Guidance on pressure ulcer risk assessment and prevention

Pressure ulcers remain a problem throughout Europe, with prevalence figures ranging from 8.3 per cent to 22.9 per cent (Clark and deFlour, 2002). In 2001 the National Institute for Clinical Excellence issued a clinical guideline on pressure ulcer risk assessment and prevention (NICE, 2001). However, this guideline has recently been reissued with additional information on pressure-relieving devices (NICE, 2003a; NICE, 2003b).

The guideline is intended to be used by patients, families, unpaid carers, health care professionals and individuals who are responsible for purchasing and supplying pressure-relieving equipment. This article will discuss the changes in the guideline and the implications for clinical practice.

**Guideline content** The NICE guideline issued in 2001 has been incorporated into the new guideline without any amendments. However, a confusing aspect of the combined guideline is that there are differences between the grading scheme and hierarchy of evidence used by the original and additional section. Both grading schemes are included as a reference point for the reader.

Also, the terminology used in the 2003 appending section has not traditionally been acceptable to professionals working in tissue viability. Equipment has in the past been referred to either as ‘pressure redistributing’, for example static foam mattresses, or ‘pressure reducing’, for example active alternating pressure or low air-loss mattresses.

In the new guideline both types of equipment come under the umbrella term ‘pressure-relieving’ equipment. This equipment is then subdivided into ‘high-tech’ and ‘low-tech’ devices (Box 1).

**Determining pressure ulcer risk** A further change concerns the terminology used to describe patients at risk of developing pressure ulcers. In practice, patients are usually identified as being at ‘low’, ‘medium’, ‘high’ or ‘very high’ risk of developing a pressure ulcer. This usually matches a category on a pressure ulcer risk assessment tool.

The guidance now suggests that patients at risk of skin damage should be referred to as ‘vulnerable to pressure damage’, and the term ‘at elevated risk of pressure ulcers’ should be used to describe patients at very high risk.

The reason for this amendment is that the numerical cut-off point used in risk assessment tools is not a reliable means of categorising risk.

The NICE guideline also recommends that patients should be informed that they are at risk of developing pressure ulcers.

**Advice on pressure-relieving equipment** The section on pressure-relieving beds, mattresses and overlays contains seven recommendations but only one of these has evidence at a ‘B’ grading, whereas the remaining six have the lower ‘D’ grading (NICE, 2003b).

It is recommended that equipment choice is based on cost considerations as well as overall assessment of the patient and not solely on risk assessment scores. The assessment of the patient should include:

- An identified level of risk;
- Patient comfort;
- Acceptability to the patient;
- Skin assessment;
- Patients’ health and needs;
- Lifestyle and abilities.

The guideline also recommends that pressure-relieving equipment should ensure the patient’s needs are met throughout a 24-hour period. This may require the provision of additional equipment such as seating.

A minimum standard is specified for all patients who are vulnerable to pressure ulcer development. They should be nursed on a high-specification foam mattress with pressure-relieving properties (with a ‘B’ grading of supporting evidence).

The guideline acknowledges that there is a lack of evidence to support the use of high-tech pressure-relieving mattresses and overlays. However, their use is supported by a consensus of professional opinion.

The guideline recommends that high-tech pressure-

**REFERENCES**


relieving devices be used as a first-line option in the following three situations:

- To prevent pressure ulcers in patients assessed to be at an elevated risk of developing pressure damage;
- If a patient’s history suggests that a high-tech device provides the best prevention and treatment option;
- When a low-tech device has failed.

The time that elapses between assessment and subsequent use of a pressure-relieving device should also be noted. This may become a contractual issue between manufacturers and health care providers who could specify a minimum delivery time.

A coordinated approach to acquisition, allocation and management of pressure-relieving equipment is recommended. Health care providers are frequently looking at bed management systems, equipment stores, equipment coordinators and electronic equipment databases to enhance their pressure ulcer reduction strategy.

The 2001 guideline states that synthetic sheepskins should be used as pressure-relieving aids. However, the 2003 guideline refers to an Australian study that suggests that natural sheepskin may be effective in pressure-ulcer prevention (McGowan et al, 2000).

Repositioning patients The guideline maintains that repositioning should occur even when patients are being nursed on pressure-relieving devices and frequency should be based on skin inspection, patient comfort, patient ability, and general state of health.

Surgical patients If surgical patients are considered vulnerable to pressure damage they should be placed either on a high-specified foam theatre mattress or another pressure-distributing surface.

Pressure-relieving equipment provided within the operating theatre needs to be reviewed. This poses a challenge to equipment manufacturers to provide a minimum standard of equipment that can be safely used in theatre. For example, it should be non-static and X-ray compliant.

Training needs The guideline suggests that health care professionals, patients and carers should be educated in the use and maintenance of pressure-relieving devices. This may result in the topic becoming part of the absence of sound scientific evidence.

The availability and execution of the guideline will depend on resources, planning and the utilisation of a comprehensive implementation strategy. It is important that pressure ulceration is part of NICE’s agenda and further guidelines on the treatment of existing pressure ulcers are being developed.

Safety The NICE guideline identifies safety concerns such as decontamination and cleaning of equipment to prevent cross-infection.

It states that the standards on medical devices management (Medical Devices Agency, 2002a) and the decontamination of reusable medical devices (MDA, 2002b) should be adhered to at all times by every health care professional.

Health authorities will have to undertake assessments of their decontamination facilities and address any areas that are found to be inadequate, or use the decontamination facilities offered by manufacturers of pressure-relieving devices.

Implementation NICE suggests that local health communities should develop their own implementation plans that take into consideration the resources and time frame required for full compliance with the guideline. To ensure that compliance is continuous, audit criteria are provided.

Conclusion A review of available evidence regarding the impact of pressure ulcer prevention guidelines on clinical practice suggested that the appropriateness of many of these guidelines are questionable due to their reliance on expert opinion (Clark, 1999).

Three key factors have been identified as prerequisites for successful adoption of pressure ulcer guidelines within the NHS. They should be:

- Based on evidence, not opinion;
- Available to all practitioners;
- Supported by guidance from professional and public bodies when they are implemented (Clark, 1999).

Another review has reported that a lack of evidence to support the guideline content is compounded by a shortage of research on implementation strategies (Tooher et al, 2003).

Schemes that reported sustainability and positive outcomes used active multifaceted implementation strategies. These successful institutions also reported the presence of institutional and management support (Tooher et al, 2003).

The pressure ulcer prevention guideline (NICE, 2003a) does not meet all of the criteria outlined by Clark (1999) due to its reliance on expert consensus in the absence of sound scientific evidence.

The availability and execution of the guideline will depend on resources, planning and the utilisation of a comprehensive implementation strategy. It is important that pressure ulceration is part of NICE’s agenda and further guidelines on the treatment of existing pressure ulcers are being developed.