Healthcare for London

NHS

The shape of things to come

Whole pathway – prevention
Major trauma

Appendix 6e

Contents

1 Introduction

This paper outlines the options and requirements for an effective prevention strategy which will form part of the London trauma system. It will include evidence-based criteria for an effective strategy and recommendations as to the best approach for implementation within the system. Finalising this strategy will be the responsibility of the London trauma director, and will be included within the performance management framework.

This paper will be presented in two parts; Part A, which will provide an outline of the description of any assurance affecting the JCPCT decision and Part B, which outlines additional information about the prevention strategy proposal which relates directly to implementation.

2 Executive summary

Part A – Assurance

Factors that determine whether a particular decision or option should be discounted

No factors have been identified within the proposal for a major trauma prevention strategy which would impact on any decision made by the JCPCT in such a way as to discount a particular decision or option of networks.

Other factors which may influence a decision

No factors have been identified relating to the proposal for a major trauma prevention strategy that would influence any decision reached by the JCPCT.

Part B – Supplementary information

- an effective prevention strategy is an approach designed to limit the risk or impact of a particular problem and enhance protective factors, in this case major trauma injuries;
- no new initiatives are proposed within the implementation of a strategy, rather the co-ordination of existing agencies/programmes within the system;
- prevention strategy principles: evidence suggests that an effective prevention strategy should be based on a three-tier model - primary, secondary and tertiary
- key stakeholders of a potential strategy have been identified, including prevention campaigns/programmes and relating injury causes;
- the strategy should be targeted to the local population of specific trauma networks;
- proposed implementation of a prevention strategy will operate at different system levels - network, system and major trauma and trauma centres.

3 Scope and context

As one of the only causes of death that is truly preventable, it is important to note that the major trauma pathway extends far beyond the clinical care received post-injury. An important aspect of the implementation of an effective trauma system is the inclusion of a prevention strategy. A trauma prevention strategy will describe the

position of the trauma system in assisting to prevent future injuries. An effective strategy could potentially reduce the costs of trauma care by decreasing both the number of injuries sustained and admission rates. It is essential for the strategy to encompass current prevention initiatives and agencies and to identify opportunities for collaboration. Injury prevention, in addition to pre-hospital care and triage to a specialist centre, should be delivered at local level. The co-ordination of existing local services and engagement with external agencies within networks is key to the delivery of an effective prevention programme.

4 Part A – JCPCT Assurance

This section outlines the description of assurance affecting the decision to be taken by the JCPCT:

Factors that determine whether a particular decision/option should be discounted:

Within the remit of the proposal for a prevention strategy for major trauma, no factors have been identified which would contribute to a discounting of a particular decision or option of networks. The purpose of a prevention strategy for the trauma system is to examine the entire pathway, pre and post injury and to assess the opportunities available for the prevention and impact limitation, of traumatic injuries in partnership with existing agencies and providers. It is proposed that this is delivered by all tiers of the trauma system regardless of the final system configuration and therefore does not impact on any potential options evaluation made by the JCPCT.

Factors that influence a decision and should be considered:

There are no factors that have been identified relating to the proposal for a prevention strategy for major trauma that would influence any decision reached by the JCPCT. The purpose of this paper is to contribute to the 'whole pathway' assurance sought by the JCPCT.

5 Part B – Supplementary information relating to workstream implementation

This section provides a description of the proposal which relates directly to the implementation of the strategy within the system and the proposed structure of the strategy.

5.1 Principles

Evidence from the implementation of other trauma systems and existing effective prevention programmes advocate the use of a three-tier strategy. This three-tier system is also endorsed by the World Health Organisation in their *World Report on Violence and Health*[1].

[1] Krug EG et al., eds. *World report on violence and health*. Geneva, World Health Organization, 2002; p.10

Primary
Strategies or campaigns which are used to *prevent* the occurrence of the injury in the first instance or prevent it from leading to injury.

Examples of primary prevention strategies include legislation over the sale of alcohol/knives to teenagers, anti gun or knife campaigns by the Metropolitan Police and crime prevention initiatives by government offices, such as the Youth Justice Board.

Secondary
Limiting the impact of injury on the patient.

There are two types of examples of secondary prevention principles:

1. Precautions such as seatbelts/bicycle helmets.

2. Early diagnosis and appropriate management of an injury (for example, applying basic first aid at the scene of an incident to stop an injury from having more serious consequences).

The prevention strategy within the trauma system will be more concerned with the injury prevention precautions as opposed to the diagnosis and effective management of the injury. The latter will be addressed through the implementation of relevant triage protocols and training for ambulance paramedic staff as well as treatment at an appropriate centre with the appropriate skills.

Tertiary
Improving final patient outcomes following major trauma, (for example, acute rehabilitation), involves preventing further complications in the form of more severe injury which could lead to disability or death.

The provision of an organised trauma system which delivers improved care at all stages of the pathway will also incorporate linkages. It is likely that these will occur between the tertiary level of the prevention strategy and the rehabilitation pathway.

5.2 Key stakeholders

The dataset for trauma injuries provided by the London Ambulance Service for January 2005 - March 2008 identifies the most common causes of injury:

- road traffic accidents (RTA)
- assault
- falls
- accidental injury
- other – including train/tube incidents, fire - burns, self harm, aeroplane incidents

The key stakeholder groups for these types of injury have been identified as:

- Transport for London
- government organisations
- public – children, road users, elderly, teenagers
- Department for Transport
- Metropolitan Police
- Health and Safety Executive

- trade unions
- social services/community based services
- voluntary sector

It is logical that the strategy will focus on the groups listed above, due to the high prevalence of trauma injuries resulting from them. Many existing prevention campaigns and programmes target a wide audience including children, young adults (particularly those identified as vulnerable and in lower social classes), the elderly and users of public service such as trains.

It should be noted that mortality rates are falling more slowly in the young adult population – particularly amongst young men[2]. In deprived sections of the community, mortality rates vary considerably with some relationship to the level of deprivation in each borough[3]. These are issues to consider when examining existing services and audiences or users within a specific network or borough to ensure that local need is met.

5.3 Implementation

Issues to consider include:

- the best way in which injury prevention initiatives can be implemented within the system and networks;
- how work carried out by existing strategies and agencies could further improve current practices;
- ongoing engagement with current prevention programme providers and specific interventions where the networks can support other agencies;
- establishing links with existing programmes already undertaking this work.

In line with the three-tier prevention strategy principles outlined above, there are three different levels at which these can be delivered - system, network, major trauma centres and trauma centres.

System-level:

Prevention measures, which could be delivered, include primary prevention - such as injury specific campaigns (for example knife crime or road traffic accidents). There is an opportunity for the system to function as the mediator between current providers of prevention initiatives and the trauma networks. This could be through information-sharing, targeted initiatives and the establishment of nominated contacts for networks. Within this function, the system could also facilitate the implementation of prevention measures. This could include implementing the falls prevention measures set out in the National Service Framework for Older People. These include environmental checks and modifications in home, work and care settings which would be delivered at a local level through the major trauma or trauma centre.

Network level:

It is likely that the network level delivery of prevention will incorporate both the secondary and tertiary principles, and will be tailored to local need. It could include initiatives such as a trauma case manager on trauma wards. The function of this role is to coordinate the multidisciplinary approach to patient care, and act as a liaison

[2] *Injury Prevention* 1998; (Supplement 1):S42-S45; doi:10.1136/ip.4.2008.S42 Copyright © 1998 by the BMJ Publishing Group Ltd

[3] Lowdell et al., eds. *Too High a Price. Injuries and accidents in London,* 2002, Health of Londoners Programme

between the various healthcare professionals. Alcohol intervention practices (for example, those currently being piloted at the Royal Free Hospital), are good working examples of secondary prevention measures.

Major trauma centre/trauma centre level:

'In-house' local delivery of prevention measures at major trauma and trauma centres is key to the effectiveness of a comprehensive prevention strategy. These could include risk assessment and follow-up for vulnerable groups (for example those who have experienced a fall) and hip protectors for the very frail. These measures work on both secondary and tertiary levels, ensuring that recovery is supported adequately but also ensuring the risk/impact of future injury is mitigated appropriately. Another option for local prevention delivery is the situating of acute-ward social workers and/or charity representatives. These groups would work at a tertiary level to limit the effect of the injury on the patient and to co-ordinate services for the patient following discharge/repatriation.

6 Conclusion

An effective prevention strategy consists of prevention measures which should be delivered on each tier: primary, secondary and tertiary. Within the trauma system, implementation will occur at all levels – system, network and centres. The suggested function of the London trauma office will be to co-ordinate the creation of effective relationships between agencies and networks. It will also facilitate the implementation of additional network and system-specific prevention initiatives. The trauma office should ensure that prevention measures are delivered and implemented at all principle levels, and targeted to local need across the system.