NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Health and social care directorate

Quality standards and indicators

Briefing paper

Quality standard topic: Pressure ulcers

Output: Prioritised quality improvement areas for development.

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Contents

1 Introduction

This briefing paper presents a structured overview of potential quality improvement areas for pressure ulcers. It provides the Committee with a basis for discussing and prioritising quality improvement areas for development into draft quality statements and measures for public consultation.

1.1 Structure

This briefing paper includes a brief description of the topic, a summary of each of the suggested quality improvement areas and supporting information.

If relevant, recommendations selected from the key development source below are included to help the Committee in considering potential statements and measures.

1.2 Development source

The key development source(s) referenced in this briefing paper is:

- Pressure ulcers. NICE clinical guideline 179 (2014).
- The debrisoft monofilament debridement pad for use in acute or chronic wounds. NICE medical technology guidance 17 (2014).
- Safe staffing for nursing in adult inpatient wards in acute hospitals. NICE safe staffing guidance 1 (2014).

This guideline replaces ‘Pressure ulcers’ NICE clinical guideline 29 (published September 2005) and ‘Pressure ulcer prevention’ NICE clinical guideline 7 (published October 2003).

2 Overview

2.1 Focus of quality standard

This quality standard will cover preventing, assessing and managing pressure ulcers in people of all ages.

2.2 Definition

Pressure ulcers are caused when an area of skin and the tissues below are damaged as a result of being placed under pressure sufficient to impair its blood supply. Typically they occur in a person confined to bed or a chair by an illness and as a result they are sometimes referred to as 'bedsores', or 'pressure sores'.

All patients are potentially at risk of developing a pressure ulcer. However, they are more likely to occur in people who are seriously ill, have a neurological condition, impaired mobility, impaired nutrition, or poor posture or a deformity. Also, the use of equipment such as seating or beds which are not specifically designed to provide pressure relief, can cause pressure ulcers. As pressure ulcers can arise in a number of ways, interventions for prevention and treatment need to be applicable across a wide range of settings including community and secondary care. This may require organisational and individual change and a commitment to effective delivery.

Pressure ulcers are often preventable therefore access to good pressure ulcer prevention and treatment programmes is important to reduce the burden of pressure ulcers and equality of treatment.

Pressure ulcers are usually categorised into 4 categories based on the European Pressure Ulcer Scale:

- None: No pressure ulcer, or a pressure ulcer that is deemed less severe than a Category 2.
- Category 2: Partial thickness skin loss or blister. Partial thickness loss of dermis presenting as a shallow open ulcer with a red pink wound bed, without slough. May also present as an intact or open/ruptured serum-filled blister.
- Category 3: Full thickness (fat visible). Full thickness tissue loss. Subcutaneous fat may be visible but bone, tendon or muscle is not exposed. Some slough may be present. May include undermining and tunnelling.
- Category 4: Full thickness loss (bone visible). Full thickness tissue loss with exposed bone, tendon or muscle. Slough or Eschar may be present. Often includes undermining and tunnelling.

2.3 Incidence and prevalence

Pressure ulcers represent a major burden of sickness and reduced quality of life for people with pressure ulcers and their carers. They are debilitating for the patient, with the most vulnerable patients aged over 75. Pressure ulcers can result in severe harm or death and research suggests that between 80-95% are avoidable[1].

Pressure ulcers are also a key patient safety concern. In relation to the National Reporting and Learning System (NRLS) a review of death and severe harm themes undertaken in for 2011/2012 demonstrated that pressure ulcers was the largest proportion of patient safety incidents accounting for 19% of all reports.

[1] NHS Improving Quality (NHS IQ)
http://www.nhsiq.nhs.uk/media/2442054/stp_poster_generic_v3_cmyk_artwork.pdf

There are currently no nationally collated data on pressure ulcer incidence and prevalence. Estimates from hospital-based studies vary widely according to definitions used, the population studied and the care setting. Based on available data, new pressure ulcers are estimated to occur in 4–10% of patients admitted to hospitals in the UK; the precise rate depends on case mix, affecting 700,000 people each year with around 186,617 patients developing a pressure ulcer in hospital[2]. The rate is unknown in the community and care homes. The presence of pressure ulcers has been associated with a two- to four-fold increase in the risk of death in older people in intensive care units.

The financial costs to the NHS are considered to be substantial, but recent cost data are not available. In 2004 the estimated annual cost of pressure ulcer care in the UK was between £1.4 billion and £2.1 billion a year (4% of total NHS expenditure), with most of this cost being attributed to nursing time[3]. The mean cost per patient of treatment varies from £1,064 (Grade 1 pressure ulcer) to £10,551 (Grade 4). The costs increase with ulcer grade as the healing time is longer and because the incidence of complications is higher in more severe cases[4]. It is therefore likely that current costs to the NHS are higher.

The national scale of harm associated with pressure ulcers is currently being collected by the NHS Safety Thermometer, a local improvement tool for measuring, monitoring, and analysing patient harms and 'harm free' care. It is also part of the Commissioning for Quality and Innovation (CQUIN) payment programme. This is a point of care survey that is carried out on 100% of patients under the care of an NHS service on one day each month. An 'old' pressure ulcer is defined as being a pressure ulcer that was present when the patient came under the care of that service, or developed within 72 hours of admission to the organisation. A 'new' pressure ulcer is defined as being a pressure ulcer that developed 72 hours or more after the patient was admitted to the organisation. From April 2012 to March 2014, 1058 organisations submitted data for 4,395,086 patients[5]. In the year January 2012 to December 2013 between 4%– 6% of patients in acute care settings and 4.5% - 10% of patients in non-acute care had pressure ulcers (Figure 1)

[2] NHS Improving Quality (NHS IQ) http://www.nhsiq.nhs.uk/media/2442054/stp_poster_generic_v3_cmyk_artwork.pdf

[3] Bennett, G., Dealey, C. and Posnett, J. (2004), The cost of pressure ulcers in the UK, Age and Ageing; vol 33: 230–235 http://ageing.oxfordjournals.org/content/33/3/230.full.pdf

[4] Bennett, G., Dealey, C. and Posnett, J. (2004), The cost of pressure ulcers in the UK, Age and Ageing; vol 33: 230–235 http://ageing.oxfordjournals.org/content/33/3/230.full.pdf

[5] NHS Safety Thermometer: Annual Publication, Patient Harms and Harm Free Care England April 2012- March 2014, Official Statistics http://www.hscic.gov.uk/catalogue/PUB14502/nhs-safe-ann-rep-apr-2012-mar-2014.pdf

Figure 1 - Pressure Ulcers: patients recorded on the day of the survey as having a pressure ulcer, either old or new (source: NHS safety thermometer)

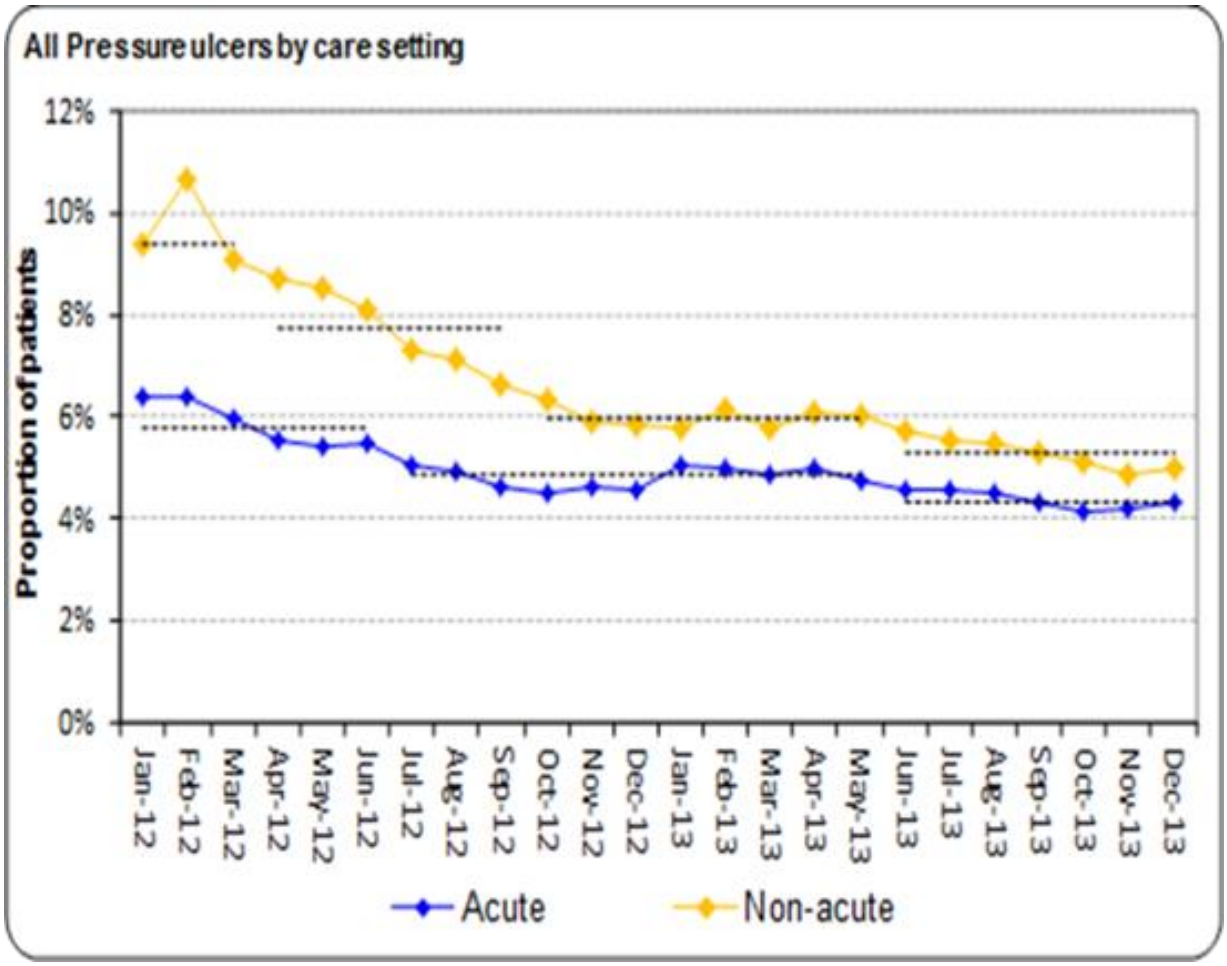


Figure 2 - Pressure Ulcers: patients recorded on the day of the survey as having a pressure ulcer – new and old (source: NHS safety thermometer)

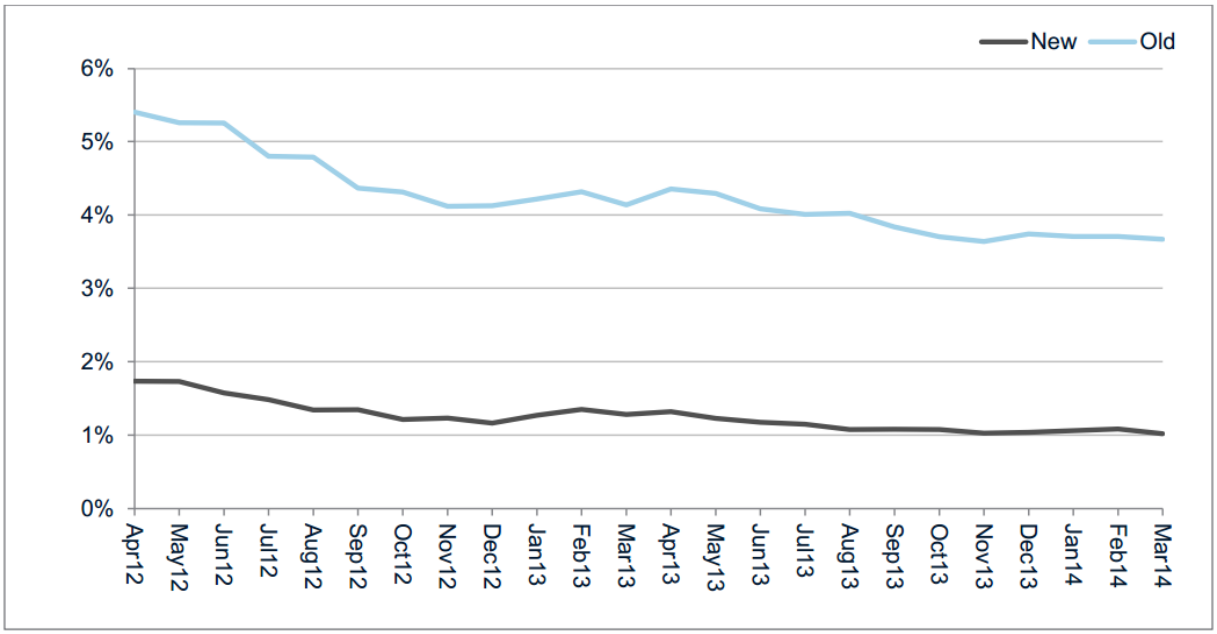
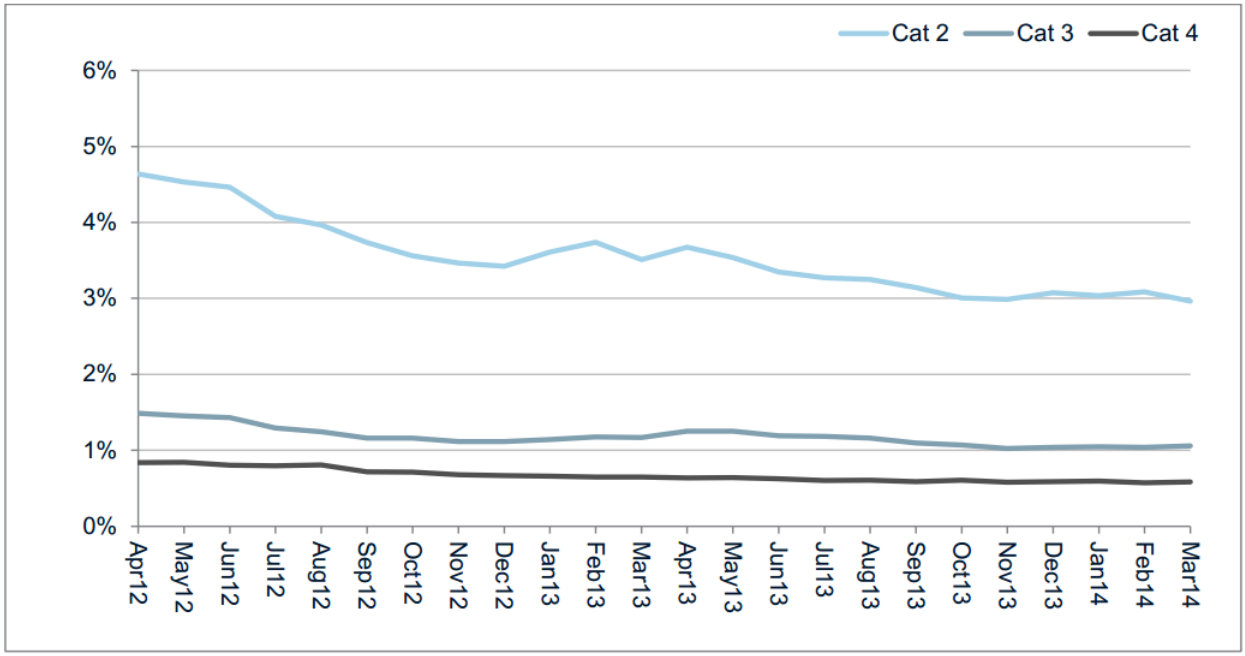


Figure 3 - Pressure Ulcers: patients recorded on the day of the survey as having a pressure ulcer – by ulcer category (source: NHS safety thermometer)



2.4 Management

Pressure ulcers are assessed, and potential treatment options include wound dressings, debridement, physical therapy, antibiotics and antimicrobials. Mobilising, positioning and repositioning interventions, and support surfaces are used in

combination with other wound management strategies. Nutritional assessment is usually carried out so that nutritional deficiencies can be addressed.

Surgical interventions for debridement or to obtain coverage with skin flaps may be performed in some patients. If poor circulation is a contributory factor, vascular surgical intervention may be used. Infection may also be treated if it is a contributory factor to the persistence of the ulcer or is causing systematic illness or cellulitis.

See appendix 1 for the associated care pathways and algorithms from NICE clinical guideline 179.

2.5 National Outcome Frameworks

Tables 1–2 show the outcomes, overarching indicators and improvement areas from the frameworks that the quality standard could contribute to achieving.

Table 1 The Adult Social Care Outcomes Framework 2014–15

Domain	Overarching and outcome measures
4 Safeguarding adults whose circumstances make them vulnerable and protecting them from avoidable harm	***Overarching measure*** 1A Social care-related quality of life* ***Outcome measures*** **People are free from physical and emotional abuse, harassment, neglect and self-harm.** **People are protected as far as possible from avoidable harm, disease and injuries.** 4B The proportion of people who use services who say that those services have made them feel safe and secure
Aligning across the health and care system * Indicator complementary	

Table 2 NHS Outcomes Framework 2014–15

Domain	Overarching indicators and improvement areas
4 Ensuring that people have a positive experience of care	***Overarching indicator*** 4a Patient experience of primary care i GP services 4b Patient experience of hospital care
5 Treating and caring for people in a safe environment and protecting them from avoidable harm	***Improvement areas*** **Reducing the incidence of avoidable harm** 5.3 Proportion of patients with category 2, 3 and 4 pressure ulcers

3 Summary of suggestions

3.1 Responses

In total 11 stakeholders responded to the 2-week engagement exercise 14/08/14 – 29/08/14, 2 of which did not submit any areas for quality improvement.

Stakeholders were asked to suggest up to 5 areas for quality improvement. Specialist committee members were also invited to provide suggestions. The responses have been merged and summarised in table 3 for further consideration by the Committee.

NHS England's patient safety division submitted a full patient safety report for this topic, which is presented alongside this document and summarised in this paper. The full report can be found in appendix 3. Comments were also submitted during stakeholder engagement, which are summarised in this paper.

Full details on the suggestions provided are given in appendix 4 for information.

Table 3 Summary of suggested quality improvement areas

Suggested area for improvement	Stakeholders
Prevention – assessment and repositioning • Risk assessment • Skin assessment • Repositioning	COT, FD, FT, PSF, PURSUN, RCN, SCM, TVS
Information and training • Care planning • Patient and carer information • Staff training and numbers	FD, PURSUN, RCN, SCM, TVS
Pressure redistributing devices for prevention and management	BAPO, COT, FD, FT, PSF, PURSUN, RCN, TVS
Assessment for management • Categorisation • Nutritional assessment	PSF, RCN, SCM, TVS
Treatment for pressure ulcers • Debridement • Dressings • Pain management	AH, PURSUN, RCN, SCM
Data collection • Data collection	RCN, SCM, TVS
AH, Activa Healthcare BAPO, British Association of Prosthetists and Orthotists COT, College of Occupational Therapists FD, Foot in Diabetes UK,	

Suggested area for improvement	Stakeholders
FT, Frontier Therapeutics Ltd PSF, National Health Service Commissioning Board Patient Safety Function PURSUN, Pressure Ulcer Research Service User Network UK RCN, Royal College of Nursing TVS, Tissue Viability Society SCM, Specialist Committee Member	

4 Suggested improvement areas

4.1 Prevention – assessment and repositioning

4.1.1 Summary of suggestions

Risk assessment

Stakeholders suggested identifying people at risk of developing a pressure ulcers including recognition of their nutritional status and providing a consistent and comprehensive risk assessment. Stakeholders also highlighted that spasticity can be due to a lack of good postural support in bed or while seated, spasms may cause shearing and yet is rarely considered when assessing pressure ulcer risk. Identifying those at risk can improve patient outcomes as without assessment, preventative strategies cannot be developed and care plans cannot be drawn up that are tailored to the individual patient. Inappropriate preventative measures can disturb patients by reducing their sleep, possibly increasing pain or discomfort and thereby affecting their quality of life. Identifying people at risk, especially with an aging population may prevent the development of pressure ulcers, the management of which can be costly to the NHS especially if they develop into grade 3 and 4 pressure ulcers.

Stakeholders highlighted that it would be useful for there to be one standard national NICE accredited risk assessment scoring tool. There are currently several tools and protocols available for assessing levels of risk of pressure ulcer development which can cause confusion, some of which a higher score means higher risk, for others a lower score means higher risk.

Skin assessment

Stakeholders suggested regular skin assessment to identify the early stages of damage and prevent more severe stages of pressure ulceration. Early identification can target equipment appropriately, potentially resulting in cost savings. Maintaining healthy skin can help reduce the likelihood of skin breakdown which incurs significant costs, dressings, equipment and staff time. It is also detrimental to patient well-being and increases the risk of the development of infection.

Repositioning

Stakeholders suggested regular pressure relief through repositioning was important as it can reduce the likelihood of developing pressure ulcers. People who are unable to change their position without assistance or have anesthetised skin including the elderly are vulnerable to skin injury and are at an increased risk of developing pressure ulcers.

Stakeholders also highlighted that a 24 hour person centred approach was important to ensure a person's pressure needs were addressed. A person's independence can be influenced by their seating and positioning over the full 24 hours of each day. This is particularly important when individuals experience long periods of lying in bed or sitting. Making sure an individual is well positioned and comfortable over 24 hours includes changing their position at regular intervals. Positioning needs to look at how they sleep, the chairs they sit on for meals and the chair they spend most of their time in. Making sure a person has a suitable pressure mattress needs to go hand in hand with how they are positioned in bed.

4.1.2 Selected recommendations from development source

Table 4 below highlights recommendations that have been provisionally selected from the development source(s) that may support potential statement development. These are presented in full after table 4 to help inform the Committee's discussion.

Table 4 Specific areas for quality improvement

Suggested quality improvement area	Suggested source guidance recommendations
Risk assessment	NICE CG179 Recommendations 1.1.2 (KPI), 1.1.3 and 1.1.4 (adults) NICE CG179 Recommendations 1.2.1 (KPI) and 1.2.2 (neonates, infants, children and young people)
Skin assessment	NICE CG179 Recommendation 1.1.5 (KPI) (adults) NICE CG179 Recommendation 1.2.3 (neonates, infants, children and young people)
Repositioning	NICE CG179 Recommendations 1.1.8 (KPI) and 1.1.9 (adults) NICE CG179 Recommendations 1.2.5 – 1.2.8 and1.2.13 (neonates, infants, children and young people)

Risk assessment

NICE CG179 Recommendation 1.1.2 (adults) (Key priority for implementation)

Carry out and document an assessment of pressure ulcer risk for adults:

- being admitted to secondary care or care homes in which NHS care is provided or
- receiving NHS care in other settings (such as primary and community care and emergency departments) if they have a risk factor, for example:

- significantly limited mobility (for example, people with a spinal cord injury)
- significant loss of sensation
- a previous or current pressure ulcer
- nutritional deficiency
- the inability to reposition themselves
- significant cognitive impairment.

NICE CG179 Recommendation 1.1.3 (adults)

Consider using a validated scale to support clinical judgement (for example, the Braden scale, the Waterlow score or the Norton risk-assessment scale) when assessing pressure ulcer risk.

NICE CG179 Recommendation 1.1.4 (adults)

Reassess pressure ulcer risk if there is a change in clinical status (for example, after surgery, on worsening of an underlying condition or with a change in mobility).

NICE CG179 Recommendation 1.2.1 (neonates, infants, children and young people) (key priority for implementation)

Carry out and document an assessment of pressure ulcer risk for neonates, infants, children and young people:

- being admitted to secondary or tertiary care or
- receiving NHS care in other settings (such as primary and community care 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.

NICE CG179 Recommendation 1.2.2 (neonates, infants, children and young people)

Use a scale validated for this population (for example, the Braden Q scale for children), to support clinical judgement.

Skin assessment

NICE CG179 Recommendation 1.1.5 (adults) (Key priority for implementation)

Offer adults who have been assessed as being at high risk of developing a pressure ulcer a skin assessment by a trained healthcare professional (see recommendation 1.3.4). The assessment should take into account any pain or discomfort reported by the patient and the skin should be checked for:

- skin integrity in areas of pressure
- colour changes or discoloration
- variations in heat, firmness and moisture (for example, because of incontinence, oedema, dry or inflamed skin).

NICE CG179 Recommendation 1.2.3 (neonates, infants, children and young people)

Offer neonates, infants, children and young people who are assessed as being at high risk of developing a pressure ulcer a skin assessment by a trained healthcare professional. Take into account:

- skin changes in the occipital area
- skin temperature
- the presence of blanching erythema or discoloured areas of skin.

Repositioning

NICE CG179 Recommendation 1.1.8 (adults) (Key priority for implementation)

Encourage adults who have been assessed as being at risk of developing a pressure ulcer to change their position frequently and at least every 6 hours. If they are unable to reposition themselves, offer help to do so, using appropriate equipment if needed. Document the frequency of repositioning required.

NICE CG179 Recommendation 1.1.9 (adults)

Encourage adults who have been assessed as being at high risk of developing a pressure ulcer to change their position frequently and at least every 4 hours. If they are unable to reposition themselves, offer help to do so, using appropriate equipment if needed. Document the frequency of repositioning required

NICE CG179 Recommendation 1.2.5 (neonates, infants, children and young people)

Ensure that neonates and infants who are at risk of developing a pressure ulcer are repositioned at least every 4 hours.

NICE CG179 Recommendation 1.2.6 (neonates, infants, children and young people)

Encourage children and young people who are at risk of developing a pressure ulcer to change their position at least every 4 hours. If they are unable to reposition themselves, offer help to do so, using appropriate equipment if needed.

NICE CG179 Recommendation 1.2.7 (neonates, infants, children and young people)

Consider more frequent repositioning than every 4 hours for neonates and infants who have been assessed as being at high risk of developing a pressure ulcer. Document the frequency of repositioning required.

NICE CG179 Recommendation 1.2.8 (neonates, infants, children and young people)

Encourage children and young people who have been assessed as being at high risk of developing a pressure ulcer to change their position more frequently than every 4 hours. If they are unable to reposition themselves, offer help to do so, using equipment if needed. Document the frequency of repositioning required.

NICE CG179 Recommendation 1.2.13 (neonates, infants, children and young people)

Relieve pressure on the scalp and head when repositioning neonates, infants, children and young people at risk of developing a pressure ulcer.

4.1.3 Current UK practice

Risk assessment

Stakeholders reported large variation in the type, scope and thoroughness of assessments.

A National OAA approved survey, carried out for 2 months from mid October 2012 aimed to determine the incidence and risk factors for the development of pressure sores in labouring women in the UK. The survey found 28% of the respondents were aware of pressure ulcers in labouring women in the previous 5 years. Preventative measures used routinely in UK obstetric units included assessment of pressure areas by midwives in 42% of units.

Skin assessment

The National Confidential Enquiry into Patient Outcome and Death report 'Elective and Emergency Surgery in the Elderly: An Age Old Problem' (2010) found, from a surgical questionnaire that 51% of people has an assessment of skin viability as part

of pre-operative care, 14% were reported as not having an assessment and 35% were unknown. Of patients who were critically ill, 35% had an assessment of skin viability, 26% had no assessment and for 38% it was unknown.

Repositioning

The National OAA approved survey reported that 67% of obstetric units used frequent position changes as preventative measures for pressure ulcers.

No further published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder's knowledge and experience.

4.2 Information and training

4.2.1 Summary of suggestions

Care planning

Stakeholders suggested that following assessment of pressure ulcer risk, a care plan to relieve pressure ulcers in light of patient comorbidities is necessary to adequately prevent pressure ulcers occurring.

Patient and carer information

Stakeholders highlighted the importance of patients and informal carers being engaged in their care for pressure ulcer prevention e.g. checking skin, changing position and their expectations related to pressure ulcers. Stakeholders report that some people are not informed about their pressure ulcer risk and other people have been given a special mattress or being turned without being told why. There seems to be a difference in patient engagement in different contexts e.g. it is a priority for Spinal Injury Units but not for services related to other long term conditions. At times patients are blamed when ulcers develop, despite little effort being made to meaningfully involve them in prevention.

Pressure ulcers are largely preventable however it is accepted that some cannot be avoided for example due to compliance with prevention strategies, end of life care or for other issues. Providing information and engaging patients and carers in their care may manage their expectations.

Staff training and numbers

Stakeholders highlighted that pressure ulcer prevention and treatment is generally seen as a nursing issue and yet many other people have a role to play for example healthcare assistants, paramedics, anaesthetists, social care. Proper training of clinical and care staff can reduce the number of people developing pressure ulcers. Those nursing or caring for people who are at risk of developing pressure ulcers need to know both what is important to do and also what not to do e.g. massage. There also needs to be increased awareness of people who are at risk of developing pressure ulcers and to know what treatments work and which don’t.

Stakeholders also highlighted staff numbers as an important area. Stakeholders reported that there are links between increased nurse staffing and the lower odds of mortality and adverse patient events. Regular repositioning of people at high risk of developing pressure ulcers takes time and staff numbers, having too few trained staff may cause harm to patients.

4.2.2 Selected recommendations from development source

Table 5 below highlights recommendations that have been provisionally selected from the development source(s) that may support potential statement development. These are presented in full after table 5 to help inform the Committee's discussion.

Table 5 Specific areas for quality improvement

Suggested quality improvement area	Selected source guidance recommendations
Care planning	NICE CG179 Recommendation 1.3.1 (KPI)
Patient and carer information	NICE CG179 Recommendations 1.3.2 and 1.3.3
Staff training and numbers	NICE CG179 Recommendations 1.3.4 (KPI) and 1.3.5 (KPI) NICE SG1 Recommendations 1.2.4, 1.4.2 and 1.5.3

Care planning

NICE CG179 Recommendation 1.3.1 (Key priority for implementation)

Develop and document an individualised care plan for neonates, infants, children, young people and adults who have been assessed as being 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
- patient preference.

Patient and carer information

NICE CG179 Recommendation 1.3.2

Offer timely, tailored information to people who have been assessed as being at high risk of developing a pressure ulcer, and their family or carers. The information should be delivered by a trained or experienced healthcare professional and include:

- the causes of a pressure ulcer
- the early signs of a pressure ulcer
- ways to prevent a pressure ulcer
- the implications of having a pressure ulcer (for example, for general health, treatment options and the risk of developing pressure ulcers in the future).

Demonstrate techniques and equipment used to prevent a pressure ulcer.

NICE CG179 Recommendation 1.3.3

Take into account individual needs when supplying information to people with:

- degenerative conditions
- impaired mobility
- neurological impairment
- cognitive impairment
- impaired tissue perfusion (for example, caused by peripheral arterial disease).

Staff training and numbers

NICE CG179 Recommendation 1.3.4 (Key priority for implementation)

Provide training to healthcare professionals on preventing a pressure ulcer, including:

- who is most likely to be at risk of developing a pressure ulcer
- how to identify pressure damage
- what steps to take to prevent new or further pressure damage
- who to contact for further information and for further action.

NICE CG179 Recommendation 1.3.5 (Key priority for implementation)

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.

NICE SG1 Recommendation 1.2.4

Consider using the nursing care activities summarised in tables 1 and 2 as a prompt to help inform professional judgement of the nursing staff requirements. Tables 1 and 2 may help to identify where patients' nursing needs are not fully accounted for by any decision support toolkit that is being used.

(one of the requirements is skin and pressure area care).

NICE SG1 Recommendation 1.4.2

Monitor the occurrence of the nursing red flag events shown in box 2 throughout each 24-hour period. Monitoring of other events may be agreed locally.

Box 2: Nursing red flags

- Unplanned omission in providing patient medications.
- Delay of more than 30 minutes in providing pain relief.
- Patient vital signs not assessed or recorded as outlined in the care plan.
- Delay or omission of regular checks on patients to ensure that their fundamental care needs are met as outlined in the care plan. Carrying out these checks is often referred to as 'intentional rounding' and covers aspects of care such as:
    - Pain: asking patients to describe their level of pain level using the local pain assessment tool.
    - Personal needs: such as scheduling patient visits to the toilet or bathroom to avoid risk of falls and providing hydration.
    - Placement: making sure that the items a patient needs are within easy reach.
    - Positioning: making sure that the patient is comfortable and the risk of pressure ulcers is assessed and minimised.
- A shortfall of more than 8 hours or 25% (whichever is reached first) of registered nurse time available compared with the actual requirement for the shift. For example, if a shift requires 40 hours of registered nurse time, a red flag event would occur if less than 32 hours of registered nurse time is available for that

shift. If a shift requires 15 hours of registered nurse time, a red flag event would occur if 11 hours or less of registered nurse time is available for that shift (which is the loss of more than 25% of the required registered nurse time).

- Less than 2 registered nurses present on a ward during any shift.

NICE SG1 Recommendation 1.5.3

There is no single nursing staff-to-patient ratio that can be applied across all acute adult inpatient wards. However, take into account that there is evidence of increased risk of harm associated with a registered nurse caring for more than 8 patients during the day shifts. Therefore if the available registered nurses for a particular ward (excluding the nurse in charge) are caring for more than 8 patients during the day shifts, the senior management and nursing managers or matrons should:

- closely monitor nursing red flag events (see section 1.4, box 2)
- perform early analysis of safe nursing indicator results (see section 1.5, box 3)
- take action to ensure staffing is adequate to meet the patients' nursing needs if indicated by the analysis of nursing red flag events and safe nursing indicators.

  In many cases, patients' nursing needs, as determined by implementing the recommendations in this guideline, will require registered nurses to care for fewer than 8 patients.

Box 3: Safe nursing indicators (please see section 9 for further information)

Patient reported outcome measure

Data can be collected for the following indicators from the National Inpatient Survey:

- Adequacy of meeting patients' nursing care needs.
- Adequacy of provided pain management.
- Adequacy of communication with nursing team.

Safety outcome measures

- Falls: record any fall that a patient has experienced. The severity of the fall could be further defined in accordance with National Reporting and Learning System categories: no harm; low harm; moderate harm; severe harm; death.
- Pressure ulcers: record pressure ulcers developed or worsened 72 hours or more after admission to an organisation. The patient's worst new pressure ulcer could be categorised as grade 2, 3 or 4.

- Medication administration errors: record any error in the preparation, administration or omission of medication by nursing staff. The severity of the error should also be recorded.

Staff reported measures

- Missed breaks: record the proportion of expected breaks that were unable to be taken by nursing staff working on inpatient hospital wards.
- Nursing overtime: record the proportion of nursing staff on inpatient hospital wards working extra hours (both paid and unpaid).

Ward nursing staff establishment measures

Data can be collected for some of the following indicators from the NHS England and Care Quality Commission joint guidance to NHS trusts on the delivery of the 'Hard Truths' commitments on publishing staffing data regarding nursing, midwifery and care staff levels and more detailed data collection advice since provided by NHS England.

- Planned, required and available nursing staff for each shift: record the total nursing hours for each shift that were planned in advance, were deemed to be required on the day of the shift, and that were actually available, plus the bed utilisation during the same period.
- High levels and/or ongoing reliance on temporary nursing: record the proportion of nursing hours provided by bank and agency nursing staff on inpatient hospital wards. (The agreed acceptable levels should be established locally.)
- Compliance with any mandatory training in accordance with local policy (this is an indicator of the adequacy of the size of the ward nursing staff establishment).

4.2.3 Current UK practice

Care planning

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder's knowledge and experience.

Patient and carer information

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder's knowledge and experience.

Staff training and numbers

The Pressure Ulcer Research Service User Network UK reported that their members have found a lack of understanding regarding pressure ulcers among other professionals. Healthcare assistants, PAs, anaesthetists and paramedics were all highlighted as people who could have a positive impact on pressure ulcer development / treatment but are not fully engaged in the topic.

A study from the Royal Bournemouth Hospital tested medical staff recognition rates of hospital inpatients with pressure ulceration. Twenty-seven patients on five wards were identified by nursing staff as having pressure ulceration areas. Nine patients were stated to have multiple pressure ulceration areas, giving a total of 38 pressure ulcers. Medical teams correctly identified eight of 27 (29.6%) of these patients. The correct site and grade was identified in four of 38 (10.5%) and two of 38 (5.3%) cases, respectively. Of these patients 14/27 (51.8%) had evidence of infection. In this subgroup five of 14 (35.7%) were correctly identified as having pressure ulceration areas[6].

[6] Blackman J et at. A study examining rates of medical staff recognition of pressure ulceration in hospital inpatients. Postgrad medical journal (2013) 89: 258-261

4.3 Pressure redistributing devices for prevention and management

4.3.1 Summary of suggestions

Stakeholders suggested the use of pressure redistributing devices for both the prevention and management of pressure ulcers. Failure to provide the appropriate equipment may increase an individual's risk of developing a pressure ulcer or could make an existing pressure ulcer worse. High spec foam mattresses and appropriate seating were both highlighted as particular devices to reduce the incidence of pressure ulcers. The type of seating equipment required can vary depending on if the individual is more mobile where a chair of suitable height to give adequate support may be all that is needed. For those who are less independently mobile, their pressure care and postural support requirements should be considered. Many people are more vulnerable whilst sat in chairs than when lying down due to their weight being concentrated in a smaller area and the blood supply is almost completely inhibited when sitting on a conventional cushion, therefore the provision of pressure relieving cushions is important.

Stakeholders reported that healthcare professionals can be unsure of what to use when and that confusion can be passed onto patients. Better guidance on what pressure redistributing devices are available and other options would be helpful. In some cases confusion over appropriate equipment and accessibility to pressure redistributing devices can lead some patients to purchase their own outside the NHS for example online or second hand where there is less safety guidance.

Stakeholders highlighted a particular issue for people with heel pressure ulcers where clear pathways are needed to ensure people are offered site specific devices to prevent painful and expensive care. Stakeholders highlighted that further research is needed to compare pressure-relieving strategies at the heel to enable improved prescription.

4.3.2 Selected recommendations from development source

Table 6 below highlights recommendations that have been provisionally selected from the development source(s) that may support potential statement development. These are presented in full after table 6 to help inform the Committee's discussion.

Table 6 Specific areas for quality improvement

Suggested quality improvement area	Selected source guidance recommendations
Pressure redistributing devices	**Prevention** NICE CG179 Recommendations 1.1.13 (KPI) – 1.1.17 (adults) NICE CG179 Recommendations 1.2.17 – 1.2.21 (neonates, infants, children and young people) **Management** NICE CG179 Recommendations 1.4.9 – 1.4.12 (adults) NICE CG179 Recommendations 1.5.10 – 1.5.13 (neonates, infants, children and young people) **Management for heel pressure ulcers** NICE CG179 Recommendation 1.4.26 (adults) NICE CG179 Recommendation 1.5.24 (neonates, infants, children and young people)

Pressure redistributing devices for prevention

NICE CG179 Recommendation 1.1.13 (adults) (Key priority for implementation)

Use a high-specification foam mattress for adults who are:

- admitted to secondary care
- assessed as being at high risk of developing a pressure ulcer in primary and community care settings.

NICE CG179 Recommendation 1.1.14 (adults)

Consider a high-specification foam theatre mattress or an equivalent pressure redistributing surface for all adults who are undergoing surgery.

NICE CG179 Recommendation 1.1.15 (adults)

Discuss with adults at high risk of developing a heel pressure ulcer and, where appropriate, their family or carers, a strategy to offload heel pressure, as part of their individualised care plan.

NICE CG179 Recommendation 1.1.16 (adults)

Consider the seating needs of people at risk of developing a pressure ulcer who are sitting for prolonged periods.

NICE CG179 Recommendation 1.1.17 (adults)

Consider a high-specification foam or equivalent pressure redistributing cushion for adults who use a wheelchair or who sit for prolonged periods

NICE CG179 Recommendation 1.2.17 (neonates, infants, children and young people)

Use a high-specification foam cot mattress or overlay for all neonates and infants who have been assessed as being at high risk of developing a pressure ulcer as part of their individualised care plan.

NICE CG179 Recommendation 1.2.18 (neonates, infants, children and young people)

Use a high-specification foam mattress or overlay for all children and young people who have been assessed as being at high risk of developing a pressure ulcer as part of their individualised care plan.

NICE CG179 Recommendation 1.2.19 (neonates, infants, children and young people)

Discuss with children and young people at high risk of developing a heel pressure ulcer and their parents and carers, where appropriate, a strategy to offload heel pressure as part of their individualised care plan.

NICE CG179 Recommendation 1.2.20 (neonates, infants, children and young people)

Offer infants, children and young people who are long-term wheelchair users, regular wheelchair assessments and provide pressure relief or redistribution.

NICE CG179 Recommendation 1.2.21 (neonates, infants, children and young people)

Offer neonates, infants, children and young people at risk of developing an occipital pressure ulcer an appropriate pressure redistributing surface (for example, a suitable pillow or pressure redistributing pad).

Pressure redistributing devices for management

NICE CG179 Recommendation 1.4.9 (adults)

Use high-specification foam mattresses for adults with a pressure ulcer. If this is not sufficient to redistribute pressure, consider the use of a dynamic support surface.

NICE CG179 Recommendation 1.4.10 (adults)

Do not use standard-specification foam mattresses for adults with a pressure ulcer.

NICE CG179 Recommendation 1.4.11 (adults)

Consider the seating needs of adults who have a pressure ulcer who are sitting for prolonged periods.

NICE CG179 Recommendation 1.4.12 (adults)

Consider a high-specification foam or equivalent pressure redistributing cushion for adults who use a wheelchair or sit for prolonged periods and who have a pressure ulcer

NICE CG179 Recommendation 1.5.10 (neonates, infants, children and young people)

Consider using specialist support surfaces (including dynamic support surfaces where appropriate) for neonates, infants, children and young people with a pressure ulcer, taking into account their current pressure ulcer risk and mobility.

NICE CG179 Recommendation 1.5.11 (neonates, infants, children and young people)

Use a high-specification cot or bed mattress or overlay for all neonates, infants, children and young people with a pressure ulcer.

NICE CG179 Recommendation 1.5.12 (neonates, infants, children and young people)

If pressure on the affected area cannot be adequately relieved by other means (such as repositioning), consider a dynamic support surface, appropriate to the size and weight of the child or young person with a pressure ulcer, if this can be tolerated.

NICE CG179 Recommendation 1.5.13 (neonates, infants, children and young people)

Tailor the support surface to the location and cause of the pressure ulcer for neonates, infants, children and young people

Management of heel pressure ulcers

NICE CG179 Recommendation 1.4.26 (adults)

Discuss with adults with a heel pressure ulcer and, if appropriate, their family or carers, a strategy to offload heel pressure as part of their individualised care plan.

NICE CG179 Recommendation 1.5.24 (neonates, infants, children and young people)

Discuss with the parents or carers of neonates and infants and with children and young people (and their parents or carers if appropriate), a strategy to offload heel pressure as part of their individualised care plan to manage their heel pressure ulcer, taking into account differences in size, mobility, pain and tolerance.

4.3.3 Current UK practice

Review of the National Reporting and Learning System (NRLS) in relation to pressure ulcer incidents found that in 2013 a total of 15,830 incidents were reported which had been categorised as “lack/availability of device/equipment”. The type of device most commonly reported to be unavailable were beds and mattresses and these accounted for 3,567 reports (23%). The vast majority of the incidents related to the unavailability of pressure relieving mattresses for those at risk of developing pressure ulcers. The incidents relating to beds and mattresses were most frequently reported from staff in acute/general hospitals (89%) with few reported from community staff (11%). None of incidents reviewed resulted in death or severe harm.

Stakeholder reported that despite the use of mattress and an overall decline in pressure ulceration, pressure ulceration to the heel is not in decline in many areas.

The National OAA approved survey reported that 10% of obstetric units used pressure relieving mattresses as preventative measures for pressure ulcers.

4.4 Assessment to determine management

4.4.1 Summary of suggestions

Categorisation

Stakeholders suggested pressure ulcer categorisation as correct grading is essential if the true number of pressure ulcers is to be reported accurately. Correct grading is essential for accurate measurement of improvement. However stakeholders had concerns over the accuracy of current grading methods, their usability by staff and their contribution to care plans. A simpler method would make measurement more accurate, reduce the amount of time needed for training in the current methods and reduce the amount of time spent validating incorrect reports.

Nutritional assessment

Stakeholders suggested nutritional assessment for people with a pressure ulcer. Malnutrition is a risk factor for pressure ulcers and therefore correct identification of those with a nutritional deficiency can ensure this is taken into account in management strategies.

4.4.2 Selected recommendations from development source

Table 7 below highlights recommendations that have been provisionally selected from the development source(s) that may support potential statement development. These are presented in full after table 7 to help inform the Committee's discussion.

Table 7 Specific areas for quality improvement

Suggested quality improvement area	Selected source guidance recommendations
Categorisation	NICE CG179 Recommendation 1.4.3 (adults). NICE CG179 Recommendation 1.5.3 (neonates, infants, children and young people).
Nutritional assessment	NICE CG179 Recommendation 1.4.4 (adults) NICE CG179 Recommendation 1.5.4 (neonates, infants, children and young people)

Categorisation

NICE CG179 Recommendation 1.4.3 (adults)

Categorise each pressure ulcer in adults using a validated classification tool (such as the International NPUAP-EPUAP [2009] Pressure Ulcer Classification System). Use

this to guide ongoing preventative strategies and management. Repeat and document each time the ulcer is assessed.

NICE CG179 Recommendation 1.5.3 (neonates, infants, children and young people)

Categorise each pressure ulcer in neonates, infants, children and young people at onset using a validated classification tool (such as the International NPUAP-EPUAP [2009]) Pressure Ulcer Classification System) to guide ongoing preventative and management options. Repeat and document each time the ulcer is assessed.

Nutritional assessment

NICE CG179 Recommendation 1.4.4 (adults)

Offer adults with a pressure ulcer a nutritional assessment by a dietitian or other healthcare professional with the necessary skills and competencies.

NICE CG179 Recommendation 1.5.4 (neonates, infants, children and young people)

Offer an age-related nutritional assessment to neonates, infants, children and young people with a pressure ulcer. This should be performed by a paediatric dietitian or other healthcare professional with the necessary skills and competencies.

4.4.3 Current UK practice

Categorisation

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder's knowledge and experience.

Nutritional assessment

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder's knowledge and experience.

4.5 Treatment for pressure ulcers

4.5.1 Summary of suggestions

Debridement

Stakeholders suggested rapid debridement for wound bed preparation of pressure ulcers and to aid wound assessment. They also suggested the availability of sharp or surgical debridement where needed were important. Removing devitalised tissue from a pressure ulcer quickly may achieve the following; reduced risk of infection, reduced malodour and improved quality of life, faster progression into the healing phase particularly when repeated debridement episodes are required, improved visibility of the wound bed, facilitating improved wound assessment and pressure ulcer categorisation and reduced time to healing.

Stakeholders specified that the fastest method of debridement came in the form of modern mechanical debridement using a monofilament debridement pad (Debrisoft) that offers potential benefits for the NHS. Debrisoft is a low skill, low resource, fast method of debridement that can be used by a wide range of clinical staff. (For information this technology was reviewed as part of the NICE medical technologies programme (NICE MTG17)).

Dressings

Stakeholders highlighted there are a wide variety of dressings that are routinely applied to pressure ulcers however the evidence for whether these improve or speed healing is equivocal. The potential cost of ineffective dressings has a significant impact on the NHS budget.

Pain management

Stakeholders suggested pain/discomfort assessment and subsequent pain relief options for when people have a painful pressure ulcer. It was reported that the strong painkillers offered can have a detrimental impact on peoples quality of life and may also impact on people's ability to notice, react to and report discomfort and so they may move less increasing the chances of developing new pressure ulcers and affecting recovery from existing ulcers.

4.5.2 Selected recommendations from development source

Table 8 below highlights recommendations that have been provisionally selected from the development source(s) that may support potential statement development. These are presented in full after table 8 to help inform the Committee's discussion.

Table 8 Specific areas for quality improvement

Suggested quality improvement area	Selected source guidance recommendations
Debridement	NICE CG179 Recommendations 1.4.15, 1.4.16 and 1.4.17 (adults). NICE CG179 Recommendation 1.5.16 (neonates, infants, children and young people). NICE MTG17 Recommendations 1.1, 1.2 and 1.3.
Dressings	NICE CG179 Recommendations 1.4.23, 1.4.24 and 1.4.25 (adults) NICE CG179 Recommendations 1.5.21 and 1.5.22 (neonates, infants, children and young people)
Pain management	No guideline recommendations in NICE CG179.

Debridement

NICE CG179 Recommendation 1.4.15 (adults)

Assess the need to debride a pressure ulcer in adults, taking into consideration:

- the amount of necrotic tissue
- the grade, size and extent of the pressure ulcer
- patient tolerance
- any comorbidities.

NICE CG179 Recommendation 1.4.16 (adults)

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.

NICE CG179 Recommendation 1.4.17 (adults)

Do not routinely offer adults with a pressure ulcer:

- larval (maggot) therapy

- enzymatic debridement.

  Consider larval therapy if debridement is needed but sharp debridement is contraindicated or if there is associated vascular insufficiency.

NICE CG179 Recommendation 1.5.16 (neonates, infants, children and young people)

Consider autolytic debridement with appropriate dressings for dead tissue in neonates, infants, children and young people. Consider sharp and surgical debridement by trained staff if autolytic debridement is unsuccessful.

NICE MTG17 Recommendation 1.1

The case for adopting the Debrisoft monofilament debridement pad as part of the management of acute or chronic wounds in the community is supported by the evidence. The available evidence is limited, but the likely benefits of using the Debrisoft pad on appropriate wounds are that they will be fully debrided more quickly, with fewer nurse visits needed, compared with other debridement methods. In addition, the Debrisoft pad is convenient and easy to use, and is well tolerated by patients. Debridement is an important component of standard woundcare management as described in Pressure ulcers (NICE clinical guideline 29) and Diabetic foot problems (NICE clinical guideline 119).

NICE MTG17 Recommendation 1.2

The Debrisoft pad is indicated for adults and children with acute or chronic wounds. The available evidence is mainly in adults with chronic wounds needing debridement in the community. The data show that the device is particularly effective for chronic sloughy wounds and hyperkeratotic skin around acute or chronic wounds.

NICE MTG17 Recommendation 1.3

The Debrisoft pad is estimated to be cost saving for complete debridement compared with other debridement methods. When compared with hydrogel, gauze and bagged larvae, cost savings per patient (per complete debridement) are estimated to be £99, £152 and £484 respectively in a community clinic and £222, £347 and £469 respectively in the home.

Dressings

NICE CG179 Recommendation 1.4.23 (adults)

Discuss with adults with a pressure ulcer and, if appropriate, their family or carers, what type of dressing should be used, taking into account:

- pain and tolerance

- position of the ulcer
- amount of exudate
- frequency of dressing change.

NICE CG179 Recommendation 1.4.24 (adults) and 1.5.20 (neonates, infants, children and young people)

Consider using a dressing that promotes a warm, moist wound healing environment to treat grade 2, 3 and 4 pressure ulcers.

NICE CG179 Recommendation 1.4.25 (adults) and 1.5.23 (neonates, infants, children and young people)

Do not offer gauze dressings to treat a pressure ulcer in adults/neonates, infants, children and young people.

NICE CG179 Recommendation 1.5.21 (neonates, infants, children and young people)

Consider using topical antimicrobial dressings to treat a pressure ulcer where clinically indicated in neonates, infants, children and young people, for example, where there is spreading cellulitis.

NICE CG179 Recommendation 1.5.22 (neonates, infants, children and young people)

Do not use iodine dressings to treat a pressure ulcer in neonates.

4.5.3 Current UK practice

Debridement

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder's knowledge and experience.

Dressings

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder's knowledge and experience.

Pain management

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder's knowledge and experience.

4.6 Data collection

4.6.1 Summary of suggestions

Stakeholders suggested the collection of pressure ulcer data, effective standardised tools and an agreed and adhered to definition. Collection of data is important to enable confidence in the accuracy of the number and range of patients who have pressure ulcers. Using a standardised tool ensures consistency in how the data is collected for comparison especially where payments are attached. It also allows changes to practice to be made where needed to ensure good practice is met.

4.6.2 Selected recommendations from development source

Table 9 below highlights recommendations that have been provisionally selected from the development source(s) that may support potential statement development. These are presented in full after table 9 to help inform the Committee's discussion.

Table 9 Specific areas for quality improvement

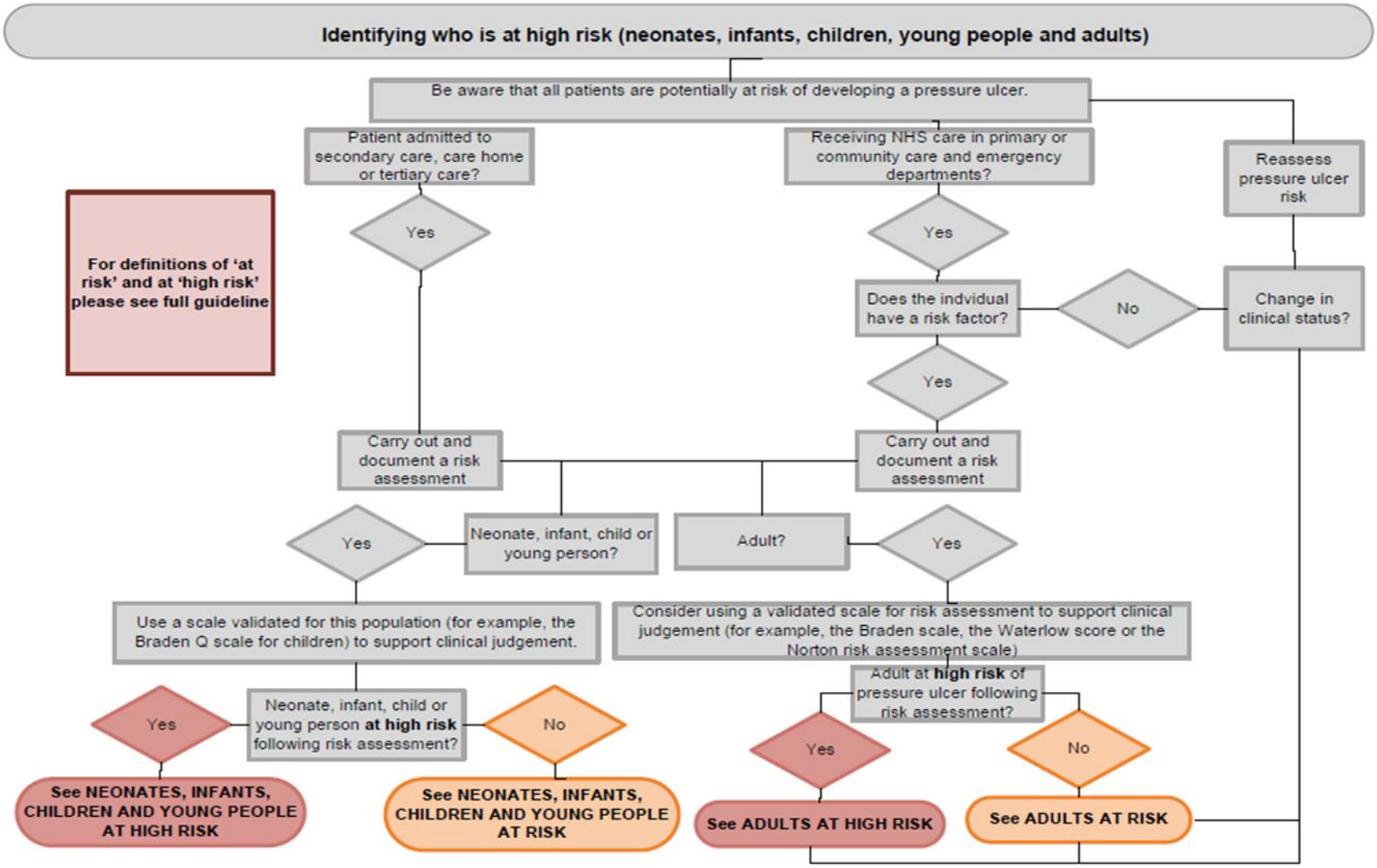
Suggested quality improvement area	Selected source guidance recommendations
Data collection	No guideline recommendations in NICE CG179.

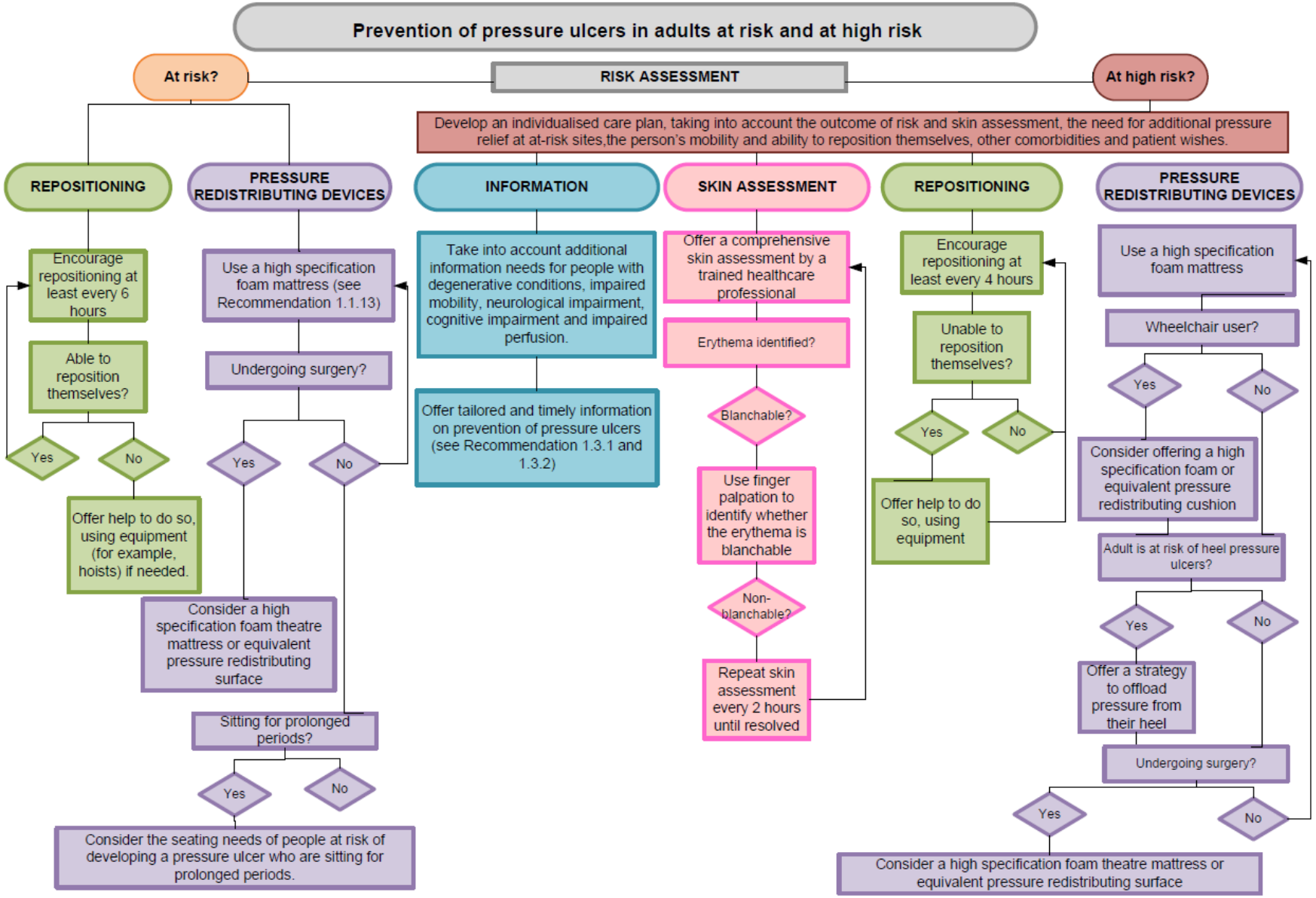
4.6.3 Current UK practice

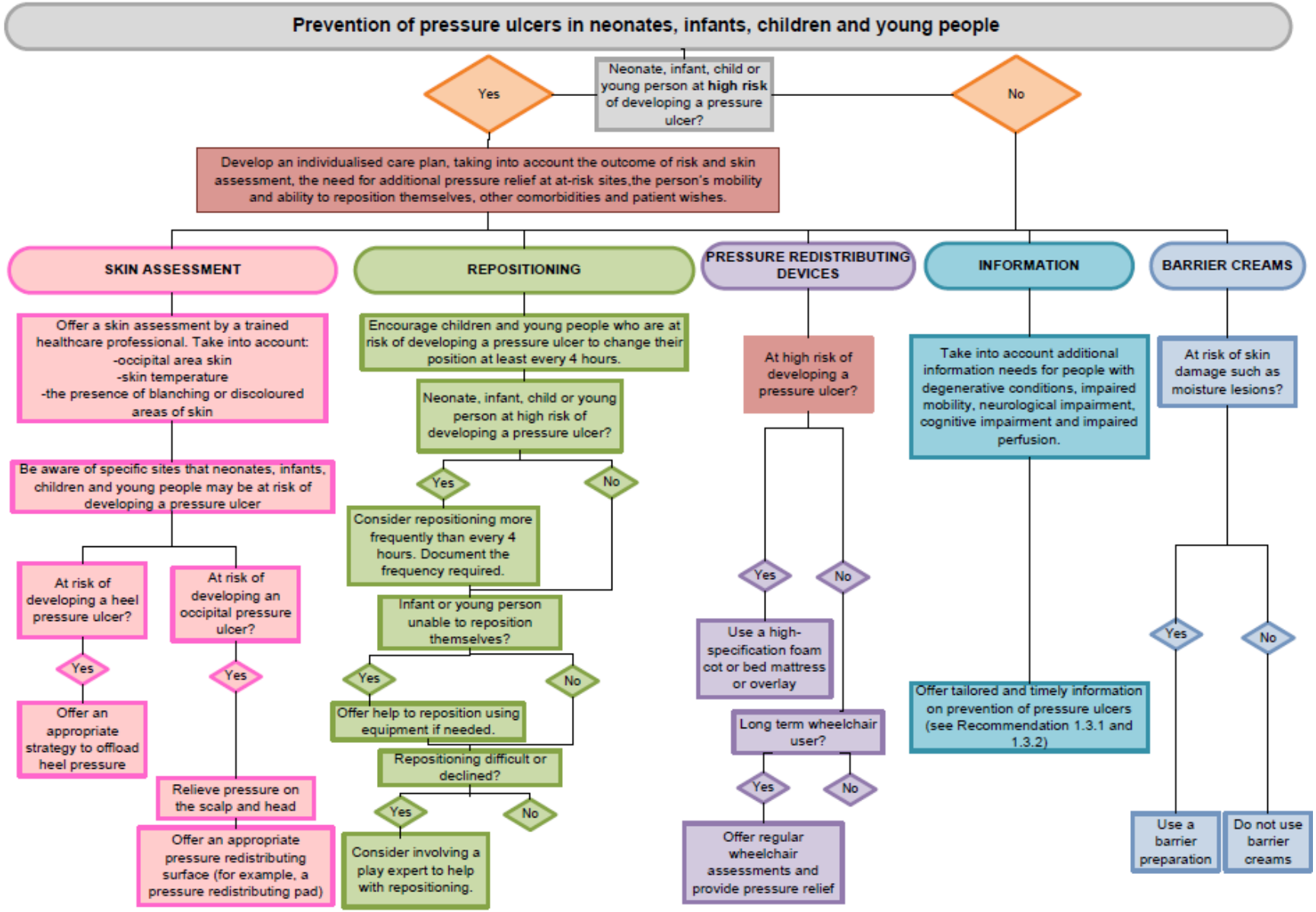
In 2011 a survey was carried out across the East of England Strategic Health Authority. 23 out of 27 organisations responded and the results indicated that while most trusts (73%) collected prevalence data there was no standard way of doing this. The most discrepancies centred around grading, prevalence, definitions of what constitutes unavoidable pressure ulcer and timescales for attribution. The survey found standard definitions were not used for example 14 of the trusts did not use a definition of 'unavoidable' and 2 had a locally agreed definition and standard grading[7].

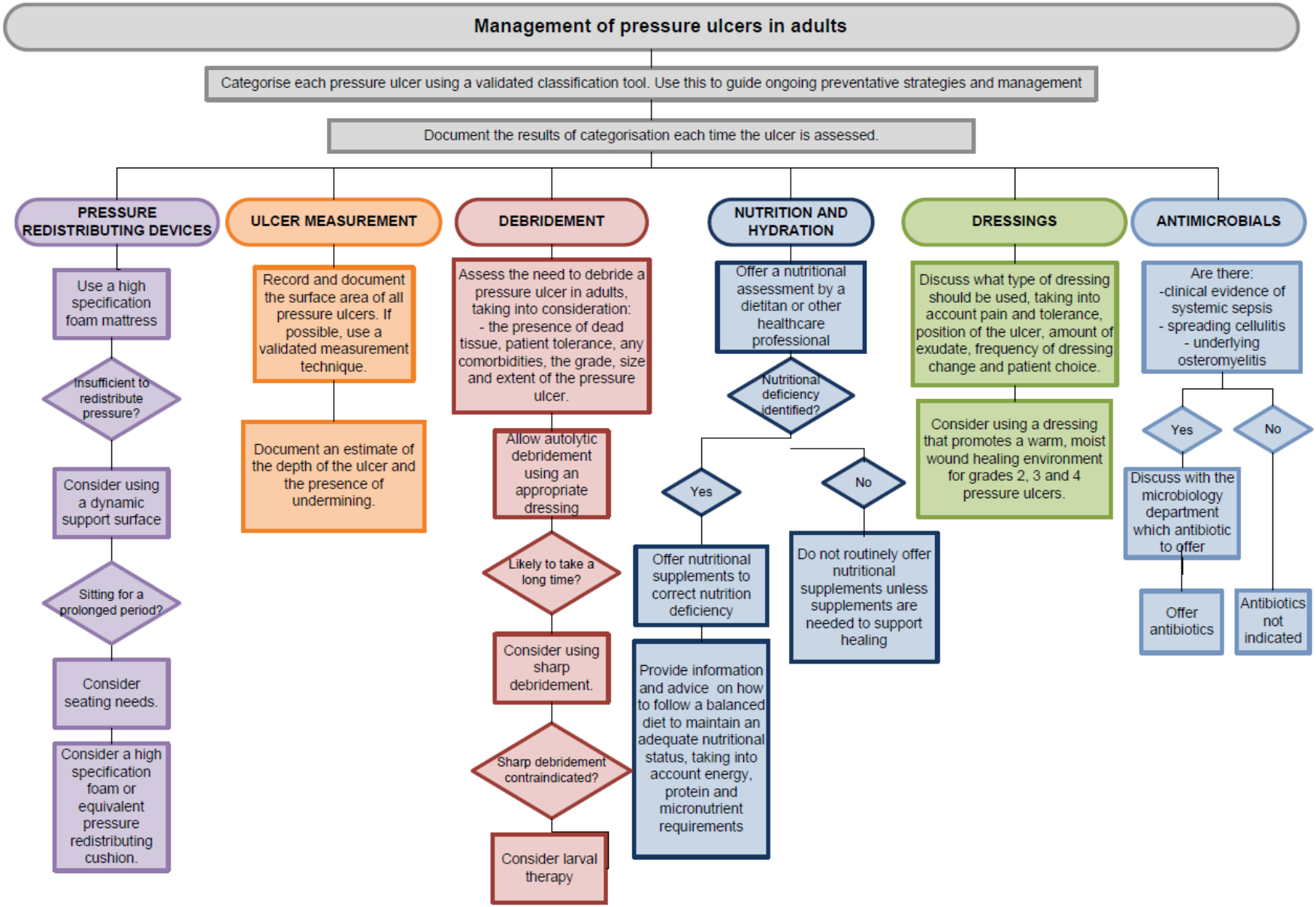
[7] Fletcher J. Surveying national pressure ulcer occurrence (2012) Wounds UK, Vol 8, No 3

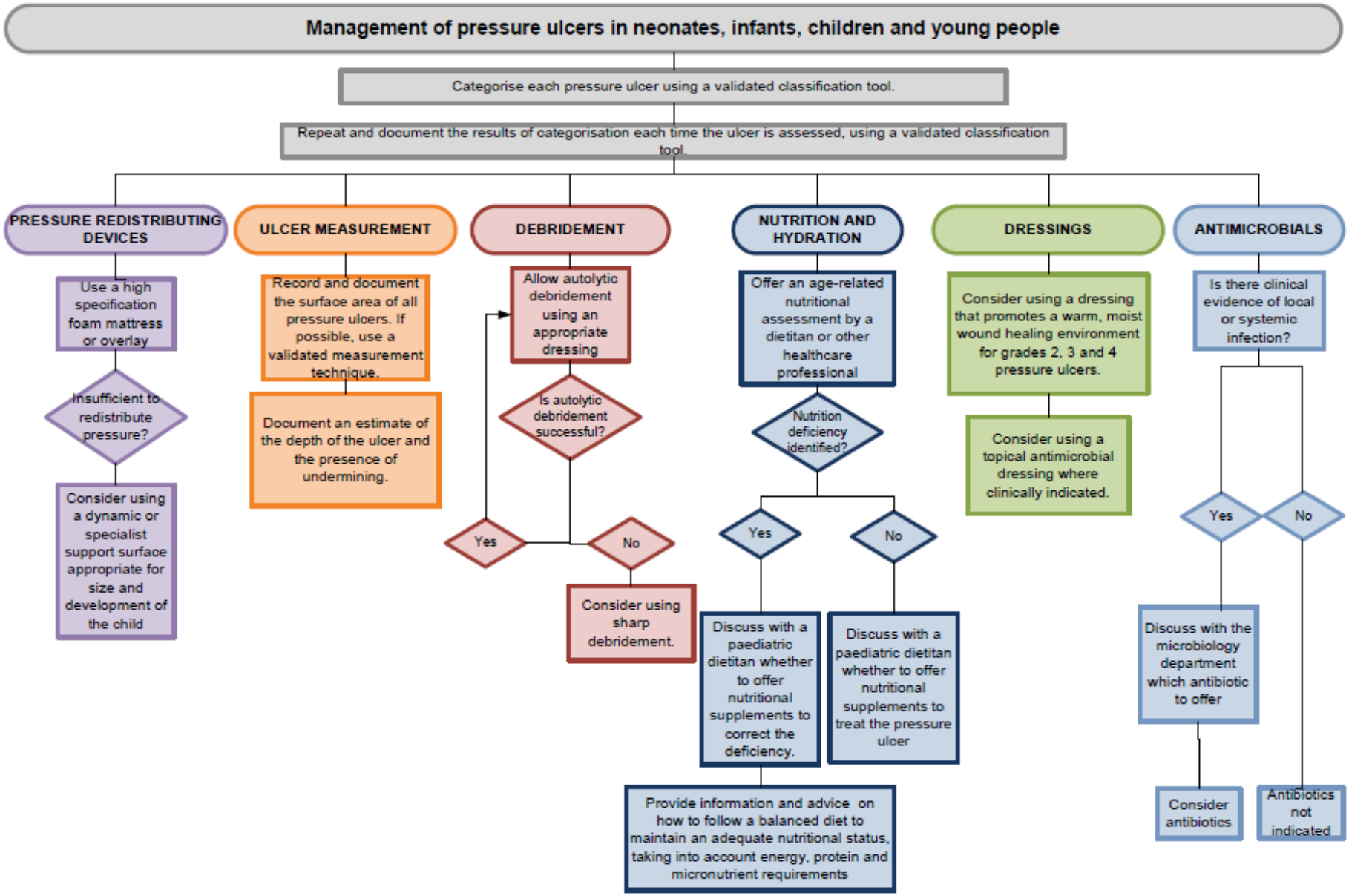
Appendix 1: Pressure ulcer algorithm for risk assessment, prevention and management




Prevention of pressure ulcers in adults at risk and at high risk
At risk?
RISK ASSESSMENT
At high risk?
Develop an individualised care plan, taking into account the outcome of risk and skin assessment, the need for additional pressure relief at at-risk sites,the person's mobility and ability to reposition themselves, other comorbidities and patient wishes.
REPOSITIONING
PRESSURE REDISTRIBUTING DEVICES
INFORMATION
SKIN ASSESSMENT
REPOSITIONING
PRESSURE REDISTRIBUTING DEVICES
Encourage repositioning at least every 6 hours
Able to reposition themselves?
Yes
No
Offer help to do so, using equipment (for example, hoists) if needed.
Use a high specification foam mattress (see Recommendation 1.1.13)
Undergoing surgery?
Yes
No
Consider a high specification foam theatre mattress or equivalent pressure redistributing surface
Sitting for prolonged periods?
Yes
No
Consider the seating needs of people at risk of developing a pressure ulcer who are sitting for prolonged periods.
Take into account additional information needs for people with degenerative conditions, impaired mobility, neurological impairment, cognitive impairment and impaired perfusion.
Offer tailored and timely information on prevention of pressure ulcers (see Recommendation 1.3.1 and 1.3.2)
Offer a comprehensive skin assessment by a trained healthcare professional
Erythema identified?
Blanchable?
Use finger palpation to identify whether the erythema is blanchable
Non-blanchable?
Repeat skin assessment every 2 hours until resolved
Encourage repositioning at least every 4 hours
Unable to reposition themselves?
Yes
No
Offer help to do so, using equipment
Use a high specification foam mattress
Wheelchair user?
Yes
No
Consider offering a high specification foam or equivalent pressure redistributing cushion
Adult is at risk of heel pressure ulcers?
Yes
No
Offer a strategy to offload pressure from their heel
Undergoing surgery?
Yes
No
Consider a high specification foam theatre mattress or equivalent pressure redistributing surface


Prevention of pressure ulcers in neonates, infants, children and young people
Neonate, infant, child or young person at high risk of developing a pressure ulcer?
Yes
No
Develop an individualised care plan, taking into account the outcome of risk and skin assessment, the need for additional pressure relief at at-risk sites,the person's mobility and ability to reposition themselves, other comorbidities and patient wishes.
SKIN ASSESSMENT
Offer a skin assessment by a trained healthcare professional. Take into account:
-occipital area skin
-skin temperature
-the presence of blanching or discoloured areas of skin
Be aware of specific sites that neonates, infants, children and young people may be at risk of developing a pressure ulcer
At risk of developing a heel pressure ulcer?
Yes
Offer an appropriate strategy to offload heel pressure
At risk of developing an occipital pressure ulcer?
Yes
Relieve pressure on the scalp and head
Offer an appropriate pressure redistributing surface (for example, a pressure redistributing pad)
REPOSITIONING
Encourage children and young people who are at risk of developing a pressure ulcer to change their position at least every 4 hours.
Neonate, infant, child or young person at high risk of developing a pressure ulcer?
Yes
No
Consider repositioning more frequently than every 4 hours. Document the frequency required.
Infant or young person unable to reposition themselves?
Yes
No
Offer help to reposition using equipment if needed.
Repositioning difficult or declined?
Yes
No
Consider involving a play expert to help with repositioning.
PRESSURE REDISTRIBUTING DEVICES
At high risk of developing a pressure ulcer?
Yes
No
Use a high-specification foam cot or bed mattress or overlay
Long term wheelchair user?
Yes
No
Offer regular wheelchair assessments and provide pressure relief
INFORMATION
Take into account additional information needs for people with degenerative conditions, impaired mobility, neurological impairment, cognitive impairment and impaired perfusion.
Offer tailored and timely information on prevention of pressure ulcers (see Recommendation 1.3.1 and 1.3.2)
BARRIER CREAMS
At risk of skin damage such as moisture lesions?
Yes
No
Use a barrier preparation
Do not use barrier creams


Management of pressure ulcers in adults
Categorise each pressure ulcer using a validated classification tool. Use this to guide ongoing preventative strategies and management
Document the results of categorisation each time the ulcer is assessed.
PRESSURE REDISTRIBUTING DEVICES
Use a high specification foam mattress
Insufficient to redistribute pressure?
Consider using a dynamic support surface
Sitting for a prolonged period?
Consider seating needs.
Consider a high specification foam or equivalent pressure redistributing cushion.
ULCER MEASUREMENT
Record and document the surface area of all pressure ulcers. If possible, use a validated measurement technique.
Document an estimate of the depth of the ulcer and the presence of undermining.
DEBRIDEMENT
Assess the need to debride a pressure ulcer in adults, taking into consideration: - the presence of dead tissue, patient tolerance, any comorbidities, the grade, size and extent of the pressure ulcer.
Allow autolytic debridement using an appropriate dressing
Likely to take a long time?
Consider using sharp debridement.
Sharp debridement contraindicated?
Consider larval therapy
NUTRITION AND HYDRATION
Offer a nutritional assessment by a dietitan or other healthcare professional
Nutritional deficiency identified?
Yes
Offer nutritional supplements to correct nutrition deficiency
Provide information and advice on how to follow a balanced diet to maintain an adequate nutritional status, taking into account energy, protein and micronutrient requirements
No
Do not routinely offer nutritional supplements unless supplements are needed to support healing
DRESSINGS
Discuss what type of dressing should be used, taking into account pain and tolerance, position of the ulcer, amount of exudate, frequency of dressing change and patient choice.
Consider using a dressing that promotes a warm, moist wound healing environment for grades 2, 3 and 4 pressure ulcers.
ANTIMICROBIALS
Are there: -clinical evidence of systemic sepsis - spreading cellulitis - underlying osteromyelitis
Yes
Discuss with the microbiology department which antibiotic to offer
Offer antibiotics
No
Antibiotics not indicated


Management of pressure ulcers in neonates, infants, children and young people
Categorise each pressure ulcer using a validated classification tool.
Repeat and document the results of categorisation each time the ulcer is assessed, using a validated classification tool.
PRESSURE REDISTRIBUTING DEVICES
Use a high specification foam mattress or overlay
Insufficient to redistribute pressure?
Consider using a dynamic or specialist support surface appropriate for size and development of the child
ULCER MEASUREMENT
Record and document the surface area of all pressure ulcers. If possible, use a validated measurement technique.
Document an estimate of the depth of the ulcer and the presence of undermining.
DEBRIDEMENT
Allow autolytic debridement using an appropriate dressing
Is autolytic debridement successful?
Yes
No
Consider using sharp debridement.
NUTRITION AND HYDRATION
Offer an age-related nutritional assessment by a dietitan or other healthcare professional
Nutrition deficiency identified?
Yes
No
Discuss with a paediatric dietitan whether to offer nutritional supplements to correct the deficiency.
Discuss with a paediatric dietitan whether to offer nutritional supplements to treat the pressure ulcer
Provide information and advice on how to follow a balanced diet to maintain an adequate nutritional status, taking into account energy, protein and micronutrient requirements
DRESSINGS
Consider using a dressing that promotes a warm, moist wound healing environment for grades 2, 3 and 4 pressure ulcers.
Consider using a topical antimicrobial dressing where clinically indicated.
ANTIMICROBIALS
Is there clinical evidence of local or systemic infection?
Yes
No
Discuss with the microbiology department which antibiotic to offer
Consider antibiotics
Antibiotics not indicated

Appendix 2: Key priorities for implementation (CG179)

Recommendations that are key priorities for implementation in the source guideline and that have been referred to in the main body of this report are highlighted in grey.

Adults: risk assessment

Carry out and document an assessment of pressure ulcer risk for adults:

- being admitted to secondary care or care homes in which NHS care is provided or
- receiving NHS care in other settings (such as primary and community care and emergency departments) if they have a risk factor, for example:
    - significantly limited mobility (for example, people with a spinal cord injury)
    - significant loss of sensation
    - a previous or current pressure ulcer
    - nutritional deficiency
    - the inability to reposition themselves
    - significant cognitive impairment. [recommendation 1.1.2]

Adults: skin assessment

Offer adults who have been assessed as being at high risk of developing a pressure ulcer a skin assessment by a trained healthcare professional (see recommendation 1.3.4). The assessment should take into account any pain or discomfort reported by the patient and the skin should be checked for:

- skin integrity in areas of pressure
- colour changes or discoloration[2]
- variations in heat, firmness and moisture (for example, because of incontinence, oedema, dry or inflamed skin). [recommendation 1.1.5]

All ages: care planning

Develop and document an individualised care plan for neonates, infants, children, young people and adults who have been assessed as being 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
- patient preference. [recommendation 1.3.1]

Adults: repositioning

Encourage adults who have been assessed as being at risk of developing a pressure ulcer to change their position frequently and at least every 6 hours. If they are unable to reposition themselves, offer help to do so, using appropriate equipment if needed. Document the frequency of repositioning required. [recommendation 1.1.8]

Adults: devices for prevention of pressure ulcers

Use a high-specification foam mattress for adults who are:

- admitted to secondary care
- assessed as being at high risk of developing a pressure ulcer in primary and community care settings. [recommendation 1.1.13]

Neonates, infants, children and young people: risk assessment

Carry out and document an assessment of pressure ulcer risk for neonates, infants, children and young people:

- being admitted to secondary care or tertiary care or
- receiving NHS care in other settings (such as primary and community care and emergency departments) if they have a risk factor, for example:
    - significantly limited mobility (for example, people with a spinal cord injury)
    - significant loss of sensation
    - a previous or current pressure ulcer
    - nutritional deficiency
    - the inability to reposition themselves
    - significant cognitive impairment. [recommendation 1.2.1]

All ages: healthcare professional training and education

Provide training to healthcare professionals on preventing a pressure ulcer, including:

- who is most likely to be at risk of developing a pressure ulcer
- how to identify pressure damage
- what steps to take to prevent new or further pressure damage
- who to contact for further information and for further action. [recommendation 1.3.4]

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. [recommendation 1.3.5]

Adults: management of heel pressure ulcers

Discuss with adults with a heel pressure ulcer and if appropriate, their carers, a strategy to offload heel pressure as part of their individualised care plan. [recommendation 1.4.26]

Appendix 3: Patient safety report from NHS England Patient Safety Domain

Patient Safety Report to inform the NICE Quality Standard on Pressure Ulcers

1. Introduction

This paper has been prepared at the request of the National Institute for Health and Clinical Excellence (NICE), in order to inform the development of the Quality Standard on Pressure Ulcers. Quality has three key dimensions – patient safety, clinical effectiveness, and patient experience. The NHS England Patient Safety Domain supplies patient safety reports to NICE to help ensure Quality Standards reflect equally all three dimensions of quality.

2. The National Reporting and Learning System

This paper includes a review of incidents reported to the National Reporting and Learning System (NRLS). The NRLS was established in 2003 to provide a national database of incidents relating to patient risks and harm. Reports of patient safety incidents (PSIs) while under NHS care must be reported to the NHS organisations' local risk management systems. These reports must, in turn, be uploaded to the NRLS. The NRLS reports contain a number of fields, most of which are categorical. These have varying degrees of completion, partly because it is not mandatory to complete all fields. The largest fields are free text descriptions of the incident and subsequent actions. It is largely from these fields that the content of this document is drawn. As with any voluntary reporting system, interpretation of the data must be undertaken with caution as the data are subject to bias. Many incidents are not reported and requirements for prompt reporting can mean the ultimate patient outcome and any contributory factors or underlying causes are not yet known.

However, NRLS data can be considered reliable in terms of providing 'at least' information on the scale and nature of patient safety issues to inform NICE Quality Standards; the true scale of harm may be greater than reflected in the NRLS, but is very unlikely to be lesser.

3. Patient Safety

Every day more than a million people are treated safely and successfully in the NHS, but the evidence tells us that in complex healthcare systems things will and do go wrong, no matter how dedicated and professional the staff. When things go wrong, patients are at risk of harm, and the effects are widespread and often devastating for patients, their families and the staff involved. Safety incidents also incur costs through litigation and extra treatment. These incidents are often caused by poor system design rather than the error of individuals. The untoward incidents were in essence, 'accidents waiting to happen'.

Thus, patient safety could be summarised as 'The identification and reduction of risk and harm associated with the care provided to patients 'or 'Preventing patients from being harmed by their treatment'.

4. Pressure Ulcer prevention as a priority area for the Quality Standard

NICE guidance on the prevention and management of pressure ulcers (NICE CG179) encompasses all community and inpatient settings. We believe it is essential that the Pressure Ulcer Quality Standard also encompasses all community and inpatient settings, because of the scale of harm, and because of evidence that the actions required by NICE CG179 are not yet fully and reliably implemented. We would recommend that the Pressure Ulcer Quality Standard, whilst including the management of, should strongly focus on the prevention of pressure ulcers in line with the NHS Outcomes Framework to reduce harm associated with category 2, 3 and 4 pressure ulcers.

These areas of current patient safety concerns are described below to make the case that prevention of pressure ulcers in both community and inpatient areas should be a priority area for the Pressure Ulcer Quality Standard.

a. Scale of harm from pressure ulcers

Nearly 700,000 patients are affected by pressure ulcers each year. 186,617 patients develop a new pressure ulcer in acute care alone each year.

The national scale of harm associated with pressure ulcers is currently being collected by the NHS Safety Thermometer which has shown that in the year January 2012 to December 2013 between 4%– 6% of patients in acute care settings and 4.5% - 10% of patients in non-acute care had pressure ulcers (Figure 1). Further information from the NHS Safety Thermometer indicates that across all care settings between 3% - 5% of those pressure ulcers are category 2. Category 3 pressure ulcers account for just over 1% and category 4 just under 1% (figure 2).

Figure 1. All pressure ulcers by care setting – source NHS Safety Thermometer

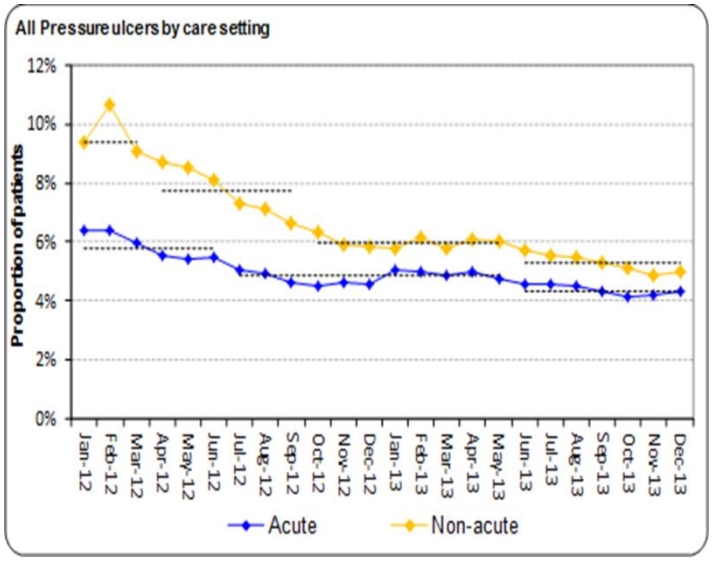
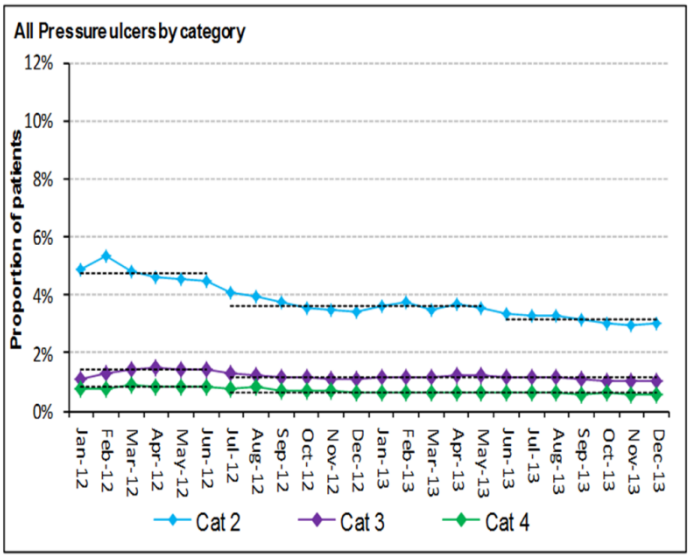


Figure 2. All pressure ulcers by category – source NHS Safety Thermometer



In relation to the NRLS a review of death and severe harm themes undertaken in for 2011/2012 demonstrated that pressure ulcers was the largest proportion of patient safety incidents accounting for 19% of all reports. Hogan et al (2012) suggested that pressure ulcers are accountable for 2% of preventable deaths.

b. Specific NRLS analysis related to pressure ulcers

Reviews of the NRLS have identified specific issues in relation to pressure ulcer incidents relating to pressure relieving beds and mattresses. In 2013 a total of 15,830 incidents were reported to the NRLS which had been categorised as "lack/availability of device/equipment". The type of device most commonly reported to be unavailable were beds and mattresses and these accounted for 3,567 reports (23%). The vast majority of the incidents related to the unavailability of pressure relieving mattresses for those at risk of developing pressure ulcers. Typical incident descriptions:

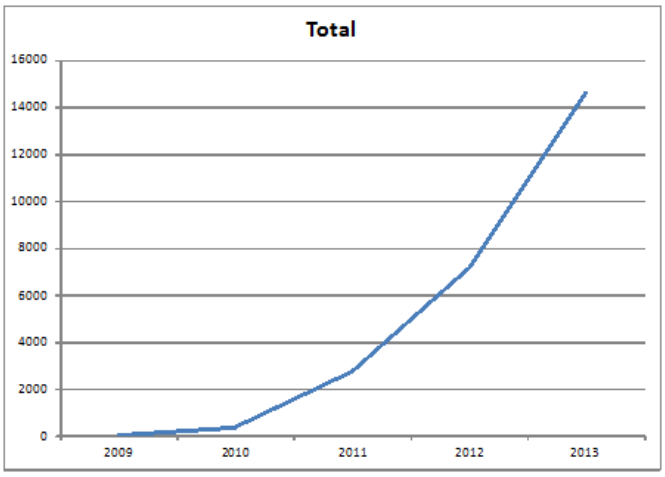
"No air mattress available for patient admitted to AMU with vulnerable pressure areas – sacrum looking red. States unable to lie on her side due to hip problems"

"Porters phoned for pressure relieving mattresses, we require two for palliative patients, informed that there are none"

The incidents relating to beds and mattresses were most frequently reported from staff in acute/general hospitals (89%) with few reported from community staff (11%). None of incidents reviewed resulted in death or severe harm.

An additional review of the NRLS in 2013 also identified that whilst the NHS Safety Thermometer has shown some reduction in the number of pressure ulcers in NHS Funded Care there has been an increase in the number of patient safety incident reports related to moisture lesions. This increase appears to correlates with the introduction of the Safety Thermometer CQUIN (Figure 3).

Figure 3 – Number of moisture lesions reported to the NRLS 2009 - 2013



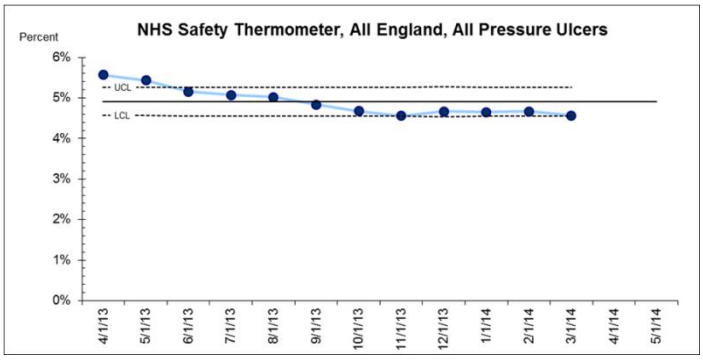
5. Evidence of reductions in pressure ulcer patient safety incidents

In 2012/13 NHS Midlands and East developed and delivered a campaign to reduce the prevalence of pressure ulcers within the region. The campaign, 'Stop the Pressure', utilised new knowledge developed through NHS Safety Thermometer data collection along with practical prevalence advice to raise awareness and improve processes for reviewing and managing patients to minimise the risk of pressure ulceration. The campaign achieved a 50% reduction in the incidence of new pressure ulcers within one year. A key part of the success of the campaign was the clarity of positive preventative interventions, achieved through using the SSKIN bundle.

In October 2013 a six month 'test' national 'Stop the Pressure' campaign was launched with the over-arching aim of raising awareness and supporting the reduction of pressure ulcers in all care settings. This campaign was led by NHSIQ and NHS England Midlands and East with the support of other key organisations including the NHS England Patient Safety Domain.

The national 'Stop The Pressure' campaign core aim was to support a 50% reduction in pressure ulcer prevalence in acute care settings by March 2014 as measured by the NHS Safety Thermometer and incentivised by the NHS Safety Thermometer CQUIN.

Using the NHS Safety Thermometer the national prevalence, incidence and in-hospital prevalence have been analysed for the campaign time period. The following table demonstrate the results for all pressure ulcers during the campaign period.



6. Essential care for the Pressure Ulcer Quality Standard

We believe it is essential that the Pressure Ulcer Quality Standard encompasses the following aspects:

- Screening and assessment of pressure ulcer risk across the patients pathway of care.
- That all people identified as at risk have a management care plan to include positive preventative interventions which include regular skin inspection, mobility, continence and nutrition/hydration. These interventions have been found to have positive impact on the reduction of pressure in the UK and USA when included as part of an improvement programme.
- Specific guidance relating to the availability for pressure relieving devices for those individuals identified to be at risk. Identified as a key patient safety concern through the NRLS.
- Specific guidance relating to staff training in the correct categorising of pressure ulcer damage. Identified as a patient safety concern through the NRLS.

7. Conclusions

Pressure ulcers remain a major cause of harm and distress to patients in NHS Funded and whilst not all pressure ulcers are preventable evidence would suggest a major reduction in harm can be achieved through the implementation of fairly simple interventions.

A Quality Standard content emphasising the key safety concerns would help ensure the more complete and reliable implementation of NICE CG179 and assist in achieving the a reduction in pressure ulcers as identified in the NHS Outcomes Framework.

References

NHS Safety Thermometer 2014
http://www.qualityobservatory.nhs.uk/index.php?option=com_cat&view=item&Itemid=2&cat_id=588

Hogan H, Healey F, Neale G, Thomson R, Vincent C & Black N 2012 'Preventable deaths due to problems in care in English acute hospitals: a retrospective case record review study.' BMJ Quality & Safety 7 July 2012 10.1136/bmjqs-2012-001159

Appendix 4: Suggestions from stakeholder engagement exercise

ID	Area for improvement	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
1	n/a	Royal College of Paediatrics and Child Health	Thank you for inviting the Royal College of Paediatrics and Child Health to comment on the Topic engagement exercise for quality standard on Pressure Ulcers. We have not received any responses for this consultation.			
2	n/a	NHS England	Thank you for the opportunity to comment on the above Quality Standard. I wish to confirm that NHS England has no substantive comments to make regarding this consultation.			
3	Prevention	Patient Safety Domain at NHS England	Focus on prevention of pressure ulcers	The national scale of harm associated with pressure ulcers is currently being collected by the NHS Safety Thermometer which has shown that in the year January 2012 to December 2013 between 4%– 6% of patients in acute care settings and 4.5% - 10% of patients in non-acute care had pressure ulcers. In relation to the National Reporting and Learning System (NRLS) a review of death and severe harm themes undertaken in for 2011/2012 demonstrated that pressure ulcers was the largest proportion of patient safety incidents accounting for 19% of all reports. Hogan et al (2012) suggested that pressure ulcers are accountable for 2% of preventable deaths.	It is in line with the NHS Outcomes Framework to reduce harm associated with category 2, 3 and 4 pressure ulcers.	NHS Safety Thermometer 2014 http://www.qualityobservatory.nhs.uk/index.php?option=com_cat&view=item&Itemid=2&cat_id=588 Hogan H, Healey F, Neale G, Thomson R, Vincent C & Black N 2012 'Preventable deaths due to problems in care in English acute hospitals: a retrospective case record review study.' BMJ Quality & Safety 7 July 2012 10.1136/bmjqs-2012-001159
4	Prevention	SCM3	Key area for quality improvement 3 Access to good	To ensure that all patients with and at risk of pressure damage are offered good pressure ulcer	Reduce burden of pressure ulcer and equality of treatment	NICE

ID	Area for improvement	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
			quality pressure ulcer prevention programme within health care setting	prevention / treatment programmes		
5	Risk assessment	Foot in Diabetes UK	Key area for quality improvement 3 Assessment tool Development of diabetes specific foot assessment tool for risk of pressure ulceration with onward referral guidelines	The current tool does not adequately identify people with diabetes at risk. Many patients are often underscored on assessment tools as the presence of neuropathy or PAD goes unrecognised. The Ipswich touch test is a simple, quick, cost neutral tool for assessing neuropathy at the bed side	In England 13-15% of inpatients have diabetes and this number rises annually. Up to 40% of these people have high risk feet – raising the risk of pressure ulceration. In 2013 1.3% of inpatients with diabetes developed ulceration while in hospital In 2012 only a third (35.1%) people had their feet examined at any time during an admission to hospital. The Scottish Inpatient Diabetic Foot Audit in 2013 revealed that: 2.4% of in patients with diabetes developed a new foot lesion whilst in hospital 57% of in patients had not	National Diabetes Inpatient Audit 2013 http://www.diabetes.org.uk/Global/Homepage/News/NaDIA_INTERACTIVE-PDF_23-06-14.pdf The Ipswich Touch Test http://www.ncbi.nlm.nih.gov/pubmed/21593300 Position statement Diabetes UK http://www.diabetes.org.uk/Documents/Position%20statements/diabetes-uk-position-statement-putting-feet-first-0913.pdf

ID	Area for improvement	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
					had their feet checked	
6	Risk assessment	Frontier Therapeutics Ltd	Assessment of risk scoring protocols (eg Waterlow, Norton, Braden, Medley etc)	There is the chance of confusion. There are many different scoring protocols available for assessing levels of risk of pressure ulcer development – some of which are higher score means higher risk and others are lower scores mean higher risk.	If there was a standard national NICE accredited risk assessment score, then the NICE guidance could reference this and provide clearer options for appropriate delivery of care. Every manufacturer has a different way to describe the appropriate risk level of their product and a national guideline could be used to provide standardised descriptions and eliminate doubt, variability, mis-use, errors and money wasteage.	Indicatively, a Norton Rating below 9 means Very High Risk, A Braden Score below 12 is high risk A Waterlow score above 21 is very high risk
7	Risk assessment	Pressure Ulcer Research Service User Network (PURSUN UK)	Spasticity / clonus and pressure ulcers	Spasticity can be a sign of pain/discomfort caused by a multitude of things (including pressure ulcers) and can also be due to lack of good postural support in bed or while seated.	Anti-spasmodic medication may be missed whilst in hospital leading to stronger symptoms. Spasms may cause shearing. Our members have found this is rarely considered when assessing pressure ulcer risk.	
8	Risk assessment	Royal College of Nursing	Key area for quality improvement 1: Assessment of patients at risk of	The RCN feel that adequate and comprehensive assessment of patients is essential for preventative measures to be put in place.	There is a large variation in the type, scope and thoroughness of assessments.	A number of papers have highlighted the issues with current risk assessment tools.

ID	Area for improvement	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
			pressure ulcers.			See Webster et al: http://qualitysafety.bmj.com/content/early/2011/01/20/bmjqs.2010.043109.short
9	Risk assessment	Royal College of Nursing	Key area for quality improvement 6: Assessment of risks	Assessment of risks is crucial for ensuring appropriate interventions are used for individual patients	Inappropriate preventative measures (over prevention) disturb patients, reducing their sleep, possibly increasing pain or discomfort and thereby affecting quality of life. For the NHS it also consumes additional expensive resources such as specialist mattresses and cushions	NICE Guideline NPUAP / EPUAP guideline 2014
10	Risk assessment	SCM4	Key area for quality improvement 1	Consistent assessment of all patients for PU risk including commuunity	Without assessment preventative strategies cant be used appropriately	
11	Risk assessment	SCM1	Nutritional assessment of patients with or at risk of pressure ulcers	Malnutrition is a recognised risk factor for pressure ulcers. Identifying those at risk can improve patient outcome	There are differing levels of nutritional assessment in different geographical areas.	Recent NICE guidance has recommended nutritional assessment for patients presenting with pressure ulcers. Cochrane review also states expert assessment http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD003216.pub2/pdf
12	Risk assessment	SCM2	Proper risk	Carrying out proper risk	Without proper risk	NICE guidance on

ID	Area for improvement	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
			assessment of all new patients and drawing up of suitable care plans for those deemed to be at risk.	assessments and identifying those individuals who are at greatest risk will allow suitable care plans to be drawn up will reduce risk of patients developing PUs.	assessment risks cannot be properly managed and prevented from occurring.	Pressure Ulcers: management and prevention of pressure ulcers. Issued April 2014. Ref: Skin assessment 1.1.5. and recommendation 1.3.4.
13	Risk assessment	SCM3	Key area for quality improvement 1 Recognition of at / high risk patients prior to advent of pressure damage	Grade 3 and 4 damage often presenting in patients not recognised as at risk, eg worsening neurological disease, frailty or other co-morbidity	Grade 3 and 4 damage costly both in terms of patient's morbidity and mortality but also in cost to health services. Increasing age of population means that prevention should help keep costs down.	
14	Skin assessment	Royal College of Nursing	Key area for quality improvement 7: Skin care	Maintaining healthy skin helps to reduce the likelihood of skin breakdown	Skin breakdown incurs significant additional costs, dressings, equipment and increased staff time, it is also detrimental to patient well being and increases the risk of the development of infection	NICE Guideline NPUAP / EPUAP guideline 2014
15	Skin assessment	Royal College of Nursing	Key area for quality improvement 8: Skin assessment	There is good evidence that regular skin inspection identifies early stages of damage and can prevention more severe stages of pressure ulceration	Significant cost savings can be made by targeting equipment appropriately	Non-blanchable erythema as an indicator for the need for pressure ulcer prevention: a randomized-controlled trial. Vanderwee K, Grypdonck M, Defloor T. J Clin Nurs. 2007

ID	Area for improvement	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
						Feb;16(2):325-35.
16	Repositioning	College of Occupational Therapists	Key area for quality improvement 1: The need for a 24 hour/ MDT approach to pressure care.	A 24 hour person-centred approach taking into account a person's functional needs and wishes, as well as their pressure needs.	A person's independence can be influenced by their seating and positioning over the full 24 hours of each day. This is particularly important to remember when individuals experience long periods of lying in bed or sitting. People who are unable to change their position without assistance are vulnerable to contracture and skin injury. Making sure an individual is well positioned and comfortable over 24 hours includes changing their position at regular intervals. Positioning needs to look at how they sleep, the chairs they sit on for meals and the chair they spend most of their time in. Making sure a person has a suitable pressure mattress needs to go hand in hand with how they are positioned in bed.	
17	Repositioning	Royal College of Nursing	Key area for quality improvement 9: Prevention of	A significant sum of money is spent on pressure redistributing equipment, yet there remains little good evidence to say which	This is an enormous drain on resources; the recent introduction of hybrid mattress systems into	

ID	Area for improvement	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
			pressure ulcers including equipment use, repositioning and systemic support (nutrition, hydration, disease management)	equipment is 'best'. Patients are turned / repositioned at fixed intervals yet again there is little data to support any timescale.	organisations has demonstrated significant cost savings. The use of repositioning devices is patchy and under researched – there is little if any potential to maintain regular repositioning in the patients' own home.	
18	Repositioning	SCM2	Regular pressure relief for patients at risk of developing pressure ulcers. e.g. minimum of every 6 hours	Patients who are immobile or have anesthetised skin are at severe risk of developing PUs, especially in the elderly.	Statistics show that regular pressure relief significantly reduces the likelihood of a patient developing a PU.	NICE guidance on Pressure Ulcers: management and prevention of pressure ulcers. Issued April 2014 Ref: 2.5 Repositioning.
19	Repositioning	Tissue Viability Society	Key area for quality improvement 1	How effective is repositioning for pressure ulcer prevention and treatment?	Advice routinely given by clinicians with high levels of uncertainty about effectiveness	James Lind Alliance priority in collaboration with patients Personal experience in clinical practice
20	Care planning	Royal College of Nursing	Key area for quality improvement 3: Plan of care for pressure relief by registered nurse and adequate staffing to implement the plan of care.	A holistic assessment of pressure ulcer risks and a plan to relieve pressure ulcers in light of patient comorbidities is necessary to adequately prevent pressure ulcers occurring.	Much of the physical care for patients is now performed by non-registered staff (support workers). It is important that RNs plan and evaluate pressure relief strategies for patients. Studies have shown links between increased RN staffing and lower odds of mortality and adverse patient events.	Kane, Robert L., et al. "The association of registered nurse staffing levels and patient outcomes: systematic review and meta-analysis." Medical care 45.12 (2007): 1195-1204.

ID	Area for improvement	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
21	Care planning	SCM2	Proper risk assessment of all new patients and drawing up of suitable care plans for those deemed to be at risk.	Carrying out proper risk assessments and identifying those individuals who are at greatest risk will allow suitable care plans to be drawn up will reduce risk of patients developing PUs.	Without proper risk assessment risks cannot be properly managed and prevented from occurring.	NICE guidance on Pressure Ulcers: management and prevention of pressure ulcers. Issued April 2014. Ref: Skin assessment 1.1.5. and recommendation 1.3.4.
22	Patient and carer information	Pressure Ulcer Research Service User Network (PURSUN UK)	Patient / carer engagement	Pressure ulcer prevention requires patients and informal carers to be engaged in care e.g. checking skin, changing position etc.	Some PURSUN members have reported that they were not informed about their pressure ulcer risk. We have also heard examples of people being given a special mattress or being turned without being told why. There seems to be a difference in patient engagement in different contexts e.g. it is a priority for Spinal Injury Units but not for services related to other long term conditions. At times patients are blamed when ulcers develop, despite little effort being made to meaningfully involve them in prevention. Self-assessment tools and peer support are under-developed / under-utilised in comparison to other areas.	This was highlighted as a key area during the James Lind Alliance Pressure Ulcer Partnership http://www.jlapressureulcerpartnership.co.uk/ The PURPOSE Severe Pressure Ulcer Study highlights the importance of listening to patients and issues around blame. http://bmjopen.bmj.com/content/4/1/e004303.abstract

ID	Area for improvement	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
23	Patient and carer information	Royal College of Nursing	Key area for quality improvement 4: Patient and carer education related to pressure ulcer prevention.	The increasing litigation and blame culture may mean that patients and carers have unrealistic expectations related to the pressure ulcers. Sometimes PUs may not be preventable due to compliance, end of life and other issues.	It may help to reduce litigation.	There has been a wide debate regarding unavoidable pressure ulcers within Tissue Viability. It has been debated much wider in the USA. NUPAP in USA have a consensus statement Black, Joyce M., et al. "Pressure ulcers: avoidable or unavoidable? Results of the national pressure ulcer advisory panel consensus conference." Ostomy-Wound Management 57.2 (2011): 24. Edsberg, Laura E., et al. "Unavoidable Pressure Injury: State of the Science and Consensus Outcomes." Journal of Wound Ostomy & Continence Nursing (2014).
24	Patient and carer information	Tissue Viability Society	Key area for quality improvement 2	How effective in preventing pressure ulcers is involving patients, family and lay carers in care?	Patients etc are an increasingly important resource in community settings to support risk management	As above

ID	Area for improvement	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
					Trusts increasingly measured on their ability to prevent pressure damage but patient preference ,understanding and cooperative are important factors in managing this risk in a persons own home Need to understand impact	
25	Staff training and numbers	Pressure Ulcer Research Service User Network (PURSUN UK)	Diversification of professional roles	Pressure ulcer prevention and treatment is generally seen as a nursing issue. Education / development projects are generally aimed at registered nurses, however many other people have a role to play.	Our members have found a lack of understanding regarding pressure ulcers. Healthcare assistants, PAs, anaesthetists and paramedics were all highlighted as people who could have a positive impact on pressure ulcer development / treatment but are not fully engaged in the topic. People who work in social care roles could also be targeted.	
26	Staff training and numbers	SCM2	Suitable training of clinical and care staff dealing with patients who are at risk or who have developed a PU.	Those nursing or caring for people who are at risk of developing a PU need to know both what is important to do and what not to do, e.g. massaging, in respect of those in their care. They need to be able to recognise those that are at risk and be able to recognise the	Proper training of clinical and care staff can significantly reduce the number of patients developing PUs. It is widely accepted that the vast majority of PUs are avoidable, probably in excess of 80%. This not	NICE guidance on Pressure Ulcers: management and prevention of pressure ulcers. Issued April 2014. Ref: 1. 3.4. Healthcare and professional training and education.

ID	Area for improvement	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
				signs of potential PUs developing. Equally they need to know what treatments work and what treatments don't for those who have developed a PU.	only reduces the suffering of patients by them not developing a PU which could affect them for the rest of their lives. e.g. Restricting their capabilities and increasing their chances of developing another PU in the same area. It also reduces the cost to the NHS in treating PUs. A cost known to run into billions of pounds annually.	
27	Staff training and numbers	SCM2	Adequate numbers of staff in hospital wards that have patients at high risk. e.g. EMI wards.	Regular repositioning of patients at high risk in order to prevent development of PUs, takes time and numbers. Having too few trained staff available will lead to neglect of repositioning in order to relieve pressure areas as should be laid down in patient care plans.	Simply put it reduces incidents of PU development and therefore reduces long term cost to the NHS in treatment.	
28	Staff training and numbers	SCM4	Key area for quality improvement 2	All NHS staff to have training about PUs	Without training and awareness high standards wont be reaeched	
29	Pressure redistributing devices	British Association of Prosthetists and Orthotists	Orthotic assessment of patients deemed at risk of pressure ulcers of the heel.	In many cases an orthosis can be crucial in prevention or management of a pressure ulcer. There are several designs of stock Ankle Foot Orthosis (AFO) such as which can be used to offload the heel such as	The British Association of Prosthetists and Orthotists (BAPO) advocate that it is the role of the Orthotist to assess for and provide orthoses; this is stated in the BAPO Standards for	http://www.nice.org.uk/guidance/CG179/chapter/1-Recommendations http://www.hkscpo.org/10

ID	Area for improvement	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
				PRAFOs, Leeder Boots and Multi Podus Boots. Each of these has differing characteristics and prescription should be specific to each individual's needs. In some cases a custom device may be required. NICE Guideline document 'Pressure Ulcers: Prevention and Management of Pressure Ulcers' makes recommendation for pressure redistribution devices. Key points of orthotic relevance: 1.1.15 Discuss with adults at high risk of developing a heel pressure ulcer and, where appropriate, their family or carers, a strategy to offload heel pressure, as part of their individualised care plan. 1.4.26 Discuss with adults with a heel pressure ulcer and, if appropriate, their family or carers, a strategy to offload heel pressure as part of their individualised care plan. 1.5.24 Discuss with the parents or carers of neonates and	Best Practice and is also reflected by the HCPC Standard of Proficiency. Thus a referral to orthotic services should be made when pressure relief is to be considered. BAPO acknowledges that current referral pathways differ throughout the UK and therefore orthotic services may not be utilised to their full potential. We are aware that several professionals currently dispense orthoses, often under instruction of manufacturers. Orthotists are equipped with the knowledge required to differentiate between the many commercially available types to choose an optimum design, manufacture a specific type or customise an existing device. An orthotic assessment will optimise design and review will ensure best compliance which is always the challenge with orthotic intervention.	download/York_Report_Orthotic_Service_in_the%20NHS.pdf https://www.bapo.com/Framework/ResourceManagement/GetResourceObject.aspx?ResourceID=7a367742-a95e-4b64-8b14-57e65d088e00 http://www.ehob.com/img/documents/document_101.pdf

ID	Area for improvement	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
				infants and with children and young people (and their parents or carers if appropriate), a strategy to offload heel pressure as part of their individualised care plan to manage their heel pressure ulcer, taking into account differences in size, mobility, pain and tolerance.	In many cases referral to orthotics is reactive, after a potentially avoidable and expensive pressure ulcer has developed. The York Health Care Economics Consortium publication 'Orthotic Service in the NHS: Improving Service Provision' clearly showed that optimal utilisation of orthotic services can provide clear and substantial cost savings.	
30	Pressure redistributing devices	College of Occupational Therapists	Key area for quality improvement 2: Seating.	Equipment includes the use of suitable seating for each individual. For those who are more mobile, specialist equipment may not be necessary, but even a standard arm chair should be of suitable height and give adequate support. For those who are less independently mobile, their pressure care and postural support requirements should be considered, whether they are seated or in bed. Chairs should have a pressure relieving cushion and, if possible, ensure that this is integral to the chair. Many	There is often a lack of specialist seating available for trialling with an individual and then often a lack of funding for provision of equipment. This leads to some individuals end up bed-bound due to lack/ delay in provision of specialist seating. An occupational therapist will understand what equipment is available and how it should be used to enable people to access and participate in the activities of daily living. They may see when equipment is inappropriately used and/or	

ID	Area for improvement	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
				people are given suitable mattresses on their bed, however, they are much more vulnerable in the chair due to their weight being concentrated in a smaller area. The blood supply is almost completely inhibited when sitting on a conventional cushion. Observing individuals who are left slumped in bed, sat in a wheelchair with no cushion or footplates, or sliding out of a chair that is perhaps too tall, are all causes for concern that an occupational therapist could help the care home to remedy.	poorly maintained. Some institutions have a tendency to collect and then use old and potentially inappropriate equipment, or to purchase/install standard equipment that is not necessarily the most appropriate for an individual's needs. Any equipment that is used to help an individual, whether in their personal care, moving and handling, mobility, or activity participation, should be provided in response to an assessed need and should be seen to meet that need. It should be safe, clean, well maintained and, where necessary, exclusive to that individual. Good positioning can: increase a person's awareness of what is going on around them and help their communication; improve their reach and ability to do activities. Correct seating can:	

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					protect skin integrity help with eating and improve digestion; aid breathing and cardiovascular function;. reduce the risk of falls. Poor positioning can: increase the risk of skin breaking down; cause pain and discomfort; result in joint stiffness, poor posture and fixed contractures; limit ability to do activities including eating and drinking; increase the risk of falls or slipping from a chair or bed.	
31	Pressure redistributing devices	Frontier Therapeutics Ltd	Provide better descriptions and guidance on what pressure redistribution devices are available and suitable for use for preventing and managing pressure ulcers, not just high spec foam mattresses	CG179 currently describes the use of high spec foam mattress for prevention and management of ulcers (paragraphs 1.1.13 and 1.4.9) but fails to mention other similar pressure redistribution devices	Guidance should acknowledge that there are additional options available to healthcare professional (supported by RCTs and other clinical evidence) that provide effective pressure redistribution, not just high spec foam, eg static air-filled devices, overlays, gel-pad devices, etc	2 of the 3 documents referenced in the Topic Overview as key development sources (Best Practice Statement, Wounds UK 2014, and Essence of Care 2010) use more general terminology eg …. 'using dermal gel pads or other pressure-redistributing devices to reduce and redistribute pressure away

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						from critical areas' ….and ….' People are cared for on pressure redistributing support surfaces to reduce the risk'
32	Pressure redistributing devices	Patient Safety Domain at NHS England	Availability of pressure relieving devices	In 2013 a total of 15,830 incidents were reported to the NRLS which had been categorised as "lack/availability of device/equipment". The type of device most commonly reported to be unavailable were beds and mattresses and these accounted for 3,567 reports (23%). The vast majority of the incidents related to the unavailability of pressure relieving mattresses for those at risk of developing pressure ulcers.	Failure to provide the appropriate pressure relieving equipment will increase an individual's risk of developing a pressure ulcer or could make an existing pressure ulcer worse. Providing the correct surface in an essential element of existing improvement programmes, e.g. Stop the Pressure	Please see the Stop the Pressure website http://nhs.stopthepressure.co.uk/
33	Pressure redistributing devices	Pressure Ulcer Research Service User Network (PURSUN UK)	Inconsistent use of / access to equipment and dressings	Our members have found that the use of equipment (e.g. mattresses / cushions) and different types of dressings varies a lot.	The use of equipment and dressings is not always evidence based. Healthcare professionals can be unsure of what to use when and that confusion is passed on to patients. Patients are also confused by the vast amounts of private companies developing and marketing pressure ulcer prevention / treatment products.	

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					Issues with accessing equipment can lead to patients purchasing their own outside the NHS (e.g. online or second hand) where there is much less safety guidance.	
34	Pressure redistributing devices	Royal College of Nursing	Key area for quality improvement 9: Prevention of pressure ulcers including equipment use, repositioning and systemic support (nutrition, hydration, disease management)	A significant sum of money is spent on pressure redistributing equipment, yet there remains little good evidence to say which equipment is 'best'. Patients are turned / repositioned at fixed intervals yet again there is little data to support any timescale.	This is an enormous drain on resources; the recent introduction of hybrid mattress systems into organisations has demonstrated significant cost savings. The use of repositioning devices is patchy and under researched – there is little if any potential to maintain regular repositioning in the patients' own home.	
35	Pressure redistributing devices	College of Occupational Therapists	Additional developmental areas of emergent practice	(in general but also in relation to equipment provision): current local guidelines around equipment provision often advise to issue a certain piece of equipment for a certain grade of pressure ulcer.		
36	Pressure redistributing devices	SCM2	Provision of high specification mattresses and pressure reliving devices for all	Risk of patients developing PUs has been shown to be significantly reduced by providing them with high specification mattresses.	Provision of high specification mattresses and pressure relieving seating will reduce costs to the NHS by reducing the	NICE guidance on Pressure Ulcers: management and prevention of pressure ulcers. Issued April 2014.

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			patients.		incidents of PU development amongst patients.	Ref: Pressure redistribution devices.
37	Pressure redistributing devices	SCM3	Key area for quality improvement 2 Access to correct pressure relieving mattress and cushion (plus access to good wheelchair service)	Pressure relieving surfaces remain a very important component of treatment / prevention. Often wide choice but provision of choice variable across the country and access may be slow thereby increasing risk of further damage.	Equality of access to recognised and advised treatment	
38	Pressure redistributing devices	Tissue Viability Society	Key area for quality improvement 3	What is the relative effectiveness of different pressure relieving devices e.g. beds, mattresses /cushions/overlays, heel protectors, in preventing pressure ulcers	High spend items in NHS Trusts with very little information to support purchasing decisions.	As above
39	Pressure redistributing devices – heel ulcers	British Association of Prosthetists and Orthotists	Requirement for further research comparing pressure-relieving strategies at the heel.	A recent Cochrane Collaboration publication 'Pressure-relieving Devices for Treatment of Heel Ulcers' concluded that whilst pressure-relieving devices are recommended in management of pressure sores, there is little evidence comparing one intervention against another. The publication highlighted a high mortality rate in this population stating that healing of the ulcer may not be the primary objective; focus should be made	Furthering our understanding of orthotic devices and the role that they play in management of pressure ulcers will enable improved prescription. This will ensure that provision leads to greater QOL for patients whilst also delivering cost-savings to the NHS. Where evidence remains unclear BAPO advocates that referral to orthotic	http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD005485.pub3/pdf/standard

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				alternative outcome measures such as cost effective improvement of QOL. Recommendation was made that future research should look at distinct population groups such as diabetes, vascular and orthopaedic. Furthermore, effectiveness of interventions should be assessed in differing environments such as in patient or community based scenarios.	services is of importance as the Orthotist remains best placed and most experienced discipline in assessment and prescription of pressure-relieving orthoses.	
40	Pressure redistributing devices – heel ulcers	Foot in Diabetes UK	Key area for quality improvement 2 Pathway in place for patients identified at risk or with active heel ulceration to ensure they are offered site specific devices	Heels are neglected and mattress alone are not sufficient to prevent heel ulceration	Despite the use of mattress and an overall decline in pressure ulceration, pressure ulceration to the heel is not in decline in many areas In England in 2013 1.3% of inpatients with diabetes developed ulceration while in hospital The Scottish Inpatient Diabetic Foot Audit in 2013 revealed that: 2.4% of in patients with diabetes developed a new foot lesion whilst in hospital 60% who were discovered	National Diabetes Inpatient Audit 2013 http://www.diabetes.org.uk/Global/Homepage/News/NaDIA_INTERACTIVE-PDF_23-06-14.pdf

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					to be at risk of developing a foot ulcer did not have any pressure relief in place.	
41	Pressure redistributing devices – heel ulcers	SCM4	Key area for quality improvement 3	Heel protection to be used for all vulnerable patients	Preventing painful and expensive care	
42	Categorisation	Patient Safety Domain at NHS England	A focus on grading of pressure ulcers	NRLS in 2013 also identified that whilst the NHS Safety Thermometer has shown some reduction in the number of pressure ulcers in NHS Funded Care there has been an increase in the number of patient safety incident reports related to moisture lesions. This increase appears to correlates with the introduction of the Safety Thermometer CQUIN.	Correct grading of pressure ulcers is essential if the true number of pressure ulcers developed in NHS Funded Care is to be reliable measured. Correct grading is essential for the accurate measurement of improvement.	
43	Categorisation	Royal College of Nursing	Key area for quality improvement 10: Pressure ulcer categorisation	Currently financial targets and penalties are attached to the grade / category of damage	There is a huge body of evidence which says that categorisation is wildly inaccurate, reduction of the categories to a simple, superficial, deep I don't know, would 1) improve accuracy 2) reduce the amount of time spent on training 3) reduce the amount of time spent validating incorrect reports One of our reviewers think	

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					there is the need to very carefully review the use of grading / category systems for describing pressure ulcers as there is a significant body of work that says nurses cannot do it, and even when they do get it right - it does not contribute to the plan of care!	
44	Categorisation	Tissue Viability Society	Key area for quality improvement 4	Which pressure ulcers are avoidable, especially when associated with end of life	Organisations report avoidable/ unavoidable pressure ulcers differently, often depending on degree of candour with staff	Reporting of pressure ulcers has become very competitive between organisations
45	Categorisation	Tissue Viability Society	Improved reliability of identifying pressure damage (Understanding of pathological process of pressure ulcer development)	Categorising/grading of pressure ulcer is very subjective, time frames for development and deterioration are uncertain	In order to change/ improve practice it is important to understand when a pressure assault on the tissues has occurred. Many pressure ulcer patients pass through several care environments and it is often difficult to identify where to make improvements	
46	Nutritional assessment	SCM1	Nutritional assessment of patients with or at risk of pressure ulcers	Malnutrition is a recognised risk factor for pressure ulcers. Identifying those at risk can improve patient outcome	There are differing levels of nutritional assessment in different geographical areas.	Recent NICE guidance has recommended nutritional assessment for patients presenting with pressure ulcers. Cochrane review also states expert assessment

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						http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD003216.pub2/pdf
47	Debridement	Activa Healthcare	Key area for quality improvement 1 Rapid debridement for wound bed preparation of pressure ulcers and to aid wound assessment	NICE confirmed the importance of debridement when managing pressure ulcers and that Health Care Professionals should assess the need to debride a pressure ulcer taking multiple factors into consideration. NICE recognise that debridement with Debrisoft offers potential benefits (clinical, patient and health economic) for the NHS. The EWMA debridement document recognised the importance of timely debridement and that frequently delays in debridement due to skill limitations have a negative impact on patient care.	EWMA identified that the fastest method of debridement came in the form of modern mechanical debridement using a monofilament debridement pad (Debrisoft). NICE has since confirmed that in community clinics and the patient's home Debrisoft offers both clinical and patient quality of life benefits. In addition NICE estimated potential savings in the region of £15 million. Debrisoft is a low skill, low resource, fast method of debridement that can be used by a wide range of clinical staff and can thus, where appropriate, be made universally available. By removing devitalised tissue from a pressure ulcer quickly the following can be achieved; Reduced risk of infection	http://www.nice.org.uk/CG179 http://www.nice.org.uk/MTG17 http://ewma.org/fileadmin/user_upload/EWMA/pdf/EWMA_Projects/Debridement/EWMA_Debridement_Document_JWCfinal.pdf James R. Wilcox, RN; Marissa J. Carter, PhD, MA; Scott Covington, MD Frequency of Debridements and Time to Heal: A Retrospective Cohort Study of 312 744Wounds. JAMA Dermatol. doi:10.1001/jamadermatol.2013.4960 Published online July 24, 2013. Callaghan, R and Stephen Haynes, J. (2012). Changing the

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					Reduced malodour and improved quality of life Faster progression into the healing phase particularly when repeated debridement episodes are required (Wilcox et al, 2013) Improved visibility of the wound bed, facilitating improved wound assessment and pressure ulcer categorisation (Callaghan and Stephen-Haynes, 2012)	face of Debridement in Pressure Ulcers. Poster presentation European Pressure Ulcer Advisory Panel (EPUAP) Conference, Cardiff, UK. September 2012.
48	Debridement	SCM4	Key area for quality improvement 5	Availability of sharp or surgical debridement where needed	Reduces time to healing	
49	Dressings	Royal College of Nursing	Key area for quality improvement 5: The evidence above and beyond relieving pressure for the treatment of pressure ulcers needs to improve.	There are a wide variety of dressings that are routinely applied to PUs. The evidence for whether these improve or speed healing is equivocal.	The potential cost of ineffective dressings has a significant impact on the NHS budget.	Numerous studies have highlighted the poor evidence for treatment and prevention including the updated NICE guidance: Simon J, Palfreyman, and Stone Patricia W. "A Systematic Review of economic evaluations assessing interventions aimed at preventing or treating pressure ulcers." International journal of

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						nursing studies (2014). McInnes, Elizabeth, et al. "Support surfaces for pressure ulcer prevention." Cochrane Database Syst Rev 4 (2011).
50	Pain management	Pressure Ulcer Research Service User Network (PURSUN UK)	Pain	There is some evidence that pain can be a warning sign for pressure ulcer development. Pressure ulcers can also be painful and this is very distressing.	PURSUN members have reported that pain / discomfort is not always assessed and / or taken seriously. When people have a painful pressure ulcer, people do not feel many pain relief options are open to them. The strong painkillers often offered can have a detrimental impact on people's quality of life (e.g. cause drowsiness, constipation, confusion). They may also impact on people's ability to notice /react to / report discomfort. This may mean they move less in bed.	PURSPOSE Pain Studies http://www.biomedcentral.com/1472-6955/12/19 http://www.ncbi.nlm.nih.gov/pubmed/23764144 The PUQOL study found that pain is one of the most distressing symptoms for patients with pressure ulcers. http://ctru.leeds.ac.uk/PUQOL/resources
51	Data collection	Royal College of Nursing	Key area for quality improvement 2: Collection of pressure ulcer data.	This is Important to enable confidence in accuracy of the number and range of patients who have pressure ulcers.	There are variations in terms of how the data is collected and used. Prevalence data from the safety thermometer needs to be supported with incidence data.	Citations include: Berlowitz, Dan. "Incidence and prevalence of pressure ulcers." Pressure Ulcers in the Aging Population. Humana Press, 2014. 19-26.

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					The current debate around what is unavoidable and which ulcers are un-gradable; it needs to be made clear across different institutions. Another RCN reviewer would agree that there is the need for greater standardisation around data capture and other definitions (please see attached publication).	
52	Data collection	Royal College of Nursing	Additional developmental areas of emergent practice	There is a need to know more about the role of dressings in the management of microclimate and therefore the impact on pressure ulcers.	There is increasing discussion around differentiating between these wounds, where payments e.g. CQUIN are attached to achievement of numerical targets such as % reduction in Pressure ulcers, it is vital that there is an agreed and adhered to definition. This applies both to the diagnosis e.g. is it a PU or a moisture lesion and to the context – where did it occur and was it avoidable.	
53	Data collection	SCM4	Key area for quality improvement 4	Root cause analysis of all health care acquired pressure ulcers	Allows monitoring of good practice and change of	

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					practice where needed	
54	Data collection	Tissue Viability Society	Key area for quality improvement 5	What data collections tools are the most effective at gathering incidence data of pressure ulcers in hospital and community settings?	Really challenging area Much time invested in counting arbitrary numbers which do not appear to impact on effective outcomes?	Own clinical practice