Fellowship Training in Emergency Surgery: The Focus on "Education" is Lacking

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ABSTRACT

Background: In the academic medical center, trauma and surgical critical care (SCC) fellowship programs have begun to incorporate emergency surgery (ES) as part of training for what may ultimately become the field of Acute Care Surgery. Neither ES nor Trauma is required as parts of current ACGME-approved SCC fellowships. We hypothesized that the didactic and feedback / evaluation components of postgraduate education in ES and trauma, lacking an ACGME mandate, are not present in current fellowship programs.

Methods: An electronic survey tool was used to develop a questionnaire that was distributed to program directors of 80 ACGME-accredited SCC fellowship programs. The survey examined clinical and didactic programs as well as the feedback/evaluation processes for each component of training in current fellowship programs. Fisher's Exact Test was used to evaluate questions of interest.

Results: 54 program directors responded (67.5%).

	Clinical	Didactic	Feedback/Evaluation
SCC	54	51 (94.4%)	54 (100%)
Trauma	41 (75.9%)	35 (85.4%)	36# (87.8%)
Emergency Surgery	19 (35.2%)	6* (31.6%)	6* (31.6%)

* p < 0.01 vs. SCC and Trauma; # p <0.05 vs. SCC

Conclusions: Didactic and feedback/evaluation are routine parts of the SCC fellowship educational experience. Fellowship training in trauma surgery frequently mirrors SCC training with the majority of programs providing these educational components. ES has recently become a defined component of 1/3rd of the fellowship programs. The didactic and feedback/evaluation components of this portion of the fellowship appear to be lacking. As the process towards possible ACGME / ABS recognition of Acute Care Surgery moves forward, these educational deficiencies in training programs will need to be addressed.

INTRODUCTION

In 2005, the American Association for the Surgery of Trauma, proposed the creation of the subspecialty of Acute Care Surgery. The subspecialty would encompass Surgical Critical Care, Trauma, and Emergency Surgery.[1] The goal of creating such a specialty is to increase the desirability and viability of trauma as a profession. Several institutions have already adapted this model to their trauma service and have shown the benefits of incorporating the three disciplines into their practice.[2] They have seen an increase in operative caseload as well as improved satisfaction of their trauma surgeons.

Fellowship programs for critical care and trauma have also started to include emergency surgery into their program. However, there has been considerable variability in its incorporation. This study aims to determine the prevalence of emergency surgery in the fellowship curriculum and identify the educational components of each program.

ABSTRACT

An on-line survey tool was utilized to compare the variation between critical care training programs (Zoomerang.com, Market Tools Inc, Mill Valley CA). Programs were identified from the database of critical care programs maintained by the Accreditation Council for Graduate Medical Education and by TRAUMA.ORG.

Eighty programs were identified as having a fellowship program for either Surgical Critical Care and/or Trauma Surgery. A 15-item survey was created specifically for this study. The survey was divided into three sections to address the individual components (trauma surgery, critical care, and emergency surgery) of each program.

TABLE 1. Representative Sample of Questions from Web-Based Survey

1. Is trauma surgery part of your fellowship program?
- **A.** Yes
- **B.** No

2. Do you have a didactic program to teach trauma surgery to your Fellows? ***IF NO, SKIP TO QUESTION #5***
- **A.** Yes
- **B.** No

3. How often is the trauma surgery didactic conference held?
- **A.** Once A Week
- **B.** More Than Once A Week
- **C.** Every Other Week
- **D.** Monthly
- **E.** Other, Please Specify

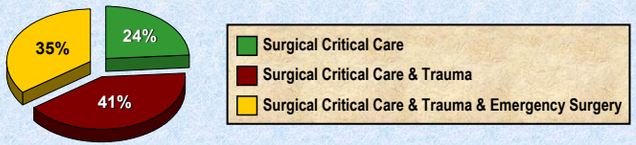
4. What are the components of the trauma surgery curriculum? ***SELECT ALL THAT APPLY***
- **A.** Lecture
- **B.** Journal Club
- **C.** M&M / Performance Improvement
- **D.** Video Review
- **E.** Textbook Review
- **F.** Simulation Labs
- **H.** Case Review
- **I.** Visiting Professors
- **J.** Other, Please Specify

5. How do you evaluate your Fellow's performance in trauma surgery? ***SELECT ALL THAT APPLY***
- **A.** Written Exam
- **B.** Written Evaluations
- **C.** Do not have a formal evaluation process
- **D.** Other, Please Specify

RESULTS

Of the 54 respondents, 100% stated that critical care was part of their fellowship program. 76% of programs combined trauma and critical care, and 35% included emergency surgery as well as trauma and critical care. *(Figure 1)*

FIGURE 1. Components of Fellowship Programs



Ninety-four percent responded that a didactic program for critical care was a component of their fellowship. The programs that also included trauma in their fellowship, 65% had a didactic program to teach trauma. Of the programs that also included emergency surgery, 35% had a didactic program to teach emergency surgery. The educational components of the curriculum for critical care, trauma, and emergency surgery were defined in several categories *(Figure 2)*. The frequency of the didactic curriculum and evaluative process were assessed. *(Figure 3 and Figure 4)*.

FIGURE 2. Didatic Curriculum

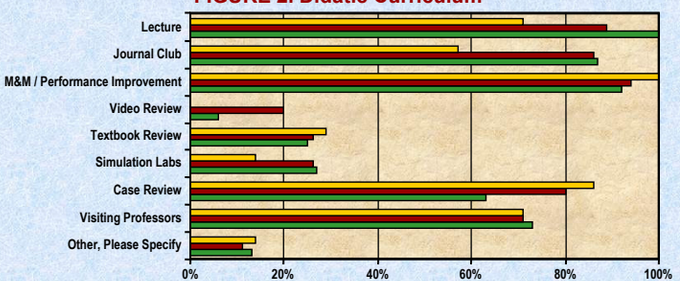
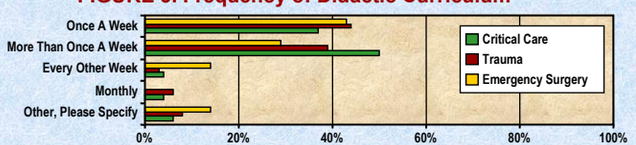
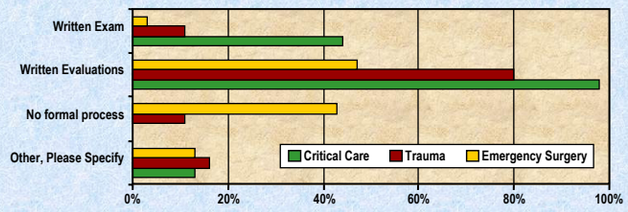


FIGURE 3. Frequency of Didactic Curriculum



RESULTS

FIGURE 4. Evaluative Process



DISCUSSION

The concept of trauma education can be traced back to David R Boyd, MD, who in 1967, became the first recognized trauma fellow in a trauma care fellowship program. Over the past 40 years, Surgical Critical Care/Trauma has evolved into a distinct fellowship training program. However, significant variability in educational and curriculum constructs has been noted between programs.[3]

This study evaluated the current structure of Surgical Critical Care/Trauma training programs and their educational components. The didactic and feedback/evaluation components of fellowship training appear to be lacking. In addition the lack of a standardized curriculum results in a varied training experience.

CONCLUSION

The training of the modern trauma surgeon continues to evolve and adapt to changing situations in the medical profession. Further resources and effort must be focused on increasing the educational components of trauma fellowship to prepare future trauma surgeons for an expanded scope of practice.

REFERENCES

1. Cryer H. The Future of Trauma Care: At the Crossroads. J Trauma. 2005;58:425-436.
2. Pryor J, Reilly P, Schwab W, et al. Integrating Emergency General Surgery with a Trauma Service: Impact on the Care of Injured Patients. J Trauma. 2004;57:467-473.
3. Chiu W, Scalea T, Rotondo M. Summary Report on Current Clinical Trauma Care Fellowship Training Programs. J Trauma. 2005;58:605-613.