



# 2018 surveillance of pressure ulcers: prevention and management (NICE guideline CG179)

Surveillance report

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## Surveillance decision

We will not update the guideline on [pressure ulcers](#).

### *Reasons for the decision*

New evidence was found for most areas of the guideline focussing on adults (few studies were found specifically in children and young people), and were either consistent with current recommendations or insufficient to propose an update.

We therefore currently propose to not update the guideline.

Some evidence suggesting there might be a need to update the guideline was found in 2 areas, but we do not currently plan to update for the reasons discussed below:

### **Medical device-related pressure ulcers**

A gap in current guidance in this area was identified by the [placeholder statement](#) in NICE's quality standard on pressure ulcers. A placeholder statement is an area of care that has been prioritised by the Quality Standards Advisory Committee, but for which no source guidance is currently available. Such statements also indicate the need for evidence-based guidance to be developed in this area.

The new evidence from the surveillance review found that:

- there is a high rate of medical device-related pressure ulcers
- risk factors can be identified for medical device-related pressure ulcers
- the Braden QD Scale reliably predicts both immobility-related and device-related pressure ulcers in the paediatric acute care environment
- medical device-related pressure ulcers can be prevented.

However, only single studies for each of these different aspects of this new area were identified by the current surveillance review. Therefore as part of the consultation, we asked stakeholders if they were aware of any further evidence on medical device-related pressure ulcers. No additional evidence was submitted to NICE, therefore we will not update the guideline at this time, but will review this area again at the next surveillance review.

## Electrotherapy

The guideline states do not offer electrotherapy to adults to treat a pressure ulcer.

New evidence suggests there may be a benefit of electrotherapy in reducing ulcer area and improving wound healing time. As there is a Cochrane review protocol on [Electrical stimulation for treating pressure ulcers](#), we will await completion of this review and then consider any impact on the guideline when the results are available.

For further details and a summary of all evidence identified in surveillance, see [appendix A](#).

## Overview of 2018 surveillance methods

NICE's surveillance team checked whether recommendations in [pressure ulcers](#) (NICE guideline CG179) remain up to date.

The surveillance process consisted of:

- Initial feedback from topic experts via a questionnaire.
- Input from stakeholders on known variations in practice and policy priorities.
- Literature searches to identify relevant evidence.
- Assessing the new evidence against current recommendations and deciding whether or not to update sections of the guideline, or the whole guideline.
- Consulting on the decision with stakeholders.
- Considering comments received during consultation and making any necessary changes to the decision.

For further details about the process and the possible update decisions that are available, see [ensuring that published guidelines are current and accurate](#) in developing NICE guidelines: the manual.

### *Evidence considered in surveillance*

#### Search and selection strategy

We searched for new evidence related to the whole guideline.

We found 123 studies in a search for randomised controlled trials (RCTs) and systematic reviews published between 28 August 2013 and 9 July 2018.

See [appendix A](#): summary of evidence from surveillance for details of all evidence considered, and references.

#### *Selecting relevant studies*

Although a filter for RCTs and systematic reviews was applied to the search, if studies of different types came through the search but were appropriate to address particular aspects of the guideline

(such as risk assessment tools), they were included.

## *Ongoing research*

We checked for relevant ongoing research; of the ongoing studies identified, 4 were assessed as having the potential to change recommendations; therefore we plan to regularly check whether these studies have published results, and evaluate the impact of the results on current recommendations as quickly as possible. These studies are:

- The number of heel pressure ulcers amongst patients on an orthopaedic ward who wear Prevalon boots or alternative heel protection over a 10 day period
- Text messages for pressure ulcer prevention in spinal cord injury
- Electrical stimulation for treating pressure ulcers
- Comparison of static air support devices (Repose) and alternating-pressure devices in the prevention of pressure ulcers

## *Intelligence gathered during surveillance*

### **Views of topic experts**

We sent questionnaires to 13 topic experts and received 5 responses. The topic experts either:

- participated in the guideline committee who developed the guideline or
- were recruited to the NICE Centre for Guidelines Expert Advisers Panel to represent their specialty.

Topic experts raised a number of issues:

- Recommendations on nutrition have been published by the European Pressure Ulcer Advisory Panel (EPUAP) which gives more specific amounts of protein / energy intake, and a fortified diet should be considered in addition to nutritional supplements.
  - A cross reference will be made to the NICE guideline on nutrition support for adults, which makes specific recommendations on levels of protein and energy intake, and also focuses on oral nutrition support (which includes meal fortification, not just supplements).

- Greater consideration of costs of dressings by prescribers.
  - This issue was addressed by a comment from the guideline committee when the guideline was originally developed: 'The committee considered UK relevant unit costs, but noted that the major resource implications come from the frequency that each dressing requires changing. This is likely to be dependent on a range of factors, such as location of the ulcer, the amount of exudate, and patient acceptability. The frequency of dressing change can also have a substantial impact on quality of life. The committee therefore agreed that the dressing which was deemed more effective when taking these factors into account would be most likely to be cost-effective.'
- Mepilex dressings for prevention of pressure ulcers should be considered.
  - Evidence on Mepilex has been examined by the in-development NICE medical technologies guidance on [Mepilex Border Heel and Sacrum dressings for preventing pressure ulcers](#). The draft recommendation that was consulted on was: 'Mepilex Border Heel and Sacrum dressings show promise for preventing pressure ulcers in people who are considered to be at risk in acute care settings. However, there is currently insufficient evidence to support the case for routine adoption in the NHS'. The final guidance is expected to publish in December 2018, and will be linked to from the NICE Pathway on [pressure ulcers](#).
- Risk assessments should be carried out in all care homes (not just where residents are receiving NHS care), and in all patients in NHS settings (not just if they have a risk factor). And review of risk should be routine (not just after change in clinical status).
  - No evidence was found to support changes to the recommendations in this area. A NICE [quick guide for social care](#) on pressure ulcers is in development and is expected to publish within the business year.
- Adult safeguarding should be included, as pressure ulcers may be a sign of neglect.
  - A section on safeguarding adults will be added to the introduction of the guideline, alongside the section on safeguarding children. It will link to a document published by the Department of Health and Social Care in January 2018 [Safeguarding Adults Protocol: Pressure Ulcers and the interface with a Safeguarding Enquiry](#)
- Mattresses and seating technology need examining by surveillance.
  - Several new studies in this area were examined by the surveillance review but no impact on the guideline was found.

- The skin of older people is more prone to ulcers and the guidance needs to reflect this clearly.
  - The Waterlow score (1 of 3 tools the guideline recommends considering for assessing ulcer risk) includes items for age, and skin type (for example tissue paper - thin/fragile). No impact on the guideline is expected.
- Training of mainstream medical and nursing workforce is important as people may be poorly trained in this field.
  - This is likely to be an implementation issue as the guideline already recommends providing training to healthcare professionals on preventing a pressure ulcer. The comment will be passed to the implementation team.

## Implementation of the guideline

Information from the NHS Digital Safety Thermometer found that the proportion of reported patients who had pressure ulcers declined from 6.8% in May 2012 to 4.4% in May 2017.

## Other sources of information

We considered all other correspondence received since the guideline was published.

An enquiry to NICE raised concerns about managing shear as part of an effective strategy for preventing and managing pressure ulcers, referring specifically to Parafricta products.

No evidence was found on shear by the current surveillance. In 2014 NICE published medical technologies guidance on [Parafricta Bootees and Undergarments to reduce skin breakdown in people with or at risk of pressure ulcers](#). The recommendations state that the technology has potential, but more evidence is needed to support the case for routine adoption in the NHS. NICE has deferred the review of this guidance until 2020 pending results of a randomised controlled trial (RCT) commissioned specifically to address the research recommendation in the guidance. See the latest [review decision](#) for further information.

## Views of stakeholders

Stakeholders are consulted on all surveillance decisions except if the whole guideline will be updated and replaced. Because this surveillance decision was to not update the guideline, we consulted on the decision.

Overall, 14 stakeholders commented (3 NHS trusts, 3 manufacturers, 2 royal colleges, 2 providers



of community health and care services, 2 professional associations, a charity, and a manufacturing consultant): 6 agreed with the decision; 5 disagreed with the decision; 3 did not provide an answer.

The following issues were raised in disagreement with the proposal not to update.

### ***New evidence and information***

Several stakeholders highlighted a document from NHS Improvement that had not originally been assessed by the surveillance review [Pressure ulcers: revised definition and measurement framework](#). We have now considered this document and will align the terminology for referring to ulcers in the guideline with that preferred by NHS Improvement (namely we will change the term 'grade' to 'category' in several recommendations). We will also add a cross reference from the guideline to the NHS Improvement document in order that healthcare professionals are aware of the latest recommendations from the NHS to consistently define and measure pressure ulcers.

Several stakeholders supplied new evidence, however none was suitable for inclusion in the surveillance review for various reasons (unpublished research, unsuitable evidence type, not in scope, outside search dates).

Stakeholders asked for the PURPOSE-T risk assessment tool to be added to the guideline. All evidence we have examined for this suggests further study is needed, therefore we will await further evidence before considering it as a recommended tool.

A stakeholder queried if frail older people should be a separate category in the guideline. No evidence was found about this issue by the current surveillance review. The Waterlow score (1 of 3 tools the guideline recommends considering for assessing ulcer risk) includes items for age, and skin type (for example tissue paper - thin/fragile). No impact on the guideline is currently expected.

A stakeholder stated the guideline should include evidence other than just RCTs. NICE recognises a hierarchy of evidence and uses the most appropriate evidence in differing circumstances. RCTs are the gold standard for effectiveness, but other study types may be used to answer review questions about, for example, diagnostic tests. Where RCTs weren't available to answer review questions where they had been deemed the most suitable evidence type, the guideline allowed other study types such as cohort studies.

### ***Support surfaces***

A stakeholder queried why high-specification foam mattresses were specifically recommended during surgery for adults but not children. Recommendations on support surfaces for children are

less specific on settings than the recommendations in adults and therefore cover using a high-specification mattress in surgery.

Stakeholders requested a definition of a high-specification foam mattress be added to the guideline. It was noted that the guideline examined evidence on a variety of different high-specification mattress types, and the guideline committee were therefore unable to be highly specific about the nature of mattresses and so used the term 'high-specification foam mattress' (which is also used by the [NPUAP/EPUAP/PPPIA guideline](#)).

A stakeholder drew attention to one of their products which prevents pressure ulcers in the operating theatre. The product is a high-specification foam mattress and is therefore covered by the recommendations for high-specification foam mattresses in the guideline. We found no evidence in the current surveillance review specifically concerning this product.

A stakeholder stated that maintenance of support surfaces is not currently addressed within the guideline. However, this is considered to be standard practice, and it is the responsibility of healthcare professionals to ensure that any equipment is fit for its purpose.

### ***Moisture, friction and shear***

A stakeholder wanted to draw attention to limitations of moist wound care. However the current surveillance review identified 2 RCTs showing benefit of moist dressings, which agrees with the guideline recommendation to consider using a dressing that promotes a warm, moist wound healing environment.

A stakeholder requested we consider new evidence about the association between moisture-associated skin damage and pressure ulcers. However no new evidence was supplied. The evidence already identified by the surveillance review on incontinence and pressure ulcers was consistent with the guideline.

A stakeholder noted the primary causes of skin integrity are often secondary to pressure, such as friction, shear, and microclimate and this should be covered in the guideline. It was noted that the full guideline explains that the guideline committee were mindful of these issues during development. The guideline does include some recommendations related to moisture, and indirectly to friction and shear (the recommended risk assessment tools include items on these). No specific new evidence on managing friction and shear was found by the current surveillance, and an RCT on a microclimate-controlling skin interface multilayer support system found it was no better than viscoelastic foam mattress/cotton sheet. Additionally, NICE has published medical

technologies guidance on [Parafricta Bootees and Undergarments to reduce skin breakdown in people with or at risk of pressure ulcers](#) related to shear and friction in pressure ulcers.

### ***Current guideline wording***

A stakeholder queried the use of the term 'confined' in the guideline introduction because it implies an inability to move rather than reduced mobility, or choosing not to mobilise. This term is used in the first paragraph of the introduction to describe people in whom pressure ulcers typically occur. However the second paragraph goes on to note that all patients are potentially at risk of developing a pressure ulcer, but 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. Therefore the risk factors in the introduction are wider than patients confined to bed or a chair and cover many different at-risk groups.

A stakeholder noted the EPUAP references in the guideline need updating, which we will do via an editorial amendment.

See [appendix B](#) for full details of stakeholders' comments and our responses.

See [ensuring that published guidelines are current and accurate](#) in developing NICE guidelines: the manual for more details on our consultation processes.

### **Equalities**

No equalities issues were identified during the surveillance process.

### **Editorial amendments**

During surveillance of the guideline we identified the following points in the guideline that should be amended.

- The [introduction](#) to NICE guideline CG179 has a section on safeguarding children. We will add the following section on safeguarding adults:

### Safeguarding adults

The Department of Health and Social Care has issued a [Safeguarding adults protocol: pressure ulcers and the interface with a safeguarding enquiry](#). It aims to help practitioners and managers across health and care organisations to provide caring and quick responses to people at risk of developing pressure ulcers.

It includes a process for deciding whether an adult safeguarding response is needed.

- The following sentence will also be added to the guideline introduction: 'NHS Improvement has also produced a guide to help deliver a consistent approach to defining and measuring pressure ulcers, and helping to understand the level of pressure damage harm in England: [Pressure ulcers: revised definition and measurement framework](#)'.
- A cross-referral to the NICE guideline on [nutrition support for adults](#) will be made from recommendation 1.4.5.
- A cross-referral to the NICE guideline on [sepsis: recognition, diagnosis and early management](#) will be made from recommendation 1.4.18.
- A cross-referral to the NICE guideline on [antimicrobial stewardship: systems and processes for effective antimicrobial medicine use](#) will be made from recommendations 1.4.21, 1.4.22, 1.5.18 and 1.5.19.
- A cross-referral to the NICE guideline on [diabetic foot problems: prevention and management](#) will be made from recommendations 1.4.26 and 1.5.24.
- A cross-referral to the NICE guideline on [peripheral arterial disease: diagnosis and management](#) will be made from recommendation 1.4.26.
- NICE guideline CG179 recommendations 1.4.3 and 1.5.3 refer to the International NPUAP-EPUAP [2009] Pressure Ulcer Classification System. This has had 2 revisions since 2009, therefore the reference to a specific year will be deleted.
- In recommendations 1.4.15, 1.4.24 and 1.5.20 the term 'grade' will be changed to 'category' in line with the preferred terminology set out in the NHS Improvement document [Pressure ulcers: revised definition and measurement framework](#).

### Overall decision

After considering all evidence and other intelligence and the impact on current recommendations, we decided that no update is necessary.

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