



Trauma information for the Barnet Overview and Scrutiny Committee

Data analysis has been completed for incidents during the period April to July 2011 for patients who trigger the London major trauma decision tree. The London major trauma decision tree enables ambulance crews to identify patients in the prehospital environment who are likely to have a high Injury Severity Score (ISS) and who may benefit from conveyance to a specialist major trauma centre instead of being conveyed to the nearest accident & emergency department. The definition of major trauma is an ISS over 15 however an ISS can only be calculated after a full hospital assessment of the patient's injuries. The patients who trigger the major trauma decision tree at the scene of an incident will therefore not always be found to be major trauma patients when they are assessed in the hospital. For convenience all patients who have triggered the major trauma decision tree are referred to below as major trauma patients.

Data is presented below for patients where the incident location has been determined to be within the boundaries of the Barnet primary care trust along with figures for the London Ambulance Service area as a whole.

Number of trauma tree positive April to July 2011

Barnet	LAS-wide
41	1525

Correct conveyance

A patient is determined to have been correctly conveyed if they trigger the major trauma decision tree and are conveyed directly to a major trauma centre. If they are taken to a local trauma unit (A&E), this is considered to be an incorrect conveyance unless the patient's airway cannot be maintained, the patient is in cardiac arrest or a pre-hospital doctor determines that a trauma unit is appropriate. The LAS performance target is 90 per cent correct conveyance of major trauma patients. Two major trauma patients in Barnet PCT refused to be conveyed to a major trauma centre despite attempts by ambulance crews to persuade them this was the most appropriate destination for their injuries this accounts for the 95 per cent figure.

	Correctly conveyed	Correctly conveyed to a MTC	Correctly conveyed to a trauma unit	Incorrectly conveyed to a trauma unit	Patient refusing a MTC
Barnet	95%	95%	95%	0%	5%
LAS-wide	97%	97%	<1%	2%	<1%

Patient destination

Major trauma patients may go to one of four major trauma centres or if they have an isolated head injury they may alternatively have been conveyed to one of three designated trauma units which have neurosurgical facilities. St Mary's MTC has been fully in operation since January 2011; Charing Cross is no longer a designated neurosurgical trauma unit as of November 2011. The figures below relate only to those patients who were correctly conveyed.

	King's College MTC	St George's MTC	Royal London MTC	St Mary's MTC	Royal Free Neurosurgical Trauma Unit	Charing Cross Neurosurgical Trauma Unit	Queens Romford Neurosurgical Trauma Unit
Barnet	0%	0%	16%	84%	0%	0%	0%
LAS-wide	19%	14%	38%	27%	<1%	<1%	1%

Travel times to hospital (minutes)

Travel times are shown only of patients correctly conveyed directly to a MTC or a trauma unit with appropriate neurosurgical facilities. The trauma networks are designed so that patients should not normally be more than a 45 minute road journey by ambulance away from a major trauma centre. One patient conveyed from Barnet PCT area had a 51 minute journey to hospital due to heavy traffic conditions; this appears to be caused by gridlocked traffic in the Barnet area involving a lorry rolling over on a major arterial route. All other patients from Barnet in this time period had journeys of less than 35 minutes.

	Directly to MTC or neurosurgical trauma unit	
	Range	Mean
Barnet	11-51	21
LAS-wide	1-74	15

Mechanism of injury

Figures are shown below for patients who triggered the major trauma decision tree. Blunt trauma refers to injuries where the patient strikes or is hit by an object that does not penetrate the body. Examples include road traffic collisions, falls from height and crushing injuries. Penetrating trauma refers to injuries where an object pierces the skin, including stabbings, gunshot wounds and impalements. The category of other injuries includes burns, hangings and drownings. Please note that due to the nature of major trauma, patients may sustain injuries which fall into more than one category.

	Blunt trauma	Penetrating trauma	Other injuries
Barnet	65%	33%	2%
LAS-wide	64%	32%	4%

Case Study

Southern End of Barnet

1742 - 999 call

1755- Ambulance on scene

38 year old male, motorcyclist bike skidded in wet, flipped over handle bars, lost consciousness for 2 minutes. Lying in road opening his eyes to speech and confused. Pain whilst breathing oxygen levels low. Significant facial injuries and injuries to left arm.

Oxygen administered, patient immobilised to protect spine, pain relief given.

1815 - Ambulance leaves scene to major trauma centre.

1850 - Ambulance arrives at hospital met by consultant lead trauma team. Chest drain inserted as emergency

1900 - CT scan post chest drain

Major Trauma ward and on to specialist maxillofacial input.

Multiple complex facial fractures. Fracture of the right 3rd rib with associated lung injuries and pneumothorax (collapsed lung) . Four rib fractures on left.