

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Guideline scope

Rehabilitation after traumatic injury

The Department of Health in England and NHS England have asked NICE to develop a guideline about rehabilitation after traumatic injury.

The guideline will be developed using the methods and processes outlined in [developing NICE guidelines: the manual](#).

This guideline will also be used to develop NICE quality standards.

1 Why the guideline is needed

Trauma is a significant cause of early death and morbidity – particularly in the working population. Major trauma is the biggest cause of death in children and adults under the age of 40.

This guideline defines traumatic injury as any injury that requires admission to hospital at the time of injury. This could include musculoskeletal injuries, visceral injuries, nerve injuries, soft tissue damage, burns, spinal injury, limb reconstruction and limb loss. Minor injuries can also lead to a hospital admission.

In England, 45,000 people are affected by very severe or major trauma every year. Half a million people experience less severe trauma, and a proportion of those will require hospital admission because of pre-existing conditions, disability, frailty, or because the functional impact of injuries and environmental factors means that they will not be able to manage in their own home.

After a traumatic injury, people require rehabilitation assessment and interventions that take account of any pre-existing conditions and focus on

helping them regain optimum function and independence as quickly as possible.

Trauma affects all age groups, but there are 2 peaks: younger age and older age. People may have different rehabilitation needs that reflect different functional expectations and priorities. Trauma can negatively affect quality of life, both physically and mentally. It can lead to problems with mobility, pain, breathing, swallowing, eating, drinking, toileting, cognitive function, speech and communication, sensory problems, and can lead to depression, anxiety and other psychological difficulties. The impact of these problems may be influenced by pre-existing conditions.

This guideline will focus on people with complex rehabilitation needs after traumatic injury. Complex needs will cover multiple needs, and will always involve coordinated multidisciplinary input from 2 or more allied health professional disciplines, and could also include the following:

- Vocational or educational social support for the person to return to their previous functional level, including return to work, school or college.
- Emotional, psychological and psychosocial support.
- Equipment or adaptations.
- Ongoing recovery from injury that may change the person's rehabilitation needs (for example, restrictions of weight bearing, cast immobilisation in fracture clinic).
- Further surgery and readmissions to hospital.

Currently, people who meet ['major trauma' criteria](#) should have a rehabilitation assessment and prescription carried out during the hospital admission. Further assessments are performed over time to capture changing needs.

There are limitations in access to the appropriate rehabilitation services for people after trauma, which may be related to geography and age. There is significant variation in practice, with no national network of services.

Improvement in survival rates resulting from the introduction of major trauma networks in 2012 has led to an increased need for rehabilitation.

Military experience has shown better outcomes with improved rehabilitation. Early, intensive rehabilitation can improve function, pain, quality of life and mental health outcomes. It can also improve outcomes for carers of those affected by traumatic injury.

Costs to treat trauma patients are high in the acute phase, and there are also long-term care costs to the NHS through ongoing treatment. Social care costs may be high for people who need ongoing care and support in the community. There are wider costs to the community if people are unable to return to work or education. Rehabilitation may be able to reduce these costs through improving overall function. Interventions may improve outcomes at a number of stages.

There are several NICE guidelines about the assessment, treatment and management of specific injuries for adults and children. There is guidance about service delivery, assessment and management of major trauma, and rehabilitation after critical illness and stroke. There are also guidelines about the transition between hospital and home, from children's to adults' services, and about home care services.

Rehabilitation after traumatic brain injury will be covered in another NICE guideline due to begin development in 2019. Complex rehabilitation needs that result primarily from traumatic brain injury will be excluded from this guideline. However, this guideline will cover identification and assessment, and coordination of services for people with complex traumatic injuries, one of which may be traumatic brain injury.

This guideline will seek to signpost to areas of other guidance that will be helpful for readers. These links will also be illustrated across related NICE pathways. This scope focuses on areas not already covered by these other guidelines.

2 Who the guideline is for

This guideline is for:

- healthcare professionals in primary and secondary care
- social care practitioners
- local authorities and clinical commissioning groups that provide and/or commission rehabilitation services
- providers of rehabilitation services in the community, including voluntary and private sectors
- people who have experienced traumatic injury, their families and carers and the public.

It may also be relevant for:

- advocates for people who have experienced traumatic injury
- practitioners working in other related services, including employers, education, housing, leisure, job centres and welfare advice services.

Although recommendations are not intended to apply in prisons or military hospitals, the guideline may be of interest to professionals working in these settings.

NICE guidelines cover health and care in England. Decisions on how they apply in other UK countries are made by ministers in the [Welsh Government](#), [Scottish Government](#) and [Northern Ireland Executive](#).

Equality considerations

NICE has carried out an [equality impact assessment](#) during scoping. The assessment:

- lists equality issues identified, and how they have been addressed
- explains why any groups are excluded from the scope.

The guideline will look at inequalities relating to people with pre-existing physical and/or mental health and behavioural conditions, physical and learning disabilities, or frailty, as well as geography in accessing inpatient, outpatient and community rehabilitation, and how lower socioeconomic groups can be disproportionately affected because of impact on family life and income. It will also consider age-related service assumptions, service access

and hospital discharge for people who are homeless, and the communication needs of people whose first language is not English.

3 What the guideline will cover

3.1 *Who is the focus?*

Groups that will be covered

- People with complex rehabilitation needs resulting from traumatic injury that requires admission to hospital. (See section 1 of the scope for more information about how we define complex rehabilitation needs.)

Specific consideration will be given to:

- people with pre-existing physical and/or mental health and behavioural conditions (including substance misuse), physical and learning disability, or frailty
- people who require safeguarding.

Groups that will not be covered

- People with complex rehabilitation needs resulting from traumatic brain injury (including anoxic brain injury, for example, drowning and strangulation).
- People with traumatic injuries who do not have complex rehabilitation needs and/or do not require admission to hospital.

3.2 *Settings*

Settings that will be covered

All inpatient, outpatient and community settings in which rehabilitation services following traumatic injury are provided.

Settings that will not be covered

- Accident and emergency departments.
- Critical care units (apart from in relation to coordination of care).
- Prisons.

3.3 *Activities, services or aspects of care*

Key areas that will be covered

We will look at evidence concerning complex rehabilitation needs after traumatic injury, including physical, functional, vocational, psychological and psychosocial interventions, in the areas below when developing the guideline, but it may not be possible to make recommendations in all the areas.

- 1 Identification and assessment of rehabilitation needs after traumatic injury.
- 2 Rehabilitation packages and programmes, including physical and non-physical therapies, for people with complex rehabilitation needs after traumatic injury.
- 3 Specific packages and programmes for limb reconstruction, limb loss or amputation, nerve injury and spinal cord injury.
- 4 Coordination of rehabilitation services.

We will consider identifying and assessing needs and coordinating services for people with complex rehabilitation needs resulting from traumatic injury that requires admission to hospital, including those with traumatic brain injury, sight loss and hearing loss.

We will consider the relationship between rehabilitation services and social care services (for example, home care) when people transfer from inpatient to outpatient rehabilitation services, including the support needs and preferences of those people.

Areas that will not be covered

- 1 Rehabilitation packages and programmes relating to traumatic brain injury, sight loss and hearing loss.
- 2 Social care interventions (for example, home care or personal assistance).
- 3 Long-term care and rehabilitation packages for people with long-term care needs.

- 4 Specific pain management interventions (pain management as part of a package or programme will be included).

Key related NICE guidance

Published

- [Trauma](#) (2018) NICE quality standard 166
- [People's experience in adult social care services: improving the experience of care and support for people using adult social care services](#) (2018) NICE guideline NG86
- [Neuropathic pain in adults: pharmacological management in non-specialist settings](#) (2018) NICE guideline CG173
- [Fractures \(complex\): assessment and management](#) (2016, updated 2017) NICE guideline NG37
- [Hip fracture: management](#) (2011, updated 2017) NICE guideline CG124
- [Intermediate care including reablement](#) (2017) NICE guideline NG74
- [Intramuscular diaphragm stimulation for ventilator-dependent chronic respiratory failure caused by high spinal cord injuries](#) (2017) NICE interventional procedures guidance 594
- [Rehabilitation after critical illness in adults](#) (2017) NICE quality standard 158
- [Fractures \(non-complex\): assessment and management](#) (2016) NICE guideline NG38
- [Home care for older people](#) (2016) NICE quality standard 123
- [Major trauma: assessment and initial management](#) (2016) NICE guideline NG39
- [Major trauma: service delivery](#) (2016) NICE guideline NG40
- [Mental wellbeing and independence for older people](#) (2016) NICE quality standard 137
- [Spinal injury: assessment and initial management](#) (2016) NICE guideline NG41
- [Transition between inpatient hospital settings and community or care home settings for adults with social care needs](#) (2016) NICE quality standard 136

- [Transition from children's to adults' services](#) (2016) NICE quality standard 140
- [Transition from children's to adults' services for young people using health or social care services](#) (2016) NICE guideline NG43
- [Home care: delivering personal care and practical support to older people living in their own homes](#) (2015) NICE guideline NG21
- [Older people with social care needs and multiple long-term conditions](#) (2015) NICE guideline NG22
- [Older people: independence and mental wellbeing](#) (2015) NICE guideline NG32
- [Transition between inpatient hospital settings and community or care home settings for adults with social care needs](#) (2015) NICE guideline NG27
- [Dementia: independence and wellbeing](#) (2013) NICE quality standard 30
- [Myocardial infarction: cardiac rehabilitation and prevention of further cardiovascular disease](#) (2013) NICE guideline CG172
- [Stroke rehabilitation in adults](#) (2013) NICE guideline CG162
- [Rehabilitation after critical illness in adults](#) (2009) NICE guideline CG83
- [Mental wellbeing in over 65s: occupational therapy and physical activity interventions](#) (2008) NICE guideline PH16
- [Post-traumatic stress disorder: management](#) (2005) NICE guideline CG26

In development

- [Post-traumatic stress disorder \(update\)](#) NICE guideline. Publication expected December 2018
- [Rehabilitation in adults with complex psychosis and related severe mental health conditions](#) NICE guideline. Publication expected June 2020
- [Chronic pain: assessment and management](#) NICE guideline. Publication expected August 2020

NICE guidance about the experience of people using NHS services

NICE has produced the following guidance on the experience of people using the NHS. This guideline will not include additional recommendations on these topics unless there are specific issues related to rehabilitation after traumatic injury:

- [Medicines optimisation](#) (2015) NICE guideline NG5
- [Patient experience in adult NHS services](#) (2012) NICE guideline CG138
- [Service user experience in adult mental health](#) (2011) NICE guideline CG136
- [Medicines adherence](#) (2009) NICE guideline CG76

3.4 Economic aspects

We will take economic aspects into account when making recommendations. We will develop an economic plan that states for each review question (or key area in the scope) whether economic considerations are relevant, and if so whether this is an area that should be prioritised for economic modelling and analysis. We will review the economic evidence and carry out economic analyses, using either a public sector and/or societal perspective, as appropriate.

3.5 Key issues and draft questions

Please note that all questions relate to adults, children and young people with complex needs after traumatic injury, but the word 'people' has been used throughout.

While writing this scope, we have identified the following key issues and draft questions related to them:

- 1 Identification and assessment of rehabilitation needs after traumatic injury
 - 1.1 What should be included in rehabilitation needs identification and assessment for people after traumatic injury?
 - 1.2 What are the views and preferences of people who have used rehabilitation services after traumatic injury about ongoing assessment of their rehabilitation needs?
- 2 Rehabilitation packages and programmes, including physical and non-physical therapies, for people with complex rehabilitation needs after traumatic injury

- 2.1 What rehabilitation programmes and packages are effective and acceptable for people with complex rehabilitation needs after traumatic injury? (This question will consider the effectiveness and acceptability of different rehabilitation programmes as well as their content, timing, intensity, frequency and setting.)
- 2.2 What is the optimal follow up for rehabilitation after traumatic injury?
- 3 Specific programmes and packages
- 3.1 For people with complex rehabilitation needs after traumatic injury that results in limb reconstruction, limb loss or amputation, what specific rehabilitation programmes and packages, including prosthetics, are effective and acceptable? (This question will consider the effectiveness and acceptability of different rehabilitation programmes as well as their content, timing, intensity, frequency and setting.)
- 3.2 For people with complex rehabilitation needs after traumatic injury that involves nerve injury, what specific rehabilitation programmes and packages are effective and acceptable? (This question will consider the effectiveness and acceptability of different rehabilitation programmes as well as their content, timing, intensity, frequency and setting.)
- 3.3 For people with complex rehabilitation needs after traumatic injury that involves spinal cord injury, what specific rehabilitation programmes and packages are effective and acceptable for people? (This question will consider the effectiveness and acceptability of different rehabilitation programmes as well as their content, timing, intensity, frequency and setting.)
- 4 Coordination of rehabilitation services
- 4.1 What are the best methods to coordinate rehabilitation services within major trauma centres or trauma units for people with complex rehabilitation needs after traumatic injury?
- 4.2 What are the best methods to deliver and coordinate rehabilitation services and social care services for people with complex rehabilitation needs after traumatic injury when they transfer from inpatient to outpatient rehabilitation services?

4.3 What are the barriers and facilitators to accessing rehabilitation services following discharge to the community for people with complex rehabilitation needs after traumatic injury?

4.4 What are the support needs and preferences of people who have complex rehabilitation needs after traumatic injury when they transfer from inpatient to outpatient rehabilitation services?

The key issues and draft questions will be used to develop more detailed review questions, which guide the systematic review of the literature.

3.6 *Main outcomes*

The main outcomes that may be considered when searching for and assessing the evidence are:

- 1 health-related quality of life
- 2 changes in impairment status, including pain
- 3 changes in functional status, activities of daily living and independence
- 4 changes in mood and psychological function
- 5 patient preference
- 6 patient acceptability
- 7 mortality
- 8 impact on family and carers
- 9 length of hospital stay
- 10 impact on health and social care service costs
- 11 participation in work, leisure and education.

4 NICE quality standards and NICE Pathways

4.1 *NICE quality standards*

NICE quality standards that may need to be revised or updated when this guideline is published

- [Trauma](#) (2018) NICE quality standard 166

NICE quality standards that will use this guideline as an evidence source when they are being developed

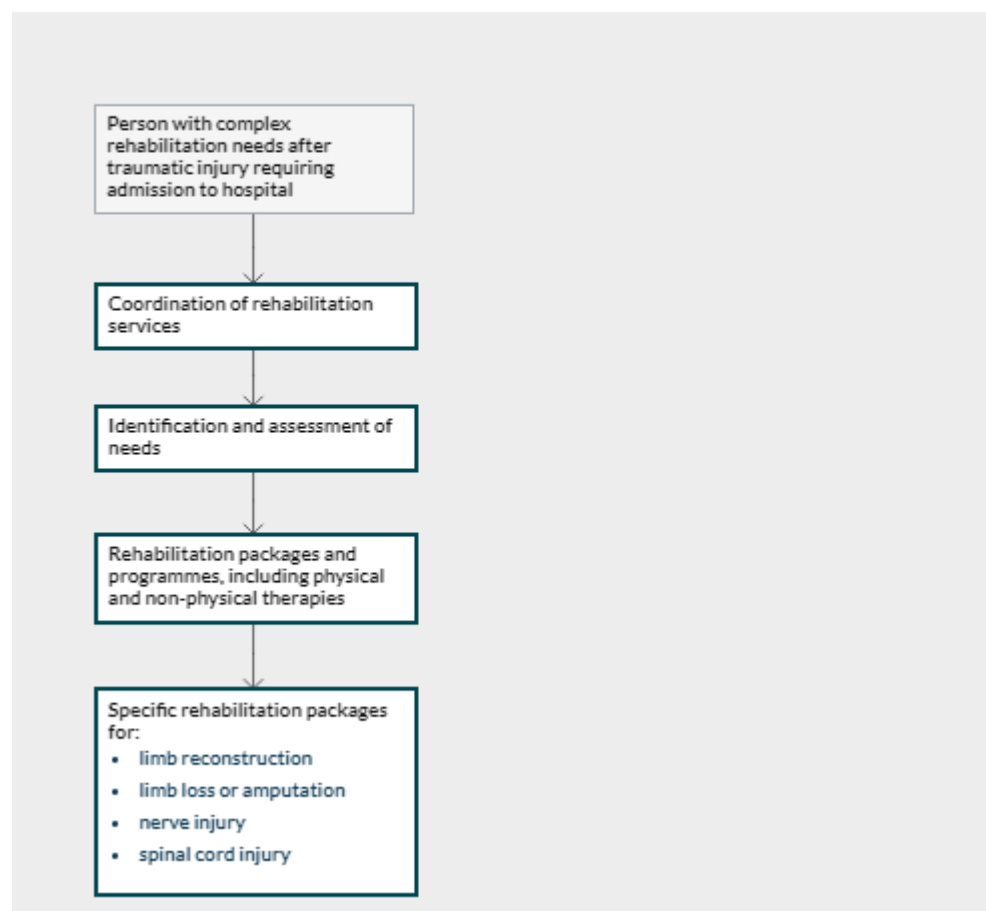
- To be confirmed

4.2 NICE Pathways

[NICE Pathways](#) bring together everything we have said on a topic in an interactive flowchart. When this guideline is published, the recommendations will be included in the NICE Pathway on rehabilitation after traumatic injury (in development).

An outline based on this scope is included below. It will be adapted and more detail added as the recommendations are written during guideline development.

Rehabilitation after traumatic injury overview



5 Further information

This is the final scope, which takes into account comments from registered stakeholders during consultation.

The guideline is expected to be published in November 2020.

You can follow progress of the [guideline](#).

Our website has information about how [NICE guidelines](#) are developed.

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