaged over a four-week period.

ii Continuous on-site duty, including in-house call, must not exceed 24 consecutive hours. Optimally, fellows should remain on duty for up to only four (4) additional hours to participate in didactic activities, transfer care of patients, conduct outpatient clinics, and maintain continuity of medical and surgical care. Since fellows are mature learners, exceptions to the duty hours are allowed for rare circumstances that are outstanding educational opportunities.

iii *At-home call* (or *pager call*) is defined as a call taken from outside the assigned institution.

a The frequency of at-home call is not subject to the every-third-night limitation.
b Fellows taking at-home call must be provided with one (1) day in seven (7) completely free from all educational and clinical responsibilities averaged over a four-week period.
c When fellows are called into the hospital from home, the hours they spend in-house are counted toward the 80-hour limit.
d The program director and the faculty must monitor the demands of at-home call in their programs, and make scheduling adjustments as necessary to mitigate excessive service demands and/or fatigue.

D Moonlighting

i Because fellowship education is a full-time endeavor, the program director must ensure that moonlighting does not interfere with the ability of the fellow to achieve the goals and objectives of the educational program.

ii The program director must comply with the sponsoring institution's written policies and procedures regarding moonlighting, in compliance with the ACGME Institutional Requirements.

iii Any hours a fellow works for compensation at the sponsoring institution or any of the sponsor's primary clinical sites must be considered part of the 80-hour weekly limit on duty hours. This refers to the practice of *internal moonlighting.*

E Oversight

i Each program must have written policies and procedures consistent with the Institutional and Program Requirements for fellow duty hours and the working environment. These policies must be distributed to the fellows and the faculty. Duty hours must be monitored with a frequency sufficient to ensure an appropriate balance between education and service.

ii Back-up support systems must be provided when patient care responsibilities are unusually difficult or prolonged, or if unexpected circumstances create fellow fatigue sufficient to jeopardize patient care.

iii The following materials (policy and procedures documents) must be maintained by the fellowship program:

a Fellow Duty Hours/Work Environment
b Recruitment/Appointment/Eligibility/Selection of fellows
c Discipline/Grievance/Dismissal of fellows
d Supervision of fellows and escalation of care
e Moonlighting

1 Copy of a Fellow Contract
2 Current PLAs
3 Goals/Objectives
4 Files and Teaching Portfolios of Current Fellows and most recent graduates to include Case Logs
5 Internal Program Evaluations/Performance Improvement Plans
6 Faculty Curriculum Vitae
7 Fellow case logs and portfolios

VII Evaluation

A Fellow

Formative Evaluation
The faculty must evaluate the fellows whom they supervise in a timely manner. In addition, the fellowship program must demonstrate that it has an effective mechanism for assessing fellow performance throughout the program, and for utilizing the results to improve fellow performance.

i Assessment should include the use of methods that produce an accurate assessment of fellows' competence in patient care, medical knowledge, practice-based learning and

improvement, interpersonal and communication skills, professionalism, and systems-based practice (the milestones as developed by the AAST).

ii Assessment should include the regular and timely performance feedback to fellows that includes at least semi-annual written evaluations. Such evaluations are to be communicated to each fellow in a timely manner, and maintained in a record that is accessible to each fellow.

iii Assessment should include the use of assessment results, including evaluation by faculty, patients, peers, self, and other professional staff, to achieve progressive improvements in fellows' competence and performance.

B Final Evaluation

The program director must provide a final evaluation for each fellow who completes the program. This evaluation must include a review of the fellows' performance during the final period of education, and should verify that the fellow has demonstrated sufficient professional ability to practice independently. The final evaluation must be part of the fellow's permanent record maintained by the institution.

C Faculty

The performance of the faculty must be evaluated by the program no less frequently than at the midpoint of the accreditation cycle, and again prior to the next site visit. The evaluations should include a review of their teaching abilities, commitment to the educational program, clinical knowledge, and scholarly activities. This evaluation must include annual written confidential evaluations by fellows.

D Program

The educational effectiveness of a program must be evaluated at least annually in a systematic manner.

i Representative program personnel (e.g., at least the program director, representative faculty, and one fellow) must be organized to review program goals and objectives, and the effectiveness with which they are achieved. This group must conduct a formal documented meeting at least annually for this purpose. In the evaluation process, the group must take into consideration written comments from the faculty, the most recent report of the GMEC of the sponsoring institution, and the fellows' confidential written evaluations. If deficiencies are found, the group should prepare an explicit plan of action, which should be approved by the faculty and documented in the minutes of the meeting.

ii The program should use fellow performance and outcome assessment in its evaluation of the educational effectiveness of the fellowship program. Performance of program graduates on the American Board of Surgery Surgical Critical Care certification examination and the AAST Acute Care Surgery examination should be used as one measure of evaluating program effectiveness. The program should maintain a process for using assessment results together with other program

evaluation results to improve the fellowship program.

VIII Experimentation and Innovation in Training

Since responsible innovation and experimentation are essential to improving professional education, experimental projects along sound educational principles are encouraged. Programs are encouraged to consider improvements or innovations in the training of Acute Care Surgeons. Requests for experimentation or innovative projects that may deviate from the program requirements must be approved in advance by the AAST, and must include the educational rationale and method of evaluation. Such deviations or innovations in training must remain consistent with ACGME principles of fellow education. The sponsoring institution and program are jointly responsible for the quality of education offered to trainees for the duration of such a project.

IX Accreditation and Certification

This fellowship is designed and accredited by the American Association for the Surgery of Trauma. An essential component of the fellowship is completion of an ACGME RRC-approved Surgical Critical Care fellowship, with certification for that component provided by the American Board of Surgery. The Acute Care Surgery Fellowship training sites will be accredited as complying with the AAST-sponsored Acute Care Surgery curriculum, and a certificate of completion of such fellowship will be provided by the AAST.

The period of fellowship accreditation will be up to 5 years. Prior to the end of this period, the program will be required to submit a new Program Information Form and undergo a site visit by the AAST. Prior to the end of the accreditation period, the AAST will send a letter to the program director notifying them that a new PIF is required and a site visit must be scheduled. If there are focal areas of concern identified during an initial AAST site visit, the program may receive provisional accreditation. The program will be required to address these areas of concern in writing and a focused site visit will occur within one year of provisional accreditation. Other items requiring approval from the AAST include a change/expansion in fellow complement, addition/change in rotations/rotation sites, appointment of a new program director, international rotations, off-cycle fellows, and back-fill of open 1-year fellowship positions.

Head and Neck

Exposures/Incisions – Essential

PROCEDURE	*Required Number*	*Fellow's Number*
Neck exploration	5	

Neck explorations include collar incisions, sternocleidomastoid incisions, and thoracic extensions to the neck for vascular exposure.
Elective cases that provide additional operative exposure to essential structures of the neck include thyroidectomy, parathyroidectomy, and cervical lymphadenectomy.
****ASSET course may be used to satisfy 1 case requirement for all categories.**

Organ Management – Essential

ORGAN	*PROCEDURE*	*Required Number*	*Fellow's Number*
Trachea	Tracheostomy (either percutaneous or open)	10	

Organ Management – Desired

ORGAN	*PROCEDURE*	*Fellow's Number*
Brain	Burr hole ICP monitor Craniotomy/craniectomy	
Eye	Canthotomy	
Trachea	Tracheal resection/repair Cricothyroidotomy	
Esophagus	Esophageal resection/repair	

Thoracic

Exposures/Incisions - Essential

PROCEDURE	***Required Number***	***Fellow's Number***
Thoracotomy	10	
Thoracoscopy	10	
Sternotomy	10	
Pericardiotomy	5	

Pericardiotomy includes sub-xiphoid, transdiaphragmatic and transthoracic approaches including open cardiac massage following resuscitative thoracotomy.

Organ Management – Essential

ORGAN	*PROCEDURE*	*Required Number*	*Fellow's Number*
Lung	Pleural Space	5	
	Lung Parenchyma	5	
	Bronchoscopy	20	
Diaphragm	Diaphragm	3	
Heart	Cardiac	5	

Diaphragm cases may include thoracoabdominal exposure for spine surgery.
Cardiac cases may include elective or emergent cases requiring cardiac suture or repair.

Organ Management – Desired

PROCEDURE	***Fellow's Number***
Trachea/bronchus repair or resection	
Esophageal repair or resection	
Chest wall resection or reconstruction (includes rib plating)	
Thoracic great vessel repair or reconstruction – open or endovascular	
ECMO/extracorporeal ypass	

Abdominal

Exposures/Incisions – Essential

PROCEDURE	*Required Number*	*Fellow's Number*
Enteral access	5	
Laparotomy	10	
Diagnostic laparoscopy	5	
Hepatic mobilization	2	
Damage control techniques	10	
Complex laparoscopy	10	

Complex laparoscopy includes colectomy, lysis of adhesions, common bile duct exploration, Graham patch, hernia repair, or enteral access.

Organ Management – Essential

ORGAN	*PROCEDURE*	*Required Number*	*Fellow's Number*
Liver	Re-exploration of hepatic wound, hepatotomy, hepatectomy (donor or partial), transplantation	5	
	Management of hemorrhage	3	
Spleen	Splenectomy, splenorrhaphy	2	
Kidney	Exploration, nephrectomy (partial or complete), repair, transplant	3	
Pancreas	Drainage, resection, repair, transplant	5	
Stomach	Gastrectomy, management ulcer or injury	5	
Duodenum	Management ulcer or injury	2	
Small intestine	Resection, repair, lysis of adhesions, management volvulus, intussusception, internal hernia	10	
Colon and Rectum	Colectomy, colostomy, repair, management rectal injury	10	
Biliary system	Partial or subtotal cholecystectomy, common bile duct exploration, hepaticoenterostomy; open cholecystectomy	3	
Bladder	Repair, resection	3	
Ureter	Repair, stent	1	
	Abdominal wall reconstruction	Desirable	

Vascular

Exposures/Incisions – Essential

PROCEDURE	*Required Number*	*Fellow's Number*
Left medial visceral rotation	2	
Right medial visceral rotation	5	
Infrarenal aorto-pelvic exposure	3	
Brachial exposure	3	
Femoral exposure	5	
Popliteal exposure	2	
Retrograde balloon occlusion of aorta Trap door incision Cervical extension from sternotomy Supraclavicular incision Infraclavicular incision	Desired	

Organ Management – Essential

PROCEDURE	*Required Number*	*Fellow's Number*
Management of arterial injury or occlusion	10	
Open arterial bypass graft	[redacted]	
On-table arteriography		
Thromboembolectomy		
Repair arteriotomy or venous injury		
Fasciotomy	5	
Placement IVC Filter Amputation of extremity	Desired	

Ultrasound

PROCEDURE	*Required Number*	*Fellow's Number*
FAST/E-FAST	25	
US evaluation of cardiac function	15	
US guided drainage of pleural space	5	
US guided CVL placement	5	
TEE Percutaneous cholecystectomy US guided pericardiocentesis US guided IVC filter placement	Desired	

Management of Complex Trauma

PATIENT INJURY COMPLEX	*Required Number*	*Fellow's Number*
Patients with ISS > 25	15	
Patient receiving MTP (10 units RBCs/24 hrs)	10	
Grade 4-5 liver injury	5	
Thoracic injury with AIS > 4 Unilateral flail segment > 3 ribs with contusion Bilateral flail chest >3 rib fx with hemoPTX Bilateral > 3 rib fx with or without hemoPTX Open "sucking" chest wound Major pulmonary vascular injury Complex/rupture of bronchus distal to mainstem Lung laceration with hemothorax with >20% volume blood loss Lung laceration with a tension PTX	5	
Unstable pelvic fx (hemodynamically unstable requiring red cell transfusion	5	
TBI with intracranial HTN	5	
Management of blunt descending aortic injury	2	

Management of Complex EGS

PATIENT SEVERITY OF ILLNESS	*Required Number*	*Fellow's Number*
EGS damage control surgery/staged GI reconstruction	2	
NSTI with severe sepsis	2	
Perforated viscus with septic shock	2	

Notes to Curriculum Outline:

It is a requirement that over the 2-year fellowship, trainees participate in Acute Care Surgery call. Fellows are required to take 52 night calls in trauma and emergency surgery during the 2-year fellowship.

1. The structure of the 24-month training should be utilized to optimize the training of the fellow.

2. Rationale for out-of-system rotations for key portions of the training must be based on educational value to the fellow.

3. Acute Care Surgery fellowship sites must have RRC-approval for Surgical Critical Care training.

4. An academic environment is mandatory and fellows should be trained to teach others and conduct research in Acute Care Surgery.