



Acute care surgery:
Enhancing outcomes or fragmenting care?

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Leaders from all medical specialties agree that there are profound problems affecting the emergency workforce. A proactive approach to the issue may avert the looming crisis. Among the many changes proposed to improve emergency care, development of a new specialty, “acute care surgery,” may be the most controversial. Therefore, this topic has been chosen for the Resident and Associate Society (RAS) symposium at the 2006 Clinical Congress in Chicago, IL.

Background

Emergency room visits are increasing at twice the rate of population growth. At the same time that emergency departments are becoming busier, changes in the Emergency Medical Treatment and Active Labor Act regulations and decreased funding for trauma systems have reduced the efficiency of care for surgical patients. Further exacerbating the problem is reduced interest in emergency department call among surgical specialists. Some reasons are shared across specialties (including increased medical liability, reduced compensation, lack of institutional support, and interference with elective practice), whereas other causes are peculiar to particular specialties (such as frequent inappropriate consults for hand and plastic/reconstructive surgeons).

Many solutions have been proposed and have resulted in varying degrees of acceptance across surgical specialties. Essential to improvement of emergency care is enhancement of communications and fostering of collaboration among the surgical stakeholders. Efforts to enact liability reform, appropriately fund trauma systems, and improve regionalization of care will relieve some of the pressure on the emergency surgical workforce. There is also agreement that the emergency surgical workforce may be enhanced with on-call stipends and increased reimbursement for emergency surgery.¹ However, the proposal to develop a new specialty of “acute care surgery” (as an extension of trauma/critical care surgery) has caused great controversy among the surgical specialists.²

The proposed acute care surgery practice is based on the so-called European model of trauma and emergency surgery. In this model, surgeons care for acutely ill patients across a broad spectrum of disease processes. This specialized trauma

surgeon may operate on the chest, abdomen, blood vessels, bones (for fracture fixation), and head (to place intracranial pressure monitoring devices or decompress subdural and epidural hematomas). With an ultimate goal of maintaining life and limb, the surgeon is trained to triage, stabilize, and potentially operate on a great majority of patients presenting with trauma or acute surgical illnesses.³

By developing a cadre of trauma surgeons to care for surgical emergencies across specialties, the acute care surgery paradigm is anticipated to relieve some of the strain on the surgical workforce, maintain or improve patient care, and increase the attractiveness of trauma surgery to surgical trainees.

Advantages

- *Increase ability to recruit trauma surgery trainees to allow complete trauma center coverage.* Trauma/critical care fellowships are struggling to attract young surgeons. Many fellowship positions are unfilled and trauma centers are experiencing difficulties recruiting new faculty. The expanded role of the acute care surgeon will increase the attractiveness of the specialty and help with recruitment and retention of trauma surgeons.

- *Improve the cost/benefit ratio for trauma surgery and avoid the distractions of a heavy elective surgical practice.* New studies have highlighted the growing dichotomy between the reimbursements for the hospital and the trauma surgeon. Although trauma is often profitable for the trauma center, the poor reimbursement and labor-intensity of care for the critically ill trauma patient have made it difficult for the trauma surgeon to have a financially feasible practice without a significant component of elective surgical practice.⁴ The more inclusive specialty of acute care surgery is proposed to address many issues that are believed to make the field of trauma surgery unappealing.⁵

- *Expand surgical practice that maintains technical skills while preserving a manageable lifestyle.* Increasingly, trauma surgery has become a nonoperative specialty.⁶ By performing emergency nontrauma surgery, the acute care surgeon will have an expanded scope of practice. This will lead to increased satisfaction and reim-

bursement while allowing the trauma surgeon to maintain technical skills. Compared with the traditional trauma surgeon, the acute care surgeon will perform more surgeries when on-call and feel less need to generate clinical income when off-call. Overall, this will lead to more predictable hours and a manageable lifestyle, which are increasingly important to medical students and general surgery residents.¹

- *Reduce the necessity for nontrauma surgical consultations and increase the comprehensiveness of patient care.* Patient outcomes will improve as the in-house acute care surgeon renders timely and efficient care. By providing “one-stop shopping,” the acute care surgeon will be able to diagnose and treat myriad acute conditions. In a manner similar to “closed” intensive care units, it is hoped that emergency and trauma care provided by a practitioner devoted exclusively to the acutely ill patient will result in improved outcomes.

- *Increase overall hospital efficiency issues associated with staffing and resource utilization for the acute surgical patient.* It is believed that the specialty of acute care surgery will be attractive to hospitals. Emergency departments will have fewer problems with coverage issues from surgical specialists. Acutely ill patients will have improved access to emergency care from an in-house specialist. Finally, operating room utilization will be enhanced as more procedures are performed at night and fewer cases interrupt the elective schedule or are added on at the end of the day.

Disadvantages

Many surgeons have noted potential problems with “acute care surgery.”

- *Identifying sufficient cases during fellowship to ensure adequate training.* Foremost is the difficulty in training the acute care surgeon. Having completed a general surgery residency, the acute care surgeon should be able to perform urgent intra-abdominal operations. However, obtaining and documenting proficiency in other areas may prove to be more difficult. With the increasing use of endovascular techniques, obtaining an adequate caseload of open vascular surgery cases is becoming problematic even for vascular surgery fellows. How will the vascular

surgery training of the acute care surgeon be accomplished? Even more daunting is learning the subtleties of urgent neurosurgical or orthopaedic interventions. How this might be accomplished in a brief fellowship rotation remains to be seen.²

- *Lack of well-established model and supporting data for the overall practice.* It is difficult to look across the Atlantic Ocean for guidance, as the European model of acute care surgery seems to exist in only in a small number of countries in Europe.³ In most European countries, trauma and emergency surgical care is provided by a cadre of specialists in a manner very similar to the process in the U.S. Given the scarcity of practicing European model trauma surgeons and the paucity of data to validate its safety and efficacy, it may be difficult to persuade skeptics that a convincing model of acute care surgery exists.

- *Potential lack of financial recovery for delivering care.* Recent studies have called into question the notion that the addition of emergency general surgery will improve the financial viability of trauma and critical care as a specialty. Although an elective surgical practice increased billing and reimbursements, the covering emergency general surgery cases did not result in financial benefits to the trauma surgeon.⁷

- *Inability to eliminate specialist call schedule.* Although proposed to relieve the shortage of on-call physicians, acute care surgeons will likely need back-up from these same on-call surgical specialists. Vascular surgery may be used as an example. Although some vascular emergencies would be (and already are) addressed by trauma surgeons, many would remain outside the scope of the acute care surgeon. Faced with an ischemic leg, even seasoned vascular surgeons struggle with the decision to proceed with open or endovascular strategies. The acute care surgeon, with less training and experience, would have great difficulty with management decisions for this patient. Endovascular therapeutic options are available for many vascular emergencies (such as ruptured abdominal aortic aneurysms, traumatic arterial dissections, or thrombosed bypass grafts) and would likely challenge the decision-making capacity and technical skills of the acute care surgeon. This argument would obviously apply for orthopaedic and neurological surgery as well. Many acutely ill surgical patients may continue


to require urgent consultation from specialists. Therefore, acute care surgery may not relieve problems with on-call specialists.

• *Uncertainty regarding the attractiveness of the practice model to potential trainees.* Finally, as a primary goal of “acute care surgery,” enhanced recruitment of young surgeons into the specialty of trauma surgery is not guaranteed with this significant change in patient care. Will students and residents find the new specialty attractive or daunting? By pursuing fellowship training, most surgical trainees choose to further specialize after completing general surgery residency. As acute care surgeons will perform such a broad variety of procedures outside the purview of general surgery, will it appear to be less specialized rather than more? The perception that the acute care surgeon will be the “jack of all trades, but the master of none” may prove to be difficult to overcome.

Conclusion

Many factors are contributing to an impending crisis in emergency surgical workforce. All stakeholders are in agreement on most of the potential solutions. However, development of the new surgical specialty of “acute care surgery” has generated great controversy. We hope that you will attend the symposium at the 2006 Clinical Congress as we examine this proposal in greater detail.

Each year, the RAS sponsors a symposium during the Clinical Congress on a topic targeted at surgical residents, young surgeons, and Fellows. This year’s presentation is scheduled for Sunday, October 8, 1:00–4:00 pm. The aim of the session is to provide insight into the future of acute care surgery. The symposium will explore the possible advantages and disadvantages of training for acute care and elective surgical practices, as well as the impact of these changes on the training of residents and provision of care to patients. The impact on both general surgery training and surgical specialties such as neurosurgery and orthopaedics will be examined.

Attendance is open to all RAS members, as well as medical students and Fellows of the College. An open-microphone discussion will promote audience participation in the symposium. We hope to see you there. 

References

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