NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

SCOPE

1 Guideline title

Critical illness: rehabilitation after a period of critical illness

1.1 Short title

Critical illness rehabilitation

2 Background

a) The Department of Health has asked the National Institute for Health and Clinical Excellence ('NICE' or 'the Institute') to develop a short clinical guideline on rehabilitation after a period of critical illness requiring a stay in a critical care, for use in the NHS in England and Wales (see appendix B). This guideline will provide recommendations for good practice that are based on the best available evidence of clinical and cost effectiveness.

b) The Institute's clinical guidelines support the implementation of National Service Frameworks (NSFs) in those aspects of care for which a Framework has been published. The statements in each NSF reflect the evidence that was used at the time the Framework was prepared. The clinical guidelines and technology appraisals published by the Institute after an NSF has been issued have the effect of updating the Framework.

c) NICE clinical guidelines support the role of healthcare professionals in providing care in partnership with patients, taking account of their individual needs and preferences, and ensuring that patients (and their carers and families, if appropriate) can make informed decisions about their care and treatment.

3 Clinical need for the guideline

a) More than 100,000 people are admitted into critical care units in the UK each year. Many of these people experience significant and persistent problems with physical, non-physical (such as psychological or cognitive) and social functioning after discharge from critical care. This morbidity is frequently unrecognised and, if identified, may not be appropriately assessed or managed.

b) Physical morbidity, consisting of muscle loss and reduction of neuromuscular function, is universal following a period of critical illness. It is estimated that patients who require critical care will lose 1% of their muscle mass per day of critical illness. Consequently, delayed motor recovery is common after discharge from critical care, particularly in patients who required prolonged mechanical ventilation (for 7 days or longer). Physical recovery is often slow, being measured in months rather than weeks. Some patients may also have difficulty in swallowing, as a result of muscle weakness or surgery such as tracheostomy.

c) Non-physical morbidity, such as psychological morbidity and cognitive dysfunction, is also common after a period of critical illness: it has been reported that 1 in 10 critically ill patients develop severe psychological problems, with attendant problems in relatives or carers. These problems include anxiety, depression and post-traumatic stress disorder (PTSD). There are many reasons for psychological distress following critical illness. These include being unable to recall events accurately, having difficulty in communicating, delusional memories, the choice of sedative used in treatment and previous psychological disease. Early recognition and management of psychological problems may shorten the recovery period.

d) Up to three quarters of critically ill patients also have impairments in cognitive function – particularly memory, attention and problem

solving – following critical illness. These impairments are frequently undiagnosed. Although in some cases the cause of the problem (for example, brain trauma) can be easily identified, for the majority of patients the reasons for the impairments are less well understood.

e) Rehabilitation strategies after discharge from critical care may help to improve patient outcomes. Such strategies may also reduce the length of hospital stay after discharge from critical care, minimise hospital readmission rates and decrease the use of primary care resources. Furthermore, these strategies could help patients return to their previous activities sooner. The time taken to return to previous activities depends on the reason for critical care admission and is typically between 9 and 12 months after hospital discharge.

f) Currently, rehabilitation strategies after a period of critical illness tend to focus on physical function (patient mobility) and are limited to inpatient settings. However, multidisciplinary rehabilitation strategies, such as critical care follow-up clinics, are increasingly being established in a number of UK hospitals. These strategies differ in nature, but all aim to support patient recovery in the year following discharge from critical care.

g) There is evidence to suggest that structured, self-directed rehabilitation strategies following critical illness can aid physical recovery and help people cope with the physical and psychological effects associated with critical illness. The composition of structured, self-directed rehabilitation strategies varies widely. They may include manuals that provide general advice, techniques to overcome cognitive dysfunctions and various exercise programmes.

h) To deliver individualised rehabilitation it is necessary to have accurate information on the physical and non-physical problems

i) There is currently no evidence-based guideline for England and Wales that addresses the identification, timing and nature of effective interventions to manage the physical and non-physical morbidity associated with critical illness.

4 The guideline

a) The guideline development process is described in detail in three publications that are available from the NICE website (see ‘Further information’). ‘The guideline development process: an overview for stakeholders, the public and the NHS’ describes how organisations can become involved in the development of a guideline. 'The guide to the short clinical guideline process' and 'The guidelines manual’ provide advice on the technical aspects of guideline development.

b) This document is the scope. It defines exactly what this guideline will (and will not) examine, and what the guideline developers will consider. The scope is based on the referral from the Department of Health.

c) The areas that will be addressed by the guideline are described in the following sections.

4.1 Population

4.1.1 Groups that will be covered

d) Adults with rehabilitation needs as a result of a period of critical illness that required level 2 and level 3 critical care.

4.1.2 Groups that will not be covered

a) Adults receiving palliative care.

b) Clinical subgroups of patients whose specialist rehabilitation needs are already routinely assessed and delivered as part of their care pathway (for example, patients who received critical care as part of an elective pathway and who did not develop an anticipated, ongoing critical illness, and patients with conditions for which published guidelines already exist – such as head injury, myocardial infarction and stroke – see section 4.6.1).

4.2 Healthcare settings

a) Critical care areas.

b) General medical and surgical wards, and other inpatient and community settings where rehabilitation strategies may be delivered following a period of critical illness.

4.3 Clinical management

a) Identification and assessment of adult patients who are at risk of physical and non-physical morbidities (such as psychological or cognitive dysfunction) resulting from critical illness and treatment in critical care. This will include an evaluation of diagnostic screening and assessment tools that have been developed and/or validated in those who have had a period of critical illness. If the evidence allows, recommendations will be made on which subgroups of patients have a greater potential to benefit (for example, patients who have undergone significant periods of mechanical ventilation) or may have specific needs (for example, older people).

b) Optimum timing for assessment and intervention to treat physical and non-physical dysfunction, including psychological and cognitive dysfunction, associated with critical illness.

c) Rehabilitation strategies to support adults identified as being at risk of physical and non-physical morbidities, including psychological and cognitive dysfunction, after critical illness. The evidence that will be reviewed relates to rehabilitation strategies delivered to adult

patients who have developed physical, psychological and/or cognitive dysfunction associated with their critical illness. It is important for rehabilitation strategies to be flexible to the individual patient's needs. If available, evidence on the role of the carer, and interventions aimed at the carer, will be reviewed. The guideline will identify the effective components of rehabilitation strategies. It will not address the service configuration and delivery of the strategies.

d) The information and support needs of adults who have had a period of critical illness and treatment in critical care.

e) The specific information and support needs of people who care for adults who have been in critical care.

f) The Guideline Development Group will take reasonable steps to identify ineffective interventions and approaches to care. If robust and credible recommendations for re-positioning the intervention for optimal use, or changing the approach to care to make more efficient use of resources, can be made, they will be clearly stated. If the resources released are substantial, consideration will be given to listing such recommendations in the 'Key priorities for implementation' section of the guideline.

4.4 Key outcome measures

a) Mortality.

b) Morbidity (including physical functional status, psychological impairments and cognitive dysfunction).

c) Readmission to hospital (as a result of physical or non-physical morbidities).

d) Hospital length of stay.

e) Health-related quality of life.

4.5 Economic aspects

In line with 'The guidelines manual', developers will take into account both clinical and cost effectiveness. The preferred unit of effectiveness is the quality-adjusted life year (QALY), and costs in the 'reference case' will be from an NHS and Personal Social Services (PSS) perspective.

4.6 Status

4.6.1 Scope

This is the final scope.

Related NICE guidance

Published

Head injury: triage, assessment, investigation and early management of head injury in infants, children and adults. NICE clinical guideline 56 (2007). Available from www.nice.org.uk/CG056

MI secondary prevention: secondary prevention in primary and secondary care for patients following a myocardial infarction. NICE clinical guideline 48 (2007). Available from www.nice.org.uk/CG048

Dementia: supporting people with dementia and their carers in health and social care. NICE clinical guideline 42 (2006). Available from www.nice.org.uk/CG042

Nutrition support in adults: oral nutrition support, enteral tube feeding and parenteral nutrition. NICE clinical guideline 32 (2006). Available from www.nice.org.uk/CG032

Post-traumatic stress disorder (PTSD): management of PTSD in adults in primary, secondary and community care. NICE clinical guideline 26 (2005). Available from www.nice.org.uk/CG026

Depression: management of depression in primary and secondary care. NICE clinical guideline 23 (2004). Available from www.nice.org.uk/CG023

Anxiety: management of anxiety (panic disorder, with or without agoraphobia, and generalised anxiety disorder) in adults in primary, secondary and community care. NICE clinical guideline 22 (2004). Available from www.nice.org.uk/CG022

In development

Stroke: the diagnosis and acute management of stroke and transient ischaemic attacks. NICE clinical guideline (publication expected July 2008)

Delirium: diagnosis, prevention and management of delirium. NICE clinical guideline (publication expected April 2010).

4.6.2 Guideline

The development of the guideline recommendations will begin in July 2008.

5 Further information

Information on the guideline development process is provided in:

- ‘The guideline development process: an overview for stakeholders, the public and the NHS’
- 'The guide to the short clinical guideline process'
- ‘The guidelines manual’.

These are available as PDF files from the NICE website (www.nice.org.uk/guidelinesmanual). Information on the progress of the guideline will also be available from the website.

Appendix A: Structured clinical questions

Questions on:

- The evaluation of screening and/or assessment tools for identifying adult patients receiving level 2 or 3 critical care at risk of physical and non-physical morbidities (including psychological and cognitive dysfunction) following a period of critical illness.
- The identification of the optimal timing for screening and/or assessment for physical and non-physical (psychological and cognitive) dysfunction associated with critical illness.
- The clinical effectiveness and cost-effectiveness of rehabilitation strategies for adult patients who have developed physical and non-physical morbidities (including psychological and cognitive dysfunction) following a period of critical illness requiring level 2 or 3 critical care.
- The identification of the optimal timing for rehabilitation strategies to address physical and non-physical morbidities (including psychological and cognitive dysfunction) associated with critical illness.
- The specific information and support needs of carers or families of adult patients who have developed rehabilitation needs following a period of critical illness requiring level 2 and level 3 critical care.

Appendix B: Referral from the Department of Health.

The Department of Health asked NICE:

'To prepare a clinical guideline on the rehabilitation of adults after a period of critical illness requiring a stay on ITU.'