Article:

Madden, MT (2015) Providing patient centred pressure ulcer care. Nursing in Practice, 85. ISSN 1473-9445

Designer notes

FLATPLAN REF: //
PAGE: 42,44,45
WORD COUNT: 2038
ISSUE: Nursing in Practice | July/August 2015
STRAP: Clinical: Wound Care
Headline: Providing patient centred pressure ulcer care

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Standfirst: Key learning points:

- Look out for redness and pay close attention when patients say they are in pain, have soreness or are suffering from discomfort
- Co-ordinate services effectively so that pressure ulcer risks are communicated to everyone involved
- Support the development of patient and carer knowledge, skills and confidence in pressure ulcer care

Pull Quotes:

“Pressure ulcer development is a major burden to patients and carers and has a detrimental effect on patient quality of life”

“Despite the emphasis given to pressure ulcer prevention as a high priority for the NHS, there is little good quality research to inform practice”

“NICE suggests that adults at high risk, children and infants reposition at least every four hours and other adults at risk at least every six hours”

“People sitting who can move themselves are encouraged to weight shift every 15 minutes”

Picture Idea:

A pressure ulcer (pressure sore, bed sore, decubitus ulcer) is a "localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear",[1] which usually occurs in those confined to a bed/chair by illness or in those using a wheelchair.

Pressure from lying or sitting on a particular part of the body prevents oxygen and nutrients reaching the affected area causing discomfort and pain that usually stimulates the individual to move.[2,3] However, those with impaired sensation may not feel discomfort and those who cannot reposition themselves will require assistance to prevent painful, debilitating and potentially serious wounds.[4,5]

A systematic review of primary research about patient risk factors for pressure ulcer development finds no single factor that can explain pressure ulcer risk. Instead it is a complex interplay of factors that increase the probability of pressure ulcer development. Limits to mobility/activity, poor perfusion (including that caused by diabetes) and altered skin status (including previous incidence of pressure ulceration, redness and the presence of moisture) are identified as the three primary independent predictors of pressure ulcer development.[6]

Pressure ulcer development is a major burden to patients and carers and has a detrimental effect on patient quality of life.[5] It is also a major cause for concern for health and social care providers. Pressure ulcers have been identified in successive Department of Health (DOH) policies as a key quality indicator. The prevention of pressure ulcers is included in domain five of the NHS outcomes framework 2014/15.[7] Findings from the Francis Inquiry, the public inquiry into patient safety issues at Mid Staffordshire NHS Foundation Trust, emphasise the importance of focusing on pressure ulcers and the fundamentals of care.[8]

National Institute for Health and Clinical Excellence (NICE) published guidelines on the management of pressure ulcers in primary and secondary care state that patients, "should have the opportunity to make informed decisions about their care and treatment, in partnership with their healthcare professionals."[9] But, how well informed are patients and carers about pressure ulcer risk; are we engaging patients and carers in discussion; are we listening to what they have to say; and are we aware of the quality of the evidence base that underpins our practice?

Gaps in patient-centred pressure ulcer care

A recent National Institute for Health Research (NIHR) funded programme of study found that patients reported pressure ulcer pain as their most distressing symptom, that pain at pressure areas was experienced prior to pressure ulcer manifestation and that patient's reports of pain were ignored by nurses.[10] Severe pressure ulcers were more likely to develop in contexts where clinicians failed to listen to patients/carers or recognise/respond to high risk or the presence of an existing pressure ulcer, and also in services which were not effectively co-ordinated.[10] Another recent NIHR funded study which explored the outcomes that matter most to patients undergoing treatment for complex, chronic wounds, found that out of seven people interviewed with pressure ulcers, five linked their acquisition to medical interventions including hospitalisation, radiotherapy and an accident with a shoe horn whilst being fitted for shoes by orthotics. Two interviewees expressed frustration at not being turned in hospital after being placed on surfaces on which they could not turn themselves (their usual practice).

According to NICE guidelines, a pressure ulcer risk assessment should be carried out on admission where people have 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 or significant cognitive impairment. People identified as at high risk of pressure ulceration should receive ongoing skin assessment.

However, there is little evidence to support particular methods of risk or skin assessment.[11] The best forms of assessment will in any case make no difference to a patient's skin integrity if the assessment is not followed up with appropriate patient-centred action.

Developing an evidence base for best practice

NICE guidelines for the prevention and management of pressure ulcers are based on the best available evidence. However, despite the emphasis given to pressure ulcer prevention as a high priority for the NHS, there is little good quality research to inform practice. A methodological overview of chronic wound trials published between 2004 and 2011 found wound care randomised controlled trials (RCTs) were often poorly reported and contained many design flaws meaning their findings may not be reliable.[12] A recent NIHR funded prevalence study found pressure ulcers were the most frequent chronic wound type,[13] yet only 19% (31/167) of trials in wound care over the eight year period focused on pressure ulcers.[12] The evidence to support high quality clinical decision making is therefore low.

The James Lind Alliance pressure ulcer priority setting partnership (JLAPUP) revealed the extent of the research uncertainty about pressure ulcer treatment and prevention.[13] JLAPUP could only find an existing, reliable answer in the research literature for one of the 690 intervention uncertainties that were submitted in the process. A prioritised list of 12 uncertainties in pressure ulcer prevention and treatment was successfully determined by a collaborative and consultative process involving patients/service users, carers and health professionals. The number one uncertainty identified by JLAPUP is, "how effective is repositioning in the prevention of pressure ulcers?"

There is an absence of robust evaluations of repositioning frequency and position for pressure ulcer prevention which means current evidence does not enable conclusions to be drawn on optimum position or the frequency of repositioning. Repositioning is considered part of basic and standard care[12] and clinical guidelines advocate the use of repositioning as an integral component of a pressure ulcer prevention strategy.[9]

However, advice about the optimum frequency and precise methods of repositioning for the range of people affected is highly inconsistent. For example, the European Pressure Ulcer Advisory Panel and National Pressure Ulcer Advisory Panel[1] broadly advocates repositioning as required by the individual. NICE suggests that adults at high risk, children and infants reposition at least every four hours and other adults at risk at least every six hours.[9] The US Agency for Healthcare Research and Quality advocates a minimum of two-hourly repositioning by nurses and encourages people in bed who can move to make frequent, small position changes. People sitting who can move themselves are encouraged to weight shift every 15 minutes. Repositioning every hour is recommended if the person is unable to reposition themselves.[14]

Techniques and frequencies for repositioning are currently reliant on clinical judgement based on custom and practice rather than evidence of effectiveness. The broad JLAPUP question about repositioning was made up of many individual questions about the optimum frequency for turning, for example two hourly turning or four hourly turning in relation to the type of mattress or surface being used. The relative effectiveness of methods of repositioning broader than turning for example the Trendelenburg system of positioning or the knee break system or the effectiveness of 30 degree tilt in conjunction with pressure relieving mattress.

Conclusion

An absence of evidence showing that repositioning is effective or which repositioning regimen is the best does not mean that repositioning is ineffective. The theoretical rationale for repositioning (reducing localised tissue ischaemia by relieving pressure) makes physiological sense.[15] Getting people to remember to reposition and/or helping them to reposition if they cannot do so themselves is therefore very important.

Currently the frequency of repositioning should probably be determined by the results of regular and frequent skin assessment. It is known that category one skin damage, persistent redness or previous pressure ulceration are risk factors for the development of category two damage.[6] It follows therefore that regular, frequent skin inspection of those at risk should be undertaken by clinical staff and carers, paying appropriate attention to the patient's own knowledge and experience of pressure ulcer self-care, with follow-up to ensure that appropriate action is taken.

Given that the current evidence to support high quality clinical decision making is low, nurses should call for, become involved in and support research which will help end uncertainty about the best methods for pressure ulcer management and prevention. It is in the NHS constitution that patients have a right to ask to be included in clinical trials when treatment/prevention outcomes are uncertain, but there are few trials in this area and many patients who have or are at risk of pressure ulcers, particularly older people with multiple morbidities, are routinely excluded from RCTs. While we need good quality RCTs, we also need other forms of research in this area. In addition to the effectiveness of treatment and prevention interventions, submissions to the JLAPUP placed high priority on research concerned with causes, diagnosis, prognosis and other aspects of pressure ulcer care. It is important that nurses work with researchers, patients and their carers to ensure that we get answers to important questions that reduce uncertainty about how best to prevent and treat pressure ulcers.

Resources

James Lind Alliance Pressure Ulcer Priority Setting Partnership – http://www.jlapressureulcerpartnership.co.uk/

The Pressure Ulcer Research Service User Network (PURSUN UK) – http://www.pursun.org.uk/

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