



*National Institute for  
Health and Clinical Excellence*

## Quick reference guide

Issue date: July 2007

# **Acutely ill patients in hospital**

Recognition of and response to acute illness in  
adults in hospital

## Contents

<b>Key priorities for implementation</b>	<b>3</b>
<b>Recognition of and response to acute illness in adults in hospital</b>	<b>4</b>
<b>Implementation</b>	<b>7</b>
<b>Further information</b>	<b>7</b>

### Introduction

Any patient in hospital may become acutely ill. However, the recognition of acute illness is often delayed and its subsequent management may be inappropriate. This may result in late referral and avoidable admissions to critical care, and may lead to unnecessary patient deaths, particularly when the initial standard of care is suboptimal.

The NICE clinical guideline makes evidence-based recommendations on the recognition and management of acute illness in acute hospitals. More information, including the evidence from which the recommendations were derived, is available from [www.nice.org.uk/CG050](http://www.nice.org.uk/CG050)

### Patient-centred care

Treatment and care should take into account patients' individual needs and preferences. Good communication is essential, supported by evidence-based information, to allow patients to reach informed decisions about their care. If the patient agrees, carers and relatives should have the opportunity to be involved in decisions about treatment and care.

#### National Institute for Health and Clinical Excellence

MidCity Place  
71 High Holborn  
London  
WC1V 6NA

[www.nice.org.uk](http://www.nice.org.uk)

ISBN 1-84629-440-1

© National Institute for Health and Clinical Excellence, July 2007. All rights reserved. This material may be freely reproduced for educational and not-for-profit purposes. No reproduction by or for commercial organisations, or for commercial purposes, is allowed without the express written permission of the Institute.

#### This guidance is written in the following context

This guidance represents the view of the Institute, which was arrived at after careful consideration of the evidence available. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. The guidance does not, however, override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

## Key priorities for implementation

- Adult patients in acute hospital settings, including patients in the emergency department for whom a clinical decision to admit has been made, should have:
  - physiological observations recorded at the time of their admission or initial assessment
  - a clear written monitoring plan that specifies which physiological observations should be recorded and how often. The plan should take account of the:
    - ◆ patient's diagnosis
    - ◆ presence of comorbidities
    - ◆ agreed treatment plan.

Physiological observations should be recorded and acted upon by staff who have been trained to undertake these procedures and understand their clinical relevance.

- Physiological track and trigger systems should be used to monitor all adult patients in acute hospital settings.
  - Physiological observations should be monitored at least every 12 hours, unless a decision has been made at a senior level to increase or decrease this frequency for an individual patient.
  - The frequency of monitoring should increase if abnormal physiology is detected, as outlined in the recommendation on graded response strategy.
- Staff caring for patients in acute hospital settings should have competencies in monitoring, measurement, interpretation and prompt response to the acutely ill patient appropriate to the level of care they are providing. Education and training should be provided to ensure staff have these competencies, and they should be assessed to ensure they can demonstrate them.
- A graded response strategy for patients identified as being at risk of clinical deterioration should be agreed and delivered locally. It should consist of the following three levels.
  - Low-score group:
    - ◆ Increased frequency of observations and the nurse in charge alerted.
  - Medium-score group:
    - ◆ Urgent call to team with primary medical responsibility for the patient.
    - ◆ Simultaneous call to personnel with core competencies for acute illness. These competencies can be delivered by a variety of models at a local level, such as a critical care outreach team, a hospital-at-night team or a specialist trainee in an acute medical or surgical specialty.
  - High-score group:
    - ◆ Emergency call to team with critical care competencies and diagnostic skills. The team should include a medical practitioner skilled in the assessment of the critically ill patient, who possesses advanced airway management and resuscitation skills. There should be an immediate response.
- If the team caring for the patient considers that admission to a critical care area is clinically indicated, then the decision to admit should involve both the consultant caring for the patient on the ward and the consultant in critical care.

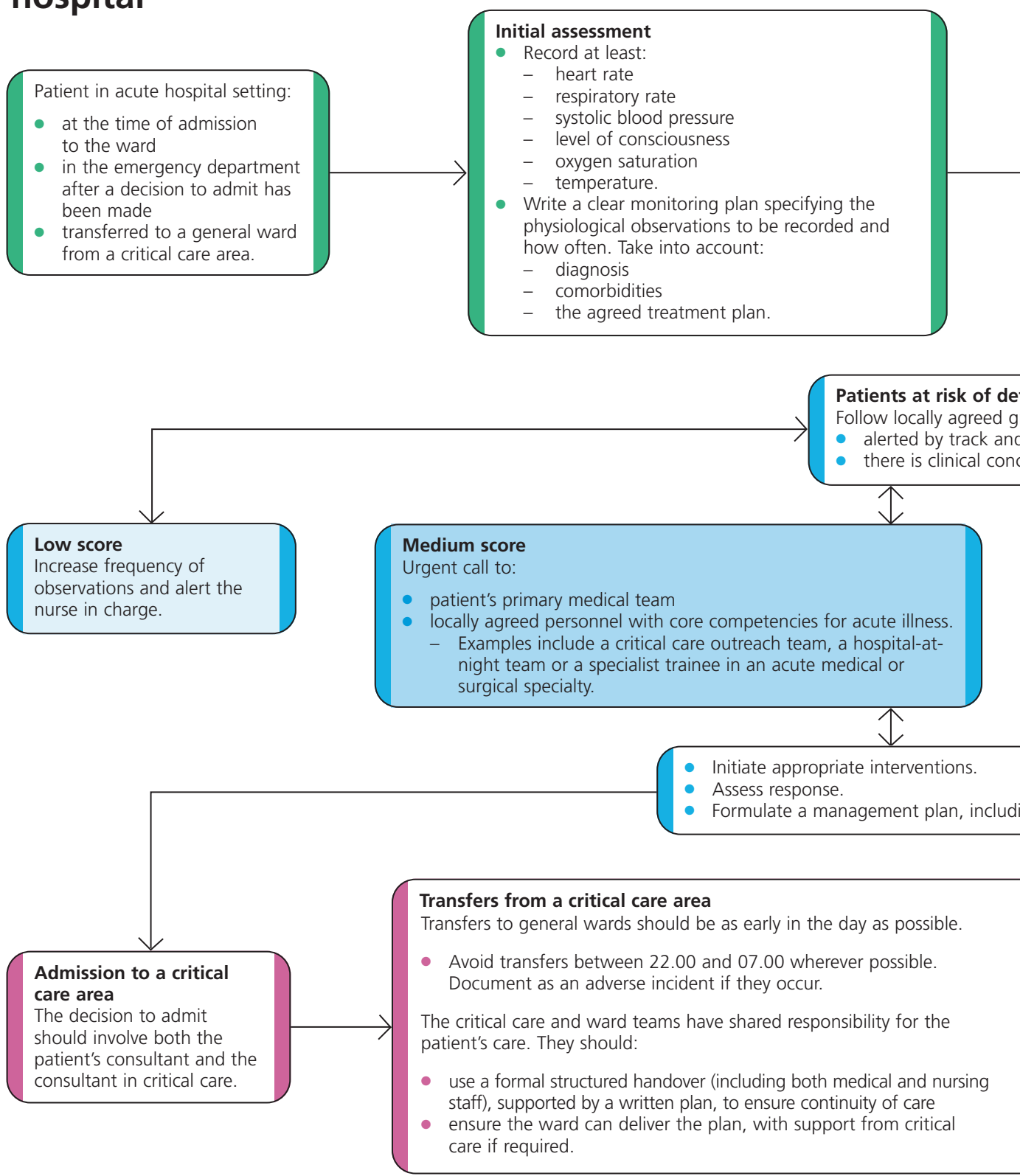
*Continued on page 6*

# Recognition of and response to acute illness in adults in hospital

Assessment and monitoring

Response

Critical care



**Routine monitoring**

Use physiological track and trigger systems to monitor patients.

- Monitor physiological observations at least every 12 hours, unless decided at a senior level to increase or decrease the frequency for an individual patient.
  - Use multiple-parameter or aggregate weighted scoring systems, which allow a graded response. The systems should:
    - define the parameters to be measured and the frequency of observations
    - state the parameters, cut-off points or scores that should trigger a response
    - monitor:
      - ◆ heart rate
      - ◆ respiratory rate
      - ◆ systolic blood pressure
      - ◆ level of consciousness
      - ◆ oxygen saturation
      - ◆ temperature.
  - Set thresholds locally, and review regularly to optimise sensitivity and specificity.
- Consider monitoring:
- biochemistry (for example, lactate, blood glucose, base deficit, arterial pH)
  - hourly urine output
  - pain.

**Trigger**  
Graded response strategy if:  
and trigger score  
concern.

**Clinical emergency**  
(excluding cardiac  
arrests).

**Staff competencies**

Physiological observations should be recorded and acted upon by staff specifically trained to undertake them and understand their clinical relevance.

Staff should have competencies, appropriate to the level of care they provide, in:

- monitoring
- measurement
- interpretation
- prompt response.

These should be assessed, and education and training provided.

Ward staff working with patients transferred from critical care areas should be educated to recognise and understand their physical, psychological and emotional needs.

**High score**

Emergency call to team with critical care competencies and diagnostic skills. The team should:

- include a medical practitioner skilled in assessing critically ill patients and with advanced airway management and resuscitation skills
- provide an immediate response.

ing location and level of care.

The handover of care should include:

- a summary of the critical care stay including diagnosis and treatment
- a monitoring and investigation plan
- a plan for ongoing treatment including drugs and therapies, nutrition plan, infection status and any agreed limitations of treatment
- physical and rehabilitation needs
- psychological and emotional needs
- specific communication or language needs.

Staff should offer patients information about their condition and encourage them to participate in decisions that relate to their recovery.

## Key priorities for implementation *continued*

- After the decision to transfer a patient from a critical care area to the general ward has been made, he or she should be transferred as early as possible during the day. Transfer from critical care areas to the general ward between 22.00 and 07.00 should be avoided whenever possible, and should be documented as an adverse incident if it occurs.
- The critical care area transferring team and the receiving ward team should take shared responsibility for the care of the patient being transferred. They should jointly ensure:
  - there is continuity of care through a formal structured handover of care from critical care area staff to ward staff (including both medical and nursing staff), supported by a written plan
  - that the receiving ward, with support from critical care if required, can deliver the agreed plan.

The formal structured handover of care should include:

- a summary of critical care stay, including diagnosis and treatment
- a monitoring and investigation plan
- a plan for ongoing treatment, including drugs and therapies, nutrition plan, infection status and any agreed limitations of treatment
- physical and rehabilitation needs
- psychological and emotional needs
- specific communication or language needs.

## Implementation

NICE has developed tools to help organisations implement this guidance (listed below).

These are available on our website ([www.nice.org.uk/CG050](http://www.nice.org.uk/CG050)).

- Slides highlighting key messages for local discussion.
- Implementation advice on how to put the guidance into practice and national initiatives which support this locally.

- Costing tools:
  - costing report to estimate the national savings and costs associated with implementation
  - costing template to estimate the local costs and savings involved.
- Audit criteria to monitor local practice.

## Further information

### Ordering information

You can download the following documents from [www.nice.org.uk/CG050](http://www.nice.org.uk/CG050)

- A quick reference guide (this document) – a summary of the recommendations for healthcare professionals.
- ‘Understanding NICE guidance’ – information for patients and carers.
- The full guideline – all the recommendations, details of how they were developed, and summaries of the evidence they were based on.

For printed copies of the quick reference guide or ‘Understanding NICE guidance’, phone the NHS Response Line on 0870 1555 455 and quote:

- N1287 (quick reference guide)
- N1288 (‘Understanding NICE guidance’).

### Related NICE guidance

For information about NICE guidance that has been issued or is in development, see the website ([www.nice.org.uk](http://www.nice.org.uk)).

- 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](http://www.nice.org.uk/CG032)

### Updating the guideline

This guideline will be updated as needed, and information about the progress of any update will be posted on the NICE website ([www.nice.org.uk/CG050](http://www.nice.org.uk/CG050)).

## **About this booklet**

This is a quick reference guide that summarises the recommendations NICE has made to the NHS in Acutely ill patients in hospital: recognition of and response to acute illness in adults in hospital (NICE clinical guideline 50).

### **Who should read this booklet?**

This quick reference guide is for nurses, doctors, therapists and other staff who care for acutely ill patients. It contains what you need to know to put the guideline's recommendations into practice.

### **Who wrote the guideline?**

The guideline was developed by the Centre for Clinical Practice at NICE following the short clinical guideline process. The Centre worked with an independent group of healthcare professionals (including consultants from relevant specialties and nurses), patients and carers, and technical staff, who reviewed the evidence and drafted the recommendations. The recommendations were finalised after public consultation.

For more information on how NICE clinical guidelines are developed, go to [www.nice.org.uk](http://www.nice.org.uk)

### **Where can I get more information about the guideline on acutely ill patients in hospital?**

The NICE website has the recommendations in full with summaries of the evidence they are based on, a summary of the guideline for patients and carers, and tools to support implementation (see inside back cover for more details).

**National Institute for  
Health and Clinical Excellence**

MidCity Place  
71 High Holborn  
London  
WC1V 6NA

[www.nice.org.uk](http://www.nice.org.uk)

N1287 1P 50k Jul 07

ISBN 1-84629-440-1