



# Preventing pressure ulcers: the role of nurses and guidelines

The chronically ill and frail elderly are at extreme risk of pressure ulcers if they become immobile. A risk assessment should be undertaken and an individual prevention care plan developed within hours of a hospital admission

### HIGHLIGHTS

- The prevention of pressure ulcers requires the continuous, knowledgeable vigilance of well-educated registered nurses operating within evidence-based guidelines
- In the USA healthcare providers are increasingly being sued for pressure ulcer development
- Serious violations can incur penalties, and substandard nursing homes can be closed

**P**reventing pressure ulcers is a daunting task, but in the words of the old adage, "a stitch in time saves nine". Pressure ulcers are much more expensive to treat than to prevent, and in terms of human suffering prevention of painful ulcers is certainly preferable. Public health, medical and nursing practice advances have helped people to outlive infectious diseases and trauma, leaving the elderly prone to chronic disease, immobility and the threat of pressure ulcers.

Patient pressure ulcer risk assessment followed by an individualised preventive care plan is a requisite element of competent nursing care. Pressure ulcer risk assessment should be done upon admission to a facility, and patients should be reassessed regularly using a valid and reliable tool. Only the Braden and the Norton scales are included in the 1992 Agency for Health Care Policy and Research (AHCPR) guidelines.<sup>1</sup>

The 2004 International Pressure Ulcer Prevalence Survey found that the Braden scale was used 80.5% of the time in the USA.<sup>2</sup> The scale consists of six subscales measuring patient tissue tolerance and pressure factors: sensory perception, mobility, activity, moisture, nutrition and friction/shear.

The Norton scale uses five criteria: physical condition, mental condition, activity, mobility and incontinence plus a measure for overall patient condition. A modified Norton scale uses the original five criteria and three more: age, condition of skin and additional diseases.

The US National Pressure Ulcer Advisory Panel (NPUAP) defines pressure ulcers as "localised areas of tissue necrosis that develop when soft tissue is compressed between a bony prominence and an external surface for a prolonged period of time".<sup>3</sup> The European Pressure Ulcer Advisory Panel definition is "an area of localised damage to the skin and underlying tissue caused by pressure or shear and/or a combination of these".<sup>4</sup>

The sacrum and heels have consistently been the predominant sites affected by pressure ulcers. The 2004 International Pressure Ulcer Survey of acute and long-term care facilities found the sacrum remains the most frequent pressure ulcer location (28.3%) and the heels remain the next most frequent location (24.1%).<sup>2</sup>

The AHCPR clinical practice guidelines list four goals in pressure ulcer reduction:

- Identify at-risk individuals needing prevention and the specific factors placing them at risk.
- Maintain and improve tissue tolerance to pressure in order to prevent injury.
- Protect against adverse effects of external mechanical forces: pressure, friction and shear.
- Reduce the incidence of pressure ulcers through educational programmes.

The European Pressure Ulcer Advisory Panel's recommendations are expressed in almost identical terms.

A 2000 article by Junkin<sup>5</sup> highlights the importance of pressure ulcer prevention. "Skin has gone



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### Resources

Braden scale  
W:[www.bradenscale.com](http://www.bradenscale.com)

Modified Norton scale  
W:[www.thomashilfen.de](http://www.thomashilfen.de)

### References

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## PRESSURE ULCERS

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from the status of being ignored to receiving international attention in the past millennium. Healthcare providers have long been charged with the responsibility of preventing internal organ failure whenever possible, but currently they are asked to prevent skin failure. Pressure ulcers are seen as largely preventable. Because of the associated enormous economic burden, these wounds especially have received the attention of governments, regulatory agencies, lawyers and health benefit payers."

In the USA the NPUAP advised the Healthy People 2010 programme to set an objective of reducing pressure ulcer incidence in nursing home residents by 50%. The Healthy People pressure ulcer prevention objectives are important in the development of prevention strategies for public health departments throughout the USA. In the 1990s the NPUAP found reason for "cautious optimism" on the basis of significant achievements in evidence-based clinical guidelines for prevention and treatment and the new technologies being developed to reduce pressure over bony prominences and to promote the healing of established ulcers.<sup>6</sup>

The Center for Medicare and Medicaid Services (CMS) has initiated a national initiative to improve pressure ulcer prevention and tackle treatment deficiencies. The organisation surveys long-term and acute care facilities to assess whether a pressure ulcer could have been prevented.

If the facility made proper assessments, provided an appropriate care plan, implemented the care, evaluated the patient's outcome and revised the care plan as needed, the pressure ulcer is ruled unavoidable. If evidence of such procedures is not found the ulcer is considered avoidable, and a nosocomial pressure ulcer can be considered a sentinel event. Serious and/or chronic violations can incur financial penalties, and state health departments can close substandard nursing homes.<sup>6</sup>

The American Nurses Association (ANA) considers the incidence of pressure ulcers a quality of care clinical indicator and tracks registered nurse staffing levels to correlate the levels with the resultant patient outcomes.

In the USA, healthcare providers are increasingly being sued for pressure ulcer development.<sup>7</sup> Nurses being sued for a pressure ulcer will be judged by standards of care such as the AHCPR, NPUAP and EAUP guidelines in addition to hospital policies, procedures and protocols. A recent survey of pressure ulcer care experts concluded that the development of pressure ulcers does not always signify patient neglect that should prompt

lawsuits, but 38% agreed that lawsuits can be an appropriate way to improve care.<sup>8</sup>

The NPUAP and EAUP believe that education programmes for nursing staff are essential to the prevention of pressure ulcers. NPUAP has developed the following 12 minimum competencies for registered nurses:<sup>9</sup>

- Identify aetiological factors contributing to pressure ulcer occurrence.
- Identify risk factors for pressure ulcer development.
- Recognise the presence of factors affecting tissue tolerance.
- Conduct risk assessment using a valid and reliable tool.
- Conduct a thorough skin assessment taking into account the individual's uniqueness.
- Develop and implement an individualised programme of skin care.
- Demonstrate proper positioning to decrease pressure ulcer occurrence.
- Select and use support surfaces as indicated by risk status.
- Use nutritional interventions as appropriate to prevent incident pressure ulcers.
- Accurately document results of risk assessment, skin assessment and prevention strategies.
- Apply critical thinking skills to clinical decision-making regarding the impact of changes in the individual's condition on pressure ulcer risk.
- Make referrals to other healthcare professionals based on client assessment.

Pressure-reducing support surfaces for high-risk patients and other interventions, including skin assessment, cleansing, lubricating, positioning, friction/shear prevention, moisture management, nutrition and activity, are recommended. Using heel elevation is noted as essential to prevent heel pressure ulcers in immobile patients in both the 1992 and 1994 AHCPR guidelines.<sup>1,10</sup>

Ovington<sup>11</sup> tested several heel positioning devices and found that an effective preventive product must provide complete heel suspension, not merely cushioning. Zemke<sup>12</sup> recommended using heel pressure-relieving devices on admission of at-risk patients rather than waiting to detect reddened, painful heels, while Bordner<sup>13</sup> found that a proprietary heel suspension boot prevented heel ulcers in a group of hip fracture patients.

In conclusion, preventing pressure ulcers is an essential registered nurse competency based on evidence-based practices. ■