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A NATIONAL PLAN FOR TRAUMA SERVICES

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The reconfiguration debate has dominated the NHS over the summer with Conservative leader David Cameron promising a 'bare knuckle fight' over district general hospitals under threat from service closure. With the focus clearly on the need for service change, it is timely for the College to restate its policy on the provision of trauma care. We are calling for a critical examination of those centres currently providing trauma care and a national plan for the identification of major specialist trauma centres to provide the best care to injured patients.

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Injury is a major cause of death across all age groups, with over 16,000 deaths in England and Wales each year. The primary determinant of survival and better quality of life for trauma patients is the time from being injured to receiving definitive treatment and surgery in a centre with the appropriate specialist staff and equipment.

Increased specialisation within surgery means that the specialist skills and equipment required for trauma patients are not, unfortunately, available at every hospital. This necessitates re-evaluation of the organisation and delivery of trauma care across the country.

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Background

In 2000 the College and the British Orthopaedic Association published *Better Care for the Severely Injured,*[1] recommending a national plan for trauma services in England, Wales and Northern Ireland. The report called for defined 'trauma systems' to be established in each region, comprising major trauma centres and other hospitals operating within a network to meet the needs of all injured patients. The lack of political will and central direction to take decisions on the location of major trauma centres has meant that local issues have impeded the development of defined trauma systems.

The likelihood of dying from injuries has remained static since 1994, despite great improvements in trauma care, training and education (UK Trauma Audit and Research Network 2001–2004 dataset, US National Trauma Databank 2004). In America, where major trauma centres have been identified, deaths from major injury have reduced by 25%.[2]

The time is right to restate our position. Trauma care should be based on a network model incorporating a range of specialist units in a 'trauma system' to care for all injured patients in a given region. As a minimum, major trauma centres should admit more than 250 critically injured patients per year.[3] In England this would equate to one major trauma centre per 3–4 million population, depending on location. We are therefore calling for a national plan for the identification of specialist major trauma facilities of which there should be no more than 12–16 very large centres. The temptation to create units over and above this number must be resisted if we are to achieve excellence in trauma care.

Defining trauma systems

Within each geographical region there should be a network of units geared to treat trauma patients, ranging from those with life threatening conditions to those

with less complex injuries. This 'trauma system' would need to integrate pre-hospital care, the initial journey to a suitable unit, inter-hospital transfer, definitive hospital treatment and rehabilitation. Each area of the country should have a major trauma plan that defines the pathway of care for severely injured patients, identifies the location and capability of each Trust/hospital within the trauma system and outlines ambulance bypass protocols and thresholds for transferring patients to more specialist units across regional boundaries if necessary.

THE DEVELOPMENT OF LOCAL TRAUMA CENTRES DOES NOT MEAN THAT LOCAL EMERGENCY DEPARTMENTS WILL BE CLOSED.

Trauma centres and the reconfiguration of emergency departments

Given the current focus on service reorganisation, patients and local hospitals will naturally be concerned that the College is suggesting a form of centralisation for emergency services. We need to make clear that the development of major trauma centres does not mean that local emergency departments (EDs) will be closed. Many EDs will play a vital role in the trauma system for each region. They will have the resources to treat the majority of less severe injuries and provide emergency resuscitation, stabilisation and transfer of patients requiring more specialist care.

What is required is a national plan for the location of major trauma facilities that can treat patients who are severely injured. Such units will be staffed by a multidisciplinary team of surgeons, physicians, intensivists and specialist nurses and provide 24-hours a day a fully staffed ED, a consultant-led resuscitative trauma team, dedicated trauma theatres and operating lists, the presence of all major surgical specialties on one site, interventional radiology and anaesthesia with appropriate intensive care facilities. Central direction and coordination will be required to ensure the identification and development of major trauma centres. The DH must work with the profession to achieve this.

Once a national plan for the establishment of major trauma centres has been agreed, strategic health authorities (SHAs), working with Primary Care Trusts, will need to identify the number and location of hospitals within the region to deal with less severely injured patients. SHAs will require professional assistance in developing their plans. It is vital that NHS administrative boundaries and current health policy reforms, which introduce competition and contestability to the provision of services, do not constrain the organisation of such a system of care – collaboration and not competition is required.

The staffing and resources required to treat major injuries are costly, but with over 16,000 injury-related deaths per year and a much higher number of disabilities caused by injuries, trauma care must be made a priority. Central resources will be required to assist the establishment of major trauma centres and mechanisms to meet the ongoing costs for hospitals treating injured patients should be employed to ensure the financial stability of these centres.

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Audit, governance and research

Research into trauma will continually improve care and outcomes and will help to develop evidence-based plans for disaster and mass casualty incidents. It is essential for trauma systems to undergo a continuous process of evaluation, governance and performance improvement. All hospitals receiving trauma patients should submit data to the Trauma Audit and Research Network (see www.tarn.ac.uk): currently only approximately 60% do so. Chief executives should encourage compliance as part of their responsibilities for clinical governance.

The College's role

The College has demonstrated its commitment to trauma care by providing training and education for surgeons and other clinicians via the Advanced Trauma Life Support (ATLS®) course, and for paramedics via the Pre-hospital Trauma Life Support Course (PHTLS). These courses are important to ensure that pre-hospital and hospital-based care for trauma patients is delivered seamlessly. Our invited review service offers independent, professional advice and support to hospitals on a range of service delivery issues. Through this process, the College and specialist associations can make recommendations for service improvement in trauma care.

The overriding concern of the College is to ensure the provision of the safest, highest quality care possible. We will continue to work at high level with the DH and government to achieve this. We will also engage with Lord Darzi's review of the NHS, making our thoughts on service delivery issues clear. The College is also taking part in the Health Hotel fringe events at all three major party conferences this year and will use this as an opportunity to state our views on service configuration.

References

1. The Royal College of Surgeons of England/British Orthopaedic Association. *Better Care for the Severely Injured*. London: RCSE; July 2000 (http://www.rcseng.ac.uk/rcseng/content/publications/docs/severely_injured.html).
2. Celso B, Tepas J, Langland-Orban B *et al.* A systematic review and meta-analysis comparing outcome of severely injured patients treated in trauma centers following the establishment of trauma systems. *J Trauma* 2006: **60:** 371–78.
3. Nathens AB, Jurkovitch GJ, Maier RV *et al.* Relationship between trauma center volume and outcomes. *JAMA* 2001; **285:** 1,164–71.