

NORTH YORKSHIRE COUNTY COUNCIL

SCRUTINY OF HEALTH COMMITTEE

27 January 2012

**Improving the Management and Treatment of Major Trauma across
Yorkshire and the Humber****Purpose of the Report**

1. The purpose of this paper is to:
 - a) provide the national context and the evidence base for the need to change;
 - b) describe the current service provision and the proposed Major Trauma Network (MTN) arrangements for major trauma events in York (and surrounding areas) setting out the improved outcomes that these changes are trying to achieve.
 - c) summarise the implementation plan in place, progress to date and the next steps in the process, including assurance on the robustness and direction of these proposals.

Executive Summary – Key Messages

2. There are small numbers of major trauma, approx three per day across the Yorkshire and the Humber region.
3. Each region is mandated by the Department of Health to establish a major trauma network by April 2012. NHS North Yorkshire and the Humber and the Yorkshire and the Humber Specialised Commissioning Group are leading this work and have recommended three sub-regional Major Trauma Networks (MTNs) to serve the region's population with plans for Major Trauma Centres located in Hull, Leeds and Sheffield.
4. The network system will involve changes to established patient flows; direct to a Major Trauma Centre instead of first to local A&E, then on to a Major Trauma Centre. These are not thought to represent a service configuration or a significant variation to service delivery, rather the formalisation, coordination and better use of existing services currently in place.
5. Regional major trauma systems will improve the safety, quality and consistency of major trauma treatment and care with specified minimum standards of care for all levels of service. Every hospital has a role in the network with patients receiving follow up care and rehabilitation as close to home as possible.
6. Across Yorkshire and the Humber, it is estimated that these improvements will save in excess of 100 lives a year while more people experiencing major trauma will be able to return to non-dependent life

and work, rather than facing a life of long-term disability and unemployment.

Background

7. Major trauma is used to describe serious and often multiple injury (including head injury, spinal injury, abdomen, chest, penetrating wound, gunshot, long bone amputation and pelvis) where a patient has less than 10% chance of survival. This might be the result of a high-speed motorcycle crash, an industrial accident, a high fall or an explosion. Major trauma cases are more common in urban areas and it is estimated that in excess of 55% of major trauma is caused by road traffic collisions.
8. Major trauma is the main cause of mortality and disability in adults under the age of 40. The *National Confidential Enquiry into Patient Outcomes and Deaths* (2001) review concluded that almost 60% trauma care was sub-standard. The requirement to establish regional MTNs by April 2012 is a nationally directed quality initiative and was set out in the NHS Operating Framework 2011/12.
9. The development of a regional network for major trauma is expected to have a significant impact on lives saved. Where other countries have implemented such systems, deaths from trauma have been reduced by 20 per cent. For Yorkshire and the Humber (Y&H), it is believed that in excess of 100 lives a year could be saved while national research demonstrates that regionalisation of care to specialist trauma centres reduces mortality by 25% and length of stay by 4 days.

Current Model

10. North Yorkshire and York patients experiencing a major trauma incident are transported to the nearest Emergency Department regardless of their injuries. General hospitals are unlikely to have the sufficient expertise and experience to provide robust 24/7 care, 365 days a year. Patients requiring further treatment (e.g. Neurosurgery / Vascular intervention) will need transfer to a tertiary centre.

Major Trauma Network System

11. The principles behind the development of a MTN derive from the relatively uncommon nature of major trauma across the country. Due to the infrequency of cases, many hospitals will be unable to maintain the infrastructure and personnel with sufficient expertise and experience to provide a robust model of care 24 hours a day, 365 days a year. The patient pathways within a major trauma system work in the following way:

Pre-Hospital Care

Coordination between NHS organisations along with rapid and effective triage of trauma patients will play a critical part in bringing about major trauma system improvements. The *Yorkshire and Ambulance Service NHS Trust* (YAS) have

submitted a business case plan to support the establishment of a regional MTN system which is under consideration by regional and local commissioners.

YAS have proposed a need for an Enhanced Care Team to improve the pre-hospital phase of the major trauma pathway. It is proposed that this team will provide on scene critical care interventions to the most seriously ill and injured patients, effectively bringing senior critical care skills to the patient on scene and to then transfer these patients to the most appropriate hospital.

Major Trauma Centre

A Major Trauma Centre (MTC) is a multi-specialty hospital, on a single site, optimised for the provision of trauma care. It is the focus of the MTN and manages all types of injuries, providing consultant-level care.

- It is optimised for the definitive care of injured patients. In particular it has an active, effective trauma Quality Improvement programme. It also provides a managed transition to rehabilitation and the community.
- It takes responsibility for the care of all patients with Major Trauma in the area covered by the Network. It also supports the Quality Improvement programmes of other hospitals in its Network.
- It provides all the major specialist services relevant to the care of major trauma, i.e. general, emergency medicine, vascular, orthopaedic, plastic, spinal, maxillofacial, cardiothoracic and neurological surgery and interventional radiology, along with appropriate supporting services, such as critical care.

Trauma Unit

The Trauma Unit (TU) is a hospital in a MTN that provides care for most injured patients and:

- Has systems in place to rapidly move the most severely injured to hospitals that can manage their injuries.
- May provide some specialist services for patients who do not have multiple injuries (e.g. Open tibial fractures). The TU then takes responsibility for making these services available to patients in the MTN who need them. Other TUs may have only limited facilities, being able to stabilise and transfer serious cases but only to admit and manage less severe injuries.

Local Emergency Hospital

The Local Emergency Hospital is a hospital in a MTN that does not routinely receive acute trauma patients (excepting minor injuries that may be seen in a Minor Injury Unit). It has processes in place to ensure that should this occur patients are

appropriately transferred to an MTC or TU. It may have a role in the rehabilitation of trauma patients and the care of those with minor injuries.

Proposed Model

12. Following a gap analysis against the national *Clinical Advisory Group* and *Regional Rehabilitation Expert Group* clinical standards, *Yorkshire and the Humber Specialised Commissioning Group* (SCG) agreed on a three sub-regional Leeds, Hull and Sheffield network model for trauma care in Y&H. The MTC is supported by acute general hospital TUs and local A&Es.
13. It is expected that patients will be transported from the scene of incident directly to the nearest MTC which will be equipped to deliver a better standard of care than is currently provided where the nearest MTC is within 45 minutes travelling time and, when this is not possible, to the nearest TU before onward transportation to a MTC.

Sub-Regional Model

14. It is proposed that the York Teaching Hospital NHS Foundation Trust (YTHFT) will become a designated TU as part of the **North & East Yorkshire and Northern Lincolnshire** (NEYNL) sub-regional MTN linking to the MTC service delivered by the *Hull and East Yorkshire Hospitals NHS Trust* at the Hull Royal Infirmary site. Patients registered with GP practices within (and around) the City of York Council boundaries experiencing a major trauma incident in this geographical area will be transported to this MTN.
15. The other proposed TUs within the NEYNL network include *Northern Lincolnshire and Goole Hospitals NHS Foundation Trust* (trauma units at Grimsby and Scunthorpe) and at *Scarborough and North East Yorkshire Health Care NHS Trust*.
16. Depending on the location of the trauma incident and the distance to Hull (as well as any capacity constraints on the day), patients might alternatively be transported to the MTC in Leeds delivered by the *Leeds Teaching Hospitals NHS Trust* and part of the **West Yorkshire** sub-regional MTN.
17. Once patients treated at MTCs are at a point in their care and recovery when they can be safely repatriated to their local general hospital TU, patients will receive follow up care and rehabilitation at YTHFT and as close to home as possible.

Benefits delivered by a regional Major Trauma Network

18. The MTNs will improve care for the small number of individuals who sustain a major trauma. The network builds on the current arrangements already in place. Trauma centres and units will need to meet all the relevant 78 care quality standards that go toward accreditation within a MTN. Full compliance will underpin the provision of a 'gold standard' high quality, safe and effective major trauma

system for Y&H. These standards reflect the entire major trauma pathway, for example, the MTC must offer 24-hour access to a consultant-led major trauma team, TUs must provide selected trauma management with a consultant on call within 30 minutes and all providers must offer appropriate facilities for relatives and clear patient information.

19. The benefits of an effective major trauma system include:
 - Reducing mortality and morbidity for people sustaining major trauma, increasing the chances of recovering to return to work and normal life free from disability.
 - Standardising processes and protocols where this improves outcomes.
 - Improved coordination will lead to quicker diagnosis.
 - Faster arrival at a major trauma centre.
 - Improve access to specialist services regardless of where in the region they are injured, reducing variations in treatment and outcome.
 - Rapid repatriation to their local hospital for recovery, improving access to rehabilitation services closer to home.
 - Improve the management and treatment of trauma for all.

Public Engagement and Consultation

20. The assessment at this stage is that the introduction of major trauma networks is not a substantial development or variation in the NHS in Yorkshire and the Humber. Rather, it is an important clarification of the major trauma pathway, which will ensure that patients who experience major trauma are taken to the right hospitals and so receive all the treatment they need. The networks will also clarify the role of most A&E services as trauma units.
21. While there is a view that development of the MTNs and the proposals outlined may not be the subject of formal consultation, the NHS North Yorkshire and York cluster are mindful of the important need to assure the HOSC, that the commissioning process has undergone full assurance evaluation and scrutiny.
22. The assurance process up to any implementation 'go live' date set out by NHS Yorkshire and the Humber on behalf of PCT clusters is as follows:
 - A *National Clinical Advisory Team* independent review assuring the clinical model, its safety and sustainability.
 - Independent assessment of the programme and its management of risks by the *Office for Government Commerce Gateway Review* team.

- The proposals will be assured using the regional Service Change Assurance Process which will be peer reviewed by another SHA.
23. The NHS North Yorkshire and York cluster will provide any further information on these proposals keeping the HOSC abreast of the progress on these developments as requested to do so to ensure engagement is ongoing throughout the process.

Recent and Next Steps

- PCT Cluster Boards were requested to support delegated authority to *Yorkshire and the Humber SCG* on further MTN development.
- In collaboration with PCT clusters, the *NHS Yorkshire and the Humber* and *Yorkshire and the Humber SCG* will further refine the Y & H MTN model following presentation of provider business plans at a 13/12/11 regional 'Confirm & Challenge' event.
- Recommendations will be presented and considered at the SCG 27/01/12 Board meeting.

Recommendations

24. The Health & Overview Scrutiny Committee is asked to:
- Note the national context and regional planning approach to the development of a Major Trauma Network system for Yorkshire and the Humber.
 - Note the progress to date on the proposed pathways and the service benefits for the LA population who experience a major trauma incident.
 - Note the NHS North Yorkshire and York cluster's commitment to engage with patients and the public as required where these proposals may require any further detail and explanation.
 - Note the intention of the *Yorkshire and the Humber SCG* to further consider this service development at the January 27th 2012 Board meeting.
 - Note that the national expectation is that regions will establish a Major Trauma Network by April 2012 but that regional provider plans have suggested a phased approach is likely to be a more realistic and feasible option.

Jim Khambatta
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