TISSUE ISSUE

Issue One
March 2007

New Zealand Wound Care Society Newsletter
For more information visit: www.nzwcs.org.nz

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What is the New Zealand Wound Care Society?
The NZWCS is a voluntary organisation made up of health care professionals from a variety of disciplines who share a common interest in wound management. As an organisation it gives its members an opportunity to share experience, expertise and knowledge providing a forum to network with other members throughout the country.

Currently there are fourteen branches New Zealand-wide. Each has an area coordinator and a national committee member. The area coordinator is responsible for coordinating meetings and seminars for the local branch members, while the national committee member represents each branch at a national level. In some areas these duties are undertaken by the same volunteer.

Inside this issue:

Welcome to the first issue of the resurrected Tissue Issue!

Our aim is to provide NZ Wound Care Society members with up-to-date wound care information to support clinical enquiry and best practice. We will publish three Tissue Issues per year; March, July (article deadline 1 June) and November (article deadline 1 October).

We want to hear from members about your practice tips, useful websites, ideas or articles for the Tissue Issue. Members this is your newsletter so speak up by contacting the editors Bec's or Mandy!

Our first feature article focuses on pressure ulcers. Carol Tweed co-author and NZWCS Area Co-ordinator and National Committee Member has provided an excellent article addressing pressure ulcer prevention and management. Thank you also to Carol for providing her websites of interest.

NZWC National Conference
8-10 November 2007
Queenstown
Invitation to attend

Further Enquires Contact:
akB Conference Management Limited
PO Box 994
Dunedin
New Zealand
P: +64 3 454 6568
F: +64 3 454 6548
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W: www.akblimited.co.nz

The ABC of Wound Care
From **A**cute to **C**hronic Wound healing and the **B**asics in the Middle

NZWCS National Committee Members & Area Coordinators

Jenny Phillips President
Wayne Naylor Treasurer
Cheryl Naylor Administrator
Susan McAuley Education Events Coordinator
Liz Milner Committee Member & Area Coordinator Auckland
Rowena McGarth Committee Member Waikato
Angela Carter & Pam Andrews Area Coordinator's Waikato
Diane Hishon Area Coordinator Rotorua / Taupo & Bay Of Plenty
Christine Cumming Committee Member & Area Coordinator Manawatu-Wanganui
Chris Guys Area Coordinator New Plymouth / Taranaki
Carol Tweed Committee Member & Area Coordinator Wellington
Sue Rossiter Area Coordinator Nelson
Cushla Arnot Committee Member & Area Coordinator Nelson / Motueka
Margaret Mossop Committee Member & Area Coordinator Canterbury
Rebecca Aburn Committee Member & Area Coordinator Dunedin
Kathryn Smith Area Coordinator Dunedin
Mandy Pagan Committee Member & Area Coordinator Southland
Chris Black Area Coordinator West Coast

NZWCS Education Events Coordinator Sue McAuley, email: mcauley.s@xtra.co.nz

Sue's Role:

- Educational liaison between NZWCS National Committee, Area Coordinators and Commercial members.
- Liaise and assist Area Coordinators to plan wound education, utilizing opportunities of international and national speakers.
- Plan and coordinate advanced wound care study days.

Note from the President

February 2007 already, where does the time go to. Here in the Manawatu we are still waiting for Summer, but at least everything is growing well, including the grass, which has usually stopped by now.

It is great to see Tissue Issue resuscitated, and indeed some members will have never seen it. A big thank you to Mandy and Rebecca and a point for the South Island!! When the journal stopped last time, there were several moans about not having our own newsletter, but I know that past Editors struggled **mightily** with getting articles and news, so if you want this to continue you need to support it by submitting material. It is an excellent place to start writing and you know how much we all enjoy sharing all things wound related. Deadline dates for future editions are included in this one.

The focus of this issue is Pressure Sores, a perennial and very expensive problem, in both monetary terms and quality of life issues. It is an area where we can all improve practice, and also we need to get the medical staff up to speed with prevention and management, as it is not just a nursing issue.

Dunedin put their hand up for the next conference, and you will all have had flyers for that by now, for November this year. Hope to see some more posters this year, following the excellent batch at last year's conference, and as someone who has not been to Queenstown, I am looking forward to doing some sightseeing as well.

The scholarship applications have closed, and we will now progress with the decision making. Good luck to everyone who applied.

How about making this Tissue Issue available to staff where you work and encouraging a few more members? I know there are so many nurses out there wanting information on wound issues, yet many still do not know about the Society.

All the best to everyone for 2007

Jenny Phillips – President NZWCS.

Reciprocal memberships with Wound Care Association of New South Wales

Last year New Zealand Wound Care Society (NZWCS) and the Wound Care Association of New South Wales (WCA NSW) set up a reciprocal arrangement between the two societies. One member of NZWCS also has membership of (WCA NSW) and vice versa. Our aim is to improve networking and share ideas across the Tasman. Why not take a visit to the website www.ciap.health.nsw.gov.au/wcansw or use the link on our website. You will see under downloads that you have access to the WCA NSW Wound Care Standards.

As a new initiative we are also in the process of setting up a speaker exchange programme for wound care conferences between our two societies. We hope to encourage members to represent the NZWCS by presenting a paper at the WCA NSW biennial conference and that a member of the WCA NSW will present at our biennial conference. A scholarship will be available for the successful applicant starting this year. WCANSW are currently calling for abstracts. Their theme 'Becoming a Wizard in Wound Care' will be held 1 – 3 November 2007 in Wollingong. As the speaker exchange process is still being developed in the first instance please contact Jenny Phillips, NZWCS President.

Catherine Hammond (Dumpy@xtra.co.nz)

Pressure Ulcer Development in the Older Adult
Prevention and Management Issues

This article was published in New Zealand Nursing Review 2006; 6 (11):14-16. Reprinted here with permission

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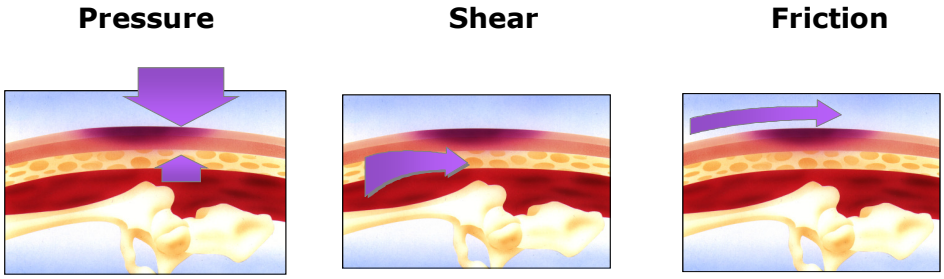
Pressure ulcers develop when there is persistent pressure applied to the skin that obstructs blood flow and results in tissue death. This typically occurs over a bony prominence but can occur in any situation where blood flow to the skin is impeded.

Fig 1 – Terminology

Pressure Sores Pressure Areas Bed Sores Decubitus Ulcers	Synonymous with Pressure Ulcers

Pressure ulcers vary considerably in size and severity and include persistent skin redness as well as blistered, broken or necrotic areas of skin. Non-experimental studies have identified more than 100 factors associated with the development of pressure ulcers although the aetiological mechanisms are a combination of pressure, shear (2 adjacent surfaces moving in opposite directions) and friction. Shearing forces often occur as a patient slips down in a bed or chair or if they are dragged rather than lifted along the surface on which they are being nursed.

Fig 2 – Diagrammatic Representation of Pressure, Shear and Friction



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Especially in older adults, an acute medical illness, such as a stroke, or trauma related disease, such as hip fracture, are accompanied by a high risk of developing pressure ulcers. In people admitted to acute care, pressure ulcers often develop within the first week of admission when the patients are usually most unwell.

The prevalence and incidence of pressure ulcers in New Zealand is unknown as there have been no published studies. British and US figures suggest that around 10% of acute care hospital patients are affected. Other vulnerable people are those living in long-term residential care or in the community. What is clear is that pressure ulcers typically affect older adults and it is highly likely that the ageing of the New Zealand population, projected to reach 21% of the population by 2025, will be accompanied by an increase in the number of people with pressure ulcers. A recent study regarding the costs of pressure ulcers in the UK identified that between £1.4 and £2.1 billion was being spent annually on treatment; this equates with 4% of total National Health Service expenditure.

Websites of Interest

Wound Up To Date: - a free online monthly update of all wound related articles listed on PubMed with links. You need to subscribe (free) and then every month you get an e-mail. Great for keeping up to date. A new wound healing physiology educational section is also available (free again) via the same website under "knowledge".
http://www.woundupdate.com

Wounds UK. A UK based journal (need to subscribe) but the web site offers such as free e-news letters on general wound care and pressure ulcer care. You can also review the archives.
www.wounds-uk.com

New UK website specifically designed to raise awareness of pressure ulcers amongst the general public and media.
www.your-turn.org.uk

New Zealand Family Physician features two articles one about leg ulcers and pressure ulcers check under 'search' to find these.
http://www.rnzcgp.org.nz/news/nzfp.php

Ostomy Wound Management is a free online (and subscription for paper copies) US journal.
http://www.o-wm.com/

World Wide Wounds - a free online wound journal.
http://www.worldwidewounds.com/

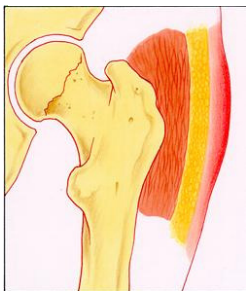
From the Editors

Victorian Government Health Information – Pressure Ulcers and more! Consumer information brochures for patients but also excellent educational material for caregivers. Pressure ulcer education packages are also available.
www.health.vic.gov.au/pressureulcers/

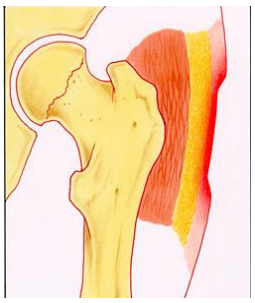
About 80% of pressure ulcers are superficial, that is damage is restricted to the epidermis and dermal skin layers. Twenty percent of pressure ulcers are deep extending through to muscle and sometimes bone.

Fig 3 –Pressure Ulcer Stages 1-4

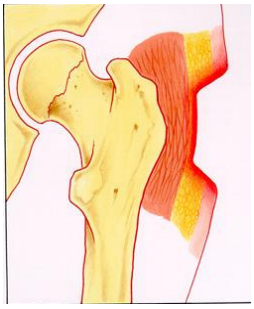
Stage 1



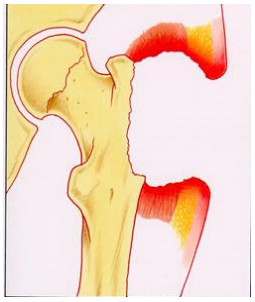
Stage 2



Stage 3



Stage 4



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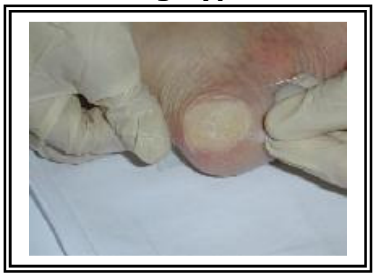
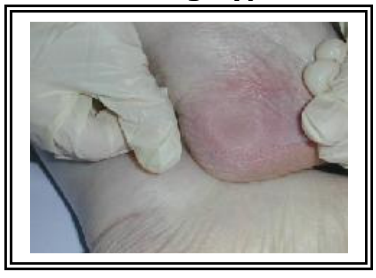
In a healthy person, keeping still in one position causes discomfort, stimulating movement to relieve it. The discomfort is caused by reduced blood supply to the affected area. Pressure relief allows re-opening of capillary beds and reactive hyperaemia that rapidly restores tissue oxygen levels. This is evident by the development of bright red flushed skin which can last several minutes and which blanches on light finger pressure (known as blanching hyperaemia). Longer periods of pressure application cause persistent erythema (redness), called non-blanching erythema and this is the first sign of incipient pressure damage. The length of time that persons are able to withstand pressure without damage occurring is variable and dependent primarily upon the degree of pressure and physical condition of the person.

Figure 4 – Blanching and Non-Blanching Hyperaemia

Blanching hyperaemia



Non-blanching hyperaemia



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Practice Tips

This section provides an opportunity to share your practice tips and ideas with other colleagues

In practice I often find the surrounding skin of the wound (peri-wound care) is neglected. The skin is often vulnerable to excoriation or break down due to wound exudates or skin-stripping related to wound products and/or tapes. In our hospital wound care clinic we try to avoid adhesives on fragile compromised skin and routinely wash the surrounding skin and use skin protectant creams with success. There are many excellent products on the market; we utilize 3M Cavilon Durable Barrier Cream that can we purchased in 28g or 92g tubes. This cream is also available for patients to purchase through our hospital pharmacy. Minimal cream is needed and it resists wash-off, is hypoallergenic and allows tapes and dressings to adhere.

If the patient reports a history of product allergies or sensitivities always consider repeat open patch testing. Apply the product 2-3 times day over a few days on the skin near the wound; monitor for any sensitivity or reactions.

Mandy Pagan Editor

Why are Older Adults at Risk of Pressure Injuries?

Key prognostic factors identified from research studies for patients developing pressure ulceration are immobility, malnutrition, poor perfusion, advanced age and poor skin condition. These can be directly related to the development of pressure ulcers where there is interaction between the intensity of pressure (mobility), the tolerance of the skin (perfusion, nutrition and age) and it's effects on the skin response (skin condition).

More than 70% of pressure ulcers occur in people over the age of 70 years. Older adults are more likely to have vascular and neurological disease, incontinence, and are also more likely to suffer from chronic and terminal illness. Additionally, there are age related changes in the structure of the skin such as thinning of the dermis, reduced perfusion and cell turnover.

Prevention of Pressure Ulcers

Pressure ulcer risk assessment tools such as the Braden, Waterlow or Norton scales can be a useful adjunct to nursing expertise in providing a framework highlighting key risk factors. Evidence suggests that their introduction along with the establishment of care protocols, equipment and education programmes can reduce the incidence of pressure ulcers. Pressure ulcer risk assessment should be a dynamic process utilised as part of a holistic nursing assessment with the nurse using clinical judgement and experience to determine frequency of monitoring. It is important however that once a patient has been identified as being at risk of pressure ulcer development, action is taken and regularly evaluated as to its efficacy.

As well as assessing risk factors, a patient's skin should be examined carefully for any signs of pressure damage that may include persistent erythema, discoloration, blisters, localised heat, oedema or hardness beneath the skin.

In pigmented skin, pressure damage is often more challenging to assess and discolouration often appears purplish/ bluish rather than red. Those practitioners assessing patient's skin also need to be aware that other skin conditions such as incontinence dermatitis or allergies may appear similar to pressure ulcers.

Preventing pressure ulcers requires a holistic approach to care. Use of pressure re-distributing devices such as specialist mattresses and cushions are a major factor in preventative strategies but are not the only intervention that should be implemented. Factors to be considered include:

- **Mobility –** Patients that are immobile in bed should be repositioned as frequently as their condition warrants as determined by frequent skin inspection and individual patient needs rather than traditional two hourly ritualistic schedules. Repositioning should take into account the patients overall medical condition, their comfort and the overall plan of care (considering factors such as meal times and physiotherapy). Any manual handling aids should be utilised correctly and never left under the patient after use as this creates localised areas of high pressure. Sitting out in chairs is a well-documented high- risk activity for patients susceptible to pressure ulcers. Sitting creates high compressive pressures on the ischial and sacral regions even if specialist cushions are used.

Often chairs are not the correct size and height meaning that patient's slump and slide out of them increasing the friction and shear forces on already vulnerable tissues. Until patients are independently mobile, chair nursing of less than two hours per session is recommended.

- **Nutrition** – recent research has indicated that nutritional support with oral high protein supplements can reduce the incidence of pressure ulcers. It is important that patients are referred to a dietician and that this takes place earlier rather than later in their care management.
- **Incontinence** – The presence of excessive moisture on the skin results in skin maceration, which increases risk of frictional damage. Urine decomposes on the skin to form ammonium hydroxide, an alkaline substance that raises skin pH, favours bacterial proliferation and development of incontinence dermatitis. Use of indwelling catheters are not recommended except in last resort management or terminal care as bacteriuria is inevitable and urinary tract infection common. Incontinence pads should be smoothed before usage as recent research has shown how the ridges in pads contribute to high interface pressures and increased risk of pressure injury. Multiple pads are not recommended as they reduce the effectiveness of any specialist mattress underneath.
- **Pressure redistributing devices** – The choice of which mattress, overlay or cushion should not be based solely on the scores from risk assessment scales. Decisions about which product to use should be based upon patient's risk level, comfort and general state of health and should be reviewed if the patient's condition changes. Use of devices such as water filled gloves, filled IV bags, sheepskins and donut type cushions are not supported by evidence based guidelines and can increase patient risk. Three types of support surfaces are most commonly in use:
    - Pressure reducing foam
    - Static low air loss systems (overlays, mattress replacements and beds)
    - Alternating pressure air mattresses (overlays and mattress replacements)

Specialist surfaces are intended to serve as a supplement to care and not a substitute for nursing care; as such, repositioning of patients should continue to take place.

Documentation

To prevent pressure ulceration it is imperative that skin is assessed at least once daily, the outcome documented and the presence of grade 1 pressure damage not ignored. Every institution should have a policy for documenting the assessment of patients including pressure ulcers. All nursing staff should receive regular educational updates to assist in effective prediction, prevention and management of pressure ulcers. However this alone is insufficient and barriers to implementation within the clinical setting need also to be removed by continued support of managers and lead clinicians.

Conclusion

Pressure ulcers are painful, debilitating and a potentially serious outcome of a failure to provide routine medical and nursing care. Effective pressure ulcer prevention requires a multi-disciplinary approach integrating all aspects of care. From an individual's perspective, the consequences of sustaining a pressure ulcer range from mild discomfort to a dramatic reduction in quality of life, caused by devastating and painful injuries that can even result in osteomyelitis or septicaemia. Not all pressure damage can be avoided but it is likely that incidence can be significantly reduced. Evidence based practice works but needs proactive implementation. National guidelines such as those developed and implemented in the USA, UK, Holland and Australia have provided evidence based recommendations for healthcare providers and underpin a quality healthcare agenda. New Zealand urgently requires a similar government led initiative as anecdotal evidence suggests high levels of pressure ulceration in both community and acute care.

Ask the Experts

This section allows you to post the editors your questions so they can be answered by the experts!