DEATH HIGHLIGHTS POOR ULCER CARE

An elderly patient who died from an infected sacral pressure ulcer was not cared for adequately, a report has found. The primary lesson for nurses is that prevention of pressure ulcers needs to be taken more seriously, with meticulous assessment, documentation and care planning.

By Jan Weststrate, Carol Tweed** and **Wayne Naylor

On February 26, 2009, the *Dominion Post*,[1] carried an article about a report from the Deputy Health and Disability Commissioner (DHDC), in which the death of a patient in a residential care facility was investigated.[2] During her inpatient stay, the patient developed septicaemia from an infected pressure ulcer and subsequently died. The report highlighted that the care at the hospital to prevent the pressure ulcer was inadequate.

Such cases have a huge impact upon the patient's whanau, as well as the health care professionals and health care institution involved. We should look at these cases as learning opportunities, and consider what knowledge we can gain to reduce the chance of it happening again.

Case summary

Mrs A was a 72-year-old patient, weighing 140kg, who, before admission, was cared for at home by her family. She suffered from morbid obesity, diabetes, hip pain, hypertension, gout and breathing difficulties. During a home visit by her GP, Mrs A was noted to have reduced mobility and was admitted to the care facility for assessment.

The report said Mrs A was only mobile for toileting and showering, and that on day three of her hospital admission, she lost power in her legs while mobilising and slipped to the floor. After this event, she was moved to an electrically-operated frame bed with a standard foam mattress. The following day nursing notes mentioned for the first time "pressure area care to sacrum discomfort", but no description was given of what the care involved and no further care plan was made.

Mrs A's condition continued to deteriorate. In the notes it said Mrs A complained of a sore bottom and "pressure care was maintained". On day six, Mrs A developed diarrhoea and faecal incontinence, and sustained another fall. On day seven, a physiotherapist assessed Mrs A. However, due to his subsequent illness, his assessment findings and recommendations were not recorded in the notes until day 21. From day eight onwards, "pressure area care" was regularly mentioned in the nursing notes, without making explicit what the care involved.

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The presence of a "reddened area" on Mrs A's buttocks was first noted on day 10. Subsequent days reported skin as being frail and broken, and Betadine being applied. Nursing notes stated "pressure area care" was maintained over these days, described as rolling Mrs A onto her side and positioning pillows under her. On day 15, for the first time, a pressure ulcer risk assessment was performed. A score of 14 on the Waterlow scale was recorded, indicating the patient to be "at risk". However, after her death, an expert stated Mrs A's condition would have warranted a score of 20+, indicating very high risk. In fact, the report found the copy of the Waterlow Scale used was incomplete and, had it been the full version, Mrs A would have scored at least 20.

From day 15 onwards, nursing notes regularly mentioned the skin on Mrs A's sacrum was broken. On day 18 the progress notes recorded the change of three dressings on the buttocks and she also had foam boots applied to both feet. On day 19 Mrs A's buttocks were reported as breaking down and she was transferred to a roller sheet bed. Regular but infrequent turning occurred. However, there was insufficient documentation about the turning regimen, and there may have been occasions when Mrs A's position was not changed for up to ten and a half hours. A wound assessment and treatment form was started. This indicated the skin surrounding Mrs A's sacral pressure ulcer *"was fragile and inflamed with blood exudate"*.

On day 23 it was recorded that the sacral pressure ulcer contained dead tissue and was being dressed with SoloSite gel. On day 25, swabs confirmed the sacral pressure ulcer was infected and it was decided Mrs A would be transferred to another hospital for surgical review of the ulcer. On admission to Hospital B on day 26, the staff noted Mrs A was very unwell with a large sacral pressure ulcer, measuring 25cm x 25cm, extending across both buttocks with offensive, necrotic and infected tissue. She was found to be in acute renal failure and suffering from septicaemia. Mrs A's condition continued to deteriorate and she died a few days later.

(The full HDC report can be downloaded at: http://www.hdc.org.nz/files/hdc/opinions/07hdc18556nurse.pdf.)

Lessons we can learn

As nurses, what can we learn from this case? The primary lesson is that patients can die from neglected pressure ulcers. Far too often, pressure ulcers are regarded as unimportant and harmless complications; this case certainly demonstrates the opposite. In 2005 pressure ulcer development was the primary cause of death for 243 patients in the Netherlands.[3] Research has established that patients with a pressure ulcer had a nearly doubled risk of death compared to those patients who did not have a pressure ulcer.[4] In the United States, between 1990 and 2001, 114,380 people had pressure ulcers reported as a contributing factor in cause of death.[5] Of these, 18.7 percent of deaths (21,365) were directly attributable to the pressure ulcer. Nearly 80 percent of these cases occurred in people over 75 years old and almost 40 percent of cases involved septicaemia. These figures indicate the case of Mrs A is not a solitary one.

This article will now address some important aspects of pressure ulcer prevention and management, based on the recommendations from international guidelines. The significant issues are risk assessment, grading, whether pressure

ABOVE: Grade 1 pressure ulcer at the buttocks. Note erythema does not blanch on firm finger pressure.

BELOW: Grade 4 pressure ulcer at the sacrum, showing extensive destruction of tissue.

TABLE 1: Definition of the four pressure ulcer grades described by the EPUAP.[9]

Grade 1: Non-blanchable erythema of intact skin. Discolouration of the skin, warmth, oedema, induration or hardness may also be used as indicators, particularly on individuals with darker skin.

Grade 2: Partial thickness skin loss involving epidermis, dermis, or both. The ulcer is superficial and presents clinically as an abrasion or blister.

Grade 3: Full thickness skin loss involving damage necrosis of subcutaneous tissue that may extend down to, but not through, underlying fascia.

Grade 4: Extensive destruction, tissue necrosis, or damage to muscle, bone, or supporting structures with or without full thickness skin loss.

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ulcer development is an adverse event, documentation and guidelines.

Risk assessment

Using a risk assessment tool provides a numeric indication of whether a patient is at risk of developing pressure ulcers. Acutely ill patients must have *daily* risk assessments, while long-term patients should have at least weekly risk assessments. Although there are more than 40 different risk assessment instruments within the international literature, the most commonly used are the Norton, Braden and Waterlow scales.[6]

Due to their limited predictability,[7] current guidelines recommend the use of pressure ulcer risk assessment tools as a reference tool or an "aide memoire" only, and suggest combining the risk assessment score with clinical judgement.[8] Ultimately it is the clinical judgement of the health professional that is critical in deciding if the patient is at risk of developing a pressure ulcer. If it is decided the patient is at risk, then preventive measures must be instituted. It is useful to ask: what risk will the patient have of developing a pressure ulcer in the next 24 or 48 hours? Such a proactive approach helps ensure timely implementation of preventive measures. For example, if a patient is due to have surgery tomorrow, and will not be able to reposition himself for 48 hours afterwards, it is important to order a pressure redistributing mattress prior to surgery.

Grading pressure ulcers

Nurses should classify the presence of any pressure ulcer and record this accurately in the patient clinical notes. In the case of Mrs A, the notes contained descriptions such as *"inflamed with blood exudate"*. Although this may accurately describe the wound, this type of description is personal observation and interpretation only. It is of little use in determining if the pressure ulcer is improving or deteriorating over time. International guidelines highlight how classifying pressure ulcers can help early detection of deterioration, and in evaluating the effect of prevention measures. The European Pressure Ulcer Advisory Panel (EPUAP) has described four grades of pressure ulcer development. These are outlined in Table 1 opposite.[9] Grading pressure ulcers according to this system makes it easy for many people to consistently assess and classify pressure ulcers over time. It becomes an invaluable tool in the continuation of care during handovers and in documentation in the patient's notes.

An issue with grading pressure ulcers is whether different nurses do it in the same way. Research shows that "practice makes perfect".[10] Also, discussing the pressure ulcer grade with colleagues increases accuracy. There are various websites where nurses can practise grading pressure ulcers correctly. This one is very useful: http://www.puclas.ugent.be/international_elearning.html.

Are pressure ulcers an adverse event?

Internationally, there is substantial evidence to consider grade 3 and 4 pressure ulcers as serious reportable events.[11] This is also supported in New Zealand in the guidelines for reportable events published by the Ministry of Health: *"events that resulted in harm to consumers, visitors and employees and that are discovered upon entry of the service or occur during service provision"*.[12]

In the footnotes it also states: *"the harm may result from actions or omissions by employees"*.[12]

The case of Mrs A fits this description. Therefore, it is unfortunate the whole event was not reported earlier, but instead came from a complaint by the family. The above description of a reportable event justifies the need for early reporting of the presence or development of pressure ulcers, ideally in a centralised organisational adverse event register. This is not usually done until the pressure ulcer has developed into

'PREVENTION OF PRESSURE ULCERS REQUIRES NURSES TO BE VIGILANT ON A NUMBER OF FRONTS . . .'

a grade 3 or 4 wound, at which point length of hospital stay and patient morbidity and mortality are adversely affected.[4,5,13]

Reporting events such as this is not about attributing blame. Instead, if a substantial number of pressure ulcers are reported, it should trigger management to investigate the cause and implement changes to reduce the incidence. Such an outcome is good for the patient, the staff and the health care institution.

Documentation

Documentation of patient care forms the heart of communication in clinical practice, and is essential for high quality care of patients and for interactions with patients, families and other health professionals across all settings. Within the nursing documentation should be clear written evidence of assessment findings, any risk of, or actual pressure ulceration, and a plan of care.

In the case of Mrs A, the documentation of pressure ulcer development, prevention and treatment was far from satisfactory. Correct documentation is a legal requirement in the care we provide to our patients. Many legal experts in the area of nursing and medical negligence take the view that *"if it was not written, it never happened"*. The literature cites many examples of poor documentation of the prediction, prevention and management of pressure ulcers.[14]

Reasons for inadequate documentation[15]

- Lack of value attached to importance of documentation
- Problems with documentation systems and tools
- Time constraints
- Difficulty in formally articulating actions into words
- Negative attitudes and examples of colleagues and managers
- Ritualistic practice

Guidelines

Guidelines are important instruments to guide clinical practice. Much effort is required to analyse the research and transform this into a guideline that is then disseminated to health professionals. It is a nurse's responsibility to be aware of such guidelines and to use them. However, as guidelines are often long, and sometimes challenging to read, it is helpful if institutions create short protocols based on the guidelines.

The staff looking after Mrs A did not appear to be aware of evidence-based practice guidelines on pressure ulcer prevention and treatment. Although no New Zealand pressure ulcer guidelines exist, European, American, Australian and British versions are all available. If the management and clinical staff caring for Mrs A had followed the recommendations in these comprehensive publications, her clinical situation would have been less likely to end so tragically.

This year, new guidelines for pressure ulcer prevention and treatment will be jointly released by the EPUAP and the National Pressure Ulcer Advisory Panel (NPUAP). These two organisations cover Europe and North America, so it is expected they will have a significant international influence.

Conclusion

The case of Mrs A illustrates the significant impact a pressure ulcer may have, and clearly demonstrates that prevention of pressure ulcers is a vital part of patient care. This requires nurses to be vigilant on a number of fronts, as it is nursing staff, in the main, who are expected to provide preventative and management interventions for pressure ulcers. While no-one can be an expert in all areas, nurses have a responsibility to be aware of the causes and prevention of pressure ulcers. However, several studies have demonstrated that nurses only take action on pressure ulceration once there is visible damage and skin loss,[16,17] rather than heeding the warnings of individual risk factors.

To prevent pressure ulceration, it is vital a risk assessment is completed for all patients on admission and regularly thereafter, that skin is assessed at least once daily, and that the outcome of assessment is clearly documented, along with a plan of care. When a pressure ulcer is present, it must be assessed using a standard grading system, to ensure clear communication and ongoing assessment. In addition, any new pressure damage should initiate an adverse event report, to inform institutional planning and audit. To ensure correct prevention and care of pressure ulcers, institutions should also ensure they are following international best practice by implementing recognised guidelines.

As health professionals, nurses must take responsibility for the care they provide. In any adverse event, we must analyse what went wrong and determine what needs to be done differently in the future by applying the lessons learned. •

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