NICE National Institute for Health and Care Excellence

NICE quality standard

Head injury

Quality standard

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Contents

This standard is based on CG176.

This standard should be read in conjunction with QS15, QS86, QS71 and QS166.

Introduction

This quality standard covers assessment, early management and rehabilitation following head injury in children, young people and adults. For more information see the head injury topic overview.

Why this quality standard is needed

Head injury is any trauma (external force) to the head other than superficial injuries to the face. NICE's guideline on head injury notes that it is the most common cause of death and disability in people aged 1 to 40 years in the UK. The guideline also reports that 1.4 million people per year attend accident and emergency departments in England and Wales with a recent head injury and that 33% to 50% of these are children and young people aged under 15 years.

Most people recover from head injury without specific or specialist intervention, but others experience long-term disability or even die from complications that could be minimised or avoided with early detection and appropriate treatment. Early detection and rapid treatment is therefore vital for minimising the risk of disability and saving lives.

Emergency departments see many people with minor head injuries and need to identify the very small number of people with head injuries who will go on to have serious acute intracranial complications. CT scanning is the primary imaging modality for assessing head injury. Admission to a specialist centre may be needed for continued observation and surgical intervention.

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

- mortality after head injury
- recovery after head injury.

How this quality standard supports delivery of outcome frameworks

NICE quality standards are a concise set of prioritised statements designed to drive measureable quality improvements within a particular area of health or care. They are derived from high-quality guidance, such as that from NICE or other sources accredited by NICE. This quality standard, in conjunction with the guidance on which it is based, should contribute to the improvements outlined in the following national frameworks:

- Adult social care outcomes framework
- NHS outcomes framework
- Public health outcomes framework for England
- Quality framework for public health.

Equivalent frameworks may be used in the devolved nations.

Patient experience and safety issues

Ensuring that care is safe and that people have a positive experience of care is vital in a high-quality service. It is important to consider these factors when planning and delivering services relevant to head injury.

NICE has developed guidance and associated quality standards on patient experience in adult NHS services and service user experience in adult mental health services (see the NICE Pathways on patient experience in adult NHS services and service user experience in adult mental health services), which should be considered alongside this quality standard. They specify that people receiving care should be treated with dignity, have opportunities to discuss their preferences, and be supported to understand their options and make fully informed decisions. They also cover the provision of information to patients and service users. Quality statements on these aspects of patient experience are not usually included in topic-specific quality standards. However, recommendations in the development source(s) for quality standards that impact on patient experience and are specific to the topic are considered during quality statement development.

Coordinated services

The quality standard for head injury specifies that services should be commissioned from and coordinated across all relevant agencies encompassing the whole trauma care pathway. A person-centred, integrated approach to providing services is fundamental to delivering high-quality care to people with a head injury.

The Health and Social Care Act 2012 sets out a clear expectation that the care system should consider NICE quality standards in planning and delivering services, as part of a general duty to secure continuous improvement in quality. Commissioners and providers of health and social care should refer to the library of NICE quality standards when designing high-quality services. Other quality standards that should also be considered when choosing, commissioning or providing high-quality trauma services are listed in related NICE quality standards.

Training and competencies

The quality standard should be read in the context of national and local guidelines on training and competencies. All health, public health and social care practitioners involved in assessing, caring for and treating people with a head injury should have sufficient and appropriate training and competencies to deliver the actions and interventions described in the quality standard. Quality statements on staff training and competency are not usually included in quality standards. However, recommendations in the development sources on specific types of training for the topic that exceed standard professional training are considered during quality statement development.

Role of families and carers

Quality standards recognise the important role families and carers have in supporting people with a head injury. If appropriate, healthcare professionals should ensure that family members and carers are involved in the decision-making process about investigations, treatment and care.

List of quality statements

Statement 1 People attending an emergency department with a head injury have a CT head scan within 1 hour of a risk factor for brain injury being identified.

Statement 2 People attending an emergency department with a head injury have a CT head scan within 8 hours of the injury if they are taking anticoagulants but have no other risk factors for brain injury.

Statement 3 People attending an emergency department with a head injury have a CT cervical spine scan within 1 hour of a risk factor for spinal injury being identified.

Statement 4 People attending an emergency department with a head injury have a provisional written radiology report within 1 hour if a CT head or cervical spine scan is performed.

Statement 5 People with a head injury who have a Glasgow Coma Scale (GCS) score of 8 or lower at any time have access to specialist treatment from a neuroscience unit.

Statement 6 People who are in hospital with new cognitive, communicative, emotional, behavioural or physical difficulties that continue 72 hours after a traumatic brain injury have an assessment for inpatient rehabilitation.

Statement 7 Community-based neuro-rehabilitation services provide a range of interventions to help support people (aged 16 and over) with continuing cognitive, communicative, emotional, behavioural or physical difficulties as a result of a traumatic brain injury.

Statement 8 (placeholder) Post-acute phase rehabilitation for children and young people.

Quality statement 1: CT head scans

Quality statement

People attending an emergency department with a head injury have a CT head scan within 1 hour of a risk factor for brain injury being identified.

Rationale

Head injuries can be fatal or cause permanent disability if damage to the brain is not identified and treated quickly. A CT scan within 1 hour will allow rapid treatment and improve outcomes for people with head injuries that have damaged the brain.

Quality measures

Structure

Evidence of local arrangements to ensure that CT head scans can be performed within 1 hour of a risk factor for brain injury being identified in people attending emergency departments with a head injury.

Data source: Local data collection.

Process

Proportion of emergency department attendances of people with a head injury for which a CT head scan is performed within 1 hour of a risk factor for brain injury being identified.

Numerator – the number in the denominator having a CT head scan within 1 hour of a risk factor for brain injury being identified.

Denominator – the number of emergency department attendances of people with a head injury and a risk factor for brain injury indicating the need for a CT head scan.

Data source: Local data collection. The Trauma Audit and Research Network (TARN) collects data for a subset of the population; however, data for the entire process measure are not currently collected. TARN collects data on CT scans performed within 1 hour for people with a head injury and Glasgow Coma Scale (GCS) score of less than 13.

Outcome

Mortality from skull fracture and intracranial injury.

Data source: Indicator P00103 in NHS Digital's Compendium of population health indicators. Directly standardised rate, all ages, 3-year average.

What the quality statement means for different audiences

Service providers (emergency departments, hospitals and specialist neurological centres) ensure that a CT head scan can be performed within 1 hour of a risk factor for brain injury being identified in people with a head injury.

Healthcare professionals ensure that CT head scans are performed within 1 hour of a risk factor for brain injury being identified in people with a head injury.

Commissioners (clinical commissioning groups and NHS England) ensure that service providers can perform CT head scans within 1 hour of a risk factor for brain injury being identified in people with a head injury. This may be achieved in a number of ways, which include the use of 1-hour targets in acute contracts, or enhanced monitoring and audit procedures.

People with a head injury who have any sign showing that the injury might have damaged their brain have a CT scan of their head within 1 hour of the sign showing.

Source guidance

Head injury: assessment and early management. NICE guideline CG176 (2014), recommendations 1.4.7 and 1.4.9 (key priorities for implementation), and 1.4.10

Definitions of terms used in this quality statement

Risk factors for brain injury

For adults with head injury, any 1 of the following risk factors indicates the need for a CT head scan within 1 hour of the risk factor being identified:

- GCS score less than 13 on initial assessment in the emergency department.
- GCS score less than 15 at 2 hours after the injury on assessment in the emergency department.
- Suspected open or depressed skull fracture.
- Any sign of basal skull fracture (haemotympanum, 'panda' eyes, cerebrospinal fluid leakage from the ear or nose, and Battle's sign).
- Post-traumatic seizure.
- Focal neurological deficit.
- More than 1 episode of vomiting.

[NICE's guideline on head injury, recommendation 1.4.7]

For children and young people with head injury, any 1 of the following risk factors indicates the need for a CT head scan within 1 hour of the risk factor being identified:

- Suspicion of non-accidental injury.
- Post-traumatic seizure but no history of epilepsy.
- On initial emergency department assessment, GCS score less than 14, or for children under 1 year, GCS (paediatric) score less than 15.
- At 2 hours after the injury, GCS less than 15.
- Suspected open or depressed skull fracture or tense fontanelle.
- Any sign of basal skull fracture (haemotympanum, 'panda' eyes, cerebrospinal fluid leakage from the ear or nose, Battle's sign).

- Focal neurological deficit.
- For children under 1 year, presence of bruising, swelling or laceration of more than 5 cm on the head.

[NICE's guideline on head injury, recommendation 1.4.9]

In addition, children and young people with head injury and more than 1 of the following risk factors should have a CT head scan within 1 hour of the risk factors being identified:

- Loss of consciousness lasting more than 5 minutes (witnessed).
- Abnormal drowsiness.
- Three or more discrete episodes of vomiting.
- Dangerous mechanism of injury (high-speed road traffic accident either as pedestrian, cyclist or vehicle occupant, fall from a height of greater than 3 metres, high-speed injury from a projectile or other object).
- Amnesia (antegrade or retrograde) lasting more than 5 minutes.

[NICE's guideline on head injury, recommendation 1.4.10]

Quality statement 2: CT head scans for people taking anticoagulants

Quality statement

People attending an emergency department with a head injury have a CT head scan within 8 hours of the injury if they are taking anticoagulants but have no other risk factors for brain injury.

Rationale

Some people who have no other risk factors for brain injury have an increased risk of bleeding after a head injury because they are taking anticoagulants. In these people a CT head scan within 8 hours of the injury will allow appropriate management.

Quality measures

Structure

Evidence of local arrangements to ensure that CT head scans can be performed within 8 hours of head injury in people attending emergency departments who are taking anticoagulants but have no other risk factor for brain injury.

Data source: Local data source.

Process

Proportion of emergency department attendances of people with a head injury who are taking anticoagulants but have no other risk factors for brain injury for which a CT head scan is performed within 8 hours of the injury.

Numerator – the number in the denominator having a CT head scan within 8 hours of the injury.

Denominator – the number of emergency department attendances of people with a head injury who are taking anticoagulants but have no other risk factors for brain injury.

Data source: Local data source.

Outcome

Mortality from skull fracture and intracranial injury:

Data source: Indicator P00103 in NHS Digital's Compendium of population health indicators. Directly standardised rate, all ages, 3-year average.

What the quality statement means for different audiences

Service providers (emergency departments, district general hospitals and specialist neurological centres) ensure that CT head scans can be performed within 8 hours of a head injury in people who are taking anticoagulants but have no other risk factor for brain injury.

Healthcare professionals ensure that CT head scans are performed within 8 hours of a head injury in people who are taking anticoagulants but have no other risk factor for brain injury.

Commissioners (clinical commissioning groups and NHS England) ensure that service providers can perform CT head scans within 8 hours of a head injury for all people who are taking anticoagulants but have no other risk factor for brain injury. This may be achieved by increasing awareness of this statement among healthcare professionals in acute settings and seeking evidence of compliance by auditing current practice.

People with a head injury have a CT scan of their head within 8 hours of the injury happening if they are taking anticoagulants (drugs that make the blood less likely to clot) and have no sign showing that the injury might have damaged their brain.

Source guidance

Head injury: assessment and early management. NICE guideline CG176 (2014),

recommendation 1.4.12

Definitions of terms used in this quality statement

Risk factors for brain injury

For adults with head injury, any 1 of the following risk factors indicates the need for a CT head scan within 1 hour of the risk factor being identified:

- GCS score less than 13 on initial assessment in the emergency department.
- GCS score less than 15 at 2 hours after the injury on assessment in the emergency department.
- Suspected open or depressed skull fracture.
- Any sign of basal skull fracture (haemotympanum, 'panda' eyes, cerebrospinal fluid leakage from the ear or nose, and Battle's sign).
- Post-traumatic seizure.
- Focal neurological deficit.
- More than 1 episode of vomiting.

[NICE's guideline on head injury, recommendation 1.4.7]

For children and young people with head injury, any 1 of the following risk factors indicates the need for a CT head scan within 1 hour of the risk factor being identified:

- Suspicion of non-accidental injury.
- Post-traumatic seizure but no history of epilepsy.
- On initial emergency department assessment, GCS score less than 14, or for children under 1 year, GCS (paediatric) score less than 15.
- At 2 hours after the injury, GCS less than 15.
- Suspected open or depressed skull fracture or tense fontanelle.

- Any sign of basal skull fracture (haemotympanum, 'panda' eyes, cerebrospinal fluid leakage from the ear or nose, Battle's sign).
- Focal neurological deficit.
- For children under 1 year, presence of bruising, swelling or laceration of more than 5 cm on the head.

[NICE's guideline on head injury, recommendation 1.4.9]

In addition, children and young people with head injury and more than 1 of the following risk factors should have a CT head scan within 1 hour of the risk factors being identified:

- Loss of consciousness lasting more than 5 minutes (witnessed).
- Abnormal drowsiness.
- Three or more discrete episodes of vomiting.
- Dangerous mechanism of injury (high-speed road traffic accident either as pedestrian, cyclist or vehicle occupant, fall from a height of greater than 3 metres, high-speed injury from a projectile or other object).
- Amnesia (antegrade or retrograde) lasting more than 5 minutes.

[NICE's guideline on head injury, recommendation 1.4.10]

Quality statement 3: CT cervical spine scans

Quality statement

People attending an emergency department with a head injury have a CT cervical spine scan within 1 hour of a risk factor for spinal injury being identified.

Rationale

Head injuries can be fatal or cause disability if there is damage to the cervical spine that is not identified and treated quickly. A CT cervical spine scan within 1 hour will allow rapid treatment and improve outcomes for people with head injuries that have damaged the cervical spine.

Quality measures

Structure

Evidence of local arrangements to ensure that CT cervical spine scans can be performed within 1 hour of a risk factor for spinal injury being identified in people attending emergency departments with head injury.

Data source: Local data collection

Process

a) Proportion of emergency department attendances of people with a head injury for which a CT cervical spine scan is performed within 1 hour of a risk factor for spinal injury being identified.

Numerator – the number in the denominator having a CT cervical spine scan within 1 hour of a risk factor for spinal injury being identified.

Denominator – the number of emergency department attendances of people with a head injury and a risk factor for spinal injury indicating the need for a cervical spine scan.

Data source: Local data collection.

What the quality statement means for different audiences

Service providers (emergency departments, hospitals and specialist neurological centres) ensure that a CT cervical spine scan can be performed within 1 hour of a risk factor for spinal injury being identified in people with a head injury.

Healthcare professionals ensure that CT cervical spine scans are performed within 1 hour of a risk factor for spinal injury being identified in people with a head injury.

Commissioners (clinical commissioning groups and NHS England) ensure that service providers can perform CT cervical spine scans within 1 hour of a risk factor for spinal injury being identified in people with a head injury. This may be achieved in a number of ways including the use of 1-hour targets in acute contracts or enhanced monitoring and audit procedures.

People with a head injury who have any sign showing that the injury might have damaged their neck have a CT scan of their neck within 1 hour of the sign showing.

Source guidance

Head injury: assessment and early management. NICE guideline CG176 (2014), recommendations 1.5.8 and 1.5.11 (key priorities for implementation)

Definitions of terms used in this quality statement

Risk factors for spinal injury

For adults with head injury, any 1 of the following risk factors indicates the need for a CT cervical spine scan within 1 hour of the risk factor being identified:

- Glasgow Coma Scale (GCS) score less than 13 on initial assessment.
- The patient has been intubated.
- Plain X-rays are technically inadequate (for example, the desired view is unavailable).
- Plain X-rays are suspicious or definitely abnormal.
- A definitive diagnosis of cervical spine injury is needed urgently (for example, before surgery).
- The patient is having other body areas scanned for head injury or multi-region trauma.
- The patient is alert and stable, there is clinical suspicion of cervical spine injury and any of the following apply:
  - age 65 years or older
  - dangerous mechanism of injury (fall from a height of greater than 1 metre or 5 stairs; 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)
  - focal peripheral neurological deficit
  - paraesthesia in the upper or lower limbs.

[NICE's guideline on head injury, recommendation 1.5.8]

For children and young people with a head injury, a CT cervical spine scan should be performed only if any of the following apply (because of the increased risk to the thyroid gland from ionising radiation and the generally lower risk of significant spinal injury):

- GCS score less than 13 on initial assessment.
- The patient has been intubated.
- Focal peripheral neurological signs.
- Paraesthesia in the upper or lower limbs.
- A definitive diagnosis of cervical spine injury is needed urgently (for example, before surgery).

- The patient is having other body areas scanned for head injury or multiregion trauma.
- There is strong clinical suspicion of injury despite normal X-rays.
- Plain X-rays are technically difficult or inadequate.
- Plain X-rays identify a significant bony injury.

[NICE's guideline on head injury, recommendation 1.5.11].

Quality statement 4: Provisional radiology reports

Quality statement

People attending an emergency department with a head injury have a provisional written radiology report within 1 hour if a CT head or cervical spine scan is performed.

Rationale

Head injuries can be fatal or cause permanent disability if damage to the brain is not identified and treated quickly. Having the provisional results of a CT scan available within an hour will allow rapid treatment and improve outcomes for people with head injuries that have damaged the brain.

Quality measures

Structure

Evidence of local arrangements to ensure provisional written radiology reports are available within 1 hour of CT head and cervical spine scans.

Data source: Local data collection.

Process

Proportion of emergency department attendances for head injury for which a provisional written radiology report is available within 1 hour of any CT head or cervical spine scan.

Numerator – the number in the denominator with a provisional written radiology report available within 1 hour.

Denominator – the number of emergency department attendances for head injury having a

CT head or cervical spine scan.

Data source: Local data collection.

What the quality statement means for different audiences

Service providers (emergency departments, hospitals and specialist neurological centres) ensure that provisional written radiology reports are available within 1 hour of CT head or cervical spine scans for head injury.

Healthcare professionals ensure that a provisional written radiology report is available within 1 hour of the CT head or cervical spine scans for head injury.

Commissioners (clinical commissioning groups and NHS England) ensure that service providers can deliver a provisional written radiology report within 1 hour of the scan. This may be achieved in a number of ways, including the use of 1-hour targets in acute contracts or enhanced monitoring and audit procedures.

People with a head injury who have a CT scan have a written report of the scan results available within 1 hour.

Source guidance

Head injury: assessment and early management. NICE guideline CG176 (2014), recommendations 1.4.7 and 1.4.9 (key priorities for implementation), and 1.4.10

Quality statement 5: Access to neuroscience units

Quality statement

People with a head injury who have a Glasgow Coma Scale (GCS) score of 8 or lower at any time have access to specialist treatment from a neuroscience unit.

Rationale

A GCS score of 8 or lower indicates a severe traumatic brain injury. People with GCS scores of 8 or lower will benefit from specialised clinical management provided by a neuroscience unit.

Quality measures

Structure

Evidence of locally agreed transfer protocols between the ambulance service, emergency department, district general hospital and designated neuroscience unit.

Data source: Local data collection.

Process

Proportion of emergency department attendances of people with a head injury and a GCS score of 8 or lower at any time for which there is a documented record of ongoing liaison with or transfer to a neuroscience unit.

Numerator – the number in the denominator for which there is a documented record of ongoing liaison with or transfer to a neuroscience unit.

Denominator – the number of emergency department attendances of people with a head

injury and GCS score of 8 or lower at any time.

Data source: Local data collection.

Outcome

Mortality from skull fracture and intracranial injury: directly standardised rate, all ages, 3-year average.

Data source: Indicator P00103 in NHS Digital's Compendium of population health indicators.

What the quality statement means for different audiences

Service providers (emergency departments, ambulance services, district general hospitals and specialist neurological centres) ensure that there are agreed protocols for ongoing liaison about the management of head injury in people with a GCS score of 8 or lower, and when to transfer to a neuroscience unit.

Healthcare professionals ensure that people with a head injury and a GCS score of 8 or lower have access to specialist treatment through ongoing liaison with or transfer to a neuroscience unit.

Commissioners (clinical commissioning groups and NHS England) ensure that appropriate pathways and protocols are in place for specialist treatment of head injury in people with a GCS score of 8 or lower through ongoing liaison with and transfer to a neuroscience unit.

People with a head injury who show signs of severe brain injury are cared for with advice from specialists in brain injury, or have their care transferred to a clinic that specialises in treating brain injury.

Source guidance

Head injury: assessment and early management. NICE guideline CG176 (2014), recommendation 1.7.1

Definitions of terms used in this quality statement

Glasgow Coma Scale (GCS)

A standardised system used to assess the degree of brain impairment and to identify the seriousness of injury in relation to outcome. The system involves 3 determinants: eye opening, verbal responses and motor response, all of which are evaluated independently according to a numerical value that indicates the level of consciousness and degree of dysfunction. [NICE's guideline on head injury]

Neuroscience unit

A neuroscience unit is a specialist centre or a unit that has facilities for neurosurgery and neurointensive care. [NICE's guideline on head injury]

Quality statement 6: Inpatient rehabilitation for people with traumatic brain injury

Quality statement

People who are in hospital with new cognitive, communicative, emotional, behavioural or physical difficulties that continue 72 hours after a traumatic brain injury have an assessment for inpatient rehabilitation.

Rationale

Rehabilitation enables people with traumatic brain injuries to reach and maintain optimal functioning levels in areas such as intellect, sensory, physical and social behaviour. Traumatic brain injuries can affect many aspects of a person's life; therefore, it is important to assess the benefits of inpatient rehabilitation.

Quality measures

Structure

Evidence of local arrangements to ensure that inpatient rehabilitation assessments can be carried out for people who are in hospital with new cognitive, communicative, emotional, behavioural or physical difficulties continuing 72 hours after a traumatic brain injury have an assessment of inpatient rehabilitation needs.

Data source: Local data collection.

Process

Proportion of people in hospital with new cognitive, communicative, emotional, behavioural or physical difficulties continuing 72 hours after a traumatic brain injury who have an assessment for inpatient rehabilitation.

Numerator – the number in the denominator who have an assessment for inpatient rehabilitation.

Denominator – the number of people who are in hospital with new cognitive, communicative, emotional, behavioural or physical difficulties continuing 72 hours after a traumatic brain injury.

Data source: Local data collection.

What the quality statement means for different audiences

Service providers (district general hospitals and specialist neurological centres) ensure that systems are in place for people who are in hospital with new cognitive, communicative, emotional, behavioural or physical difficulties continuing 72 hours after a traumatic brain injury to have an assessment of their need for inpatient rehabilitation.

Healthcare professionals ensure that they assess the inpatient rehabilitation needs of people who are in hospital with new cognitive, communicative, emotional, behavioural or physical difficulties continuing 72 hours after a traumatic brain injury.

Commissioners (clinical commissioning groups and NHS England) ensure that service providers assess the inpatient rehabilitation needs of people who are in hospital with new cognitive, communicative, emotional, behavioural or physical difficulties continuing 72 hours after a traumatic brain injury. This may be achieved by asking services to audit current practice to show evidence of compliance.

People who are in hospital after a head injury that has damaged their brain and caused problems lasting 3 days or more with their memory, concentration or communication, or emotional or physical difficulties, have an assessment to find out whether a programme of rehabilitation while they are in hospital would help them to recover.

Source guidance

Brain injury rehabilitation in adults. SIGN guideline 130 (2013), section 10

Definitions of terms used in this quality statement

Traumatic brain injury

Traumatic brain injury is defined as a traumatically induced structural injury and/or physiological disruption of brain function as a result of an external force that is indicated by new or worsening of at least 1 of the following clinical signs, immediately after the event:

- Any period of loss of or a decreased level of consciousness.
- Any loss of memory for events immediately before or after the injury.
- Any alteration in mental state at the time of the injury (such as confusion, disorientation or slowed thinking).
- Neurological deficits (such as weakness, loss of balance, change in vision, praxis, paresis or plegia, sensory loss or aphasia) that may or may not be transient.
- Intracranial lesion.

[SIGN's guideline on brain injury rehabilitation in adults]

Quality statement 7: Community rehabilitation services for people (aged 16 and over) with traumatic brain injury

Quality statement

Community-based neuro-rehabilitation services provide a range of interventions to help support people (aged 16 and over) with continuing cognitive, communicative, emotional, behavioural or physical difficulties as a result of a traumatic brain injury.

Rationale

Community-based neuro-rehabilitation services can be important in helping people (aged 16 and over) who have had a traumatic brain injury to regain independence and return to their normal daily lives (for example, going back to work or continuing their education).

Quality measures

Structure

Evidence of local arrangements to provide community-based neuro-rehabilitation services supplying a range of interventions to support people (aged 16 and over) with continuing cognitive, communicative, emotional, behavioural or physical difficulties as a result of a traumatic brain injury.

Data source: Local data source.

What the quality statement means for different audiences

Service providers (primary care and community rehabilitation services) ensure that systems are in place to offer community-based neuro-rehabilitation services providing a

range of interventions to people (aged 16 and over) with continuing cognitive, communicative, emotional, behavioural or physical difficulties after a traumatic brain injury.

Healthcare professionals ensure that they offer community-based neuro-rehabilitation services providing a range of interventions to people (aged 16 and over) with continuing cognitive, communicative, emotional, behavioural or physical difficulties after a traumatic brain injury.

Commissioners (clinical commissioning groups, NHS England and local authorities) ensure that there is sufficient capacity for community-based neuro-rehabilitation services to provide a range of interventions to help support people (aged 16 and over) with continuing cognitive, communicative, emotional, behavioural or physical difficulties after a traumatic brain injury.

People aged 16 and over who have had a head injury that has left them with problems with their memory, concentration or communication, or with emotional or physical difficulties,are offered a programme of rehabilitation after they leave hospital to help them recover their independence and return to their normal daily lives.

Source guidance

- Head injury: assessment and early management. NICE guideline CG176 (2014), recommendation 1.9.12
- Brain injury rehabilitation in adults. SIGN guideline 130 (2013), sections 6, 7, 8 and 9

Definitions of terms used in this quality statement

Traumatic brain injury

Traumatic brain injury is defined as a traumatically induced structural injury and/or physiological disruption of brain function as a result of an external force that is indicated by new or worsening of at least 1 of the following clinical signs, immediately after the event:

- Any period of loss of or a decreased level of consciousness.

- Any loss of memory for events immediately before or after the injury.
- Any alteration in mental state at the time of the injury (such as confusion, disorientation or slowed thinking).
- Neurological deficits (such as weakness, loss of balance, change in vision, praxis, paresis or plegia, sensory loss or aphasia) that may or may not be transient.
- Intracranial lesion.

[SIGN's guideline on brain injury rehabilitation in adults]

Range of interventions

Interventions to provide rehabilitation after a traumatic brain injury can include neuropsychological therapy, cognitive behavioural therapy, occupational therapy, physiotherapy, speech and language therapy, family interventions and vocational interventions. [SIGN's guideline on brain injury rehabilitation in adults]

Equality and diversity considerations

Provision should be made to ensure access to services for people (aged 16 and over) who find it difficult to travel long distances because of disability, financial barriers or other factors.

Quality statement 8 (placeholder): Post-acute phase rehabilitation for children and young people

What is a placeholder statement?

A placeholder statement is an area of care that has been prioritised by the Quality Standards Advisory Committee but for which no source guidance is currently available. A placeholder statement indicates the need for evidence-based guidance to be developed in this area.

Rationale

Rehabilitation services in the post-acute phase can be important in helping children and young people (aged under 16) who have had a traumatic brain injury to regain independence and return to their normal daily lives (for example, continuing their education). The services can also provide information and advice to families and carers.

Using the quality standard

Quality measures

The quality measures accompanying the quality statements aim to improve the structure, process and outcomes of care in areas identified as needing quality improvement. They are not a new set of targets or mandatory indicators for performance management.

See NICE's how to use quality standards for further information, including advice on using quality measures.

Levels of achievement

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, NICE recognises that this may not always be appropriate in practice, taking account of safety, choice and professional judgement, and therefore desired levels of achievement should be defined locally.

Using other national guidance and policy documents

Other national guidance and current policy documents have been referenced during the development of this quality standard. It is important that the quality standard is considered alongside the documents listed in development sources.

Diversity, equality and language

During the development of this quality standard, equality issues have been considered and equality assessments for this quality standard are available.

Good communication between healthcare professionals and people with a head injury, and their parents or carers (if appropriate), is essential. Treatment, care and support, and the information given about it, should be both age-appropriate and culturally appropriate. It should also be accessible to people with additional needs such as physical, sensory or learning disabilities, and to people who do not speak or read English. People with a head injury, and their parents or carers (if appropriate), should have access to an interpreter or advocate if needed.

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.

Development sources

Evidence sources

The documents below contain recommendations from NICE guidance or other NICE-accredited recommendations that were used by the Quality Standards Advisory Committee to develop the quality standard statements and measures.

- Head injury: assessment and early management. NICE guideline CG176 (2014)
- Brain injury rehabilitation in adults. SIGN guideline 130 (2013)

Policy context

It is important that the quality standard is considered alongside current policy documents, including:

- Department of Health. Government response to the House of Commons Health Select Committee report into urgent and emergency services (2013)
- National Audit Office. Major trauma care in England (2010)
- Department of Health. Regional networks for major trauma (2010)
- National Confidential Enquiry into Patient Outcome and Death. Trauma: who cares? (2007)

Definitions and data sources for the quality measures

- Trauma Audit and Research Network
- NHS Digital's Compendium of population health indicators. Indicator P00103

Related NICE quality standards

- Emergency and acute medical care in over 16s. NICE quality standard 174 (2018)
- Trauma. NICE quality standard 166 (2018)
- Falls. NICE quality standard 86 (2015, updated 2017)
- Transient loss of consciousness. NICE quality standard 71 (2014)
- Patient experience in adult NHS services. NICE quality standard 15 (2012, updated 2019)

The full list of quality standard topics referred to NICE is available from the quality standards topic library on the NICE website.

Quality Standards Advisory Committee and NICE project team

Quality Standards Advisory Committee

This quality standard has been developed by Quality Standards Advisory Committee 2. Membership of this committee is as follows:

Mr Barry Attwood
Lay member

Professor Gillian Baird
Consultant Developmental Paediatrician, Guy's and St Thomas' NHS Foundation Trust

Mrs Belinda Black
Chief Executive Officer, Sheffcare

Dr Ashok Bohra
Consultant Surgeon, Dudley Group of Hospitals NHS Foundation Trust

Mrs Julie Clatworthy
Governing Body Nurse, Gloucester Clinical Commissioning Group

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Miss Parul Desai
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Mrs Jean Gaffin
Lay member

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Dr John Harley
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Dr Ulrike Harrower
Consultant in Public Health Medicine, NHS Somerset

Professor Richard Langford
Consultant in Anaesthesia and Pain Medicine, Barts Health NHS Trust, London

Dr Tessa Lewis
GP and Chair of the All Wales Prescribing Advisory Group, Carreg Wen Surgery

Miss Ruth Liley
Assistant Director of Quality Assurance, Marie Curie Cancer Care

Ms Kay MacKay
Director of Improvement, Kent Surrey and Sussex Academic Health Science Network

Mr David Minto
Adult Social Care Operations Manager, Northumbria Healthcare Foundation Trust

Dr Michael Rudolf (Chair)
Consultant Physician, Ealing Hospital NHS Trust

Dr Lindsay Smith
GP, West Coker, Somerset

The following specialist members joined the committee to develop this quality standard:

Mr Robin Clarke
Lay member

Dr Susan Copstick
Clinical Director, The Disabilities Trust

Dr Kieran Hogarth
Consultant Neuroradiologist, Oxford University Hospitals NHS Trust

Professor Fiona Lecky
Clinical Professor and Honorary Consultant in Emergency Medicine, University of Sheffield and Salford Royal Hospital

Dr Vishwajit Verma
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Update information

Minor changes since publication

April 2021: Source guidance for statement 6 was updated following the withdrawal of SIGN guideline 110 on early management of patients with a head injury in 2019.

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 our webpage on quality standard advisory committees for details of standing committee 2 members who advised on this quality standard. Information about the topic experts invited to join the standing members is available from the webpage for this quality standard.

This quality standard has been included in the NICE Pathway on head injury, which brings together everything we have said on a topic 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 guidance and quality standards apply in England and Wales. Decisions on how they apply in Scotland and Northern Ireland are made by the Scottish government and Northern Ireland Executive. NICE quality standards may include references to organisations or people responsible for commissioning or providing care that may be relevant only to England.

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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.

- Brain And Spinal Injury Centre
- British Paediatric Neurology Association
- Royal College of Emergency Medicine
- Headway - the brain injury association
- Intensive Care Society
- Royal College of General Practitioners (RCGP)
- Royal College of Nursing (RCN)
- Royal College of Paediatrics and Child Health
- Royal College of Physicians (RCP)
- Society and College of Radiographers (SOR)