

International Perspective from the United Kingdom on “Surgeons’ and Emergency Physicians’ Perceptions of Trauma Management and Training”

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My comments on this paper are drawn from a London-based, British National Health Service (NHS) perspective. The United Kingdom (UK) health care system has certain unique characteristics (as every other system). The most remarkable of these remains the fact that virtually all of the health care in UK is provided as an absolute universal and free service from ‘cradle to grave’ funded by tax. Therefore, the balanced operation of market forces, both professional and financial, to achieve efficiencies and quality, remains a challenge for the British government which ultimately owns and runs it through a complex and imperfect system. Operational requirements are routinely placed on the NHS to be implemented locally by the managers. Many of these are contested by the professions and are the subject of much debate and negotiation. The clinical environment in which emergency medicine (EM) is practiced here has strong similarities and dissimilarities to that in the USA where the paper was researched.

Despite the differences in the infrastructure, the practicalities of emergency medicine (EM) in several countries are remarkably comparable. Therefore, the relevance and implications of the paper to the UK and perhaps globally is of interest.

Within the British emergency departments (EDs), training to the next generation of specialists is provided under intense pressure to achieve correct disposition of all patients within four hours of arrival. This controversial practice was implemented in 2003 to address perceived shortcoming in the UK EDs. Significant new funds were made available to support the policy, and many hospitals adjusted their care pathways to achieve the four-hour targets. The scientific evidence base for selecting four hours as the upper limit of time in the ED was never made clear by the UK Department of Health where the bureaucratic responsibility for it resides. Limited clinical exceptions to the rule were allowed.

Generally, the cost and benefit of target-driven health care is the subject of heated debate without an agreed conclusion. The four-hour target continues to have an unavoidable impact on the work-up of the patients in the ED.

Numerous changes to the ED processes, including closer cooperation with the admitting teams and the establishment of diagnostic or assessment units, have been implemented with mixed results. The ‘ownership’ of the patient with incomplete work-up has attracted various solutions, consistent with patient safety. In the case of trauma care, typically the threshold for activating the hospital trauma team response has been recalibrated to reflect the local realities, taking into account service and training needs. For example, in some hospitals if the ED is very busy, the trauma team may be called even for patients who do not meet strict criteria.

Management of multiple injuries is along the ATLS guidelines. Attending the ATLS course is effectively an essential requirement for both the EM and surgical trainees. Depending on the size of the department, condition of the patient on arrival and local political dynamics, the initial response is derived from a combination of the following three possibilities:

- 1) Autonomously by EM staff, who eventually call the relevant specialties if the patient requires admission to the hospital.
- 2) By the hospital trauma team, incorporating the EM staff and relevant surgical specialties
- 3) Independently by the trauma team with minimum (if any) involvement of EM staff.

In general the patient remains the responsibility of the emergency physicians (EP) until a hand-over to the relevant admitting team has been completed according to the local practice. Serious multiple trauma is usually managed jointly by the surgical specialties, anaesthetists and the EPs through the activation of the hospital trauma response. The person leading the team (again a matter for local policy) is the senior-most clinician (often the senior surgical trainee or EP) resolves any conflicts in real time followed in due course by a review, if appropriate, by the heads of departments and/or the trauma committee.

Typically, the EM and surgical trainees work side-by-side to provide the level of care appropriate to their speciality

and interest. Most assessments, including the FAST scan, are performed by EM staff whilst procedures of relevance to on-going surgical care, such as stab wound in the neck, are managed by the surgeons. Where the territories overlap, as in the case of chest tube insertion, this is done by mutual agreement. There is a genuine acceptance of the need to provide relevant experience and to share the training opportunity with all specialties. Simulation-based training prior to live supervised practice is now well established. Usually the trainee, whether surgical or EM, will have previously identified the procedures he or she needs to learn. The most experienced clinician in the trauma team takes responsibility to teach the trainee whose requirements are best met by the patient's condition. Whilst there are instances of specialties favouring their own, eventually everyone gets a chance. The airway is similarly cared for by prior arrangement jointly by anaesthetists and EPs. Cricothyroidotomy, for example, is an extremely rare procedure and if required would probably be performed by the most experienced clinician in the trauma team, likely to be a surgeon or EP, unless a trainee is ready for supervised learning. The surgeons are usually not interested in intubating the patient, though, if requested, the anaesthetists cooperate with the educational needs of other specialties.

Let me not give the impression that everything is done with absolute bonhomie between the trainees and specialties. Resentment and tensions do arise, requiring diplomatic resolution or worse! Instances of political and professional arguments over legal responsibility, resource allocation and territory-related issues are well known. Ultimately, as in most human endeavour, the differences are settled by a combination of patient's best interest and expediency, within the context of local realities. So, if a specialty cannot or will not agree to something, the buck usually passes to the one who will.

The paper provides some insight into the cause and severity of potential conflict, if any, in the role and expectation of the EM and surgical staff. It also hints at the differences in motivation of the surgeons and EPs.

It can be argued that trauma care is more deeply and universally imbedded in the work of the EP throughout their professional life, whilst for the surgeons, their involvement, relatively speaking, is a matter of some choice. The general surgeons remain at the heart of trauma teams, in close cooperation with the anaesthetists and EPs. If the patient is admitted to the ITU the care is shared between surgeons and anaesthetists. Surgical intensivists are not a well-established specialty in UK. Trauma surgeons are not separately designated or trained in Britain, but often there are those within general surgery, orthopaedics, neuro and vascular surgery who take a specialist interest in providing trauma care. With increasing sub-specialisation in each domain it is possible that new practises will evolve over the next five years. The on-call arrangements for surgeons include a commitment to attend trauma patients. But those patients that do not require urgent life-saving surgery

may well be transferred to specialist centres from smaller hospitals, though a formal classification into U.S. style level 1 to 5 does not exist.

Even the presence of a surgeon in the initial response to trauma is now a matter of debate if not dispute. Only a minor percentage of injured patients require surgery. EM and intensive care specialists jointly share much of the responsibility for trauma care with surgical specialties. There is little consensus about the definitive general surgical curriculum for trauma training. Implicitly there may be territorial issues, with implications for quality assurance and continuity of care. Protocols agreed by trauma committees in many UK hospitals provide the template and benchmark for cooperation as well as a forum for conflict resolution, sometimes in an unsatisfactory manner as noted above.

In a departure from previous policy, in London three new trauma centres are planned to achieve more efficient care for the seriously injured patients. Since the demography of trauma is quite distinct in different societies, one solution, however well founded in local evidence, is unlikely to meet the global need. In London approximately 1500 to 2000 major and serious multi-trauma cases are expected to be cared for annually within the planned new trauma centres where patients will be transferred by the London Ambulance Service, by-passing the local providers. The NHS, with its state-run monopoly, is particularly suited to achieve this within a small geographic area represented by Greater London. The smaller hospitals are expected to continue serving the single limb trauma or low grade midline injuries. The exact equivalent of the American trauma system does not exist in the UK, but the hospitals are established to a population base of 250,000 to 500,000, supported by tertiary centres of excellence for referral of cases. Patients usually access the hospital-based secondary care at the request of the primary care providers (family doctor), except in emergency. But close cooperation exists (or should do) between the hospital and the family doctors so that the right patient is treated in the right way by the right people at the right time at the right place. But as everyone knows this remains an aspiration rather than an achievement in the UK at present. Opportunities for training are available if not in abundance, at least to an adequate level and are provided by cooperation between different professions. The value of good training for the future of health care is acknowledged by most if not all concerned.

The paper provides the basis to seek more detailed and contextual understanding. It may help to conduct further studies with better response rates to look at the education benefits that surgical and EM trainees expect from Trauma Care so that their roles may be better defined.

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