



# Trauma

Quality standard

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This standard is based on NG37, NG39, NG40 and NG41.

This standard should be read in conjunction with QS158, QS138, QS131, QS86, QS74, QS66 and QS16.

## Quality statements

Statement 1 People with major trauma who cannot maintain their airway and/or ventilation have drug-assisted rapid sequence induction (RSI) of anaesthesia and intubation within 45 minutes of the initial call to the emergency services.

Statement 2 People who have had urgent 3D imaging for major trauma have a provisional written radiology report within 60 minutes of the scan.

Statement 3 People with open fractures of long bones, the hindfoot or midfoot have fixation and definitive soft tissue cover within 72 hours of injury if this cannot be performed at the same time as debridement.

Statement 4 People with full in-line spinal immobilisation have their risk of cervical spine injury assessed using the Canadian C-spine rule.

Statement 5 Major trauma centres have a dedicated trauma ward for patients with multisystem injuries and a designated consultant available to contact 24 hours a day, 7 days a week.

Statement 6 Major trauma centres have acute specialist services for rehabilitation after major trauma, and for children and older people.

NICE has developed guidance and a quality standard on patient experience in adult NHS services (see the NICE Pathway on [patient experience in adult NHS services](#)), which should be considered alongside these quality statements.

Other quality standards that should be considered when commissioning or providing trauma services include:

- [Rehabilitation after critical illness](#) (2017) NICE quality standard 158
- [Blood transfusion](#) (2016) NICE quality standard 138
- [Intravenous fluid therapy in children and young people in hospital](#) (2016) NICE quality standard 131
- [Falls in older people](#) (2015, updated 2017) NICE quality standard 86
- [Head injury](#) (2014) NICE quality standard 74
- [Intravenous fluid therapy in adults in hospital](#) (2014) NICE quality standard 66
- [Hip fracture in adults](#) (2012, updated 2017) NICE quality standard 16

A full list of NICE quality standards is available from the [quality standards topic library](#).

## Quality statement 1: Airway management

### *Quality statement*

People with major trauma who cannot maintain their airway and/or ventilation have drug-assisted rapid sequence induction (RSI) of anaesthesia and intubation within 45 minutes of the initial call to the emergency services.

### *Rationale*

Failure to provide an adequate airway for people who cannot maintain one can result in brain injury, with long-term implications for function and quality of life, or death. Performing drug-assisted RSI of anaesthesia and intubation quickly, and preferably at the scene of the incident rather than by diverting to an emergency department, improves ventilation, increasing the probability of survival and reducing long-term morbidity.

### *Quality measures*

#### Structure

a) Evidence of the availability of healthcare professionals trained to perform drug-assisted RSI of anaesthesia and intubation at the scene, or of systems to transport people to the nearest emergency department where it can be performed.

**Data source:** Local data collection, for example from local protocols.

b) Evidence of local arrangements to support decision-making about whether to dispatch trained healthcare professionals to the scene to deliver drug-assisted RSI of anaesthesia and intubation, or transport the person to the nearest emergency department where it can be performed.

**Data source:** Local data collection, for example from local protocols.

#### Process

a) Proportion of people with major trauma who cannot maintain their airway and/or ventilation who have drug-assisted RSI of anaesthesia and intubation.

Numerator – the number in the denominator who have drug-assisted RSI of anaesthesia and intubation.

Denominator – the number of people with major trauma who cannot maintain their airway and/or ventilation.

**Data source:** Local data collection, for example, audit of patient records. The [Trauma Audit and Research Network](#) collects data on intubation ventilation and use of drugs at the scene and in the emergency department.

b) Proportion of people with major trauma who cannot maintain their airway and/or ventilation who have drug-assisted RSI of anaesthesia and intubation within 45 minutes of the initial call to the emergency services.

Numerator – the number in the denominator who have drug-assisted RSI of anaesthesia and intubation within 45 minutes of the initial call to the emergency services.

Denominator – the number of people with major trauma who cannot maintain their airway and/or ventilation and have drug-assisted RSI of anaesthesia and intubation.

**Data source:** Local data collection, for example, audit of patient records. The [Trauma Audit and Research Network](#) collects data on intubation ventilation and use of drugs at the scene and in the emergency department.

## Outcomes

a) Mortality rates from major trauma.

**Data source:** Local data collection, for example using the [Office for National Statistics](#) mortality database. The [Trauma Audit and Research Network](#) also collects data on deaths of trauma patients.

b) Rates of brain injury resulting from lack of oxygen caused by major trauma.

**Data source:** Local data collection, for example local audit of patient records.

## *What the quality statement means for different audiences*

**Service providers** (ambulance services, major trauma centres and trauma units) ensure that there are protocols operating in ambulance control to identify people with major trauma who need drug-assisted RSI of anaesthesia and intubation and deliver it at the scene, or transport people to

the nearest emergency department if this is not possible, so that it is received within 45 minutes of the initial call to the emergency services.

**Healthcare professionals** (paramedics, advanced pre-hospital doctors and anaesthetists) trained in RSI deliver drug-assisted RSI of anaesthesia and intubation at the scene of the major trauma within 45 minutes of the initial call to the emergency services. If a trained professional is not available at the scene, healthcare professionals decide whether to call out someone trained in RSI to the scene, or transport the person to the nearest emergency department. They maintain the person's airway using a suitable technique until trained healthcare professionals arrive at the scene, or until the person arrives at the emergency department. Drug-assisted RSI of anaesthesia and intubation is performed by anaesthetists or other doctors in emergency departments within 45 minutes of the initial call to the emergency services if it cannot be performed at the scene.

**Commissioners** (clinical commissioning groups and NHS England) ensure that they commission services that have local protocols on performing drug-assisted RSI of anaesthesia and intubation at the scene of the major trauma, or, if this is not possible, at the nearest emergency department within 45 minutes of the initial call to the emergency services. They monitor contracts and seek evidence that service providers have this in place.

**People who have had a major injury and are not able to breathe on their own** are given a general anaesthetic (a drug that puts a person to sleep) by a doctor at the scene of the injury. A breathing tube is then placed into their mouth and down into their windpipe to help them breathe. If a doctor is not available at the scene of the injury, or if the breathing tube doesn't work well enough, the ambulance team should use other methods to help the person breathe until they can be taken to a major trauma centre or a trauma unit.

### *Source guidance*

- [Major trauma: service delivery](#) (2016) NICE guideline NG40, recommendation 1.11.2
- [Major trauma: assessment and initial management](#) (2016) NICE guideline NG39, recommendations 1.2.1 and 1.2.3

### *Definitions of terms used in this quality statement*

#### **People with major trauma who cannot maintain their airway and/or ventilation**

Major trauma describes serious and often multiple injuries that may require lifesaving interventions. People might not be able to maintain their airway and/or ventilation if they are in a



coma (Glasgow Coma Score less than 9), if they are not breathing adequately or their mouth is obstructed, for example by vomit, their tongue or debris.

[Expert opinion and NICE's full guideline on [major trauma: assessment and initial management](#)]

### **Rapid sequence induction (RSI) of anaesthesia and intubation**

A medical procedure involving prompt administration of general anaesthesia and subsequent intubation of the trachea. The procedure results in rapid unconsciousness (induction) and neuromuscular blockade (paralysis) and is used to maintain a patient's airway following a traumatic incident.

[NICE's full guideline on [major trauma: assessment and initial management](#), glossary]

## Quality statement 2: Image reporting

### *Quality statement*

People who have had urgent 3D imaging for major trauma have a provisional written radiology report within 60 minutes of the scan.

### *Rationale*

Obtaining the results of 3D imaging for chest trauma, haemorrhage and spinal injury as soon as possible allows for earlier diagnosis and decisions to be made on management, for example whether interventions such as surgery or interventional radiology are needed. Earlier treatment can reduce mortality and length of hospital stay, and improve health-related quality of life.

### *Quality measures*

#### **Structure**

Evidence of local arrangements to ensure that provisional written radiology reports of urgent 3D imaging for chest trauma, haemorrhage and spinal injury are available within 60 minutes of the scan.

**Data source:** Local data collection, for example staff rotas.

#### **Process**

a) Proportion of urgent 3D images for chest trauma with a provisional written radiology report available within 60 minutes of the scan.

Numerator – the number in the denominator with a provisional written radiology report available within 60 minutes of the scan.

Denominator – the number of urgent 3D images for chest trauma.

**Data source:** Local data collection, for example, local audit of radiology reporting. The [Trauma Audit and Research Network](#) collects data on the timing of CT and when the CT report is issued.

b) Proportion of urgent 3D images for haemorrhage with a provisional written radiology report available within 60 minutes of the scan.

Numerator – the number in the denominator with a provisional written radiology report available within 60 minutes of the scan.

Denominator – the number of urgent 3D images for haemorrhage.

**Data source:** Local data collection, for example, local audit of radiology reporting. The [Trauma Audit and Research Network](#) collects data on the timing of CT and when the CT report is issued.

c) Proportion of urgent 3D images for spinal injury with a provisional written radiology report available within 60 minutes of the scan.

Numerator – the number in the denominator with a provisional written radiology report available within 60 minutes of the scan.

Denominator – the number of urgent 3D images for spinal injury.

**Data source:** Local data collection, for example, local audit of radiology reporting. The [Trauma Audit and Research Network](#) collects data on the timing of CT and when the CT report is issued.

## Outcomes

a) Mortality rates from major trauma.

**Data source:** Local data collection, for example using the [Office for National Statistics](#) mortality database. The [Trauma Audit and Research Network](#) also collects data on deaths of trauma patients.

b) Length of hospital stay for people with major trauma.

**Data source:** Local data collection, for example using [Hospital Episode Statistics](#) data from NHS Digital. The [Trauma Audit and Research Network](#) also collects data on length of stay in hospital for trauma patients.

c) Health-related quality of life for people who have experienced major trauma.

**Data source:** Local data collection, for example patient surveys.

## *What the quality statement means for different audiences*

**Service providers** (major trauma centres and trauma units) ensure that healthcare professionals trained in image reporting are available to interpret urgent 3D imaging for chest trauma, haemorrhage and spinal injury and deliver a provisional written radiology report within 60 minutes of the scan.

**Healthcare professionals** (radiologists, radiographers and other trained reporters) interpret urgent 3D imaging for chest trauma, haemorrhage and spinal injury and deliver a provisional written radiology report within 60 minutes of the scan.

**Commissioners** (clinical commissioning groups and NHS England) ensure that they commission services that have the capacity and expertise to interpret urgent 3D imaging for chest trauma, haemorrhage and spinal injury and deliver a provisional written radiology report within 60 minutes of the scan. They monitor contracts and seek evidence that service providers have this in place.

**People who have had an urgent CT or MRI scan for a chest injury, serious bleeding or a spinal injury** have the first result of their scan reported to their doctor in writing within 1 hour of having the scan.

## *Source guidance*

- [Spinal injury: assessment and initial management](#) (2016) NICE guideline NG41, recommendation 1.5.1
- [Major trauma: assessment and initial management](#) (2016) NICE guideline NG39, recommendations 1.4.3 and 1.5.28
- The timeframe of 60 minutes is based on the [NHS England service specification for major trauma](#) and expert opinion

## *Definitions of terms used in this quality statement*

### **Urgent 3D imaging for major trauma**

3D imaging that takes place immediately on arrival at hospital for chest trauma, haemorrhage and spinal injury. This includes CT for chest trauma, haemorrhage and spinal injury and MRI for spinal injury.

[NICE's guideline on [major trauma: assessment and initial management](#), recommendations 1.4.5 and 1.5.31, and NICE's guideline on [spinal injury: assessment and initial management](#), recommendations 1.5.2, 1.5.6, 1.5.7 and 1.5.10, and expert opinion]

## Quality statement 3: Open fractures

### *Quality statement*

People with open fractures of long bones, the hindfoot or midfoot have fixation and definitive soft tissue cover within 72 hours of injury if this cannot be performed at the same time as debridement.

### *Rationale*

Delays in the fixation and cover of open fractures of the long bones of the lower and upper limbs, hindfoot or midfoot can lead to infections and further complications, such as amputations. Ideally fixation and soft tissue cover should be performed at the same time as first debridement, but this might not be possible if it would prevent completion of debridement within the recommended time scales. In these circumstances, ensuring that fixation and soft tissue cover are completed within 72 hours of injury should result in fewer complications, reductions in unplanned surgery and length of hospital stays, and faster return to normal activities.

### *Quality measures*

#### **Structure**

Evidence that orthopaedic and plastic surgery specialities have a joint orthoplastic surgery service that allows for fixation and definitive soft tissue cover of open fractures of long bones, the hindfoot or midfoot within 72 hours of injury if this cannot be performed at the same time as debridement.

**Data source:** Local data collection, for example local protocols.

#### **Process**

a) Proportion of open fractures of long bones, the hindfoot or midfoot with fixation and definitive soft tissue cover performed within 72 hours of injury if this cannot be performed at the same time as debridement.

Numerator – the number in the denominator with fixation and definitive soft tissue cover performed within 72 hours of injury.

Denominator – the number of open fractures of long bones, the hindfoot or midfoot where fixation and soft tissue cover cannot be performed at the same time as debridement.

**Data source:** Local data collection.

b) Proportion of open fractures of long bones, the hindfoot or midfoot with fixation and definitive soft tissue cover performed within 72 hours of injury.

Numerator – the number in the denominator with fixation and definitive soft tissue cover performed within 72 hours of injury.

Denominator – the number of open fractures of long bones, the hindfoot or midfoot.

**Data source:** The [Trauma Audit and Research Network](#) collects data on BOAST4 patients who received soft tissue coverage within the target of 72 hours.

## Outcomes

a) Rates of unplanned surgery after surgery on open fractures.

**Data source:** Local data collection, for example local audit of patient records.

b) Non-emergency amputation rates for people with open fractures.

**Data source:** Local data collection, for example local audit of patient records.

c) Length of hospital stay for people with open fractures.

**Data source:** Local data collection, for example using [Hospital Episode Statistics](#) data from NHS Digital. The [Trauma Audit and Research Network](#) also collects data on length of stay in hospital for trauma patients.

d) Time taken to return to normal activities for people with open fractures.

**Data source:** Local data collection, for example patient surveys.

## *What the quality statement means for different audiences*

**Service providers** (major trauma centres, specialist orthopaedic centres, trauma units and district general hospitals) ensure that orthopaedic surgery lists and joint working arrangements are in place for consultants in orthopaedic and plastic surgery to perform fixation and definitive soft

tissue cover of open fractures of long bones, the hindfoot or midfoot concurrently and within 72 hours of injury if this cannot be performed at the same time as debridement.

**Healthcare professionals** (orthopaedic and plastic surgery consultants) perform fixation and definitive soft tissue cover of open fractures of long bones, the hindfoot or midfoot concurrently and within 72 hours of injury if this cannot be performed at the same time as debridement.

**Commissioners** (clinical commissioning groups and NHS England) ensure that they commission services that have an orthoplastic surgery list and a combined orthoplastic approach to performing fixation and definitive soft tissue cover of open fractures of long bones, the hindfoot or midfoot within 72 hours of injury if this cannot be performed at the same time as debridement.

**People with breaks in a bone complicated by a wound** have their broken bones fixed using wires, plates, screws or rods (known as internal fixation) or an external frame (known as external fixation). The wound then needs to be repaired to reduce the chance of infection. When possible all of these steps should be done during a single operation. When more than 1 operation is needed, the steps should be completed within 72 hours.

### *Source guidance*

[Fractures \(complex\): assessment and management](#) (2016, updated 2017) NICE guideline NG37, recommendations 1.2.27 and 1.2.29

### *Definitions of terms used in this quality statement*

#### **Open fractures of long bones, the hindfoot or midfoot**

A fracture of long bones, the hindfoot or midfoot associated with an open wound. The skin may be pierced by the bone or by a blow that breaks the skin at the time of the fracture. The bone may or may not be visible in the wound. This term is synonymous with 'compound fracture'.

[NICE's full guideline on [fractures \(complex\): assessment and management](#), glossary]

#### **Fixation**

The final surgical implantation of internal or external metalwork for the purposes of repairing a bone and fixing it into place.

[NICE's full guideline on [fractures \(complex\): assessment and management](#), glossary]



## Definitive soft tissue cover

Final closure of the open fracture wound, using a local flap of skin, or skin grafted from another part of the body.

[NICE's full guideline on [fractures \(complex\): assessment and management](#), glossary]

## Debridement

The whole process of opening up of a wound, or pathological area (for example, bone infection), together with the surgical excision of all avascular, contaminated, infected, or other undesirable tissue. Debridement should be performed:

- immediately for highly contaminated open fractures
- within 12 hours of injury for high-energy open fractures (likely Gustilo–Anderson classification type IIIA or type IIIB) that are not highly contaminated
- within 24 hours of injury for all other open fractures.

[NICE's full guideline on [fractures \(complex\): assessment and management](#), glossary and recommendation 1.2.28]

## Quality statement 4: Assessment for cervical spine injury

### *Quality statement*

People with full in-line spinal immobilisation have their risk of cervical spine injury assessed using the Canadian C-spine rule.

### *Rationale*

If a person might have a spinal injury, it is important to immobilise their spine during assessment to prevent any damage. However, continuing immobilisation for longer than necessary can lead to avoidable adverse effects, such as discomfort and skin breakdown. Using a risk assessment tool as soon as possible to determine whether to carry out, maintain or remove immobilisation will reduce the risk of spinal cord injury and minimise discomfort for the person. It will also help to determine whether further investigations, such as prompt imaging, are needed.

### *Quality measures*

#### **Structure**

Evidence of the documented use of checklists to ensure that the Canadian C-spine rule is used to assess people with full in-line spinal immobilisation for their risk of cervical spine injury.

**Data source:** Local data collection, for example service specifications.

#### **Process**

Proportion of people with full in-line spinal immobilisation who have had their risk of cervical spine injury assessed using the Canadian C-spine rule.

Numerator – the number in the denominator who have had their risk of cervical spine injury assessed using the Canadian C-spine rule.

Denominator – the number of people with full in-line spinal immobilisation.

**Data source:** Local data collection, for example, local audit of patient records. The [Trauma Audit and Research Network](#) collects data on spinal immobilisation.

## Outcomes

a) Rates of neurological deterioration caused by inappropriate removal of spinal immobilisation.

*Data source:* Local data collection, for example, local audit of patient records.

b) Rates of appropriate removal of full in-line spinal immobilisation.

*Data source:* Local data collection, for example patient surveys.

## *What the quality statement means for different audiences*

**Service providers** (ambulance services, major trauma centres, trauma units and district general hospitals) train staff in using the Canadian C-spine rule and implement its use in pre-hospital and hospital settings to carry out risk assessment for cervical spine injury for people with full in-line spinal immobilisation.

**Healthcare professionals** (paramedics and trauma teams) use the Canadian C-spine rule to carry out risk assessment for people with full in-line spinal immobilisation, and document this. A digital reference tool that contains the Canadian C-spine rule, such as [MDCalc](#), can be used when doing the assessment. The level of risk of cervical spine injury should be used to make decisions on whether spinal immobilisation and prompt imaging are needed.

**Commissioners** (clinical commissioning groups and NHS England) ensure that they commission services that have checklists to document the use of the Canadian C-spine rule to assess the risk of cervical spine injury for people with full in-line spinal immobilisation, and inform decisions about when to carry out or continue with spinal immobilisation and request prompt imaging.

**People with a possible spinal injury who have their spine immobilised to prevent further injury**, using a special collar and head supports, are asked questions by the ambulance team to try to find out how likely it is that they have a spinal injury, and which part of the spine might be injured. These questions include their age, the type of injury they have had and how they became injured. The same questions are asked again when the person arrives at the hospital. If the hospital staff think the person might have a spinal injury, they offer a scan. If the spine is unlikely to be injured, hospital staff remove the collar and head supports.

## Source guidance

[Spinal injury: assessment and initial management](#) (2016) NICE guideline NG41, recommendations 1.1.5 and 1.4.5

## Definitions of terms used in this quality statement

### People with full in-line spinal immobilisation

Full in-line spinal immobilisation usually involves fitting the person with a collar, placing them on a scoop stretcher, and using head blocks and tape to keep their head still.

[NICE's [information for the public](#) in its guideline on [spinal injury: assessment and initial management](#)]

### Canadian C-spine rule

The person with suspected spine injury should be assessed as having high, low or no risk of cervical spine injury using the following rule:

- the person is at high risk if they have at least one of the following high-risk factors:
  - age 65 years or older
  - dangerous mechanism of injury (fall from a height of greater than 1 metre or 5 steps, axial load to the head – for example diving, high-speed motor vehicle collision, rollover motor accident, ejection from a motor vehicle, accident involving motorised recreational vehicles, bicycle collision, horse riding accidents)
  - paraesthesia in the upper or lower limbs
- the person is at low risk if they have no high-risk features and at least one of the following low-risk factors:
  - involved in a minor rear-end motor vehicle collision
  - comfortable in a sitting position
  - ambulatory at any time since the injury
  - no midline cervical spine tenderness

- delayed onset of neck pain
- the person remains at low risk if they are:
  - unable to actively rotate their neck 45 degrees to the left and right (the range of the neck can only be assessed safely if the person is at low risk and there are no high-risk factors).
- the person has no risk if they:
  - have one of the above low-risk factors and
  - are able to actively rotate their neck 45 degrees to the left and right.

Applying the Canadian C-spine rule to children is difficult and the child's developmental stage should be taken into account.

[Expert opinion and NICE's guideline on spinal injury: assessment and initial management, recommendations 1.1.5 and 1.1.6]

## Quality statement 5: Major trauma service

### *Quality statement*

Major trauma centres have a dedicated trauma ward for patients with multisystem injuries and a designated consultant available to contact 24 hours a day, 7 days a week.

### *Rationale*

People with major trauma frequently have multisystem injuries that need management input from more than one specialist. This can mean that management is spread across multiple settings and specialities, which can lead to delays in treatment and a lack of coordinated care, resulting in a poorer outcome for the person. Having a consultant-led multidisciplinary service with input from all the relevant specialties can improve continuity of care, prevent delays in treatment and result in shorter hospital stays, lower mortality and improved patient experience.

### *Quality measures*

#### Structure

a) Evidence of a dedicated trauma ward for patients with multisystem injuries.

**Data source:** Local data collection, for example from service specifications.

b) Evidence of the availability of a designated consultant 24 hours a day, 7 days a week, who has responsibility and authority for the hospital trauma service and leads the multidisciplinary team care.

**Data source:** Local data collection, for example from staff rotas.

#### Outcomes

a) Mortality rates from major trauma.

**Data source:** Local data collection, for example using the [Office for National Statistics](#) mortality database. The [Trauma Audit and Research Network](#) also collects data on deaths of trauma patients.

b) Length of hospital stay for people who have had major trauma.

**Data source:**Local data collection, for example using [Hospital Episode Statistics](#) data from NHS Digital. The [Trauma Audit and Research Network](#) also collects data on length of stay in hospital for trauma patients.

c) Patient experience of major trauma services.

**Data source:**Local data collection, for example patient surveys.

### *What the quality statement means for different audiences*

**Service providers** (major trauma centres) ensure that they have a dedicated multidisciplinary trauma ward led by a consultant 24 hours a day, 7 days a week, to treat patients with multisystem injuries.

**Healthcare professionals** (doctors, nurses and allied health professionals) work together to treat patients with multisystem injuries in a dedicated trauma ward. A consultant is available to lead the multidisciplinary team 24 hours a day, 7 days a week. A key worker (often a senior nurse) coordinates care at each stage of the care pathway.

**Commissioners** (NHS England) ensure that they commission services using a service specification that states that there should be a dedicated trauma ward for patients with multisystem injuries and a designated consultant available to contact 24 hours a day, 7 days a week. They monitor contracts and seek evidence that service providers have these available.

**People who have serious injuries to different areas of the body** can have all of their injuries treated in a special trauma ward. A consultant doctor is available who can be contacted 24 hours a day, 7 days a week and is in charge of the ward. Each person also has a named key worker, such as a senior nurse, who coordinates their care in hospital. The key worker stays in contact with the person, their family and carers, and the other healthcare professionals who are providing their care.

### *Source guidance*

[Major trauma: service delivery](#) (2016) NICE guideline NG40, recommendation 1.6.2

## *Definitions of terms used in this quality statement*

### **Major trauma centre**

A specialist hospital responsible for the care of the most severely injured patients involved in major trauma across the region. It provides 24/7 emergency access to consultant-delivered care for a wide range of specialist clinical services and expertise. It is optimised for the definitive care of injured patients.

[NICE's full guideline on [major trauma: assessment and initial management](#), glossary]

### **Dedicated trauma ward**

A multidisciplinary ward for people with multisystem injuries where different specialties input into the care of the patient.

[NICE's full guideline on [major trauma: assessment and initial management](#)]

### **Designated consultant**

A consultant who has responsibility and authority for the hospital trauma service and leads the multidisciplinary team care. This can be a subspecialty consultant who has extensive experience of trauma.

[NICE's full guideline on [major trauma: assessment and initial management](#)]



## Quality statement 6: Specialist services

### *Quality statement*

Major trauma centres have acute specialist services for rehabilitation after major trauma, and for children and older people.

### *Rationale*

People with major trauma might need input from specialist services, but access and provision of these services varies between major trauma centres. This can mean that there are delays in treatment and suboptimal outcomes for the person. Ensuring that major trauma centres provide all the specialist services that a patient might need can reduce length of hospital stay, lower mortality and improve patient experience.

### *Quality measures*

#### Structure

a) Evidence of the availability of acute specialist services for rehabilitation after major trauma.

*Data source:* Local data collection, for example, from service specifications.

b) Evidence of the availability of acute specialist services for children.

*Data source:* Local data collection, for example, from service specifications.

c) Evidence of the availability of acute specialist services for older people.

*Data source:* Local data collection, for example, from service specifications.

#### Outcomes

a) Morbidity from major trauma.

*Data source:* Local data collection, for example, local audit of patient records.

b) Length of hospital stay for people who have had major trauma.

**Data source:** Local data collection, for example using [Hospital Episode Statistics](#) data from NHS Digital. The [Trauma Audit and Research Network](#) also collects data on length of stay in hospital for trauma patients.

c) Patient experience of major trauma services.

**Data source:** Local data collection, for example patient surveys.

### *What the quality statement means for different audiences*

**Service providers** (major trauma centres) ensure that they have acute specialist services for rehabilitation after major trauma, and for children and older people. Acute specialist services for trauma rehabilitation have a multiprofessional team who have undergone recognised specialist training in rehabilitation, which is led or supported by a consultant trained and accredited in rehabilitation medicine. Acute specialist services for children and older people have a multidisciplinary team that specialises in care for these age groups, and is led or supported by a consultant from the specialty.

**Health and social care practitioners** (consultants in rehabilitation medicine, geriatricians, paediatricians, nurses, allied health professionals, social workers and safeguarding teams) work together as part of a multidisciplinary trauma service to ensure that people with major trauma receive the specialist input they need to get the best outcomes.

**Commissioners** (NHS England) ensure that they commission services that have acute specialist services for rehabilitation after major trauma, and for children and older people. They monitor contracts and seek evidence that service providers have these available.

**People who have had a major injury** have access to specialist rehabilitation services to help them recover and get back to their normal activities as much as possible.

**Children and older people who have had a major injury** have access to special services that care for their age group.

### *Source guidance*

[Major trauma: service delivery](#) (2016) NICE guideline NG40, recommendation 1.6.2

## *Definitions of terms used in this quality statement*

### **Major trauma centre**

A specialist hospital responsible for the care of the most severely injured patients involved in major trauma across the region. It provides 24/7 emergency access to consultant-delivered care for a wide range of specialist clinical services and expertise. It is optimised for the definitive care of injured patients.

[NICE's full guideline on [major trauma: assessment and initial management](#), glossary]

### **Acute specialist services for rehabilitation after major trauma**

Specialist rehabilitation is the total active care of patients with complex disabilities by a multi-professional team who have undergone recognised specialist training in rehabilitation, led or supported by a consultant trained and accredited in rehabilitation medicine.

[Healthcare Quality Improvement Partnership's [Specialist rehabilitation for patients with complex needs following major injury](#)]

### **Acute specialist services for children and older people**

Specialist inpatient acute paediatrics, acute ageing and complex medicine multidisciplinary teams that can ensure age appropriate care for children and older people in hospital. They are led or supported by consultants in those specialities, and liaise closely with social workers and safeguarding teams.

[Expert opinion]

## About this quality standard

NICE quality standards describe high-priority areas for quality improvement in a defined care or service area. Each standard consists of a prioritised set of specific, concise and measurable statements. NICE quality standards draw on existing NICE or NICE-accredited guidance that provides an underpinning, comprehensive set of recommendations, and are designed to support the measurement of improvement.

Expected levels of achievement for quality measures are not specified. Quality standards are intended to drive up the quality of care, and so achievement levels of 100% should be aspired to (or 0% if the quality statement states that something should not be done). However, this may not always be appropriate in practice. Taking account of safety, shared decision-making, choice and professional judgement, desired levels of achievement should be defined locally.

Information about [how NICE quality standards are developed](#) is available from the NICE website.

See [quality standard advisory committees](#) on the website for details of standing committee 1 members who advised on this quality standard. Information about the topic experts invited to join the standing members is available on the [quality standard's webpage](#).

This quality standard will be included in the NICE Pathway on [trauma](#), which brings together everything we have said on trauma in an interactive flowchart.

NICE has produced a [quality standard service improvement template](#) to help providers make an initial assessment of their service compared with a selection of quality statements. This tool is updated monthly to include new quality standards.

NICE produces guidance, standards and information on commissioning and providing high-quality healthcare, social care, and public health services. We have agreements to provide certain NICE services to Wales, Scotland and Northern Ireland. Decisions on how NICE guidance and other products apply in those countries are made by ministers in the Welsh government, Scottish government, and Northern Ireland Executive. NICE guidance or other products may include references to organisations or people responsible for commissioning or providing care that may be relevant only to England.

## *Improving outcomes*

This quality standard is expected to contribute to improvements in the following outcomes:

- mortality rates from major trauma
- infection rates from major trauma
- long-term disability resulting from trauma
- health-related quality of life
- length of hospital stay for people with trauma
- length of critical care stay for people with major trauma
- time to return to daily activities.

It is also expected to support delivery of the Department of Health and Social Care's outcome frameworks:

- [NHS outcomes framework 2016–17](#)
- [Public health outcomes framework for England, 2016–19](#).

### *Resource impact*

NICE quality standards should be achievable by local services. The potential resource impact is considered by the quality standards advisory committee, drawing on resource impact work for the source guidance. Organisations are encouraged to use the [resource impact report](#) for the NICE guidelines on trauma (NG37 to NG41) to help estimate local costs.

### *Diversity, equality and language*

During the development of this quality standard, equality issues were considered and [equality assessments](#) are available. Any specific issues identified during development of the quality statements are highlighted in each statement.

Commissioners and providers should aim to achieve the quality standard in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity and foster good relations. Nothing in this quality standard should be interpreted in a way that would be inconsistent with compliance with those duties.

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## *Endorsing organisation*

This quality standard has been endorsed by NHS England, as required by the Health and Social Care Act (2012)

## *Supporting organisations*

Many organisations share NICE's commitment to quality improvement using evidence-based guidance. The following supporting organisations have recognised the benefit of the quality standard in improving care for patients, carers, service users and members of the public. They have agreed to work with NICE to ensure that those commissioning or providing services are made aware of and encouraged to use the quality standard.

- [Resuscitation Council \(UK\)](#)
- [Society and College of Radiographers](#)
- [Royal College of Nursing](#)
- [Royal College of General Practitioners](#)
- [College of Paramedics](#)