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 an ITU, 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 intensive care units (ITUs/ICUs) in the UK each year. Many of these people experience significant and persistent problems with physical, psychological and social functioning after discharge from critical care. This morbidity is frequently unrecognised and, when 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 intensive 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.

c) Psychological morbidity is 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/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, 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 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 and12 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 intensive 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 the ITU/ICU.

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 these 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 psychological and physical problems faced by each patient. There are a number of tools that can provide this information, such as the Barthel Index, Hospital Anxiety and Depression scale and the Impact of Event scale.

i) There is currently no evidence-based guideline available in England and Wales that addresses the identification, timing and nature of effective interventions to manage the physical, psychological and cognitive 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 a stay on an ITU.

4.1.2 Groups that will not be covered

a) Adults receiving palliative care.

b) Clinical subgroups whose specialist rehabilitation needs are already routinely assessed and delivered as part of their care pathway (for example, people who required critical care for a

neurological or neurosurgical condition, or who received critical care as part of an elective pathway and who did not develop critical illness).

4.2 Healthcare settings

a) Intensive care units.

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, psychological, and cognitive dysfunction resulting from, critical illness and treatment in intensive 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.

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

c) Rehabilitation strategies to support adults identified as being at risk of physical, 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 cognitive dysfunction associated with their critical illness. Where available, evidence on the role of the carer, and interventions aimed at the carer, will be reviewed.[1]

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

[1] The guideline will identify the effective components of rehabilitation strategies. It will not address the service configuration and delivery of the strategies.

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.

d) Hospital length of stay.

e) Health-related quality of life.

f) Resource use and costs.

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. Further detail on the methods can be found in 'The guidelines manual'.

4.6 Status

4.6.1 Scope

This is the consultation draft of the scope. The consultation period is 17th April 2008 to 15th May 2008.

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

- The evaluation of screening and/or assessment tools for identifying adult patients in intensive care at risk of physical, psychological and cognitive dysfunction following a period of critical illness.

- The identification of the optimal timing for screening and/or assessment for 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, psychological and cognitive dysfunction following a period of critical illness requiring a stay on ITU.

- The identification of the optimal timing for rehabilitation strategies to address physical, psychological and cognitive dysfunction associated with critical illness.

- The specific information and support needs of carers or the families of adult patients who have developed rehabilitation needs following a period of critical illness requiring a stay on ITU.

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.'