

# Best practice for treating and managing pressure ulcers

In 2002, the Best Practice Statement for the Prevention of Pressure Ulcers was launched within Scotland. This has recently been followed with the Best Practice Statement for the Treatment/Management of Pressure Ulcers, as presented here. The development of the statement was achieved with the support and consensus of all nurse specialists within tissue viability in Scotland, and the support of Quality Improvement Scotland (QIS). These statements have now become mandatory across Scotland, and all care settings should be aware of, and using, these documents to support daily practice.

Pam Cooper, David Gray

## KEY WORDS

Best practice statement  
Pressure ulcers  
Treatment  
Management

NHS Quality Improvement Scotland (NHS QIS) was set up by the Scottish Parliament in 2003 to take the lead in improving the quality of care and treatment delivered by NHS Scotland. The purpose of NHS QIS is to improve the quality of health care in Scotland by setting standards and monitoring performance, and by providing NHS Scotland with advice, guidance and support on effective clinical practice and service improvements.

This article will present the Best Practice Statement for the Treatment/Management of pressure ulcers which was launched in May 2005. These statements reflect current best practice within a recognised specialist group of practitioners along with best graded evidence available.

Pam Cooper and David Gray are Clinical Nurse Specialists in Tissue Viability, Grampian Acute Health Services, Aberdeen

Best practice statements (BPSs) are designed to reflect the slight variances in care across the multiple care settings but in doing so ensuring that everybody is attaining a certain baseline standardisation in their care to ensure best outcomes for their patients. This article is a direct translation of the Statement to enhance care in the treatment/management of pressure ulcers across all care settings.

## Best practice statements

While many examples of clinical guidelines exist there is a lack of reliable statements focusing specifically on nursing and midwifery practice. The development of BPSs reflects the current emphasis on delivering care that is patient centred, cost-effective and fair, and is an attempt to reduce existing variations in practice. Following the full implementation of BPSs, it is hoped that there will be comparable standards of care for patients wherever they access services.

## What is a best practice statement?

BPSs describe best and achievable practice in a specific area of care. The use of the term 'best practice' reflects the NHS QIS's commitment to sharing local excellence at national level. BPSs are underpinned by a number of key principles (Table 1).

## Use of evidence in best practice statements

The need to embrace evidence in its

broadest sense has been acknowledged by NHS QIS in the development of its BPSs. The statements represent a unique synthesis of evidence derived from research, audit, patient surveys, expert opinion, professional consensus and patient/public experience. In developing the statements a rigorous, transparent and consistent 'bottom-up' approach is adopted to articulate best practice that involves professionals and patients and which is based on all types of available evidence. The following stages describe the process of identifying and reviewing evidence for inclusion in statements:

- ▶▶ Define question
- ▶▶ Review evidence from a range of sources, including published literature, grey literature (information sheets, magazines, etc) and other relevant sources, e.g. patient groups, manufacturers and professional groups
- ▶▶ Integrate evidence with patient-related factors, e.g. issues of access, equity and ethics
- ▶▶ Develop recommendations
- ▶▶ Evaluate process and impact of recommendations.

The key stages in the development of BPSs are shown in *Figure 1*.

## Selection of topics

In order to identify the priorities for the development of BPSs, an extensive consultation process is undertaken

**Table 1**

**The key principles of best practice statements**

- Best practice statements are intended to guide practice and promote a consistent and cohesive approach to care
- Best practice statements are primarily intended for use by registered nurses, midwives and the staff who support them, but they may also contribute to multidisciplinary working, and be of guidance to other members of the health care team
- Statements are derived from the best available evidence at the time they are produced, recognising that levels and types of evidence vary
- Information is gathered from a broad range of sources in order to identify existing or previous initiatives at local and national level, incorporate work of a qualitative and quantitative nature and establish consensus
- Statements are targeted at practitioners, using language that is accessible and meaningful
- Consultation with relevant organisations and individuals is undertaken
- Statements will be nationally reviewed and updated, if necessary, every 3 years
- Responsibility for implementation of statements will rest at local level
- Key sources of evidence and available resources are provided

involving the practice development unit's link nurse/midwife network, the Directors' of Nursing Group and other organisations. The following criteria guide the choice of topics:

- ▶▶ The selection of areas of broad significance to nursing/midwifery as a whole rather than being specialty specific. This may facilitate cross-boundary working between specialties, promote greater uptake of statements and have a wider impact on patient care
- ▶▶ The identification of areas where there is evidence of variation in practice affecting patient care
- ▶▶ The use of research recommendations to identify topics for the development of statements
- ▶▶ A focus on practice issues rather than service provision.

**How the statement should be used**

The BPS has a variety of uses, although primarily it is intended to promote evidence-based practice. Each statement aims to be realistic but challenging and can be used:

- ▶▶ As a basis for developing and improving care
- ▶▶ To stimulate learning among teams
- ▶▶ To promote effective interdisciplinary team working

- ▶▶ To determine whether a quality service is being provided
- ▶▶ To stimulate ideas and priorities for nursing research
- ▶▶ As an educational tool for students at pre- and postregistration level.

**Best Practice Statement on Treatment/Management of Pressure Ulcers**

Pressure ulcers are areas of tissue death usually located over a bony prominence, and are caused by external forces of pressure, shear and/or friction. This situation may be further exacerbated by complications arising from the individual's physical condition, such as altered nutrition and excess moisture.

The treatment/management of pressure ulcers is often fraught as there are a vast array of interventions available, ranging from pressure-reducing surfaces to the physical treatment of the wound itself. This has led to confusion among practitioners, with little consensus about good practice across the multiple care settings. *The Best Practice Statement for the Treatment/Management of Pressure Ulcers* has therefore been produced by NHS QIS to offer guidance to nurses, midwives, health visitors, untrained

nursing staff and carers, who look after individuals with existing pressure ulcers within hospital, homes or care homes. It aims to provide staff, patients and carers with a framework that can be utilised when making decisions relating to the treatment/management of pressure ulcers. The statement does not give specific details relating to product selection as it is intended to be used in conjunction with local policies and guidelines.

The BPS should be used in conjunction with the *Best Practice Statement for the Prevention of Pressure Ulcers* (<http://www.nhshealthquality.org>). Utilisation of both documents will ensure best practice is being achieved across all care settings. All tissue viability nurses within Scotland have been involved in the development of these documents.

The implementation of this BPS will represent a challenge to all health care providers. Those organisations that employ tissue viability specialists will be able to use them as a source of advice on strategies for implementation. Other organisations will have to consider implementation strategies that best suit local needs.

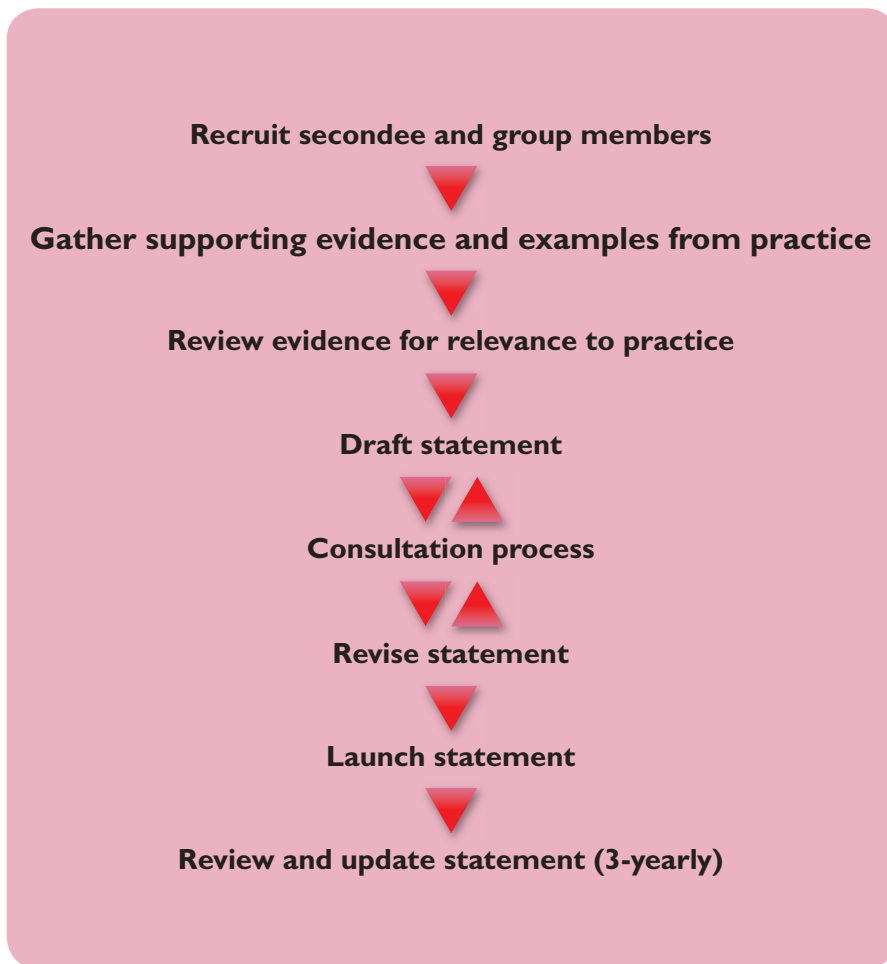


Figure 1. Key stages in the development of best practice statements.

The BPS covers three main areas: assessment, stabilisation, and treatment.

**Assessment of the individual**

Assessment comprises classification, pressure ulcer assessment, history, physical examination, and exacerbating complications, e.g. nutrition, pain, continence:

**‘The underlying principle is that all patients with pressure ulcers have their ulcers classified and assessed in conjunction with their overall physical condition.’**

Staff and carers looking after individuals with pressure ulcers need appropriate education and training about pressure ulcer management and treatment and in relation to complications arising from the development of pressure ulcers. For example:

**‘Nutrition, pain and continence may affect the management of or delay the healing of pressure ulcers.’**

Information relating to pressure ulcer treatment/management should also be made available to the patient.

**Stabilisation**

Stabilisation includes positioning, mattresses, chairs, cushions and orthodox devices:

**‘There is evidence that individuals with existing pressure ulcers benefit from the provision of different and/or additional products from the standard equipment provided.’**

Organisations should have a clear policy concerning the provision of

specialist equipment for individuals recognised as having pressure ulcers.

**Treatment**

Treatment involves promoting healing (such as wound cleansing), debridement, and managing bacterial colonisation and infection:

**‘The treatment of pressure ulcers should follow the principles of moist wound healing, with removal of devitalised tissue, the appropriate treatment of infection and stimulation of wound healing.’**

Health records should show evidence of a clear plan of care for the management and treatment of the pressure ulcer, with regular review and evidence of assessment.

Each section of the BPS contains a table corresponding to the what, why and how of best practice, i.e. detail of what is to be achieved, the reason for this and how to achieve it, or to demonstrate it is being achieved. In addition, each section identifies key points and/or challenges for primary care or care home settings and further tables and/or appendices about specific points.

**Definition and classification**

Pressure ulcers are areas of localised damage to the skin and underlying tissue as a result of occlusion of the blood vessels, which leads to cell death. They are believed to be caused by pressure, shear and friction (Allman, 1997; European Pressure Ulcer Advisory Panel (EPUAP), 1999).

A pressure ulcer classification system is as follows:

- ▶▶ Grade 1: non-blanchable erythema of intact skin. Discoloration 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, dermis, or both. The ulcer is superficial and presents clinically as an abrasion or blister.

**Table 2**

**Examination for erythema**

Apply light finger pressure to the area for 10 seconds

Release the pressure. If the area is white and then returns to its original colour, the area probably has an adequate blood supply. Observation should continue and preventive strategies should be used

If, on release of pressure, the area remains the same colour as when before the pressure was applied, it is an indication of the beginning of pressure ulcer development and preventive strategies should be used

If there is an alteration in skin colour (redness, purple or black), increased heat or swelling, it may imply underlying tissue breakdown. Frequency of assessment should be increased

With dark skin pigmentation, pressure ulcer development will be indicated by areas where there is localised heat, or where there is damage, coolness, purple/black discoloration, localised oedema and induration

- ▶▶ 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 (EPUAP, 1999).

Grade 1 and 2 pressure ulcers are described as superficial within this BPS, while grade 3 and 4 pressure ulcers are defined as severe.

**Section 1: Assessment/Classification**

**Key points**

- ▶▶ All individuals with pressure ulcers should have the ulcers assessed using a recognised grading scale
- ▶▶ Staff involved in assessing the pressure ulcer(s) should receive training and regular updates.

**Statement**

1. All individuals identified with existing pressure ulcers have their ulcer(s) assessed to determine level of tissue damage, using a recognised classification tool such as EPUAP (1999), Stirling (1994). Pressure Ulcer Scale for Healing (PUSH) (Stotts et al, 2001)
2. The pressure ulcer(s) should be reassessed regularly, at least weekly, or according to the individual's

- condition and/or if the individual's condition changes
3. Staff involved in assessing pressure ulcer(s) receive training and regular update sessions on pressure ulcer classification and treatment.

**Reasons for statement**

1. Grading of pressure ulcer damage enables correct and suitable treatment and intervention to be initiated and maintained
2. Most pressure ulcers observed within Scotland are of a superficial nature (Gray et al, 1999; Watret, 1999)
3. Assessment and reassessment allow for an accurate and individualised treatment plan to be devised.

**How to demonstrate statement is being achieved**

1. The health records of all individuals identified as having an existing pressure ulcer(s) include evidence of pressure ulcer grading, from initial onset
2. There is documented evidence that all individuals with existing pressure ulcers receive treatment and interventions appropriate to their condition
3. There is documented evidence that the individual's condition and pressure ulcer are reassessed regularly, at least weekly, or more frequently according to the individual's condition

4. Records of staff training in assessment and treatment are available.

**Section 2: Assessment**

**Key point**

- ▶▶ Treatment of pressure ulcers can only commence once a full assessment of the ulcer has been carried out.

**Statement**

1. The pressure ulcer is assessed initially for cause, location, grade, dimensions, wound bed appearance, exudate, pain, surrounding skin condition and critical colonisation/infection
2. Pressure ulcer(s) are reassessed at least weekly, or more frequently, according to the individual's condition.

**Reasons for statement**

1. Early identification of skin changes (Table 2) and/or thorough assessment of the pressure ulcer(s) are needed to inform appropriate treatments and interventions. Thorough assessment allows for the identification of underlying tissue involvement as well as sinus formation
2. Early identification and treatment of underlying tissue involvement and/or sinus formation reduce the risk of complications and enable appropriate rationale and associated treatment interventions to be determined

- Evidence suggests that treatment can only commence once a full assessment of the pressure ulcer has been achieved
- The pressure ulcer(s) requires reassessment to observe alteration in pressure ulcer condition.

**How to demonstrate statement is being achieved**

- The health records of all individuals identified with a graded pressure ulcer include documented evidence of pressure ulcer wound assessment and any interventions carried out or adopted
- There is documented evidence that staff act on individual components identified while assessing the wound or individual
- Health records show evidence of assessment and a rationale for treatment aims and objectives
- The health records contain evidence of reassessment of pressure ulcers where possible, at least weekly, or according to the individual's condition.

**Section 3: History and physical condition**

**Key point**

- ▶ Deterioration in the pressure ulcer or the individual's physical condition are closely related and the two should be assessed together.

**Statement**

- A complete history and physical examination of the individual is undertaken
- If the condition of the individual or of the wound deteriorates, the situation is re-evaluated and a new or updated treatment rationale and plan identified.

**Reasons for statement**

- A pressure ulcer should be assessed in the context of the individual's overall physical and psychosocial health
- Deterioration in either the individual's physical condition or pressure ulcer(s) are closely related and therefore should be assessed together.

**How to demonstrate statement is being achieved**

- There is evidence within the individual's health records that

staff act on individual components identified through history and physical examination

- Identified deterioration in either the individual's physical condition or pressure ulcer(s) is recorded in the health record along with any subsequent action taken.

**Section 4: Complications**

**Key points**

- ▶ Adequate dietary intake for individuals with pressure ulcers must be ensured
- ▶ Pressure ulcers can be painful and treatment may increase the pain.

**Statement**

- Adequate dietary intake for individuals with evidence of pressure ulcer(s) is ensured
- Individuals with altered nutritional status have their intake of food and fluid reassessed regularly
- The individual's overall psychosocial health is assessed to determine causes of pain
- The advice of specialist(s) is sought if necessary
- Pain related to the pressure ulcer(s) or their treatment is assessed and appropriate interventions undertaken.

**Reasons for statement**

- Evidence suggests that individuals who are malnourished may have delayed or altered healing rates as a result of the lack of calorific value of their diet (Clark et al, 2004; Mathus-Vliegen, 2004)
- Regular assessment of intake enables timely interventions
- Treatment interventions may affect pain levels, in some cases increasing the pain
- Pain may occur as a result of the presence of pressure ulcers (Reddy et al, 2003).

**How to demonstrate statement is being achieved**

- The health records of all individuals with altered nutritional intake include evidence of assessment and/or interventions
- The result of nutritional review and any changes made are documented

- The advice of a dietitian is sought where dietary review and supplements may be indicated
- The health record documents measures to eliminate or control the source of pain by appropriate interventions, e.g. covering wound, adjusting support surfaces, repositioning, and analgesia if required
- Health records include an indication of interventions taken in response to pain
- There is evidence that staff act on individual aspects of the causes of pain
- Evidence of medication or other methods of pain relief are recorded along with outcome measures.

**Section 5: Continence**

**Key points**

- ▶ Incontinence can increase the risk of pressure ulcer development
- ▶ Cleansing with soap and water can contribute to the development of pressure ulcers
- ▶ Barrier creams should not be used with superficial pressure ulcers.

**Statement**

- Individuals with incontinence have their continence status reassessed regularly or according to the individual's condition
- Continence management should be reviewed regularly
- Soap and water should not be used when cleansing following episodes of incontinence
- Products which promote a moist wound environment are used unless contraindicated by the individual's condition
- For individuals with superficial pressure ulcers (broken skin) as a result of incontinence, please refer to the section on 'Promoting healing'.

**Reasons for statement**

- Incontinence can increase an individual's risk of pressure ulcer development as a result of chemical irritation and/or the inappropriate cleansing regime adopted (Cooper and Gray, 2001)
- Changes in continence (incontinence pattern, cleansing regime used) can contribute to the development of pressure ulcers

3. Cleansing with soap and water can contribute to the development of pressure ulcers (Cooper and Gray, 2001)
4. Barrier creams have no role to play in skin care for superficial pressure ulcers of intact or broken skin; superficial pressure ulcers (broken skin) should be managed by moist wound healing (please refer to the section on 'Promoting healing').

#### How to demonstrate statement is being achieved

1. Health records include evidence that regular skin inspection takes place at opportune times, e.g. during assistance with personal hygiene
2. Findings from skin inspection indicating that further action is required, along with subsequent action taken, are recorded in the patient's health record
3. The health records document episodes of incontinence and indicate action taken, including skin cleansing products used
4. The advice of a continence adviser is sought where continence management products are compromised by pressure ulcer treatment strategies
5. The health records contain evidence of ongoing assessment, treatment rationale and interventions taken.

### Section 6: Stabilisation: positioning

#### Key points

- ▶▶ Individuals with pressure ulcers must not be cared for on a standard NHS mattress or on a basic divan
- ▶▶ Delay in the provision of pressure-reducing equipment may result in further tissue damage
- ▶▶ Regular skin inspection and any subsequent action taken are documented in health records.

#### Statement

1. Individuals with a pressure ulcer(s) are suitably positioned to minimise pressure, friction, shear and the potential for further tissue damage
2. Individuals who can move independently are encouraged/enabled to do so
3. Individuals who require assistance with movement are educated along with associated carers in the

benefits and techniques of weight distribution

4. Individuals with specific moving and handling requirements (i.e. spinal injuries) have their needs assessed by those with relevant skills and in relation to their whole physical condition.

#### Reasons for statement

1. Pressure is the main factor in the development of pressure ulcers; friction and shear can also play a part in their development
2. The time span between position changes is dependent on individual assessment. Individuals with a pressure ulcer should not be positioned in a seat for more than 2 hours without some form of repositioning (DeFloor and Grypdonck, 1999). N.B. In the community setting this can only be advised
3. Devices to assist with the repositioning of individuals in bed, such as profiling beds, and electric and non-electric bed frames, are of value
4. Moving and handling aids such as hoists and slings can also be used to reposition the individual.

#### How to demonstrate statement is being achieved

1. Health records include an indication of how frequently position changes are to be carried out
2. Records indicate that:
  - ▶▶ Individuals with a pressure ulcer are not positioned in a seat for more than 2 hours, without being repositioned; acutely ill patients are returned to bed for no less than 1 hour (Gebhardt and Bliss, 1994; Defloor and Grypdonck, 1999)
  - ▶▶ When possible, the individual and/or carer are involved in the management of weight distribution of individuals who are wheelchair dependent (please refer to Best Practice Statement for the Prevention of Pressure Ulcers)
  - ▶▶ For individuals in bed, differing positions such as the 30 degree tilt are used (Young, 2004). The 30 degree tilt is when the

patient is placed in the laterally inclined position, supported by pillows, with his or her back making a 30 degree angle with the support surface

- ▶▶ Hoist slings and sliding sheets are not left under individuals after use (where there are associated manual handling issues concerning the removal of a hoist sling, a joint assessment by tissue viability/manual handling advisers should be documented)
  - ▶▶ Skin inspection is carried out after each positional change; these inspections help to guide decisions on the length of time between positional changes, at least weekly.
3. Independent movement is encouraged and patient education is documented in the health records
  4. The result of skin inspection and any changes made to the repositioning regime are documented
  5. Health records show evidence of referral to physiotherapist and/or occupational therapist to assist with mobility or position changing where appropriate.

### Section 7: Stabilisation — mattresses, chairs and cushions

#### Statement

1. Individuals with a pressure ulcer(s) are not cared for on standard NHS mattresses or on basic divan mattresses; as a minimum they are provided with a pressure-reducing foam mattress or overlay. (A standard NHS mattress is classified as: a standard foam mattress, block or cut foam, but which is not classified as a pressure-reducing mattress.) Factors taken into account when deciding on which pressure-reducing equipment to purchase or hire include: clinical efficacy; ease of maintenance; impact on care procedures; patient acceptability; cost; and ease of use
2. The decision to provide any pressure-reducing equipment is taken as part of a comprehensive treatment/management strategy, never as a sole intervention
3. Individuals being cared for on specialist equipment have their skin inspected frequently to assess the suitability of the equipment;



equipment requirements may change with alterations in the patient's condition

4. Individuals with pressure ulcers are provided with appropriate pressure-reducing equipment when sitting in a chair or wheelchair; in addition to when they are being cared for in bed
5. Long-term wheelchair or static seat users have their needs assessed by those with relevant specialist skills.

**Reasons for statement**

1. There is clear evidence that individuals with pressure ulcers benefit from the provision of different/additional products from the standard NHS issue (Cullum et al, 2000; McInnes and National Institute for Clinical Excellence, 2004)
2. Individuals with an existing pressure ulcer who are acutely ill or who have restricted mobility in bed are likely to require an air-filled mattress or overlay
3. There is no clear evidence as to the best products to use (McInnes and National Institute for Clinical Excellence, 2004)
4. Individuals identified as requiring pressure-reducing equipment (mattresses, seating, and cushions) should receive it as soon as possible as delay may result in further tissue damage occurring. (Refer to Best Practice Statement for the Prevention of Pressure Ulcers)
5. Further tissue damage may occur when patients are sitting in chairs (Defloor and Grypdonck, 1999)
6. Chairs and/or cushions designed to reduce the risk of pressure ulcer development must be suited to individual needs in relation to the individual's height, weight, postural alignment and foot support
7. The safety of static seats can be compromised as a result of changes in height, balance and lumbar support with the use of cushions (Collins, 2000)
8. People have individual requirements based on their overall condition and skin condition and their own previous experience.

**How to demonstrate statement is being achieved**

1. There is a clear organisational policy concerning the provision of specialist equipment for individuals with existing pressure ulcers; the policy includes guidance of when to seek advice from a tissue viability specialist
2. The decision to use any product beyond a basic NHS mattress or divan is documented in the individual's health record
3. Measures being implemented (i.e. positional changes), in addition to the use of special mattresses and overlays, are documented in the health record
4. The date of first use of specialist equipment is documented in the health record
5. Regular skin inspection, at least weekly or according to the individual's condition, and any subsequent actions taken/decisions made, are documented in the health record
6. The individual's health record documents the assessment of his or her needs in relation to his or her wheelchair/static seat use.

**Section 8: Promoting healing**

**Statement**

1. Extensive superficial pressure ulcers (5% of body) or any severe pressure ulcers should be considered for referral to a specialist service such as tissue viability or plastic surgery
2. Each individual with a pressure ulcer has a clear plan of management outlined in his/her health record
3. The management of the wound bed of a pressure ulcer adheres to the principles of moist wound management unless the individual's condition dictates otherwise.

**Reasons for statement**

1. The management of individuals with large areas of superficial ulcers or any severe ulcers requires specialist input because of the potential for the development of life-threatening complications (i.e. septicaemia)
2. Pressure ulcers are likely to require a number of weeks or months to heal depending on their severity and the individual's co-morbidity

3. Wounds that are managed using products which promote moist wound healing result in enhanced healing rates and reduced infection rates.

**How to demonstrate statement is being achieved**

1. Health records show that individuals with extensive superficial pressure ulceration are referred for a specialist review unless the individual's condition dictates otherwise
2. Health records show that individuals with severe pressure ulceration are referred for a specialist review unless the individual's condition dictates otherwise
3. The health records of the individual referred for specialist review reflect the nature of referral, e.g. telephone or letter; and the outcome of the referral, e.g. telephone advice or direct consultation
4. Health records include evidence that individuals with a pressure ulcer(s) have a full assessment of the ulcer(s) and their management plan is documented; this incorporates steps taken to ensure continuity between different care settings
5. The health record includes all formal referrals or informal discussions with specialists regarding the management of the individual
6. Evidence of initial and ongoing management to prevent further tissue damage should be evident.

**Section 9: Wound cleansing**

**Statement**

1. Wounds are cleansed to remove visible debris and to aid assessment
2. Excess loose slough and exudate is removed before assessment and/or dressing change
3. Wounds are cleansed with warm tap water; or warm saline; irrigation of the wound or showering is recommended (Miller and Glover, 1996).

**Reasons for statement**

1. Wound cleansing is advised to remove excess exudate, slough or debris to aid wound assessment, but does not remove bacteria present (Rodeheaver, 1999)
2. Removal of excess loose slough and exudate will remove any associated

odour, but will also permit a more accurate assessment of the wound (Romanelli and Mastronicola, 2002).

#### How to demonstrate statement is being achieved

1. The health records of individuals who require their wound to be cleansed include cleansing method used
2. There is evidence that pressure ulcers with excess exudate, slough or debris are cleansed
3. There are clear local policies for wound cleansing
4. There is evidence that staff select and document the appropriate method of cleansing to best meet the needs of the individual and his/her wound.

### Section 10: Debridement

#### Key point

- ▶▶ The presence of devitalised tissue delays the healing process.

#### Statement

1. Devitalised tissue in pressure ulcer(s) is removed where appropriate for the individual's condition and in conjunction with the individual goals
2. Superficial (broken skin) pressure ulcers may benefit from autolytic debridement techniques
3. Severe pressure ulcers may benefit from sharp, autolytic and biosurgery debridement techniques, where appropriate
4. For individuals who are terminally ill or with other co-morbidities, overall quality of life should be considered before deciding whether and how to debride
5. For spreading cellulitis or sepsis, sharp debridement can be used where appropriate (please refer to 'Managing bacterial colonisation and infection').

#### Reasons for statement

1. The presence of devitalised tissue delays the healing process by keeping the wound in the inflammatory phase of wound healing; removal of devitalised tissue helps prevent the spread of infection (Romanelli and Mastronicola, 2002)

2. Local infection can be managed using antimicrobial wound management products.

#### How to demonstrate statement is being achieved

1. Records indicate that the individual's condition has been assessed before any decision is taken to remove devitalised tissue, as well as demonstrating the rationale for product choice and a clear process for review
2. Sharp debridement can be used where appropriate, by a person deemed competent to do so (usually a nurse, surgeon or podiatrist)
3. Modern wound management products can facilitate the removal of devitalised tissue and products selected are recorded in the health records
4. Health records demonstrate that assessment of the local infection has been undertaken, action taken and review planned.

### Section 11: Managing bacterial colonisation and infection

#### Key points

- ▶▶ All pressure ulcers are colonised with bacteria
- ▶▶ Most local infection can be managed using topical antimicrobial products
- ▶▶ Systemic antibiotics should not be used routinely for local infection
- ▶▶ Assessment and regular review of local infection are documented.

#### Statement

1. The risk of infection in individuals with existing pressure ulcers is reduced
2. Where there is devitalised tissue present, its removal is facilitated by using debridement techniques unless the individual's overall condition contraindicates debridement
3. Routine wound swabs are not required unless clinically indicated, according to local infection control policies
4. Systemic antibiotics are not to be used as a matter of routine where local infection is present, although are indicated for particular conditions

5. Infection control guidance is sought when considering the use of topical antibiotics
6. The advice of an infection control adviser is sought if necessary.

#### Reasons for statement

1. Avoiding local or spreading infection reduces the risk to the individual of delayed healing, and in extreme cases, death (Cutting and White, 2004)
2. The presence of devitalised tissue in the wound bed can delay healing and increase the risk of infection
3. Modern wound management products can facilitate the removal of devitalised tissue
4. All pressure ulcers will be colonised with bacteria and therefore wound swabs should only be taken when clinically indicated, according to local policy
5. Local infection can be managed using topical antimicrobial wound management products without the use of systemic antibiotics unless the individual's overall condition dictates otherwise
6. Spreading infection, bacteraemia, sepsis or osteomyelitis will require the appropriate systemic antibiotic
7. Evidence suggests that the effects of topical antibiotics are limited and sensitisation commonly occurs
8. Individuals not responding to systemic antibiotic treatment may require radiological examination to exclude the presence of osteomyelitis or joint infection.

#### How to demonstrate statement is being achieved

1. All local infection control policies are applied, with particular attention to hand decontamination
2. Records demonstrate that, where the individual's condition allows, the removal of devitalised tissue has been considered
3. Records indicate when and why wound swabs have been taken, and the results of the swabs
4. Health records demonstrate a rationale for product choice and a clear process of review
5. Health records should demonstrate that assessment of the local infection has been undertaken and that



- regular reviews are also undertaken
- Records indicate when and why systemic antibiotics have been prescribed and that advice has also been sought from the microbiology and/or infection control team, where required
  - Health records demonstrate that there is an ongoing assessment of the individual's response to antibiotic treatment.

### Conclusion

The Best Practice Statement for the Treatment/Management of Pressure Ulcers was developed through the cooperation, collaboration and consensus of all tissue viability nurses across Scotland. It is hoped that with support it will be accepted and implemented across all clinical settings and organisations. The recent mandatory status of all BPSs within Scotland will give clinicians the support and best evidence available for the management of individuals with pressure ulcers. **WUK**

### References

- Allman RM (1997) Pressure ulcer prevalence, incidence, risk factors, and impact. *Clin Geriatr Med* **13**(3): 421–36
- Barton A, Barton M (1981) *The Management and Prevention of Pressure Sores*. Faber and Faber, London
- Clark M, Defloor T, Bours G (2004) A pilot study of the prevalence of pressure ulcers in European hospitals. In: Clark M, ed. *Pressure Ulcers: Recent Advances in Tissue Viability*. Quay Books, Salisbury: 8–22
- Clark M, Schols J, Benati G, et al (2004) Pressure ulcers and nutrition: a new European guideline. *J Wound Care* **13**(7): 267–72
- Collins F (2000) Selecting the most appropriate armchair for patients. *J Wound Care* **9**(2): 73–6
- Cooper P, Gray D (2001) Comparison of two skin care regimes for incontinence. *Br J Nurs* **10**(6; Suppl): S6, S8, S10
- Cullum N, Deeks J, Fletcher A, et al (1995) The prevention and treatment of pressure

### Key Points

- ▶▶ This Best Practice Statement is intended to guide practice and promote a cohesive and consistent approach to care.
- ▶▶ The BPS was derived from best available evidence at the time that the document was produced, recognising that levels and types of evidence vary.
- ▶▶ The BPS can be used as a basis for developing and improving patient care.
- ▶▶ The BPS can be used to support education, audit and the utilization of scarce resources across all care settings.
- ▶▶ The BPS can be used and should be used by all involved in the care of individuals with pressure ulcers, now mandatory within care settings across Scotland.

ulcers: how useful are the measures for scoring people's risk of developing a pressure sore? *Effective Health Care Bulletin* **2**(1): 1–18 (<http://www.york.ac.uk/inst/crd/ehc21.pdf>) (Last accessed 30 August 2005)

Cullum N, Deeks J, Sheldon T, Song F, Fletcher A (2000) Beds, mattresses and cushions for pressure ulcer prevention and treatment. *Cochrane Database Syst Rev* 2: CD001735. Update in *Cochrane Database Syst Rev* 2004, 3: CD001735

Defloor T, Grypdonck MH (1999) Sitting posture and prevention of pressure ulcers. *Appl Nurs Res* **12**(3): 136–42

EPUAP (European Pressure Ulcer Advisory Panel) (1999) Guidelines on treatment of

pressure ulcers. *EPUAP Review* **1**(2): 31–3 (<http://www.epuap.org/glp/epuap.html>) (Last accessed 30 August 2005)

Gebhardt K, Bliss MR (1994) Preventing pressure sores in orthopaedic patients — is prolonged chair nursing detrimental? *J Tissue Viabil* **4**(2): 51–4

Gray D, Cooper P, Clark M (1999) Pressure ulcer prevention in an acute hospital. Poster presentation, European Pressure Ulcer Advisory Panel (EPUAP), Amsterdam 1999. EPUAP Review

McInnes E, National Institute for Clinical Excellence (2004) The use of pressure-relieving devices (beds, mattresses and overlays) for the prevention of pressure ulcers in primary and secondary care. *J Tissue Viability* **14**(1): 4–6, 8, 10 passim

Mathus-Vliegen EM (2004) Old age, malnutrition, and pressure sores: an ill-fated alliance. *J Gerontol A Biol Sci Med Sci* **59**(4): 355–60

Miller M, Glover D, eds (1999) *Wound Management Theory and Practice*. Nursing Times Books, London

Reddy M, Keast D, Fowler E, Sibbald R (2003) Pain in pressure ulcers. *Ostomy Wound Manage* **49**(4 Suppl): 30–5

Rodeheaver GT (1999) Pressure ulcer debridement and cleansing: a review of current literature. *Ostomy Wound Manage* **45** (1A Suppl): 80S–85S

Romanelli M, Mastronicola D (2002) The role of wound-bed preparation in managing chronic pressure ulcers. *J Wound Care* **11**(8): 305–10

Stotts NA, Rodeheaver GT, Thomas DR, et al (2001) An instrument to measure healing in pressure ulcers: development and validation of the pressure ulcer scale for healing (PUSH). *J Gerontol A Biol Sci Med Sci* **56**(12): M795–9

Watret L (1999) Using a case-mix-adjusted pressure sore incidence study in a surgical directorate to improve patient outcomes in pressure ulcer prevention. *J Tissue Viability* **9**(4): 121–5

Young T (2004) The 30 degree tilt position vs the 90 degree lateral and supine positions in reducing the incidence of non-blanching erythema in a hospital inpatient population: a randomised controlled trial. *J Tissue Viabil* **14**(3): 88–96