NHS
National Institute for Health and Clinical Excellence

Quick reference guide

Issue date: September 2005

The prevention and treatment of pressure ulcers

To view the flowchart in this document arrange pages 3, 4 and 5 side by side and in order

Clinical Guideline 29
Developed by the Royal College of Nursing

Royal College of Nursing

Background

This quick reference guide summarises the recommendations made in:

- Pressure ulcer prevention: pressure ulcer risk assessment and prevention, including the use of pressure-relieving devices (beds, mattresses and overlays) for the prevention of pressure ulcers in primary and secondary care. *NICE Clinical Guideline* No. 7.
- The management of pressure ulcers in primary and secondary care.

It replaces the NICE version of pressure ulcer prevention. A document is available on our website which shows how each statement in this QRG links to the recommendations in the full guidelines (www.nice.org.uk/CG029).

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. Carers and relatives should have the chance to be involved in discussions where appropriate.

Key priorities for implementation

The following recommendations are identified as priorities for implementation.

- Patients should receive an initial and ongoing risk assessment in the first episode of care (within 6 hours).
- The pressure ulcer grade should be recorded using the European Pressure Ulcer Advisory Panel Classification System (see Full version).
- Patients should receive an initial and ongoing pressure ulcer assessment. This should be supported by photography and/or tracings (ruler for calibration).
- All those who are vulnerable to pressure ulcers should as a minimum be placed on a high specification foam mattress.
- For patients undergoing surgery, as a minimum provision a high specification foam theatre mattress or other pressure redistributing surface should be used.
- All pressure ulcers graded 2 and above should be documented as a local clinical incident.
- Patients with a grade 1–2 pressure ulcer should:
  - as a minimum provision be placed on a high specification foam mattress/cushion with pressure-reducing properties
  - be closely observed for skin changes.
- Patients with a grade 3–4 pressure ulcer should as a minimum provision be placed on:
  - a high specification foam mattress with an alternating pressure overlay, or
  - a sophisticated continuous low pressure system (for example, low air loss, air flotation, viscous fluid).
- The optimum wound healing environment should be created by using modern dressings (for example, hydrocolloids, hydrogels, hydrofibres, foams, films, alginates, soft silicones).

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Initial and ongoing ulcer assessment is the responsibility of a registered healthcare professional.

When
Perform initial risk assessment in first episode of care (within 6 hours).

Assess risk
Risk factors include:
- pressure
- shearing
- friction
- level of mobility
- sensory impairment
- continence
- level of consciousness
- acute, chronic and terminal illness
- comorbidity (for example, assess systemic signs of infection, blood supply, pain, medication)
- posture
- cognition, psychosocial status
- previous pressure damage
- extremes of age
- nutrition and hydration status
- moisture to the skin.

Record
Document the assessment of risk, noting all relevant factors.

People vulnerable to pressure ulcers

Patient with pressure ulcer

Prevention
All vulnerable patients, including those with a grade 1–2 pressure ulcer, should receive,

Positioning
- Consider mobilising, positioning and repositioning interventions for all patients (including those in beds, chairs, and wheelchair users). Acceptability to the patient and needs of the carer should be considered.
- All patients with pressure ulcers should actively mobilise, change their position or be repositioned frequently.
- Minimise pressure on bony prominences and avoid positioning on pressure ulcer if present.
- Consider whether sitting time should be restricted to less than 2 hours per session.
- Seek specialist advice on aids and equipment and positions.
- Record using a repositioning chart/schedule.

Self care
- Teach individuals and carers (who are willing and able) how to redistribute individual's weight.
- Consider passive movements for patients with compromised mobility.

Reassessment
Reassess on an ongoing basis and in particular if the patient's circumstances change.

View the flowchart by arranging pages 3, 4 and 5 side by side and in order

Skin assessment

- Assess skin regularly.
- Frequency should be based on vulnerability and condition of patient.
- Inspect all vulnerable areas.
- Encourage individuals (or their carers) to inspect the skin (using a mirror if necessary).
- Look for:
  - persistent erythema
  - non-blanching hyperaemia
  - blisters
  - localised heat
  - localised oedema
  - localised induration
  - purplish/bluish localised areas
  - localised coolness if tissue death occurs.

People vulnerable to pressure ulcers

Examples of people vulnerable to pressure ulcers include people:

- undergoing surgery
- in critical care
- with orthopaedic conditions
- with spinal injury
- with diabetes
- with peripheral vascular disease
- with history of pressure ulcers
- at extremes of age.

Safe use of mattresses

- Ensure:
  - mattress does not elevate patient to an unsafe height
  - patient is within the recommended weight range for the mattress.
- In children, ensure:
  - appropriate cell size of mattress
  - appropriate position of pressure sensors within mattress in relation to the child
  - monitoring of use of alternating pressure mattresses with a permanently inflated head end in young children to avoid occipital damage.

as a minimum provision, a high specification foam mattress and the ulcer should be closely observed for deterioration.

Nutrition

- Provide nutritional support to patients with an identified deficiency.
- Decisions about nutritional support/supplementation should be based on:
  - nutritional assessment using a recognised tool (for example, the Malnutrition Universal Screening Tool [MUST*])
  - general health status
  - patient preference
  - expert input (dietitian/specialists).

* To find out more about the Malnutrition Universal Screening Tool see www.bapen.co.uk

Pressure relieving devices

- Choose pressure relieving device on the basis of:
  - risk assessment
  - pressure ulcer assessment (severity) if present
  - location and cause of the pressure ulcer if present
  - skin assessment
  - general health
  - lifestyle and abilities
  - critical care needs
  - acceptability and comfort
  - availability of carer/healthcare professional to reposition the patient
  - patient weight
  - cost considerations.
- Consider all surfaces used by the patient.
- Patients should have 24 hour access to pressure relieving devices and/or strategies.
- Change pressure relieving device in response to altered level of risk, condition or needs.

As a minimum provision patients with a grade 3–4 pressure ulcer should:

- have a high specification foam mattress with an alternating pressure overlay, or
- have a sophisticated continuous low pressure system (for example, low air loss, air flotation, viscous fluid).

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European Pressure Ulcer Advisory Panel classification system of pressure ulcer grades

Grade 1: non-blanchable erythema of intact skin. Discolouration of the skin, warmth, oedema, induration or hardness may also be used as indicators, **particularly on individuals with darker skin**.

Grade 2: partial thickness skin loss involving epidermis or dermis, or both. The ulcer is superficial and presents clinically as an abrasion or blister.

Grade 3: full thickness skin loss involving damage to or necrosis of subcutaneous tissue that may extend down to, but not through, underlying fascia.

Grade 4: extensive destruction, tissue necrosis, or damage to muscle, bone or supporting structures with or without full thickness skin loss.

Assessment of pressure ulcer

Assess:

- cause
- site/location
- dimensions
- stage or grade
- exudate amount and type
- local signs of infection
- pain, including cause, level, location and management interventions
- wound appearance
- surrounding skin
- undermining/tracking, sinus or fistula
- odour.

Record

- Document:
  - depth
  - estimated surface area
  - grade using EPUAP.

  Support document with photography and/or tracings (calibrated with a ruler).
- Document all pressure ulcers graded 2 and above locally as a clinical incident.
- Pressure ulcers should not be reverse graded.

Reassessment

- Ensure initial and ongoing pressure ulcer assessment.
- Reassess frequently (at least weekly).

Treatment of pressure ulcer

- Choose dressing/topical agent or method of debridement or adjunct therapy based on:
  - ulcer assessment
  - general skin assessment
  - treatment objective
  - characteristic of dressing/technique
  - previous positive effect of dressing/technique
  - manufacturer's indications for use and contraindications
  - risk of adverse events
  - patient preference.
- Consider preventative measures shown in prevention box.
- Create an optimum wound healing environment using modern dressings (for example, hydrocolloids, hydrogels, foams, films, alginates, soft silicones).
- Consider antimicrobial therapy in the presence of systemic and/or local clinical signs of infection.
- Consider referral to a surgeon.

Referral to surgeon

Refer to surgeon on the basis of:

- failure of previous conservative management interventions
- level of risk (anaesthetic and surgical intervention, recurrence)
- patient preference (lifestyle, abilities and comfort)
- ulcer assessment
- general skin assessment
- general health status
- competing care needs
- assessment of psychosocial factors regarding the risk of recurrence
- practitioner's experience
- previous positive effect of surgical techniques.

Further information

Ordering information

You can download the following documents from www.nice.org.uk/CG029

- A quick reference guide (this document), which has been distributed to health professionals working in the NHS in England.
- Information for the public – a lay version produced for people at risk of pressure ulcers and those with pressure ulcers, their families and carers, and the public.
- The full guideline – all the recommendations, details of how they were developed, and summaries of the evidence on which they were based.

For printed copies of the quick reference guide or information for the public, phone the NHS Response Line on 0870 1555 455 and quote:

- N0912 (quick reference guide)
- N0913 (information for the public).

Review date

The process of reviewing the evidence is expected to begin 4 years after the date of issue of this guideline. Reviewing may begin before this if significant evidence that affects the guideline recommendations is identified. The updated guideline will be available within 2 years of the start of the review process.

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. Health professionals are expected to take it fully into account when exercising their clinical judgment. The guidance does not, however, override the individual responsibility of health professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Implementation tools

This guideline is supported by the following implementation tools available on our website.

- A national costing report.
- A slide set.

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