Pressure ulcers: prevention and management
NICE CG179; 2014

This guideline covers people of all ages at risk of, or who have, a pressure ulcer.

Age categories
- Adults: 18 years or older
- Neonates: under 4 weeks
- Infants: between 4 weeks and 1 year
- Children: 1 year to under 13 years
- Young people: 13 to 17 years

Risk definitions
This guideline uses the terms 'at risk' and 'at high risk' to identify people of all age categories who may develop a pressure ulcer:
- people 'at risk' are those considered to be at risk of developing a pressure ulcer after assessment using clinical judgement and/or a validated risk assessment tool.
- people at ‘high risk’ will usually have multiple risk factors (e.g. significantly limited mobility, nutritional deficiency, inability to reposition themselves, significant cognitive impairment), identified during risk assessment with or without a validated risk assessment tool. Those with a history of pressure ulcers or a current pressure ulcer are also considered to be at high risk.

Prevention
- Be aware that all patients are potentially at risk of developing a pressure ulcer.

Risk assessment
- Carry out and document an assessment of pressure ulcer risk for all ages of patients admitted to secondary or tertiary care OR receiving NHS care in other settings (such as primary and community care, care homes and emergency departments) if they have a risk factor, for example:
  - significantly limited mobility,
  - significant loss of sensation,
  - a previous or current pressure ulcer,
  - nutritional deficiency,
  - the inability to reposition themselves,
  - significant cognitive impairment.
- For neonates, infants, children and young people use a validated scale to support clinical judgement e.g. the Braden Q scale for children.
- For adults consider using a validated scale to support clinical judgement e.g. the Braden scale, the Waterlow score or the Norton risk assessment scale.
- Reassess pressure ulcer risk if there is a change in clinical status e.g. after surgery, on worsening of an underlying condition or with a change in mobility.

Skin assessment
- Offer all people who have been assessed as being at high risk of developing a pressure ulcer a skin assessment by a trained healthcare professional.

Neonates, infants, children and young people
- Take into account:
  - skin changes in the occipital area (back of the head),
  - skin temperature,
  - the presence of blanching erythema or discoloured areas of skin.

- Be aware of specific sites e.g. the occipital area where neonates, infants, children and young people are at risk of developing a pressure ulcer.

Adults
- Take into account any pain or discomfort reported and check the skin for:
  - skin integrity in areas of pressure,
  - colour changes or discoloration (non-blanchable erythema may present as colour changes or discolouration, particularly in darker skin tones/types),
  - variations in heat, firmness and moisture e.g. because of incontinence, oedema, dry or inflamed skin.
- Use finger palpation or diascopy to determine whether erythema or discolouration (identified by skin assessment) is blanchable.
- Start appropriate preventative action in adults who have non-blanching erythema and consider repeating the skin assessment at least every 2 hours until resolved.

Care planning – all ages
- Develop and document an individualised care plan for those assessed at high risk of developing a pressure ulcer, taking into account:
  - the outcome of risk and skin assessment,
  - the need for additional pressure relief at specific at-risk sites,
  - their mobility and ability to reposition themselves,
  - other comorbidities and patient preference.
- Offer timely, tailored information to people and their family/carers, who have been assessed as being at high risk of developing a pressure ulcer. The information should be delivered by a trained or experienced healthcare professional and include:
  - the causes, early signs of, and ways to prevent a pressure ulcer,
  - the implications of having a pressure ulcer.
- Demonstrate techniques and equipment used to prevent a pressure ulcer.
- Take into account individual needs when supplying information to people with: degenerative conditions, impaired mobility, neurological impairment, cognitive impairment, impaired tissue perfusion.

Healthcare professional training and education
- Provide training on pressure ulcer prevention, including:
  - who is most likely to be at risk of developing a pressure ulcer,
  - how to identify pressure damage,
  - steps to take to prevent new or further pressure damage,
  - who to contact for further information and further action.
- Provide further training to healthcare professionals who have contact with anyone who has been assessed as being at high risk of developing a pressure ulcer. Training should include:
  - how to carry out a risk and skin assessment,
  - how to reposition,
  - information on pressure redistributing devices,
  - discussion of pressure ulcer prevention with patients and their carers,
  - details of sources of advice and support.
Repositioning – see NICE pathway: neonates, infants, children and young people; adults.

Barrier creams
- Use a barrier preparation to help prevent skin damage in neonates, infants, children and young people who are incontinent and adults at high risk of developing a moisture lesion or incontinence-associated dermatitis.

Pressure redistributing devices
Prevention - see NICE pathway: neonates, infants, children and young people; adults.
Treatment - see NICE pathway: neonates, infants, children and young people; adults.

Treatment and management
- Do NOT offer electrotherapy or hyperbaric oxygen therapy to treat a pressure ulcer.

Ulcer measurement and categorisation
- Document the surface area of all pressure ulcers. If possible, use a validated measurement technique e.g. transparency tracing or a photograph.
- Document an estimate of the depth of all pressure ulcers and the presence of undermining, but do not routinely measure the volume of a pressure ulcer.
- Categorise each pressure ulcer using a validated classification tool (such as the International NPUAP-EPUAP [2009] Pressure Ulcer Classification System) to guide ongoing preventative strategies and management. Repeat and document each time the ulcer is assessed.

Nutritional supplements and hydration
Neonates, infants, children and young people
- Offer an age-related nutritional assessment. This should be performed by a paediatric dietitian.
- Discuss with a paediatric dietitian whether to offer nutritional supplements to correct nutritional deficiency or to treat a pressure ulcer if nutritional intake is adequate.
- Offer advice on a diet that provides adequate nutrition for growth and healing.
- Assess fluid balance.
- Ensure there is adequate hydration for age, growth and healing. If there is doubt, seek further medical advice.

Adults
- Offer a nutritional assessment by a dietitian.
- Offer nutritional supplements to adults with nutritional deficiency.
- Provide information and advice to adults and their family or carers, on how to follow a balanced diet to maintain an adequate nutritional status, taking into account energy, protein and micronutrient requirements.
- Do NOT offer nutritional supplements if nutritional intake is adequate.
- Do NOT offer subcutaneous or intravenous fluids if hydration status is adequate.
  "or other healthcare professional with the necessary skills and competencies.

Debridement
Neonates, infants, children and young people
- Consider autolytic debridement with appropriate dressings for dead tissue. If this is unsuccessful; consider sharp and surgical debridement by trained staff.

Adults
- Assess the need to debride a pressure ulcer, taking into consideration:
  - the amount of necrotic tissue,
  - the grade, size and extent of the pressure ulcer,
  - patient tolerance and any comorbidities.
- Offer debridement to adults if identified as needed in the assessment:
  - use autolytic debridement, using an appropriate dressing to support it,
  - consider using sharp debridement if autolytic debridement is likely to take longer and prolong healing time.
- Do NOT routinely offer:
  - larval (maggot) therapy,
  - enzymatic debridement.
- Consider larval therapy if debridement is needed but sharp debridement is contraindicated or if there is associated vascular insufficiency.

Negative pressure wound therapy
Adults
- Do NOT routinely offer negative pressure wound therapy, unless it is necessary to reduce the number of dressing changes e.g. in a wound with a large amount of exudate.

Pharmacological treatment
Antibiotics and antiseptics
Adults
- Offer systemic antibiotics if there is any of the following:
  - clinical evidence of systemic sepsis,
  - spreading cellulitis,
  - underlying osteomyelitis.
- Do NOT offer systemic antibiotics based only on positive wound cultures without clinical evidence of infection.
- Do NOT offer systemic antibiotics specifically to heal a pressure ulcer.

Neonates, infants, children and young people
- Consider systemic antibiotics if there is clinical evidence of local or systemic infection.

All ages
- Discuss the choice of antibiotic with a local hospital microbiology department.
- Do NOT routinely use topical antiseptics or antimicrobials.

Dressings
Adults
- Discuss with patients and if appropriate, their family or carers, the type of dressing that should be used, taking into account:
  - pain and tolerance,
  - position of the ulcer,
  - amount of exudate,
  - frequency of dressing change.

Neonates, infants, children and young people
- Consider using topical antimicrobial dressings to treat a pressure ulcer where clinically indicated, e.g. spreading cellulitis.
- Do NOT use iodine dressings in neonates.

All ages
- To treat grade 2, 3 and 4 pressure ulcers:
  - consider using a dressing that promotes a warm, moist wound healing environment.
- Do NOT offer gauze dressings.

See the NICE pathway: Pressure ulcers

This bulletin summarises key prescribing points from NICE guidance. Please refer to the full guidance at www.nice.org.uk for further detail.
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