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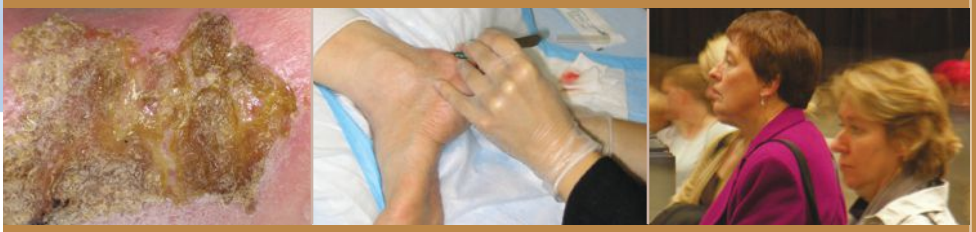

Pressure Ulcer Awareness Program Pilot: Reports on a Successful Program

Canadian Association of Wound Care
Association canadienne du soin des plaies

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Canada, We Have a Problem

Sue Rosenthal

In 2003 the Canadian Association of Wound Care (CAWC) funded a study to determine the extent of pressure ulcers in a variety of health-care settings in Canada. The results indicated that about one in four Canadians in care had a pressure ulcer—meaning hundreds of thousands of Canadians have a pressure ulcer at any point in time. With evidence indicating that as many as 70 per cent of pressure ulcers are preventable, it became obvious that something had to be done about this widespread and expensive problem. As a result, the CAWC created the Pressure Ulcer Awareness Program (PUAP), which ran as a pilot from April to September 2006. This issue of *Wound Care Canada* is largely devoted to the program: a description of the program itself and a pilot process that was used to test it, results from the pilot, first-hand testimony from pilot-site champions, and additional information on the prevention of pressure ulcers.

The PUAP is an important tool for the CAWC and wound care in Canada: it provides a model of care that focuses on prevention rather than treatment, it creates a platform from which the CAWC can effectively advocate for the implementation by governments and facilities of policies and activities that support pressure-ulcer prevention, and it provides a workable model for future prevention programs in other wound-related areas.

As you read through this issue, you'll learn more about the hidden barriers to preventing pressure ulcers that were uncovered by the pilot program, and identify opportunities through which your facility can make the kind of policy and practice changes necessary to prevent pressure ulcers.

Sue Rosenthal,
Editor

Canada, nous avons un problème

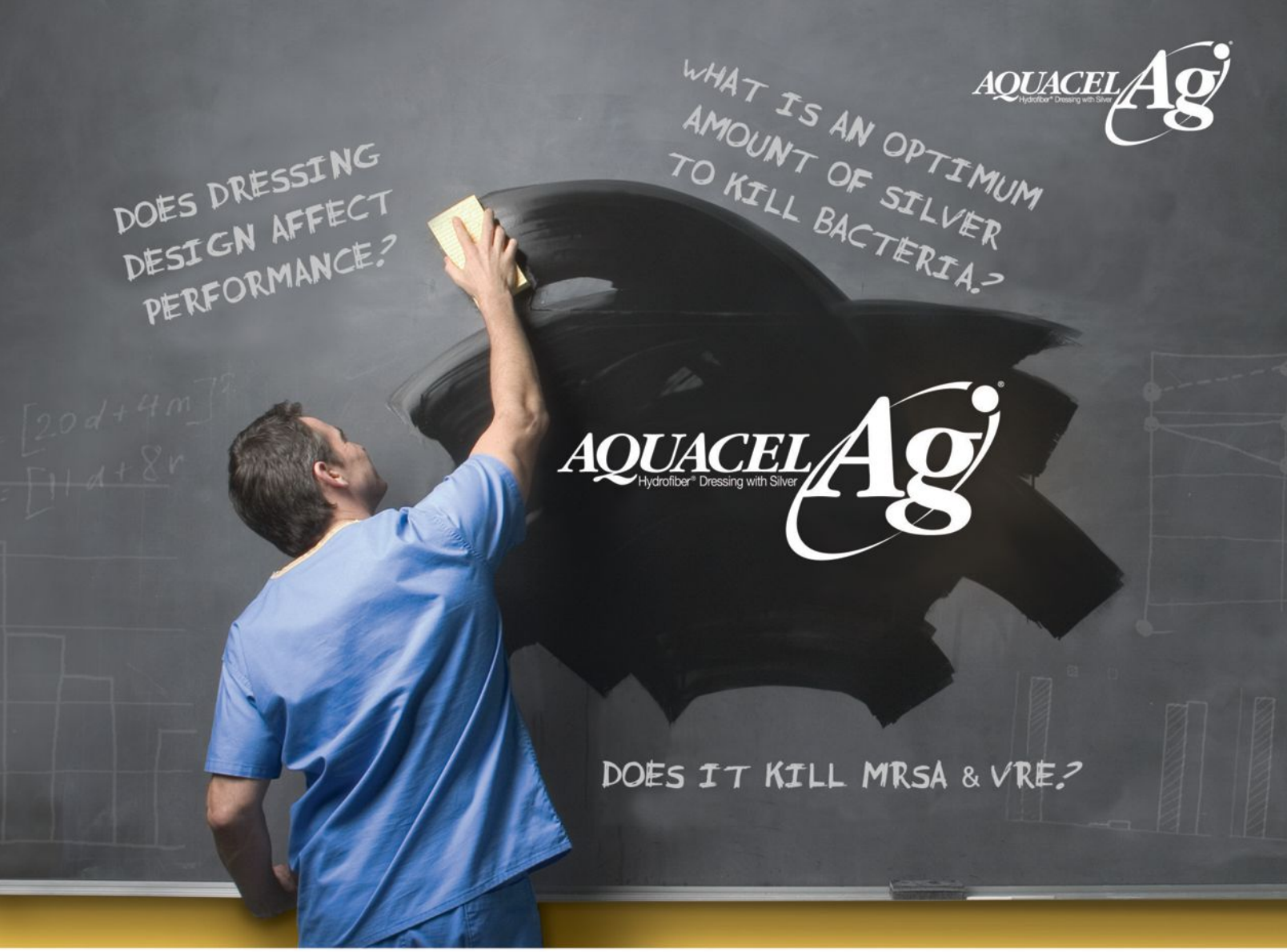
En 2003, l'Association canadienne pour le soin des plaies a financé une étude pour déterminer l'étendue des ulcères de pression dans divers contextes de soins de santé au Canada. Les résultats indiquent qu'environ un Canadien traité sur quatre souffrait d'un ulcère de pression. Ceci signifie que des centaines de milliers de Canadiens souffrent d'un ulcère de pression à un moment ou à un autre. Avec des preuves indiquant que plus de 70 pour cent des ulcères de pression sont évitables, il est devenu évident qu'il fallait faire quelque chose à propos de ce problème répandu et coûteux. L'ACSP mis en place un projet pilote, le programme de sensibilisation des ulcères de pression (PSUP), qui se déroula d'avril à septembre 2006. Ce numéro de *Wound Care Canada* est en grande partie consacré au programme. Vous y trouverez une description du programme et du processus pilote qui a été utilisé pour le tester, les résultats du projet pilote, un témoignage direct des champions du site pilote, et des renseignements supplémentaires sur la prévention des ulcères de pression.

Le PSUP est un outil important pour l'ACSP et le soin des plaies au Canada. Il procure un modèle de soins qui porte sur la prévention plutôt que sur le traitement, il crée une plateforme pouvant servir à l'ACSP à avaliser de façon efficace la mise en application par les gouvernements et les établissements de politiques et d'activités qui favorisent la prévention des ulcères de pression, et il procure un modèle viable de programmes futurs de prévention dans d'autres domaines liés au soin des plaies.

La lecture de ce numéro, vous renseignera sur les barrières cachées dans la prévention des plaies de pression, identifiées grâce au projet pilote. De plus, vous identifierez les changements de pratiques et politiques nécessaires pour que votre établissement soit efficace dans la prévention des ulcères de pression.

La rédactrice,
Sue Rosenthal

Sue Rosenthal, BA, MA, specializes in health and wellness communications and has been associated with the CAWC since 2000.



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References: 1. Walker M, Hobot JA, Newman GR, Bowler PG. Scanning electron microscopic examination of bacterial immobilisation in a carboxymethyl cellulose (AQUACEL®) and alginate dressings. *Biomaterials.* 2003;24:883-890. **2.** Bowler PG, Jones SA, Davies BJ, Coyle E. Infection control properties of some wound dressings. *J Wound Care.* 1999;8(10):499-502. **3.** Walker M, Cochrane CA. Protease sequestration studies: a comparison between AQUACEL and Promogran in their ability to sequester proteolytic enzymes. WHRI2494 WA139. May 27, 2003. Data on file, ConvaTec. **4.** Jones SA, Bowler PG, Walker M, Parsons D. Controlling wound bioburden with a novel silver-containing Hydrofiber® dressing. *Wound Rep Reg.* 2004;12:288-294.

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The Canadian Association of Wound Care is a non-profit organization of health-care professionals, industry participants, patients and caregivers dedicated to the advancement of wound care in Canada.

The CAWC was formed in 1995, and its official meeting is the CAWC annual conference held in Canada each year. The association's efforts are focused on five key areas: public policy, clinical practice, education, research and connecting with the international wound-care community. The CAWC works to significantly improve patient care, clinical outcomes and the professional satisfaction of wound-care clinicians.

L'Association canadienne du soin des plaies est un organisme sans but lucratif regroupant des professionnels de la santé, des gens de l'industrie, des patients et des membres du personnel soignant fortement intéressés à l'avancement des connaissances pour le soin des plaies au Canada.

Fondée en 1995, l'ACSP organise, chaque année, au Canada, un congrès qui lui tient lieu de réunion officielle, le Congrès annuel de l'ACSP. L'association consacre ses efforts dans cinq domaines particuliers : les politiques gouvernementales, la pratique clinique, la formation, la recherche et la création de liens avec la communauté internationale directement impliquée dans le soin des plaies. L'Association canadienne du soin des plaies vise une amélioration significative du soin donné au patient, des résultats cliniques et de la satisfaction professionnelle des spécialistes en soin des plaies.

Features

CLINICAL PRACTICE

EDUCATION

PRESSURE ULCER AWARENESS PROGRAM PILOT

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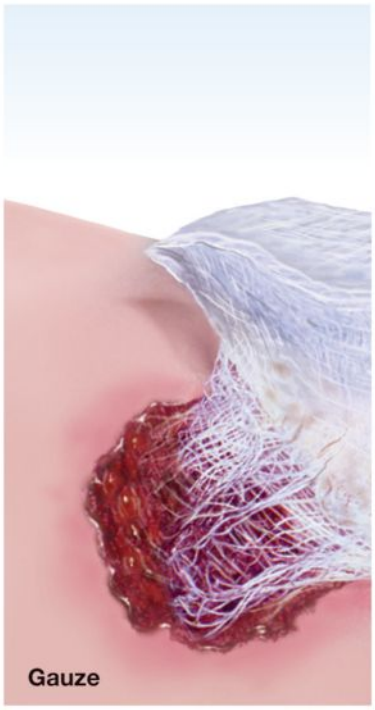

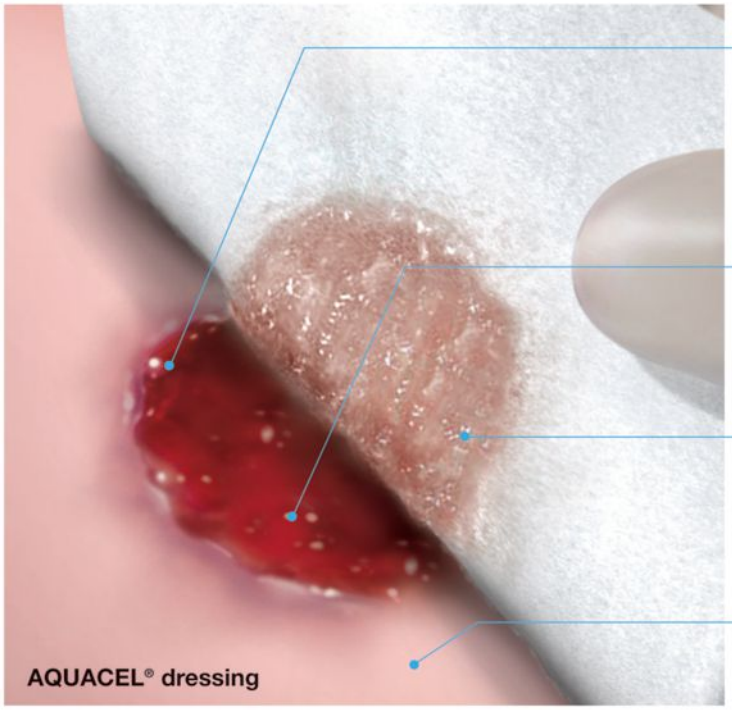

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CAWC Events

"Do you Measure Up? Assessing and Measuring Outcomes"
Thirteenth Annual Conference of the Canadian Association of Wound Care
November 1–4, 2007
London Convention Centre
London, ON
www.cawc.net

Other Events in 2007

Symposium on Advanced Wound Care/Wound Healing Society combined meeting
April 28–May 1, 2007
Tampa Convention Center
Tampa, FL
www.sawc.net

"Navigating the Seas of Change" Wound, Ostomy, Continence Canadian Association for Enterostomal Therapy
Twenty-sixth Annual Conference
May 23–26, 2007
The Lord Nelson Hotel
Halifax, NS
www.caet.ca

RNAO Biennial International Conference on Evidence-based Best Practice Guidelines: Setting the Context for Excellence in Clinical Practice and Healthy Work Environments
June 7–8, 2007
Hilton Suites Toronto/Markham Conference Centre and Spa
Markham, ON
www.rnao.org

WOCN Conference Wound, Ostomy and Continence Nursing
June 9–13, 2007
Salt Palace Convention Center
Salt Lake City, UT
www.wocn.org

Premier Congrès international de stomothérapie pédiatrique/ First International Pediatric Enterostomal Therapy Congress
October 1–3, 2007
Montreal, QC
Information: Louise Forest-Lalande (forest.lalande@sympatico.ca)

Other Events in 2008

The World Union of Wound Healing
Toronto Convention Centre
June 4–8, 2008
Toronto, ON
www.wuwhs2008.ca

News

New Network for Paediatric Care

Are you a health-care professional caring for children with wounds? Are you interested in communicating with others doing similar work? If yes, please e-mail mariagolberg@cha.ab.ca or louise_forest-lalande@ssss.gouv.qc.ca for more information about the Pediatric Wound Care Network.

Coloplast Announces World's First Wound Dressing with Built-in Pain Medication

For hundreds of thousands who suffer from chronic wound pain, a medical breakthrough in the form of a new foam dressing with built-in pain medication may provide welcome relief. A world first, the new dressing, called Biatain-Ibu, delivers ibuprofen directly into the wound. The dressing can stay on the wound for up to one week, and the total amount of ibuprofen in the dressing is equivalent to one-quarter of a 200 mg tablet.

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When you see the Web Connect icon associated with an article, look for more information on the CAWC Web site at www.cawc.net. Click on *Wound Care Canada*.

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Wound Pain:
Assessment and Management

BY Cynthia A. Fleck

Abstract

In the past, research has focused on healing as the major outcome of wound treatment, with very little attention paid to other patient-centred outcomes such as pain. However, with the development of quality-of-life assessment in patients with chronic wounds, pain has been identified as a major issue in the past 10 to 15 years.

Assume that every wound is painful and that every patient who has a wound is in pain.[1] Patients frequently experience pain during dressing changes (e.g., from dried dressings, strong adhesives, debridement, and the pressure of exudate), around wound edges, and in infected or inflamed wounds. Wound pain can serve as an important indicator of inadequate wound management, untreated underlying cause, and/or infection.

Cynthia A. Fleck, MBA, BSN, RN, APN/CNS, ET/WOCN, CWS, DNC, DAPWCA, FCCWS, is a certified wound specialist and dermatology advanced practice nurse, author, speaker, President-elect of the American Academy of Wound Management (AAWM), Member of the Board of Directors of the Association for the Advancement of Wound Care (AAWC), and Vice President, Clinical Marketing for Medline Industries, Inc., Advanced Skin and Wound Care Division.

Mr. G.B. is a 57-year-old male with Type 2 diabetes mellitus and frequent diabetic neuropathic ulcers. He is a pleasant man who spends most of his days working as a diesel mechanic, standing up for long periods at a time. He often brings a smile and a contagious laugh to whomever he meets. Today he is not his jovial self, and he looks tired and depressed. You ask him how he is feeling and he says, "I think my wound has taken a turn for the worse. It's been hurting all of a sudden. That's why I called and made an appointment. It's even been keeping me up at night." When you ask Mr. G.B. to rate his pain on a numerical rating scale, he states that it is a "9" on a scale of 1 to 10.

After he takes his diabetic shoes off, you remove his dressing, and Mr. G.B. winces in pain. He states, "It has been hurting pretty much all of the time, but it really smarts when you mess with it." As you gently remove the dressing, the wound appears bright red, friable and inflamed, with slough tissue present. The peri-wound tissue is tender to touch, warm and red. You immediately suspect infection.

Objectives

One of the first questions for the wound-care professional to ask during the initial assessment is "What endpoints are expected?" Is wound closure the goal? Stabilization? Improvement? Or are palliative issues such as a decrease in the wound's pain and/or odour the ultimate objective? Does symptom management outweigh a curative treatment plan, such as with an end-of-life wound? This issue should be answered initially upon admission and must be consistent with the overall purpose and priorities of treatment.

Evidence

The evidence to support the hypothesis that wound pain is a problem experienced across the spectrum is solid. Dallum et al. reported that only two per cent of patients with pressure ulcers who reported pain or discomfort received pharmacologic treatments in their qualitative, cross-sectional study of 132 patients with pressure ulcers.[2] Krasner found that 42 per cent of patients reported pain as continuous, occurring both at rest and at dressing changes.[3] Only six per cent of these patients were prescribed analgesics.[4] During a one-day descriptive study involving 50 patients, Shukla and colleagues showed that 92 per cent experienced pain.[5]

The American Geriatric Society (AGS) Panel on

Persistent Pain in Older Persons found that up to 80 per cent of nursing home residents with pressure ulcers have significant pain that is under-treated.[6] A study of 94 patients by Hofman showed that the main areas of pain were within and around the wound.[7] Hofman also found that 64 per cent of patients rated their pain as "severe," and 50 per cent used mild or no analgesia.

Wound Discomfort

Greater attention should be paid to wound-product evaluations and surveys where characteristics such as pain, maceration, trauma and comfort are observed.[8] From a sensory dimension, information about how the wound "hurts" and what it feels like is uncovered. Following the initial tissue damage, the inflammatory response sensitizes the pain receptors in the skin. This helps the individual locate the extent and site of the wound so that it can be protected. When evaluating non-verbal and/or cognitively impaired individuals, start by performing a physical exam for evidence of purulent discharge, bone involvement, tenderness, erythema or induration. Many cognitively impaired patients can respond to a simple pain scale like the Wong-Baker FACES if asked.[9]

In the acute wound, the pain generally subsides with healing. In chronic wounds, however, the impact of the prolonged inflammatory response can cause the patient to have an increased sensitivity in the wound (primary hyperalgesia) and surrounding skin (secondary hyperalgesia). Further painful or noxious stimuli due to repeated manipulation, such as during dressing changes, will act as a "wind-up" mechanism, which locks the patient into a cycle where any sensory stimulus will register as pain (known as allodynia).[8]

The current understanding of wound pain is primarily drawn from the literature relating to other conditions and the physiology of acute and chronic pain. A quick review will be helpful in comprehending wound-specific pain. There are two major types of pain: nociceptive and neuropathic.

Nociceptive pain results from mechanical or thermal excitation or trauma to peripheral receptors called nociceptors. Nociceptive pain involves the ordinary processing of stimuli that damages normal tissues or has the potential to do so if prolonged. In this way pain becomes a "conscious" perception. This type of pain is usually responsive to non-opioid and/or opioid drugs.

Nociceptive pain can be categorized into **somatic** and **visceral** pain. Somatic pain arises from bone, joint, muscle, skin or connective tissue. It is generally aching or throbbing in quality and is well localized. Visceral pain arises from visceral organs, such as the gastrointestinal (GI) tract and pancreas. Visceral pain tends to be vague and poorly localized and may radiate to unexpected locations.

Neuropathic pain is described as burning, "pins and needles," electrical, shooting or lightning-like pain. It results from either injury to or malfunction of the central or peripheral nervous system. Nerves can be affected by either compression or infiltration by infections, scar tissue or tumours. Neuropathic pain responds poorly to opioids and analgesic treatment and may persist for years.

Since wounds consistently involve damage to nerves, some patients may experience altered sensations as a result of the changes in how the nerves respond (neuropathic pain).[10] Even the lightest sensation, such as a change in temperature or air blowing on the wound, can produce an exaggerated response from the central nervous system, causing the individual excruciating pain. Wound-healing complications, such as maceration, infection and ischemia, may further contribute to the pain response.[11]

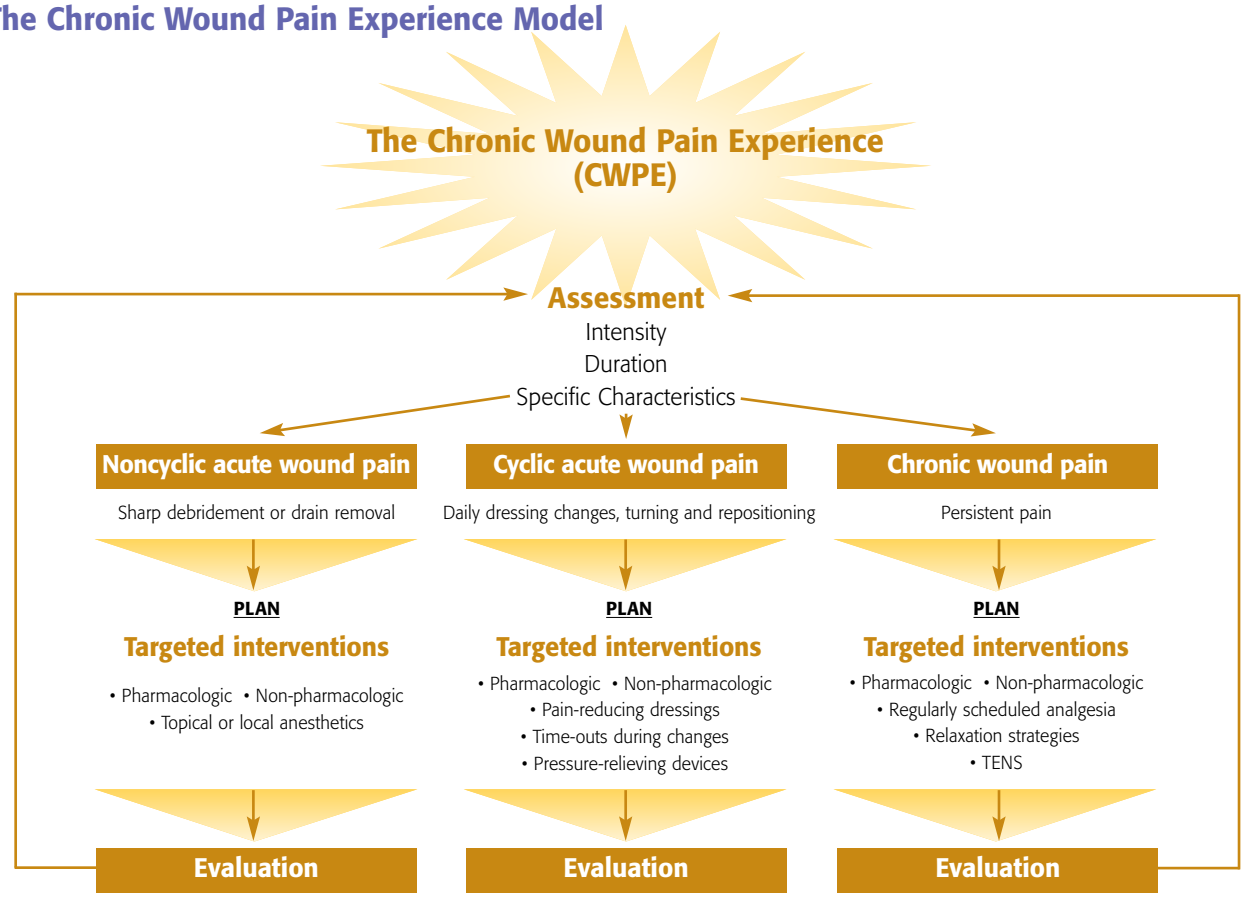
The first model for chronic wound pain assessment and treatment was presented by Krasner in 1995.[3] This useful model highlights the difference between background pain associated with the underlying etiology of the wound and the pain caused by treatment (iatrogenic pain), such as dressing pain. The model is shown in Figure 1.

The European Wound Management Association (EWMA) published a position statement—developed by a multinational group of interprofessional wound-care practitioners—on wound pain and trauma, including wound pain during dressing change.[8] The key findings of this report are shown in Figure 2. This position document began from a growing acknowledgement that pain is a common symptom in patients with a variety of wounds. Findings from a multinational survey study of health-care professionals involved in wound management revealed that 63 per cent of patients experience pain at the time of dressing change.[12] An additional 30 per cent experience pain during routine wound cleansing.

Wound pain can serve as an indicator of inadequate wound management, an untreated underlying cause and/or an infection, as in the case of Mr. G.B. Such pain frequently occurs during dressing change or

FIGURE 1

The Chronic Wound Pain Experience Model



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debridement because of exudate pressure around wound edges, in the infected wound, with the application of antiseptics, and during certain wound-cleansing procedures.[8] Consider not only pain-free wound dressings but also advanced dressings to decrease the frequency of dressing changes.

Unresolved pain can negatively affect wound healing, which, in turn, has a negative impact on quality of life, causing activation of the sympathetic branch of the autonomic nervous system, leading to tissue hypoxia, stimulating the hypothalamic-pituitary-adrenal axis, causing a release of cortisol, and ultimately negatively affecting wound healing.[13,14]

Professionals often define and understand a patient's wound pain based on clinical assumptions. For example, it is frequently accepted that arterial ulcers are more painful than venous ulcers and that small ulcers are less painful than large ulcers. The relationship, however, between the intensity of pain a patient experiences and the type or size of the injury is highly variable and is not an accurate predictor of pain.[8] In a review by Langemo and associates, 50 per cent of patients with pressure ulcers have pain, particularly those with Stage III and IV pressure ulcers.[15] The degree of pain has also been correlated to the stage of the pressure ulcer, thus contradicting the common wisdom that Stage IV pressure ulcers are painless.[16]

In their quantitative study, Szor and Bourguignon have reported that 87.5 per cent of patients reported pain at dressing change and 84.4 per cent of patients with wounds reported pain at rest. Of those patients reporting pain during dressing changes, 18 per cent described it as "horrible" or "excruciating." Forty-two per cent of patients reported it as continuous, occurring both at rest and at dressing change. Only six per cent of the patients had been prescribed analgesics to address their pain.[21] This study used a cross-sectional method to examine the pain experience of 32 patients with Stages II to IV pressure ulcers both at rest and during dressing change.

continued on page 14

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Wound Pain Fundamentals

Assume that every wound is painful and that every patient who has a wound is in pain.[1] Patients frequently experience pain during dressing changes (e.g., from dried dressings, strong adhesives, debridement, and the pressure of exudate), especially around wound edges and in infected or inflamed wounds. Wound pain can serve as an important indicator of inadequate wound management, untreated underlying cause, and/or infection.

Moist wound healing has been demonstrated to result in faster healing,[33,34] less scarring, and less pain. The pain reduction is attributed to the bathing of nerve endings in fluid, preventing dehydration of the nerve receptors.[35]

In summary, the following pain-relief strategies are intuitive yet sometimes forgotten:

- Handle all wounds gently.[8] Flush, don't rub, when cleaning.
- Avoid unnecessary stimulus to the wound, such as prodding or poking or drafts from an open window, fan or vent.
- Protect wound edges with barrier co-polymer, cream or a hydrocolloid wafer cut to fit around the wound.
- Allow patients to change their own dressing if possible.[36]
- Allow patients to call "time out" verbally or by some nonverbal cue like raising their hand.[37]
- Encourage slow, rhythmic breathing and other relaxation techniques.
- Let patients know that there are "no points for bravery" and that blood flow can actually be decreased during episodes of pain.
- Medicate prior to dressing change and debridement. Choose a topical anesthetic that is safe and easy to use. It should be applied approximately 20 to 30 (or up to 60) minutes before the procedure, and under occlusion (plastic wrap), depending on the area to be treated and the extent of treatment.[38]
- Use dressings least likely to adhere and to cause pain such as hydrogels, hydrofibers, alginates, soft silicones[39] and cellulose.[40] Dressings that can dry out, such as gauze, can cause tremendous pain, especially when removed.[41]
- Avoid aggressive packing. Fill, don't pack, the wound with open or dead space.
- Avoid using gauze, which is a key factor in the development of painful wounds.[8] Novel alternatives like the polyacrylate dressings provide moist wound healing and fast, efficient debriding without the pain.[28,42]
- Choose high-tech dressings that are appropriate for a particular wound and can remain *in situ* for longer periods of time to reduce the need for frequent dressing changes.
- Select dressings with absorbency that matches exudate levels.[8]

Dressing and Treatment Tactics

Dressing removal is considered to be the time of most pain.[8] Dried dressing and adherent products are most likely to cause pain and trauma at dressing changes. Products designed to be non-traumatic should be used to prevent tissue trauma. Gauze is most likely to cause pain and should be avoided.[17] Clinicians should avoid wet-to-dry regimens as well.[17]

Consider novel alternatives such as polyacrylate debriding. This method debrides a mean rate of 38 per cent[18] and produces no discomfort[19] while potentially removing biofilm[20] and debriding just as well as collagenase-based[21] products used in the United States and elsewhere and now available in Canada.

One of the most important considerations in selecting a dressing to diminish wound pain is that the chosen dressing must minimize the degree of sensory stimulus to the sensitized wound area.[1] Any dressing that sticks to the wound bed, such as gauze, or dries within the wound bed and is then pulled away, sends more sensory information to the skin's receptors than one that is easily rinsed away or slides off the inflamed tissue.[1] Dressings such as sheet and amorphous hydrogels, hydrofibers, alginates, soft silicones[8] and cellulose dressings[22] provide beneficial wound-healing environments and offer a virtually pain-free dressing removal while curtailing the pain experience during wearing time.

Be sure to select dressings with absorbency that matches exudate levels.[1] Choose dressings that can remain *in situ* for longer periods of time[8] to minimize the chances of wound manipulation and a harmful aggravation of the pain cycle. Contact layers or dressings that remain in close proximity to the wound bed during dressing changes also have proven beneficial in the pain arena.[23] Don't neglect pain management during wound cleansing either. Appropriate non-cytotoxic wound cleansers used at body temperature (~37°C) at 4-15 psi are best to reduce discomfort.[24] Avoid cytotoxic solutions, such as povidone-iodine or hydrogen peroxide, when cleaning the wound,[25] as these can cause discomfort and can be lethal to fibroblasts and keratinocytes.

Simple measures, such as the use of skin preparations (primarily the stingless varieties) in the form of polymers that adhere to the skin to strengthen and prepare it for adhesive application, can lead to less trauma to sensitive peri-wound skin.[26] Use them whenever you dress a wound. When removing a dressing,

avoid unnecessarily manipulating the wound, thus preventing further damage to the delicate granulation and healing tissue within the wound bed and peri-wound skin. If the dressing has become dried out, moisten it with an isotonic solution before removing.[27] Choose dressings that allow less frequent and therefore less painful dressing changes. Also, consider contact layers that stay in place when the dressings are changed, thus staving off potential wound-bed pain.

Silver dressings, especially ionic silver hydrogels, could be one of the most ideal pain-free dressings. These dressings provide a broad-spectrum antimicrobial action with little or no known resistance in nature[28] and maintain moisture balance with pain-free application and removal. They also provide autolytic—thus pain-free—debridement. Silver-based dressings may also display anti-inflammatory actions[29] while eliminating any offensive odours.[30]

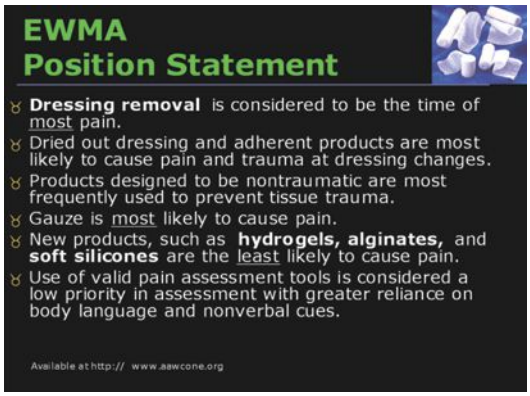
Another area of concern is how the dressing is attached. In a study by Dykes et al., some adhesive dressing caused skin stripping upon removal.[31] One of the many myths surrounding wound pain is that "paper tape is the least painful way to secure a dressing." Heightened nerve sensation in a wide area around a wound can make any adhesive tape painful to remove.[1] A thorough review of the dressings and tapes that you and your facility use is imperative. Are they gentle on thin, aging epidermis as well as on young, immature skin or skin that has endured critical illness? Do these dressings adhere to the underlying skin with a low sensitivity adhesive, yet allow for easy removal and repositioning? Careful evaluation of your protocols is a necessary and important first step. State-of-the-art "tapeless" ways of securing a dressing have been around for centuries; Montgomery straps, Kling gauze, elastic netting, "grip" elastic support bandages and tubular dressings that offer a bit of support and compression (7-8 mm Hg) not only provide support to the dressing but also further protect from the injury and pain of removal and reapplication of tape.[32]

Other Pain-reducing Strategies

Additional pain-relieving tactics that can easily be integrated into advanced wound-caring practice include the following:

- In a qualitative study of patients with pressure ulcers, Dallum and associates showed that pain was significantly lower in patients using support surfaces for pressure reduction.[2] Support surfaces take pressure off of the body's frame and soft tissue, promote a healthy microclimate, and conform to body contours. Check to see if your protocols and procedures include the use of offloading support surfaces for pain management as well as prevention and treatment of pressure ulcers.
- For gentle skin care, use a four-pronged approach: clean, moisturize, protect, and nourish the skin of every patient—every time. Consider going soap-free. Newer products without harsh surfactant-type cleansers use phospholipids to clean, leaving the skin healthier and more comfortable. Look for ingredients like methylsulfonylmethane (MSM), which slows the conduction of pain fibres and helps to reduce inflammation.[43]
- When utilizing Negative Pressure Wound Therapy (NPWT), patients often experience pain. Consider premedicating 30 to 60 minutes prior to dressing removal. Pain can be dramatically reduced by instilling normal saline onto the dressing, and/or by a physician or nurse practitioner's order for lidocaine solution to be injected 30 to 60 minutes prior to removal of dressings. Line the wound bed with an amorphous hydrogel or powder with ionic silver—their use not only helps relieve pain on initiation and removal but can also potentially cut offensive odour and number of days on NPWT—or a non-adherent gauze.[44] Also, be sure to apply a skin prep or sealant to the peri-wound skin prior to applying the occlusive drape.[45] Other strategies include keeping exposed tissue moist with normal, saline-soaked gauze or impregnated hydrogel gauze during long dressing changes and NPWT changes. Ensure that adequate personnel participate in the dressing change to minimize the time spent. More than one clinician is usually necessary to change these complex dressings.

Figure 2



Key findings of EWMA Position Statement.[8]

Revisiting Mr. G.B.'s case

Mr. G.B.'s case is certainly not an isolated one. Wounds and pain often go hand-in-hand, and patients suffer

silently. Pain as a symptom can indicate critical colonization, or worse, infection, which happened with Mr. G.B. Therefore not only should pain be assessed at regular intervals—such as during dressing changes—but also patients should be encouraged to report pain.

After the interprofessional team met to discuss Mr. G.B'.s case, they developed an extensive plan of care, including the eradication of his wound infection and the associated pain. After discussing the strategy with Mr. G.B., the physician debrided the slough tissue and peri-wound callus of his Wagner grade III ulcer. The staff then used a safe, broad-spectrum, antimicrobial cleanser containing benzethonium chloride (BC) and sent a bottle of the cleanser home with Mr. G.B. to use at every dressing change.

Since the wound produced signs and symptoms of clinical infection and was highly exudative, an ionic silver alginate/CMC combination dressing was applied, which was later changed to an ionic silver amorphous hydrogel because the wound became dry. Additionally, the infectious disease physician ordered systemic antibiotic therapy. The chiropodist/podiatrist was consulted for appropriate offloading and, later, new diabetic-shoe fitting as the ulcer healed. Often, systemic antibiotics are unable to reach ischemic tissue, including that of diabetic patients, so a topical antimicrobial should always be used in addition to systemic therapy.[46]

Mr. G.B. reported a decrease in pain on the numerical rating scale from a "9" down to a "2" within the first 24 hours. His mood and attitude were much more positive and consistent with his normal personality. Now, when the home-care nurse visits, she calls to report that the redness, tenderness and exudate levels have diminished and that Mr. G. B. is laughing and telling jokes as before.

Victory came by challenging this important pain issue directly and by dealing with the impending critical colonization. Simple solutions to address the various types of wound pain are available and can easily be incorporated into the plan of care.

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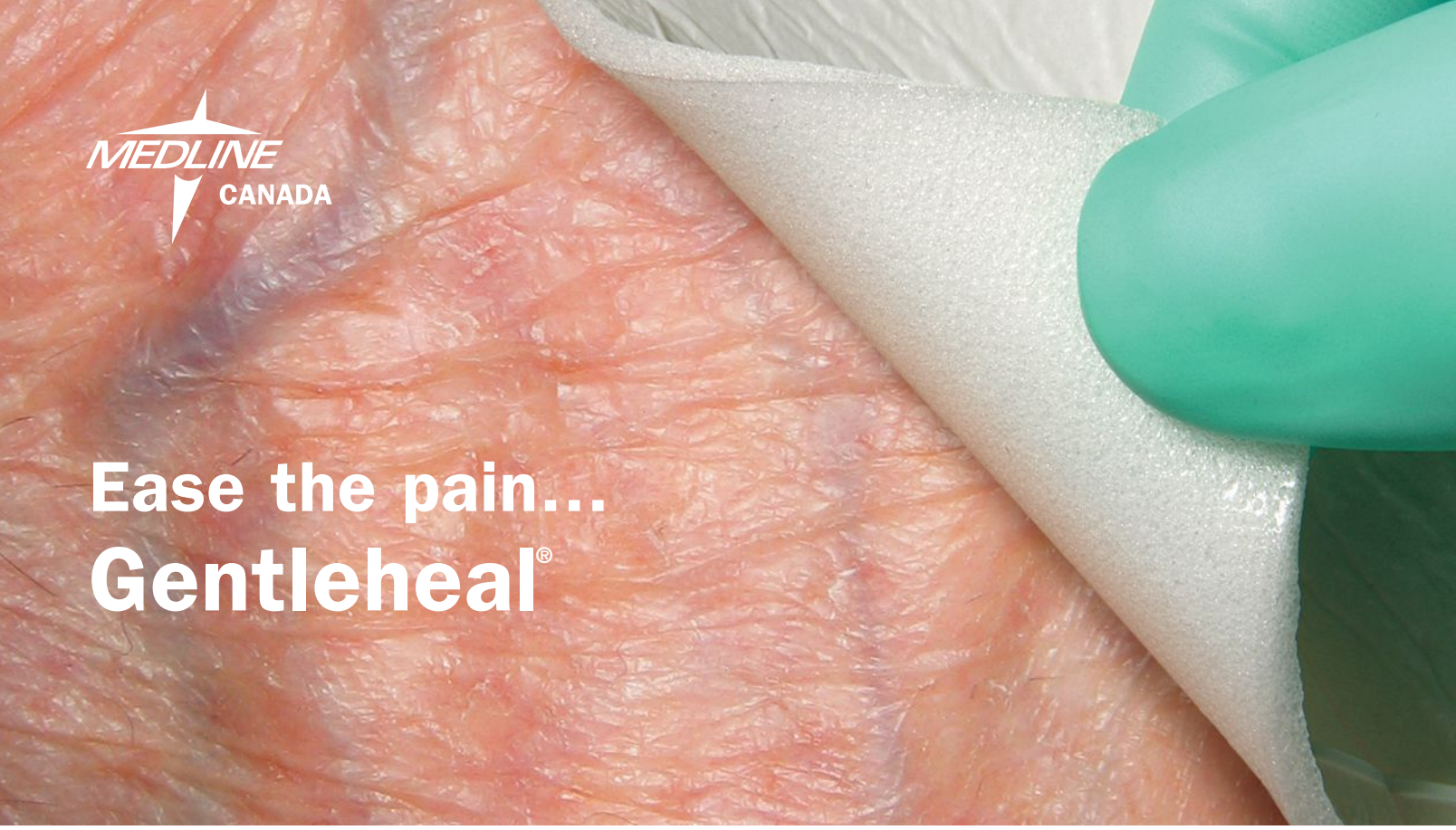

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Implementing a Complex-wound-care Rotation for Medical Residents:

The Centre Hospitalier de l'Hôtel Dieu de Lévis Experience

BY Richard Belley

September 25, 2006, was a proud day for all members of the Complex Wound Care Clinic of the Centre Hospitalier Affilié de l'Hôtel Dieu de Lévis, as we welcomed our first resident into a complex-wound-care rotation. Getting this new program off the ground required systematic steps to obtain the support of hospital administration and university faculty. This article outlines the steps we took to get the rotation implemented in our facility and discusses some of the rewards and challenges in launching a program of this type.

Richard Belley, MD, BSc, was certified by the College of Family Physicians of Canada in 1995 and has been practising emergency medicine since then. Since 2002, he has been a member of the Complex Wound Care Clinic and the Hyperbaric Medicine facility at the Centre Hospitalier de l'Hôtel Dieu de Lévis, affiliated with Laval University, Quebec City, QC. He is also a clinical professor and the main supervisor for the complex-wound-care rotation at the Faculty of Medicine of Laval University.

Prerequisites

To offer a complex-wound-care rotation you need a motivated wound-care service and the capacity to do so. In practical terms, the "capacity" of the service means the following: (1) university affiliation or links with a faculty of medicine, (2) an existing clinical structure with clinicians who are interested in teaching and who have the appropriate expertise in their fields of practice, (3) a critical volume of patients, (4) a sufficient number of examination rooms and offices to allow adequate work space for residents, nurses, wound-care physicians and specialty consultants as needed, (5) staff driven by a multidisciplinary approach to wound care, and (6) up-to-date technology for investigation and therapeutic purposes.

Developing the Curriculum

Once these practical issues have been addressed, a curriculum can be developed and presented to the Faculty of Medicine of the affiliated university. Our university's requirements included a *curriculum vitae* from each of the rotation's supervisors, with special emphasis on research experience and teaching abilities. Also the

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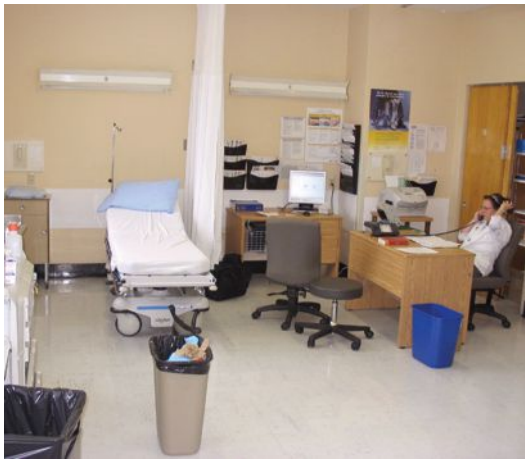

The examination room of the Complex Wound Care Clinic at the Centre Hospitalier Affilié de l'Hôtel Dieu de Lévis.

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curriculum must contain rotation details, such as location and duration, residents' training level, resident capacity during any single period, and course objectives. In our case, we chose to have first- or second-year residents from different services such as internal medicine, family medicine, dermatology, emergency medicine, geriatrics or surgery. We decided to offer a one-month rotation, open to only one resident at a time.

In developing the rotation, objectives must be clear and precise, as they are relied on by both residents and supervisors for evaluation purposes (Figure 1). The different types of learning situations, the format of supervision and a description of the clinical team must be presented. For example, in our case, "the resident involved in the complex-wound-care rotation will be exposed to patients with various types of wounds originating from ambulatory care (85 per cent), hospital (15 per cent) and emergency wards (five per cent). Each resident has to perform his/her own evaluation of the patient, elaborate a differential diagnosis, and decide on the investigation and treatment plans. The resident must be actively involved in multidisciplinary discussions. The resident will work with one of the clinic's eight physicians at any one time, who are themselves family medicine practitioners or emergency physician specialists with expertise in complex wound care, as well as one or two ostomy and wound-care nurses." A typical schedule for a one-month rotation is presented in Figure 2.

FIGURE 1

Objectives of the Complex-wound-care Rotation

1. Diagnose, investigate and treat different types of wounds:
   - venous ulcers
   - arterial ulcers
   - mixed venous and arterial ulcers
   - diabetic and other neuropathic ulcers
   - pressure ulcers
   - infected ulcers with osteomyelitis
   - inflammatory ulcers
   - chronic ulcers secondary to any type of cutaneous condition
2. Assess the pertinence and the type of debridement to use.
3. Apply knowledge related to wound healing for the selection of dressings and other topical wound-care products and devices.
4. Understand the role of investigation tools to evaluate the vascular status of some chronic wounds. Be aware of the uses of and indications for transcutaneous oxymetry, especially regarding systemic hyperbaric oxygen therapy.
5. Be capable of discussion with the patient and family to include them in global treatment decisions and to ensure that questions and concerns have been addressed.
6. Appreciate the multidisciplinary approach in complex wound care and the role of the different specialists involved (nursing, shoe and ortheses specialist, physiotherapist, nutritionist, hyperbarist, orthopedist, vascular and plastic surgeon, endocrinologist, internist, interventional radiology, nuclear medicine, infectious disease specialist, neurology, dermatology, etc.)
7. Organize a treatment plan through appropriate communication between physician and home-care nursing.
8. Appreciate the problems, both economical and psychosocial, that could have a direct impact on the treatment plan.
9. Be able to involve the patient in the treatment plan and recognize the patient at risk of re-ulceration.
10. Apply evidence-based medicine to complex wound care.

Adapted from the Dermatology Day Care and Wound Healing Clinic, Sibbald, Ryan and Reddy, University of Toronto, August 2004.

Reference books must also be available on site (Figure 3). If possible, introductory documents pertaining to the rotation must be handed out to each resident upon his or her acceptance into the rotation. Each resident beginning a rotation with our clinic receives a document developed by our staff. This document, considered essential, includes administrative information, a copy of the 2006 Best Practice Recommendations articles (with permission from the editors of *Wound Care Canada*) as well as copies of PowerPoint® presentations given by our physicians in the past.

Once the overall curriculum has been developed, it can be presented to the university faculty, which, in our case, consists of program directors representing all specialties, including family medicine. The program directors are then free to propose the rotation to their residents.

Rewards and Challenges

Positive and negative outcomes have arisen from the submission process. One of the positive elements was that our project was perceived as an innovative rotation not yet offered at Laval University. Complex wound care is a subject not usually considered in Quebec medical faculties, and this rotation was said to offer residents the opportunity to gain knowledge that would be useful in their practice, regardless of specialty.

The development of the rotation resulted in approval being given by hospital administration for the transfer of the wound-care clinic to a newer, larger location in

FIGURE 2

The Resident's Typical One-month Workload During the Rotation

- familiarization with the introductory document (especially the 2006 best practice recommendations) received at the beginning of the rotation
- evaluation of all new ambulatory patients at the wound-care clinic
- evaluation of ambulatory patients during follow-up visits to the wound-care clinic
- emergency-room consultations for all diabetic foot ulcers or other types of chronic wounds for which an expert opinion on wound care or dressing is requested
- new consultations and follow-up on the ward for patients with Wagner stage 2 or more
- one half to full day at the transcutaneous oxymetry laboratory
- one half to full day at a prosthesis and orthesis laboratory
- one half to full day in the hyperbaric medicine service
- one to two days of home care (medical evaluation of patients at home with a physician and home-care nurse)
- lectures given by physicians of the complex wound clinic on various subjects

the hospital. The previous location was not an ideal working environment for the residents, so expansion to a new location was deemed a prerequisite by our clinical team. The new room now allows for the care of three patients at a time and creates an ideal working environment for nurses, physicians and residents.

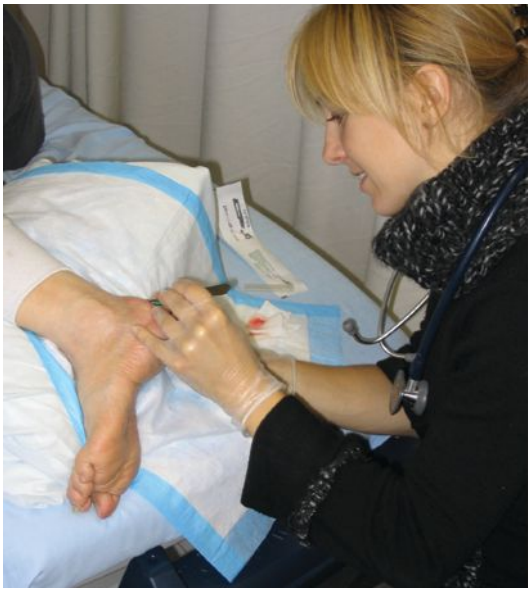
One of the challenges in having residents in the Complex Wound Care Clinic is related to a modification in the physician schedule. Small changes in the clinic schedule are necessary in order to accommodate teaching activities such as conventional lectures or bed teaching. These teaching activities take time and are unfortunately not always remunerated as well as clinical activities in the Quebec health system.

FIGURE 3

References Available to Residents

Following is a non-exhaustive list of reference books made available at the hospital library for the residents:

- Krasner DL, Rodeheaver GT, Sibbald RG, (eds.). *Chronic Wound Care: A Clinical Source Book for Healthcare Professionals*. Wayne, PA: HMP Communications. 2001.
- Bowker JH, Pfeifer MA, (eds.). *Levin and O'Neil's The Diabetic Foot*, Sixth Edition. St. Louis: Mosby. 2001.
- Sheffield PJ, Smith APS, Fife C, (eds.). *Wound Care Practice*. Flagstaff, AZ: Best Publishing Company. 2004.



Dr. Geneviève Gaudreau, a first-year resident in plastic surgery, doing sharp debridement on a patient with a chronic diabetic neuropathic ulcer.

Overall, our wound-care team sees the implementation of this new and innovative residency rotation at Laval University Faculty of Medicine as an extraordinary opportunity to instill in these future physicians an awareness of the wound-care and multidisciplinary work to which they will be rarely exposed during their residency training. We think many residents from various specialties could benefit from the rotation and become more confident physicians when exposed to these types of pathologies, which already account for a large proportion of general care given to a progressively aging population.

Puzzling Cases: Wound Sleuth

BY Rob Miller

Rob Miller, MD, FRCPC, has been practising dermatology for the past 20 years. He worked as a general practitioner in Ontario, British Columbia and South America before pursuing his studies in dermatology at McGill University in Montreal, QC. He is currently Associate Professor of Medicine at Dalhousie University and Co-director of the Chronic Wound Care Clinic at the QEII Hospital in Halifax, NS.

A 60-year-old female presents to the wound-care clinic with bilateral, weeping, foul-smelling, ulcerated lower legs. She has been treated with antibiotics without much improvement. She has had a variety of dressings and compression therapy, but little change has occurred over the last three months.

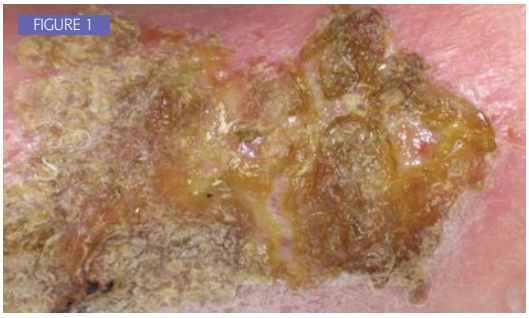
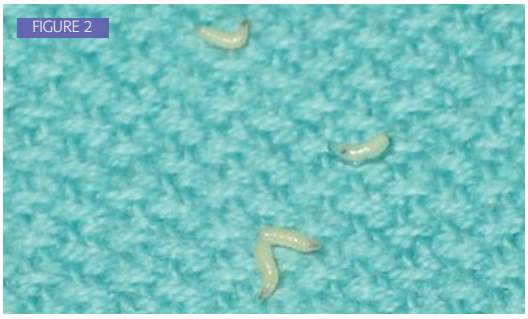


Figure 1 shows the lower leg as it presented to the clinic. When you carefully examine the lower leg you notice that there is some activity in the wound!

To take a closer look, you take a wound smear and put it onto a slide (Figure 2).



Question: What is the diagnosis?

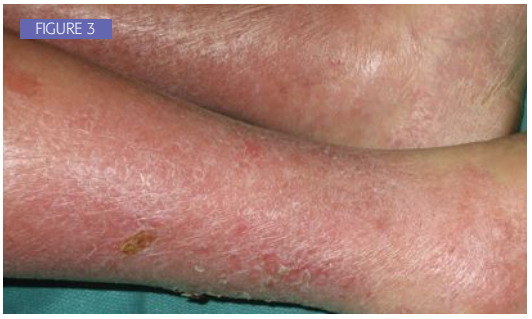
Answer: Myiasis. The wound has become a breeding ground for flies.

At this stage you would do the following:

1. Carefully step backward and run from the room.
2. Become violently ill from seeing the thousands of larvae in front of you.
3. Tell the patient that the wound is going to improve with time and arrange for a follow-up.

Answer: 3. Myiasis (maggots) is a biological method of debridement that is fast and selective and removes dead tissue and bacteria as well as stimulating granulation tissue. Most patients would probably not opt for this method of debridement, but once the dead tissue and bacteria have been removed from the wound, the maggots will automatically disappear, as they will no longer have a substrate to feed on.

Figure 3 shows the patient's legs two months after her initial visit with complete resolution of her ulcers and the foul smell. (Her only complaint was that she noticed there were more flies than usual in her home this past summer.)



Learning Points

- Myiasis is an effective method of debridement and should not shock the wound-care specialist taking care of the patient. Rarely it may be associated with infection.
- If you see something moving very slowly in a wound, suspect a maggot infestation.
- Once the substrate that nourishes the maggots is gone, the maggots will leave.

Reference

Pearson C. How wounds heal: A guide for the wound-care novice. *Wound Care Canada*. 2006;4(2):10-13.

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A New Master's Program in Wound Healing

BY
Pamela E. Houghton

There is a great need in Canada for a master's-level graduate program in wound care that will prepare clinician scientists to advance wound-care research and practice in this country.

A proposal has been developed to provide new, advanced education in the specialized area of wound healing at the University of Western Ontario (UWO) in London, Ontario. The overall objective of this proposed Master of Clinical Science – Wound Healing (MClSc-WH) program is to provide an interprofessional educational experience at the graduate studies level that will concurrently focus on the development of specialized clinical skills and research methodology. Specific objectives of the program include the following:

1. to develop and practise knowledge, skills, and behaviours needed to support and foster best practices in wound care
2. to participate in discussions with professionals from other disciplines and appreciate the important role each member can bring to an interdisciplinary wound-care team
3. to experience wound-care practice of nationally renowned wound-care experts who can act as clinical mentors and provide a role model for advanced practice in wound care
4. to appreciate how to critically appraise and incorporate research and best-practice guidelines into evidence-based clinical practice
5. to obtain research skills that will facilitate active participation in wound-care research

These objectives will be achieved through six credits.

1, 2 – Wound Care Courses A & B: Two courses that will instruct and evaluate specialized clinical skills and clinical reasoning specific to the field of wound healing. For example, utilizing appropriate wound-healing outcome measures; understanding etiology underlying common types of chronic wounds; lower limb assessment and compression therapy; wound-dressing selection, wound cleansing and debridement, and application of adjunctive wound-care therapies.

3 – Research Methodology: Includes knowledge and skills needed for critical appraisal, abstract and grant proposal writing, and scientific presentation.

4 – Advanced professional practice skills including professionalism, communities of practice, critical thinking and clinical reasoning, reflective practice, ethics, client-centred practice, transcultural issues, and leadership and mentorship in scientific communication.

5 – Clinical Mentorship: The advanced knowledge needed for wound-care practice will be supplemented by mandatory clinical mentorship hours with qualified expert clinicians who will evaluate each candidate's clinical competency.

6 – Research Experience: Involving collection and analysis of data using case-study or single-subject designs, or the scholarship of knowledge translation.

This information and these experiences will be offered through a combination of traditional classroom teaching and distance education instruction. The courses will use online resources, distance education, seminars, discussion, written assignments, and seminar presentations, clinical mentoring courses, and participation in a graduate-level research selective.

Core faculty and instructors represent several different health-care disciplines and specialties—for example, Dr. Bing Gan, plastic surgeon; Dr. Gary Sibbald, dermatologist/internist; Dr. Pamela Houghton, physical therapist; Dr. Gail Woodbury, epidemiologist; Dr. Rosemary Kohr, nurse practitioner; Karen Campbell, nurse practitioner; Kathryn Kozell, enterostomal therapist; Linda Norton, occupational therapist; and Chris Fraser, dietitian.

Pamela E. Houghton, BScPT, PhD, is Associate Professor at the School of Physical Therapy, University of Western Ontario, London, ON.

This proposed program has been developed in collaboration with existing wound-care education programs and organizations, including CAET, UWO School of Nursing and the IIWCC course at U of T. For example, to help facilitate a seamless link between this master's program at UWO and the IIWCC at U of T, it may be possible for individuals who have successfully completed IIWCC courses to apply for advanced standing in one or both of the two wound-care credits of this master's program. In this way, individuals who have already mastered the knowledge, skills and behaviours of advanced wound-care practice can potentially pass the competency exams of these MClSc courses without needing to complete all of the course work.

Provided this proposal is approved by the Ontario Council of Graduate Studies, this graduate program will be the first in Canada to offer a Master of Clinical Science (MClSc) in Wound Healing. This graduate program is scheduled to begin accepting its first group of five students in September 2007 and is planned over three academic terms (one year). Part-time studies may be available under special circumstances where the six required components can be obtained over two academic years. Admission requirements include a four-year undergraduate bachelor's degree (or equivalent), at least a 70 per cent entrance average (78 per cent preferred), and evidence of at least two years of clinical experience in wound care.

It is hoped that this interprofessional master's program will increase collaboration among health-care disciplines and encourage expert clinicians to participate in clinical research in wound healing. The use of distance education modules, in addition to traditional face-to-face learning, will enable highly qualified individuals to participate in graduate education who do not live in close proximity to UWO. Some graduates of the MClSc program may be encouraged to pursue further doctoral training through direct entry into PhD programs that are available at UWO and other universities. Development of post-graduate education programs will help build much-needed capacity of wound-care researchers in Canada and help to establish wound care as a distinct and legitimate area of specialized practice.

For more information about this proposed program, contact Dr. Pamela Houghton at phoughto@uwo.ca or visit www.uwo.ca/fhs/pt/MClSci/index.htm for updates.

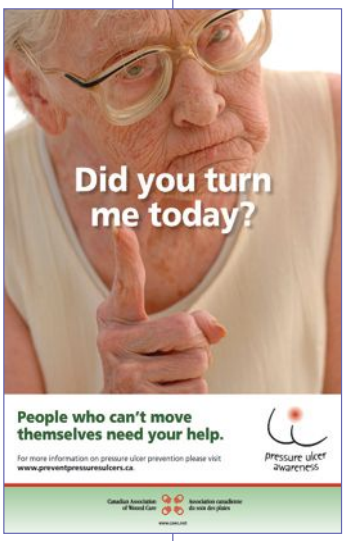
Pressure Ulcer Prevention: An Enabler for Clinicians

BY Heather L. Orsted, MSc, RN, BN, ET, AND Kyle Goettl, RN, BScN

Pressure ulcers affect one in four Canadians in health-care facilities yet most pressure ulcers can be prevented. It is time for clinicians to "A.C.T." to prevent pressure ulcers.

Assess patients/residents on admission using the risk parameters identified on the Braden Scale for Predicting Pressure Sore Risk:

- sensory perception – patient's ability to respond meaningfully to pressure-related discomfort
- moisture – degree to which the patient's skin is exposed to moisture
- activity – degree of physical activity that the patient is capable of
- mobility – ability of the patient to change and control body position
- nutrition – the patient's usual food-intake pattern
- friction and shear – mechanical forces affecting the patient's skin integrity



Educate patients/residents and their families on the identified risks. Document the Braden Scale score prominently to increase clinician awareness of each patient's risk.

Change plan of care based on identified risks from the Braden Scale using a best-practice approach.

- Provide best-practice care and consult other health-care clinicians, such as a dietitian or occupational therapist, as required to eliminate or reduce identified risk factors.

Timely re-assessment is necessary, according to individual patient need.

- Provide weekly monitoring of patients identified by the Braden Scale as high/very high risk.
- Follow the recommended Braden Scale re-assessment schedule:

– Acute-care facilities:
  - ICU–every day
  - General nursing units – every 48 hours

– Home Care – with every RN visit, depending on stability of patient

– Nursing homes – every week for one month, then with changes in condition or with other routines.

Know Your Own Resources

Skin-care resource: _____

Occupational therapist: _____

Physical therapist: _____

Dietitian: _____

Seating: _____

Other: _____

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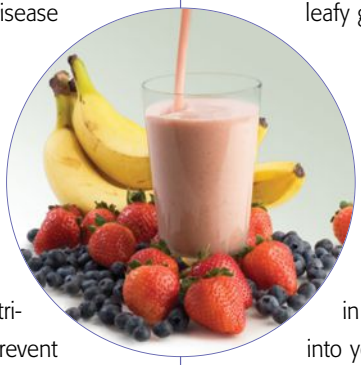
Foods First: Nutrition, Pressure Ulcer Management and Skin Health

BY Chris Fraser, HBSc, RD

The following nutrition resource may be reproduced by health-care professionals and provided to clients who are at risk for or present with pressure ulcers. It is important to note that nutrition education and intervention for pressure ulcer management must take into account the client's complete clinical presentation. The enhancement of certain nutrients and/or fluids may be contraindicated for patients with concurrent disease states such as renal impairment.



Eating Right Helps Keep Skin Healthy

The foods you eat provide your body with energy (calories) and many nutrients, such as protein, vitamins and minerals. Some of these nutrients are especially important to help prevent or heal pressure ulcers and to keep skin healthy.

It is very important that you try to increase your intake of foods that provide you with **protein**. High-quality sources of protein include meat, fish, poultry, eggs, milk, cheese, yogourt, pudding and ice cream made with milk. Protein is also found in lower amounts in nuts, legumes (such as brown beans, navy beans, kidney beans, soy beans, chick peas, split peas and lentils) and foods made with whole grains.

Vitamins and **minerals** such as vitamin C, vitamin A, iron and zinc are other nutrients found in foods that help our bodies to heal wounds and to maintain healthy skin. Here is a list of foods that are key sources of these important nutrients:

Vitamin C: citrus fruits and juices, strawberries, tomatoes, sweet peppers (especially red), broccoli, potatoes, cauliflower, cantaloupe and Brussels sprouts.

Vitamin A: milk, eggs, liver, cheese and fish. Beta-carotene is changed into vitamin A in the body. Choose fruits and vegetables such as carrots, sweet red peppers, pink grapefruit, broccoli, mangoes, peaches and leafy greens.

Iron: beef, pork, chicken, turkey, fish, eggs, liver, kidney, legumes, nuts, dried fruit, leafy green vegetables, pasta, bread and cereals that have added iron. Cooking in iron pots adds iron to foods too! The iron found in animal products (such as meats) gets into your body more easily than iron found in plants (such as vegetables). If you eat an iron-containing food at the same time as another food or juice that has vitamin C in it (see vitamin C list, above), it will be easier for your body to absorb the iron from the foods you eat.

Zinc: meats (beef, chicken, turkey, pork), fish and seafood (especially oysters), liver, eggs, milk, legumes, whole-wheat products and wheat germ.

The foods listed above are the main sources of these vitamins and minerals, but there are many foods that contain these nutrients. When you eat a wide variety of foods every day, you are giving your body the **vitamins**,

minerals, **protein** and **energy** it needs to heal your skin and keep it healthy.

Many people may not consider **water** to be a nutrient, but it is! Water is very important for wound healing, and it contributes to health and well-being in many ways. Our bodies may not always tell us that we are thirsty, especially as we get older. Therefore, it is necessary to plan water and other drinks, such as milk, fruit and vegetable juices, into meals and snacks.

Caffeine-containing drinks such as coffee, tea and cola are okay to take in moderation, but should not be used as your body's main source of water. Caffeine may increase the amount of water your body loses through urine. Try to drink no more than four cups per day of liquids that contain caffeine.

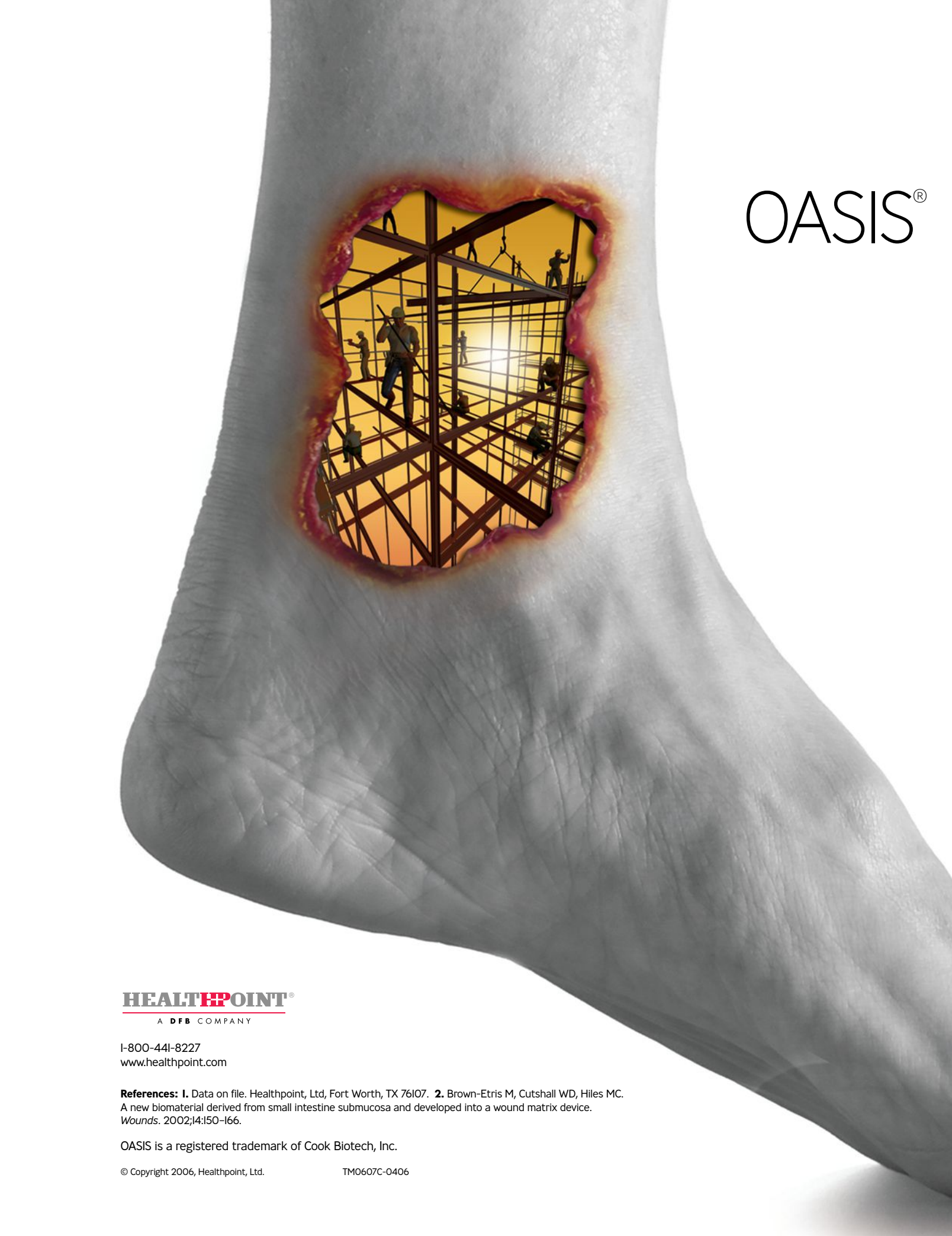
Do not take the nutrients listed in this article in the form of vitamin or mineral pills without first discussing it with your doctor and dietitian.

Talk to your doctor and dietitian before significantly increasing the amount of these nutrients in your diet.

Developed as a patient/client education tool by Chris Fraser, HBSc, RD, Parkwood Hospital site, St. Joseph's Health Care, London, Ontario. Not to be utilized by patients/clients with clinical conditions associated with contraindications to elevated levels of these nutrients.

Eat a balanced diet

If you choose three of the four food groups (grain products, vegetables and fruit, milk and alternatives, and meat and alternatives) at each meal, and one or two of the food groups as snacks, you are helping your body get the nutrients it needs to prevent or heal pressure ulcers and achieve better health!



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References: 1. Data on file. Healthpoint, Ltd, Fort Worth, TX 76107. **2.** Brown-Etris M, Cutshall WD, Hiles MC. A new biomaterial derived from small intestine submucosa and developed into a wound matrix device. *Wounds*. 2002;14:150–166.

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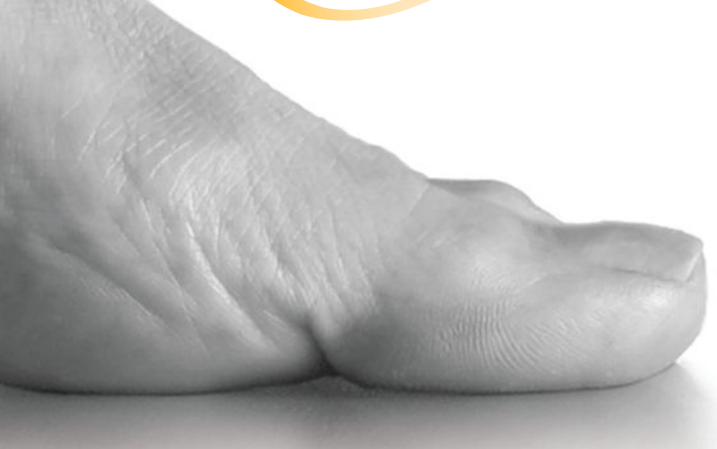

Getting the Word Out:
Creating an Information Campaign that Works

BY Laurie Angle, RN (EC), MN

Staff education is at the heart of effective wound management. Unfortunately, educational sessions are often poorly attended despite the staff's strong desire to learn more. With bulletin boards cluttered with signs advertising upcoming educational sessions, it becomes doubly difficult for the clinician to decipher what to attend and where. This problem was effectively solved by Donna Beddis, the Director of Nursing (DON) at Grace Villa, a long-term-care home in Hamilton, Ontario. Beddis and the facility's 12-member multidisciplinary wound-care committee created a successful approach to advertising an upcoming educational session for staff in wound care.

The campaign started simply, but effectively, with a sign in the elevator. The sign had a large black circle located in the centre of the page. Inside the circle, written in white, were the words "Offloading: Coming Soon to Grace Villa." Near the nursing station was a similar sign tacked to the bulletin board. No time and no place were mentioned—simply the words "Coming Soon."

Two weeks later, new signs began to appear. The second sign read "Offloading: Look for this." The saying was located inside a red circle on a white piece of paper. This sign was posted for two weeks. The next sign in the series was a circle that was half pink and half red on a white piece of paper. On the red portion of the circle the sign stated, "Offloading: Can't find these" and on the pink portion of the circle the sign stated, "Look for this." It too was posted for two weeks. The final sign, a white piece of paper, stated, "Offloading should look like this."

Results

The posters met the committee's goals. Once the signs were posted, staff started talking, and they were asking questions. They appeared interested in the concept of offloading. Some residents even began to ask questions regarding offloading. People were communicating.

Beddis recognized the success of the campaign by the volume of responses she received and the amount of guessing, conversations and effort the staff put into answering her pre-session question about offloading. It may have been easier to simply put up a sign informing the staff of the upcoming offloading session, but it would not have been so widely received. In this case, an effective communication campaign became the key to building interest in the education sessions.

What an Information Campaign Can Achieve

It is important to determine what you want to achieve before embarking on an information campaign. Some goals may include[1]

- gaining positive coverage or increased exposure for your event
- enhancing your facility's image and reputation among residents, prospective residents and staff
- attracting and communicating with prospective residents
- creating closer ties among residents and staff within your facility

Reference

1. Small Business Association. Developing an effective media campaign. 1997. Available on-line at www.sba.gov/test/wbc/docs/market/mk-campaign-pr.html. Accessed November 7, 2005.

CAET, Nursing Leaders in Wound, Ostomy and Continence Care

The Canadian Association for Enterostomal Therapy (CAET) is pleased to announce a new competency-based curriculum for the Enterostomal Therapy Nursing Education Program (ETNEP). The CAET is now accepting students for September 2007.

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Application deadlines:

May 31, 2007, for the course beginning September 4, 2007
November 15, 2007, for the course beginning February 18, 2008
Don't wait any longer! Visit the CAET Web site at www.caet.ca for more information.

An Interview with **Dr. Barbara Braden**

From Humble Beginnings

The Development of an Internationally Recognized Scale

Dr. Barbara J. Braden, PhD, FAAN

INTERVIEW BY Catherine Harley, Associate Editor, *Wound Care Canada*

Barbara J. Braden, PhD, FAAN, is Dean of University College at Creighton University in Omaha, Nebraska. She received her bachelor's degree from Creighton University in 1973, her master's from the University of California at San Francisco in 1975 and her doctoral degree from the University of Texas at Austin in 1988. She is best known for her work in the development of the Braden Scale for Predicting Pressure Sore Risk, which has been translated into many languages and is used on all continents. Dr. Braden is a Fellow of the American Academy of Nursing, a member of the NPUAP board of directors and has had papers published in top-tier nursing and multidisciplinary research journals. She has received many awards for her work, not only in the U.S. but also in Europe.

Q What prompted you to get involved in pressure-ulcer risk assessment?

I was awarded a grant from the Robert Wood Johnson Foundation to begin teaching nursing home projects in conjunction with two nursing homes. One of the objectives of that project was to improve nursing home care by bringing nursing research to bear on important clinical problems in the homes. After identifying 11 clinical problems that the staffs of both homes agreed were areas of concern, I issued requests for proposals (RFPs) to nursing faculty at the two participating university schools of nursing. I received six proposals, but none addressed the problem of pressure ulcers. The directors of nursing at the two homes were very disappointed and asked that I take on this topic myself. I used existing risk-assessment tools and some additional clinical review of nursing processes to try to establish which group of risk factors was contributing to the development of pressure ulcers in those two settings.

Q Tell us about the development of the Braden Scale.

In my initial exploration, I found that poor nutrition appeared to be contributing to the excess incidence in the nursing homes. Many times this occurred in patients who had trouble tolerating tube feedings and were being given inadequate amounts to support their metabolic needs. Dr. Nancy Bergstrom had answered the RFP on nutrition and was doing a study of nutritional intake in the nursing homes at that time. I discussed this with her and we decided to collaborate on a new study to validate the "Good, Fair, Poor" nutrition subscale used in the Gosnell Scale. Our study showed that nurses tend to rate everyone as "fair," and rate very few patients as having "good" or "poor" intake. However, none of the patients in this sample developed a pressure ulcer, so we could not test our theory that nutrition was a significant risk factor for development of a pressure ulcer. As a result, we decided to write for an National Institutes of Health (NIH) grant to explore the relationship between nutrition and pressure-ulcer development.

In the process of writing the grant, Dr. Bergstrom concluded that we would need to screen patients and only recruit those patients who were at risk for developing a pressure ulcer. When she asked me about existing risk-assessment scales, I told her there were many measure-

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ment and conceptual problems with existing scales—to which she replied, "Then go home and fix it!" So I went home that evening, sat down at the dining room table and went through the subscales used by other scales and "fixed" them—both conceptually and with more appropriate scaling.

Q Could you walk us through the original implementation of the Braden Scale?

The first time we implemented the Braden Scale was as a screening tool for our study of nutrition and pressure-ulcer development. I trained the nurses by talking to them about the subscales and about the patients they were screening for admission to the study. It was later that I helped a local hospital implement a program of prevention that included risk assessment, guided protocols and process and outcome audits. When I assisted them in training and implementation, I used lecture and case studies with follow-up two weeks later to see what problems and questions they had after using it with "real" patients. Later, we developed a videotape that went over each subscale and gave examples of use in clinical practice. This videotape, along with a CD developed by JoAnn Maklebust that uses case studies to establish and maintain nursing competency in using the Braden Scale, is what I recommend to others who are implementing the Braden Scale in English-speaking settings.

Q How has the reliability of the Braden Scale been tested?

The interrater reliability of the Braden Scale was tested among RNs, LPNs and NAs. These tests were completed without training in the use of the Braden Scale to determine (a) if it was easily understood by those with clinical knowledge of a patient's condition and (b) if the rating descriptors were sufficiently clear and mutually exclusive of other ratings so there would be a high level of congruence between each level of caregiver. Unfortunately, only the RNs appeared able to achieve an acceptable level of interrater reliability when using the Braden Scale without training. We also tested the reliability on both the day shift and the evening shift to see if one group would be more reliable in using the Braden Scale than another group. (It made no difference.)

Q How many languages has the Braden Scale been translated into?

Fifteen or 16 that I know about, but it is possible that there are more. And there are often a large number of different translations in the same language. For example, some clinicians in Canada found eight different versions in the French language.* You also find translations into the same language with differences that occur by virtue of location or dialect; e.g., different Portuguese translations have been done for Brazil and Portugal.

Q To what do you attribute the success of the Braden Scale?

It seemed to catch on like wildfire, so I have to believe that clinicians were looking for a risk-assessment tool that made sense to them. But several other factors also contributed. One was the emphasis on evidence-based care that emerged in the late '80s and early '90s, and the Braden Scale had the most recent research findings related to reliability and validity. On the heels of the movement to evidence-based care was the publication of the AHCPR guidelines, which endorsed the use of the Braden Scale or the Norton Scale. But, lastly, I believe that ETs and WOCN and other nurses who specialized in wound care were innovators and early adopters of the Braden Scale. Without those nurses, it is unlikely that the rank-and-file staff nurse would have run across the Braden Scale.

Q What major obstacles has the Braden Scale overcome?

The major obstacle to use has been that nurses are overwhelmed with the amount of paperwork required of them, so when they were asked to complete the Braden Scale, they sometimes resisted. But this is normal behaviour with new technologies and most nurses have seen the need to insert risk assessment into their busy routines.

> A recent systematic review by Pancorbo-Hildalgo and colleagues … concluded that the Braden Scale had been tested in the largest number of studies, had demonstrated the best reliability and validity indicators in a variety of settings, and was a better predictor of pressure ulcers than nursing judgement.

Q What differentiates the Braden Scale from other risk-assessment tools such as the Norton Scale or the Waterlow Scale?

A recent systematic review by Pancorbo-Hildalgo and colleagues examined studies of various risk-assessment tools published in Spanish, English, French and Portuguese and performed a meta-analysis to determine which of the many risk assessment tools available demonstrated the best reliability

continued on page 38

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The Braden Scale is available on paper, as a chart form and as a pocket card. Many software companies have incorporated it into their electronic information systems. And some clinicians have cleverly made it into mouse pads so the full and unabridged version is available to the nurses as they chart using an electronic record.

and validity. They compared the Braden Scale, Norton Scale and the Waterlow Scale. They concluded that the Braden Scale had been tested in the largest number of studies, had demonstrated the best reliability and validity indicators in a variety of settings, and was a better predictor of pressure ulcers than nursing judgement. The differences lie in the way that risk factors were conceptualized and/or operationalized. For example, the Norton Scale had mental status as one of the risk factors and conceptualized this as a combination of level of consciousness and cognitive status. I used sensory perception as a broader category that took in level of consciousness and cutaneous sensation. Mobility is a risk factor that is common to all risk scales, but I attempted to operationalize this concept to take into consideration the patient's ability to move in bed, sustain a position change and to make both large and small shifts in position. And the Braden Scale is the only one that includes exposure to friction and shear.

Q In what formats is the Braden Scale available?

It is available on paper, as a chart form. It is available as a pocket card. Many software companies have incorporated the Braden Scale into their electronic information systems. And some clinicians have cleverly made the Braden Scale into mouse pads so the full and unabridged version is available to the nurses as they chart using an electronic record.

Q How has the Braden Scale affected your career?

I authored it out of my expertise in clinical nursing, but working with Dr. Nancy Bergstrom to test it convinced me to get my PhD. It has propelled me from being known locally and regionally to being known nationally and internationally. It has resulted in opportunities to speak to multidisciplinary audiences around the world. Because of it, I have received awards for achievement from the Creighton University, University of California at San Francisco and the University of Texas at Austin. It took me from faculty to administration and directly resulted in my appointment as Graduate Dean at Creighton University. Many people read this and interpret it as meaning I was in charge of graduate programs in nursing. But because of my international reputation for research in the field, the faculty of the university had sufficient respect for my expertise to make me Dean of the entire Graduate School, which included 21 master's programs and three doctoral programs across five different schools.

In short, it turned a nice and moderately successful career into an unbelievably fabulous career!

Q If you could go back in time, is there anything you would have changed?

Not too much. Now and then I think of minor methodological changes I would have made in our studies. But in terms of my career, it could not have been any more fulfilling.

Q What are the next steps with the Braden Scale?

Between my new job as Dean of University College (Adult and Continuing Education) at Creighton University and the speed at which I am approaching retirement, I don't think I will be doing more research on the Braden Scale. I will probably spend some time during my retirement working on educational materials to support the Braden Scale.

Q Who would you say has been your greatest mentor?

In terms of my research, there is no doubt that Dr. Nancy Bergstrom has been my greatest mentor. When I began looking at this problem, I knew very little about the rigour of research, and she taught me a lot. I went on to school so I could be a full partner in this endeavour, but working with Nancy was definitely the reason that I went back to school.

Q What are your career plans?

I will be retiring from Creighton University in about three years. After that I will be free to accept more speaking invitations. So I will probably travel and write. I'm dying to have time to read everything that comes out in the journals on wound care. It is amazing how much one's job can interfere with one's career.

Q Any words of advice to nurses starting out in wound management?

Be curious, question everything, and when you have come up with a really insightful question or hypothesis, be sure to pair up with a researcher to investigate further. Never stop learning.

* See Processus de validation d'une traduction française du "Braden Scale for Predicting Pressure Sore Risk" by Nicole Denis and Diane St-Cyr in *Wound Care Canada*. 2006;4(3):20-28,54.

Reference

1. Pancorbo-Hidalgo PL, Garcia-Fernandez FP, Lopez-Medina IM, Alvarez-Nieto C. Risk assessment scales for pressure ulcer prevention: A systematic review. *Journal of Advanced Nursing*. 2006;54 (1):94-110.

Pressure Ulcer Awareness Program Pilot

Reports on a Successful Pilot Program for Reducing the Development of Pressure Ulcers in Canadian Health-care Facilities

From March through September 2006, the Canadian Association of Wound Care (CAWC) ran a pilot program in five facilities to test materials and outcomes for a Pressure Ulcer Awareness Program (PUAP), designed to improve awareness of pressure ulcers and decrease their prevalence throughout Canada.

The reports that appear on the following pages have been written by the pilot participants: the Champions from each pilot site, CAWC committee chairs who oversaw the program's development and the CAWC Team Leaders who worked with the Champions to support successful implementation and follow-up. Taken together they provide readers with an overview of the pilot; its challenges, successes and benefits; and offer clinicians a glimpse of how the program might work in their own facilities.

PUAP Champions and Team Leaders

Left to right: Sue Rosenthal, Canadian Association of Wound Care; Carol Keefer, Extendicare Falconbridge, Sudbury, ON; Barbara Shanks, Southwood Care Centre, Calgary, AB; Lyne Camiré, Fruan Tabamo, and Silvana Mauro, Maimonides Geriatric Centre, Montreal, QC; Nancy Parslow, The Scarborough Hospital General Campus, Toronto, ON; Jan-Marie Morgan, St. Joseph's Healthcare, Hamilton, ON; and Heather L. Orsted, Canadian Association of Wound Care.

Overview of Pilot Project

BY Heather L. Orsted

AND Sue Rosenthal

Heather L. Orsted, MSc, RN, BN, ET, is a co-director of the University of Toronto's International Interprofessional Wound Care Course and has made major contributions to wound-care education both nationally and internationally.

Sue Rosenthal, BA, MA, specializes in health and wellness communications and has been associated with the CAWC since 2000.

Purpose

In 2003 the Canadian Association of Wound Care (CAWC) funded a study to determine the extent of pressure ulcers in Canada.[1] The results indicated a prevalence of 25 per cent in acute care, 30 per cent in non-acute care, 22 per cent in mixed health-care settings, and 15 per cent in community care. The mean prevalence overall was 26 per cent.

Recognizing this as a huge health-related problem, in 2006 the CAWC funded and created the Pressure Ulcer Awareness Program (PUAP), a continuous quality improvement program to

- increase awareness about pressure-ulcer prevention
- improve current clinical practice
- improve policies to support changes in clinical practice
- reduce the prevalence of pressure ulcers

The ultimate goal of the PUAP is to create a culture shift from *treating* pressure ulcers to *preventing* pressure ulcers.

Site Selection

Five sites participated in the pilot program. The pilot sites were varied, with two acute-care centres and three long-term-care centres participating. Facilities were chosen through a request-for-proposal (RFP) process to reflect the reality of the challenges that face many sites across the country. Selected sites demonstrated a willingness to initiate and sustain a change in practice throughout the entire facility. This cultural change would thus lead to a reduction in the prevalence and incidence of pressure ulcers.

The Champion

The key to the program's success was the effort and energy of the Champion in each pilot site. The

A Team Approach

Other types of interventions or even whole programs have not been particularly effective at producing the positive changes we've seen through the pilot, including the reduction of pressure-ulcer prevalence. The literature has told us that successful implementation of best practice is related to the evidence, context and facilitation.[2]

This program took into account those same key factors that we know influence the movement of evidence into practice:

- The evidence was scientifically robust, utilizing the RNAO Best Practice Guidelines for Risk Assessment and the Prevention of Pressure Ulcers (2005).[3]
- The context (facilities) was receptive to change, with management "signing on the dotted line" in a commitment to support change within their facility.
- The change process was appropriately facilitated through the CAWC team leader, site champion and an approach to education that involved "layering" educational programs and materials as well as the addition of new, clinically focused activities.

The prevention of pressure ulcers requires that everyone caring for patients, including the patients themselves (where possible), be aware of the risk factors for the development of pressure ulcers and the actions required to prevent them. Obstacles to applying the knowledge and awareness of pressure-ulcer prevention need to be identified and removed where practical. This was only possible through a fully realized team approach supported by facility administration.

TABLE 1

PUAP Timeline

Timeline	Phase	Activity
April to May 2006	1	Introduction and planning, including booking of educational resources and creation of educational programs
May to July 2006	2a	Implementation of three educational sessions that included large, small and case-based activities
July to September 2006	2b	Implementation of high-risk rounds and new admission procedures
September to November 2006	3	Evaluation of pilot. Though evaluation had begun in April, it was now time to gather all the evaluation tools and evaluate the program.
November 2006 to February 2007	4	Revision of program based on pilot results and input from site Champions
March 2007	5	National delivery of Pressure Ulcer Awareness Program

Champion was responsible for making sure the program was implemented appropriately. He/she also augmented the materials as necessary to ensure a regional approach and provided feedback to the CAWC Pressure Ulcer Awareness team about the materials.

Champions were the coaches of the pressure-ulcer-prevention teams (which is everyone, including patients) in their respective facilities. As coaches, they needed to be enthusiastic, positive, knowledgeable and accessible.

The Program

The aim of the pilot was to promote positive practice change through a multi-layered program (Figure 1) that

1. advocated for administrative support for a positive change in culture within the facility
2. provided educational tools and materials necessary to promote the ideals of best practice
3. empowered patients and their families to understand how their involvement in patient care can help reduce the development of pressure ulcers
4. will provide impetus for government and health officials to create policies that will support activities and processes that will reduce pressure ulcers nationwide

The pilot was designed to test materials, processes and outcomes related to the program. Immediately following the completion of the pilot phase, work was begun to compile the evaluation data and debrief the pilot participants. Based on feedback, revisions to the pilot have been undertaken to refine and update all program components in preparation for delivery as a comprehensive pressure-ulcer-awareness and prevention program to Canadian health-care facilities/agencies. (Table 1).

FIGURE 1

Layering of Program

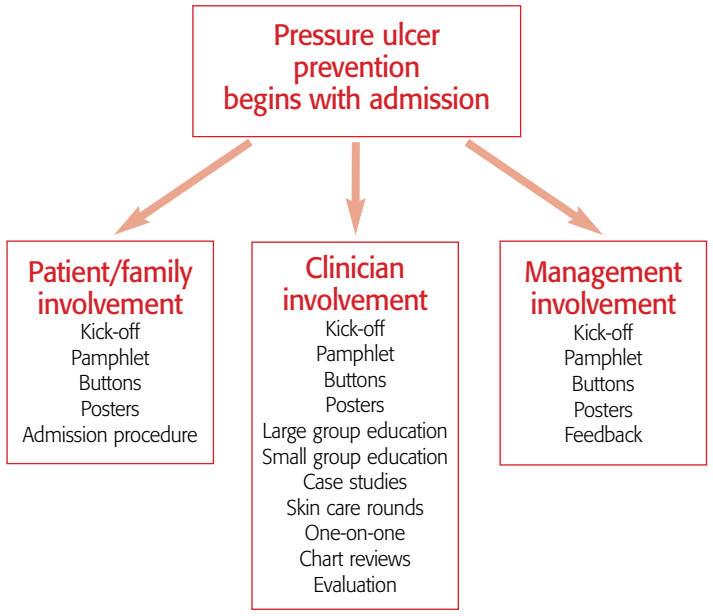

TABLE 2

Chart Review Outcomes

(percentage of adherence to plan of care)

Month	May	Jun.	Jul.	Aug.	Sep.
Positive Chart Reviews	30.8%	36.9%	47.7%	48.7%	66.6%

Outcomes

The results of the feedback from the Champions as well as the evaluations of everything from materials to awareness to prevalence are impressive. Program outcomes reflected four areas of change: awareness, clinical practice, policy and prevalence.

Awareness

Goals. The primary goal of the pilot was to increase the awareness of risk on the part of patients and their families, clinicians and facility managers.

Outcomes. Evaluations of awareness levels in each category, before and after exposure to the program, demonstrated the following:

- Front-line clinicians had varying levels of awareness, depending on the topic. For example, one of the test questions read, "A high Braden is associated with increased risk." The answer to this question is false and, before the introduction of the program, only 28 per cent got it correct. Though all sites but one were using the Braden Scale for Predicting Pressure Sore Risk, the responses to this question indicate that few were aware of its impact on practice.
- Patients/families had the lowest initial level of knowledge of all the groups tested, as would be expected. Before the implementation of education, the average score for correct answers on the patient/family questionnaire was only 44 per cent. After education, however, the average correct score rose to 90 per cent, demonstrating a great need for bedside education. Anecdotal evidence from one of the pilot sites suggests that patients and their families were hungry for education and were eager to participate.
- Interestingly, facility administrators demonstrated very high levels of knowledge about pressure ulcers (96 per cent correct) before the program was implemented. What's particularly discouraging about this result is that it indicates that managers know what needs to be done to prevent pressure ulcers, but don't necessarily provide the support necessary to see it done.

Of equal importance was the fact that after the program had been implemented, all sites reported an increased recognition and reporting of reddened or discoloured areas that led to early intervention for Stage I pressure ulcers.

Clinical Practice

Goals. There were three main goals for the clinical practice component of the program:

1. To introduce a new admission procedure involving education of clients and family, standardize usage of a risk assessment tool, and incorporate risk level into care planning.
2. To introduce high-risk rounds to identify factors and co-factors that affect high-risk patients, eliminate or modify risks using an interprofessional approach, and ensure high-risk patients are evaluated regularly for their risk of developing pressure ulcers
3. To introduce chart reviews to audit practice change, ensure a best practice approach, and support interprofessional communication.

Outcomes. Positive practice change was seen in a number of important areas:

- Through the use of chart reviews it became clear that a change was happening. Table 2 illustrates the improvement in adherence to the plan of care identified through the chart reviews. A score of 66.6 per cent, for example, indicates that two-thirds of the charts demonstrated adherence to the plan of care that had been developed based on identification of risk for developing pressure ulcers.
- Site champions saw an increased use of support surfaces and positioning aids. At least two facilities in the program illustrated the weakness of the common practice of allowing only one pillow per patient. Practice was modified to increase the number of pillows allowed to support improved positioning. There was also increased purchase and availability

continued on page 44

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1. MacKay D, Miller AL. Nutritional support for wound healing. Altern Med Rev. 2003; 8(4):359-377.

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What Makes this PUAP Unique?

The program contains the core components commonly seen in successful programs of this type. However, a number of features set this program apart from most others:

- The program is entirely generic and was designed to be portable, adaptable, flexible, transformable and acceptable in any health-care setting, large or small, regardless of facility policy.
- Facility administrators are required to indicate a firm commitment to the program. The pilot sites had written commitments from management prior to being accepted as a pilot site. Signing the form wasn't enough, however. Management commitment needed to be visible and ongoing. For example, each centre held a kick-off event with senior management in attendance, giving profile and presence to the program. However, in certain pilot facilities/agencies, we discovered a critical weakness when management wavered in their support. As a result, the CAWC support team contacted the managers to discuss the issue, which resulted in renewed commitment and positive change.

- The program provides participating Champions with ongoing hands-on support. Regular conference calls take place with the site Champions, the PUAP Team Leader and site-management personnel (when required). During these calls, the Champions share their successes and challenges, and trade suggestions for improvement.
- The Champions become part of a network. The network, which works to help Champions better implement and sustain the program, consists of regular conference calls, inter-Champion e-mails and phone calls. Revisions to the program will see a dedicated Champion discussion forum, Web area and hotline added to the network's support technology.
- The program honours adult educational principles by "layering" educational information and presenting it in different ways: Information is delivered through a range of methods, from brochures, Web site and publicly displayed posters to large-group, small-group and one-on-one education sessions—and more. For example, five education sessions were prepared and presented to clinicians using an interactive PowerPoint® format, hands-on sessions and clinician brochures. Several pilot facilities included patients and families as well as professional and unregulated staff in the sessions. The activities listed below are examples of the sessions, which were designed to support a shift toward prevention of pressure ulcers:

Session 1 – Introduction to Pressure Ulcers – regional perspective
Session 2 – The Braden Scale – use and integration into practice
Session 3a – Skin care and protection – hands-on skills lab
Session 3b – Pressure management – hands-on skills lab
Session 3c – Nutritional management – hands-on skills lab

In the facilities with the most successful sessions, management encouraged and facilitated staff participation.

- A new admission procedure using the tools in the program is an important part of the change in practice toward **preventing** pressure ulcers, not just treating them. Admission of new patients in participating facilities includes patient/family/companion education relating to the prevention of pressure ulcers using patient brochures and discussion. Once patients have had an initial Braden Scale assessment, an action card is completed that identifies their risk and outlines an associated plan of preventative care (based on risk parameters). The cards are colour-coded to add visual cues: **Red** = High or Very High Risk; **Yellow** = Moderate Risk; **Green** = Low Risk. In the pilot sites, this new admission process was a good place for management to step in and offer support in relation to resource allocation and procedure change.
- The implementation of high-risk skin-care rounds is a new strategy for improving the quality of care for high-risk patients. The interprofessional rounds are carried out weekly to review patient care that targets **prevention** strategies. Preventative skin-care rounds should be considered by management as a necessary, progressive step in the overall improvement of quality-of-care indicators.
- Patients, companions, caregivers and families are involved in all program initiatives, making them important care team members and giving them a sense of empowerment during a difficult time.
- Evaluation of program outcomes is ongoing. Chart reviews are completed monthly—initially to gather a baseline of Braden completion and implementation into care planning, and then to monitor the practice changes relating to PUAP implementation. Prevalence investigation is conducted annually. The toolkit contains evaluation tools to test patient and clinician knowledge and satisfaction.

of pressure-redistribution aids.

- An improvement in nutritional programs was seen in two sites. The introduction of a twice-daily smoothie program at one site provides a good example of a change in practice resulting from PUAP implementation.

Most importantly, there was increased clinical discussion around risks and prevention.

Policy

Goals. Although "positive change of policy" was not built into the program at the outset as a goal, it became increasingly clear that changes in awareness leading to change in practice would not be sustainable unless accompanied by change in policy, so a goal of the pilot program became to provide the evidence needed to convince managers to continue to actively support the program through positive policy decisions.

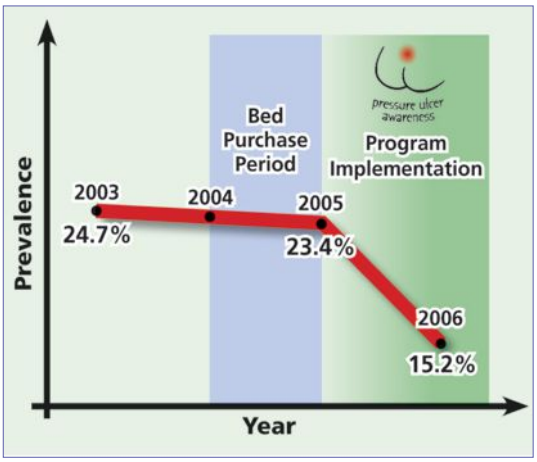
Outcomes. As practice changed in the areas of staffing, resource allocation, patient/family/caregiver/companion involvement in care, dietary fulfillment and other areas, facility administrators recognized the benefits to the facility, clinicians and patients, and made policy revisions as required.

Prevalence

Goals. The ultimate goal for the program is to decrease the numbers of pressure ulcers in each facility.

Outcomes. In preliminary data one site reported pressure-ulcer prevalence of pre (2003) - 24.7 per cent, pre (2005) - 23.4 per cent, and post (2006) - 15.2 per cent, demonstrating a 35 per cent decrease in pressure ulcers upon PUAP implementation (Figure 2). The graph demonstrates that, even during a period when the facility purchased 60 additional support

FIGURE 2



Once the PUAP was in place, pilot sites saw their prevalence of pressure ulcers drop almost immediately.

surfaces, prevalence rates remained virtually unchanged until the PUAP program was implemented. Then a reduction of 35 per cent was reported within the first two months alone. The feedback from the sites also indicates that awareness of the need for surfaces can lead to more effective use of all types of pressure-redistribution devices.

Another positive outcome was the early recognition and increased reporting of Stage I pressure ulcers and decreased numbers of Stage II, III and IV pressure ulcers reported. This kind of change will result in positive long-term results of prevalence when the recognition of Stage I ulcers leads to earlier interventions for preventing trauma to the skin.

Implications of Outcomes

The outcomes from the pilot suggest that facilities that implement the program can benefit in a number of ways:

1. Reduced pain, suffering and lowered mortality rates for patients. Hospital stay time may be reduced.
2. Cost savings: From our preliminary data and cost reports[4] we can project the following scenario: If a 100-bed health-care facility has had a 35 per cent decrease in pressure ulcers, their annual cost saving could be anywhere from $240,000 to $1.2 million, depending on the degree of trauma and complications (uncomplicated Stage I: $239,000 to Stage IV: $314,000; complicated with critical colonization Stage II: $352,000 to Stage III/IV: $390,000; complicated with osteomyelitis Stage II to IV: $1,232,000).
3. Nursing workload is reduced.
4. Long-term-care facilities can demonstrate a level of quality if they implement an effective pressure-ulcer-prevention program. If quality indicators are made public, which is a likely possibility in the future, hospitals with a prevention program may be rated more favourably.

Pressure Ulcer Awareness Program

The CAWC's PUAP is now available to facilities interested in reducing their prevalence of pressure ulcers and fostering best practice in their prevention. The program includes a toolkit, educational materials, incentives and recognition certificates, a moderated discussion forum, access to the CAWC Team Leader, data collection materials, Champion hotline, annual analysis of data, Web site, and an annual certificate of achievement awarded if conditions of the program are met.

The fee, which works out to about $5,000 per year, is based on the size of the facility to cover the costs of consumable items. A minimum three-year commitment is required.

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The Reality of Running a Pilot Program

Throughout the Pressure Ulcer Awareness Program (PUAP) pilot period, the team champions met to discuss their experiences. In every discussion, we found many commonalities surrounding the challenges and surprises we encountered. For readers wondering what the experience might be like in their own facilities, you may find our "top fives" interesting.

BY Jan-Marie Morgan, RN (EC), BScN, MSc (c)

Top Five Challenges

5. **Language barriers.** Several of the facilities noted that their clientele speak many different languages—sometimes not including English—which presented a challenge to find interpreters to pass on the information.
4. **Maintaining administrative support.** In a few cases, managers wavered in their support for the program, but this challenge, once identified, was overcome with letters from the Team Leader and a conference call that rekindled support.
3. **Funding.** This was an issue as equipment needed for positioning and transferring had to be purchased in order to maintain skin integrity and follow the best-practice guidelines that served as the foundation for the project.
2. **Time constraints and workload.** Staff workload and time-constraints seemed to be a national problem. Finding time to educate the staff became a challenging task requiring innovation and imagination. However, each Champion was able to work with the staff and find ways to provide education that worked for everyone.
1. **What a lot of work!** Champions initially had no idea how much commitment and time would go into making this project a success, but all the champions were able to get the job done.

Top Five Surprises

5. **Recognition on accreditation report.** Several sites received recognition for the project on their accreditation report, strengthening their successful accreditation.
4. **Champions really can change practice.** Practice among the staff changed in positive ways. This was evident by the reduction in the number of pressure ulcers as well as a recognition—and therefore, identification—of Stage I pressure ulcers that would have been missed before. New equipment was purchased in some cases, proving that administrators see the need to enhance patient care and prevent pressure ulcers.
3. **Positive feedback for the staff.** Although staff had to deal with workload issues and time constraints, their overall feedback was very positive. They enjoyed the education sessions, which enhanced their knowledge and skills and enabled them to provide better patient care.
2. **The quality of the materials provided.** The material that is provided by the CAWC is professional, thorough and very helpful. The "bum" logo was a huge hit and the champions were very surprised at the excellent quality and quantity of the available resources. We were also very thankful for the networking that was provided by the CAWC through teleconferences and e-mail. This support was invaluable.
1. **What a lot of work!** This was the biggest surprise to the champions, but we enjoyed every minute of it.

Working on the PUAP project has given the champions a humble sense of pride, knowing that we can make a difference to enhance patient care by decreasing the number of pressure ulcers. We understand that no one person can be responsible for changing an organization's culture. We would all like to thank the teams that endured us, the administrators that supported us, and the staff that welcomed us with open arms. Each helped to make this project a huge success.

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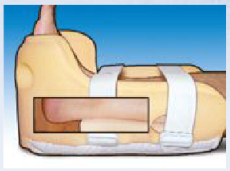

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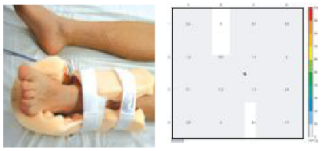
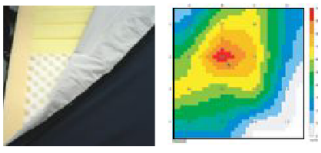


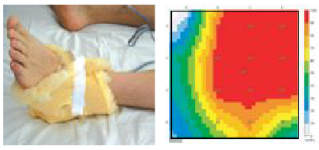
Pressure Reduction Mattress

Sensors included	16
Variation coefficient	59.7%
Standard deviation	26.8
Average pressure	44.8
Maximum pressure	100
Center of pressure	2.2, 2.2



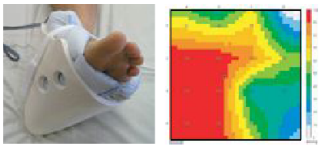
Heel Protector

Sensors included	16
Variation coefficient	36.4%
Standard deviation	28.2
Average pressure	77.5
Maximum pressure	100
Center of pressure	2.8, 2.4



Heel Pillow

Sensors included	16
Variation coefficient	40.5%
Standard deviation	28.1
Average pressure	69.4
Maximum pressure	100
Center of pressure	2.1, 2.5



WCC 107-5

Report on Clinical Practice

This article focuses on the impact of the Clinical Practice component of the Pressure Ulcer Awareness Program (PUAP) Pilot in the clinical setting.

BY
Nancy Parslow, RN, ET,
AND
Leah Shapera, RN, MSN, GNC (c)

Throughout the program's implementation, many positive clinical outcomes were realized. One of the greatest changes noted was that Stage I pressure ulcers were recognized early—before they deteriorated to become deeper areas of injury. This early recognition by various members of the health-care team, including patients and families, facilitated the prompt implementation of appropriate interventions that prevented the progression of skin damage. Prior to the program's implementation, pressure-related injuries were often not reported until the client's skin was actually open, and interventions were not implemented until pressure ulcers progressed to Stage II or III.

In some facilities, the medical director and key physicians became involved in supporting the program. Referrals to dietitians for patients with nutritional risks increased at many sites. At one site, needs increased so dramatically that additional resources were hired. A dietitian at another site created high protein "smoothie" supplement drinks for patients with nutritional risks identified by the Braden assessment.

As involvement of occupational therapists, physiotherapists, family and caregivers increased, creative strategies for patient positioning, transfers, and the obtaining of special devices were noted.

During the pilot, it was discovered that although the Braden Scale had been used at most sites prior to the program's introduction, a reduction in pressure-ulcer prevalence had not occurred. The Braden tool was re-introduced with a focus on the value it provides as a care-planning tool. Scores from the individual subscales were assessed to highlight factors that increased patients' risk for skin breakdown. This enabled staff to develop individualized plans of care targeted to the specific risks identified.

Targeted interventions were then recorded on colour-coded (according to risk level) Risk Action Cards, which made it easy to identify patients' risk for skin injury on the plan of care. The interdisciplinary team conducted weekly skin-care rounds on all patients identified to be at high risk for skin breakdown as designated by the red Risk Action Cards. High-risk rounds facilitated early identification of skin damage, ensured appropriate prompt interventions, and provided an opportunity for one-to-one education with staff, patients, and families, empowering them to take appropriate actions to prevent skin breakdown.

Throughout implementation of the program's clinical component, a few challenges were encountered. Flexible creative strategies were required to accommodate staff shortages, time constraints, limited resources, lay-off announcements, heavy workloads, frequent

interruptions, and conflicting priorities. Educational sessions were modified at some sites to accommodate staff availability. Some sessions were condensed into shorter 20- to 30-minute, interactive, small-group workshops that were delivered in meeting rooms located on the patient units. Staff attended as time permitted. High-risk skin rounds were incorporated into routine morning patient care, thus minimizing the impact on busy workloads by accommodating the nurses' schedule of care delivery.

Some sites reported difficulties in accessing resources such as physiotherapy (PT), occupational therapy (OT), prevention devices and equipment. Some physiotherapists and occupational therapists provided resources for the facilitator to utilize for the educational sessions when they were unable to participate.

The need for increased resources to prevent pressure ulcers was identified (equipment, dietitian, PT, OT, boots, surfaces, etc.). Some sites noted that patients and families became more involved in helping to reduce risk factors by assisting with repositioning and providing needed equipment and supplements.

In summary, many positive clinical outcomes resulted from this pilot project. The consistent use of the Braden Scale and high-risk skin rounds led to the early identification of pressure damage and individualized care plans targeted at specific risks. Increased involvement of the interdisciplinary team resulted in the implementation of both basic and creative strategies to reduce the risk for skin breakdown.

Also evident at most pilot sites was a positive shift in staff attitudes, awareness, and responsibilities related to pressure-ulcer prevention and the shift toward early intervention.

Some challenges to implementation included staff shortages, workloads, time constraints, frequent interruptions and conflicting priorities. These were effectively addressed through flexible and creative revisions to the timing and delivery of staff education sessions.

Overall, this program empowered the teams in each facility—including patients and their families—to change clinical practice at the bedside and to prevent pressure-ulcer occurrence.

Wound Pain: Assessment and Management

continued from page 16

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Report on Education

In this article, we will explore the importance of the educational aspects of the Pressure Ulcer Awareness Program (PUAP) pilot and describe its impact in the clinical setting.

BY
Fruan Tabamo, RN, MScN,
Lyne Camiré, RN, MSc, Adm,
Silvana Mauro, BScOT,
AND
Connie Harris, RN, ET, MSc (c)

The educational components of the PUAP consisted of a kick-off event to encourage curiosity about the issue of pressure ulcers, educational sessions and skill-development workshops to empower health-care providers, patients and families, and educational materials focusing on pressure-ulcer prevention, which were displayed in common spaces or available to take away.

The program's educational components raised the profile of pressure-ulcer risk-assessment and prevention strategies among frontline health professionals and each facility as a whole. Not only did education increase awareness of national recommendations and the need for local implementation, but it also reinforced evidence-based practice and prompted some institutions to develop improved protocols based on best practice.

Overall, staff at many levels of experience improved their competencies through attending the educational sessions. Among these competencies were identifying etiologic factors contributing to pressure-ulcer occurrence, identifying risk factors for pressure-ulcer development, accurately documenting the results of risk assessment, incorporating risk level into skin assessment and prevention strategies, and making referrals to other health-care professionals.

Consequently, there was an increase in awareness of the need for comprehensive and timely care plans. Several teams reported an increased collaboration of interprofessional teams that resulted in the development and implementation of care plans for new admissions and high-risk patients. This collaboration resulted in creative strategies and programs that directly responded to different subscales of the Braden Scale, the use of which had been a particular focus of the educational sessions. A decreased prevalence of pressure ulcers and an increased reporting of skin redness/colour change and Stage I pressure ulcers were the results.

Educational materials were given to everyone likely to be affected by the program's implementation—including patients and families, which helped to enlist their active support in pressure-ulcer prevention. Once patients and families were educated regarding the principles of pressure-ulcer prevention, they were able to reinforce community expectations for high-quality care. They became active participants and learners.

Involving clinical and non-clinical staff on the teams not only added valuable feedback for the program but also improved job satisfaction. Many facilities were surprised at the level of interest the clinical and non-clinical staff had in contributing to ongoing quality improvement. Conducting shared case reviews and interprofessional high-risk rounds resulted in increased staff awareness of pressure ulcers and provided excellent opportunities for education and involvement of frontline staff with other disciplines. Many teams found ways to incorporate pressure-ulcer prevention in their daily routine, to identify the barriers for practice and to develop solutions.

The simple true-or-false tests given pre- and post-pilot helped to identify key pressure-ulcer knowledge and skill deficits among all levels of staff, thereby helping to identify educational needs. The posters and family/patient pamphlets introduced a venue for teaching principles for pressure-ulcer prevention and provided ongoing reminders of the importance of a preventative approach.

The program encountered some important challenges:

• During pilot program implementation, mostly over

the summer months, high census and staff shortages plagued nurses' ability to provide quality care, which increased awareness of the need for a structured, comprehensive education and assessment program adapted to the needs of the individual units or the facility's culture.

- In long-term-care centres, the education generally went very well when family members accompanied the resident during admission. In acute-care centres, however, education was difficult when patients were admitted directly to a surgical unit from the operating room, or were seriously ill and admitted through the emergency department. Ideally, the education would be provided during the pre-admission visit for planned surgical admissions.
- Language, comprehension barriers, and an inability to read English interfered with some patients' and families' education, especially when professional translators were not available. The use of pictorial information to illustrate the main points of the prevention program would be helpful when educating those with limited understanding of English.
- The pilot program also reinforced the fact that support and commitment of facility management is essential if health professionals are to successfully implement pressure-ulcer-prevention recommendations. In facilities with budget restraints, for example, support for staff replacement for education off the units can be problematic if managers are not convinced of the benefits of pressure-ulcer prevention.

This experience as PUAP pilot champions has been fruitful and challenging—and has highlighted the need for education at all levels of health-care delivery. Education must be relevant, supported by administration and be actively mentored at bedside.

Report on Public Policy

This article will review the policy aspects of the Pressure Ulcer Awareness Program (PUAP) pilot.

BY
Carol Keefer, RN,
AND
Cathy Burrows,
RN, BScN

One goal of the program was to provide heightened awareness of pressure ulcers for all of the stakeholders in the health-care process: health-care providers (from frontline staff to managers), patients/residents, and families. When stakeholders are knowledgeable, empowerment can follow. When stakeholders are empowered, positive change is possible—and change is necessary when shifting from a treatment focus to a prevention focus.

Another goal was to provide the evidence needed to convince managers to modify facility policy, if necessary, to support activities that lead to pressure-ulcer prevention. In this way, the empowerment of the stakeholders needed to become formalized.

A long-term goal will be to use the pilot program results to encourage government health officials to create policies that will support a preventative approach. These policies will reduce the occurrence of pressure ulcers nationwide.

One of the most rewarding aspects of the pilot was a noticeable knowledge and attitude change among staff and families. The most significant change was that questions are now being asked about repositioning. The public feels more empowered now that they have more knowledge about pressure ulcers and how to prevent them. This is an important first step toward culture change in any facility.

As well, the program's structure has led to more effective teamwork with an increase in communication throughout the facilities. Nursing, dietary, restorative, physiotherapy, occupational therapy, support services and activity departments are now working collaboratively on prevention, resulting in a decrease in pressure-ulcer occurence and in a more stimulating work environment.

As a result of the program, facility policy has been modified to support significantly improved documentation and more effective use of the Braden Scale and its incorporation into care planning and prevention strategies. Management's reallocation of resources toward prevention has been another outcome. These factors will have a positive impact on any facility seeking accreditation.

A major challenge faced by the pilot participants was government criteria for management of pressure ulcers. Currently, most health ministries focus on treatment rather than prevention, and availability of funds for specialty surfaces is only accessible after a pressure ulcer has occurred. Ministries need to be aware that spending for prevention (on items such as surfaces, nutrition, incontinence products, increased staffing) is more cost-effective than spending solely on treatment. Evidence from the program may become an important tool for the Canadian Association of Wound Care as it moves forward to educate health policy-makers on the advantages of supporting a preventative approach.

Overall, the pilot project was very successful in educating facilities' stakeholders. The goal of heightened awareness has resulted in changing the knowledge, skills, attitude, and policy support from treatment to prevention—a culture shift in the right direction. We recommend that the health ministries adopt and implement policy for pressure-ulcer prevention as part of their mandate for all aspects of care. The expansion of this project to other homes and hospitals would benefit the public and would result in a major decrease in pressure-ulcer occurrence across Canada.

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Report on Evaluation

This article will review the evaluation aspects of the Pressure Ulcer Awareness Program (PUAP) pilot as well as describe the impact of the evaluation component on the clinical setting.

BY
Barbara Shanks, BScPT,
AND
M. Gail Woodbury, BScPT, MSc, PhD

Evaluation of all aspects of the pilot program was done to determine the appropriateness and value of the awareness educational materials before introducing the materials nationally. In addition, we wanted to know if there was evidence of (1) an increase in awareness among clinicians, managers, patients and their families/caregivers, (2) a change in clinical practice, and (3) a change in the frequency of pressure-ulcer occurrence following the pilot project.

From the beginning, evaluation was a cornerstone of the pilot and was the most time-consuming aspect for the pilot site champions. All educational material and PUAP events were evaluated in many ways. The PUAP and its parallel evaluation process began with a kick-off event that was held at each site to announce and promote the program. Education sessions were offered for several weeks from May through July involving knowledge assessment (pre- and post-education) for staff, management, clients and families. In order to determine if a change in practice was occurring, charting audits were done before pilot commencement and monthly until the end of September 2006. Care reviews and high-risk rounds were implemented in all sites, with evaluations on these interventions as well. The site champions kept diaries to record the program's progress, including successes, challenges and impact on their sites.

The strength of this program fostered an increased awareness of the existence and development of pressure ulcers through the collection of wound indicators. The recognition of the numbers and severity of these ulcers provided constant feedback for frontline staff. The implementation of the Braden Scale and introduction of the Care Planning Template facilitated a change in practice that reflected success through fewer wounds. Preliminary prevalence data have indicated a 35 per cent decrease in wounds with a presumed reduction in treatment costs.

The evaluation challenges encountered throughout the pilot were as follows:

- limited time to collect data and to support and mentor practice changes
- limited support from administration to provide prevention supplies, time to collect data, and time to evaluate the processes implemented
- constant staff shortages, which necessitated continuing education and clinical mentoring in order for the program to be successful, i.e., to effect a new clinical culture.

Results of Evaluation

The positive impact of the program, which was determined through the continuous evaluation, was huge!

1. The appropriateness and value of the educational materials were reviewed for improvement.

Pressure Ulcer Awareness Program Evaluation

	Awareness	Practice	Outcomes
Initiative	Education • stages of ulcers • skin protection • pressure management • nutrition management	Implementation of new procedures • admission screening • high-risk rounds	• ↑ wound reporting • ↓ wound occurrences • ↑ team care-planning
Evaluation Process	• pre and post awareness quizzes	• chart reviews	• prevalence • diaries

2. Awareness Results

Quantitative

On average, knowledge increased (based on percentage with correct answers)

- Frontline clinician: 77 per cent to 83 per cent
- Patient/families: 44 per cent to 90 per cent
- Management: 96 per cent to 100 per cent

Qualitative

- recognition of red/colour-changed areas
- reporting of red/colour-changed areas
- early intervention for Stage I pressure ulcers
- patients and families very pleased to receive information

An example that illustrates an increase in administration support—despite strong initial knowledge—was the purchasing of needed supplies for prevention.

3. Clinical Practice Results

Quantitative

Based on five chart review questions:

- Was the Braden score recorded in the chart?
- Was the risk status of the patient identified?
- Were the results of the Braden Score reflected in care planning?
- Was the patient aware of his/her risk for pressure ulcers?
- Is there a communication system in place to document the number of high-risk patients in the facility at any one time?

The average percentage correct for all five questions improved from 33 per cent in May to 67 per cent in September.

Qualitative

- increased use of support surfaces and positioning aids
- increased use and availability of pillows
- increased purchase and availability of pressure redistribution aids
- improvement in nutritional programs
- increased clinical discussion around risks and prevention, e.g., improved interprofessional collaboration to identify those at risk and development of appropriate care planning as a result of high-risk rounds and wound rounds.

4. Frequency of Occurrence of Pressure Ulcers

There was reduction in wound occurrences at all sites during the course of the program.

Quantitative

One site reported the following prevalence estimates:

- Pre (2003) - 24.7 per cent
- Pre (2005) - 23.4 per cent
- Post (2006) - 15.2 per cent

This is a decrease in prevalence of 35 per cent.

Qualitative

- recognition and increased reporting of Stage I pressure ulcers
- fewer Stage II, III and IV pressure ulcers

The opportunity to be a part of this pilot program has been a catalyst at all pilot sites to improve the skin- and wound-care education that is being provided for all stakeholders in pressure-ulcer prevention. We have seen local improvement in prevalence but also in clinical practice through the effective use of the Braden Scale and the Care Planning Template to reflect risk and needs.

The results of the evaluation process for the pilot indicate that the program is a very effective enabler for fostering better interprofessional collaboration for a health-care issue that has been under-recognized.

Articles of Interest
Literature Review

Reviewers

Leah Shapera, RN, MSN, GNC(c)

David Haligowski, BSc, MD

Incorporating Laboratory Values in Chronic Wound Management

Authors: Thomas Hess C, Trent JT

Publication: *Advances in Skin & Wound Care*. 2004;17:378-86.

Reviewer: Leah Shapera, RN, MSN, GNC(c)

This article provides a good overview of some of the central considerations for preventing the misdiagnosis of wounds. As the authors point out, misdiagnosis of wounds is not an uncommon occurrence, especially in some of the more unusual wounds, such as pyoderma gangrenosum, calciphylaxis, cryoglobulinemia, bullous pemphigoid, and necrotizing fasciitis. Unfortunately, misdiagnosis impacts the patient by prolonging suffering due to delayed healing. It also leads to the inappropriate use of medications and topical treatments, which in turn can cover up symptoms, prolonging the wrong diagnosis.

In this article, emphasis is given to the importance of using appropriate tools, such as the medical record, risk-assessment tools, manual screening tools, physical findings of the wound and skin, as well as other diagnostic tests to assist in wound diagnosis. The article focuses specifically on pressure, venous and arterial ulcers, and includes a review of the pathophysiology of each. For each type of wound, the authors provide a list and explanation of the laboratory values and other diagnostic tests that are of particular relevance for diagnosis.

Quality Control in Chronic Wound Management: The Role of Local Povidone-iodine (Betadine) Therapy

Author: Daroczy, J

Publication: *Dermatology*. 2006;212(suppl 1):82-87

Reviewer: David Haligowski, BSc, MD

Povidone-iodine use on chronic wounds has fallen out of favour over the last number of years over concerns of tissue toxicity and delayed wound healing. During the same time, systemic antibiotics were being overused. The author wanted to show whether povidone-iodine affected venous leg-ulcer healing and how it compared to systemic antibiotics when they were used in superficially infected/critically colonized wounds. These antimicrobials were used with and without the gold standard, compression therapy, which itself is under-utilized. Venous leg ulcers are the most commonly encountered chronic wounds seen in medical practices. Thus, the results of this study can have widespread implications with all wound-care providers.

Sixty-three patients with ulcers due to deep venous refluxes were randomized to no compression or to compression with topical povidone-iodine or systemic amoxicillin. Forty-two of these 63 patients received compression therapy, one-half receiving topical treatment and one-half oral amoxicillin. The end-point for this 12-week study was the time to ulcer healing. Because of increasing antibiotic resistance, proving enhanced or equivalent wound healing with povidone-iodine might help reduce the excessive use of systemic antibiotics.

All ulcers were superficial and less than 5 cm in diameter. They were cultured after debridement and cleansing.

Compression increased the ulcer-healing rate compared with the no-compression group using the identical topical antimicrobial. Eighty-two per cent of 21 patients treated with topical povidone-iodine and compression healed, not significantly different from the 21 patients treated with amoxicillin and compression (85 per cent healing). Twenty-one patients were treated with povidone-iodine without compression, and 62 per cent of these culture-positive wounds healed. Patients were re-examined five months later to assess for superficial bacterial colonization. Of those treated with systemic amoxicillin, 32 per cent showed evidence of bacterial presence on culturing, but only 11 per cent who were treated with the topical solution were positive.

The author concluded that systemic antibiotics therapy is required only in case of systemic symptoms. This would appear to be true at least for oral amoxicillin. The aim of antibiotic therapy is to eradicate the invasive pathogens, not to make the exudates free of all bacteria. The most frequent pathogen seen in this study was *S. aureus*, 71 per cent being methicillin-resistant. The second most frequent pathogen was *P. aeruginosa* of which 48 per cent were quinolone-resistant.

Unfortunately, the topical dressing used with compression therapy and systemic antibiotic was not identified in this study. A comparison of povidone-iodine to best-practice moist wound healing would help clinicians decide if povidone-iodine offers any treatment advantage in wounds superficially infected with bacteria.

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Canadian Association of Wound Care News

CAWC Scholarships

The CAWC supports the ongoing professional development of its members by offering a variety of scholarships each year. There are three different categories of scholarships offered by the CAWC:

1. Educational Scholarships available to CAWC members resident in Canada (number = 7)
2. Educational Scholarships available to residents of countries other than Canada (number = 1)
3. Research Scholarships available to CAWC members resident in Canada (number = 3)

The scholarships are worth up to $2,500 each and serve to support educational and research initiatives that promote best practice and improve patient care within the wound-care community. Scholarship recipients are named each year at the CAWC Annual Conference.

For details about scholarship offerings, deadline dates and application procedures, please visit the Scholarship section of the CAWC Web site at **www.cawc.net/open/scholarship/scholarships.html**. Don't miss out on an excellent opportunity to further your career with CAWC support.

2008: A Special Year in Wound Care in Canada World Union of Wound Healing Societies (WUWHS)

The year 2008 will be a special one for wound care in Canada. The CAWC is the premier hosting society for the 2008 World Union of Wound Healing Societies congress, which will be held June 4–8 in Toronto, at the Metro Toronto Convention Centre. Wound-care opinion leaders from around the world will gather to exchange information and ideas and develop consensus documents on important wound-care topics. A special Canadian Perspectives stream will showcase Canadian wound care to the world. In 2008, the world is coming to Toronto. Plan to be there!

Information on registration, faculty, agendas and call for abstracts is available online at **www.worldunion2008.com**.

Certification for Wound Care

The CAWC is actively investigating certification for wound-care specialists. Watch the CAWC Web site for information on this important initiative.

CAWC Conference Set for London, Ontario, November 1–4, 2007

The 13th Annual Conference of the Canadian Association of Wound Care will be held November 1–4, 2007, in the beautiful London Convention Centre, London, Ontario. The theme of this year's conference is "Do you Measure Up? Assessing and Measuring Outcomes." Whether you are a wound-care novice or a long-time expert, the conference sessions, hands-on workshops, networking opportunities, poster displays and special events offer something for everyone. See you in London!

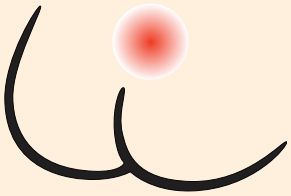
For more details, online registration and call-for-abstract information, please visit the Conference section of the CAWC Web site at **www.cawc.net/open/conference/conferences.html**. Complete conference information and online registration will be posted in May.

CAWC Special Meetings in 2008

For those unable to attend the WUWHS congress or who want to further their exploration of topics presented at the congress, the CAWC will be bringing the world to you in 2008! In place of the annual conference, the CAWC has planned two "theme meetings"—one in Halifax and one in Victoria—in fall 2008. These mini conferences will offer the best of the CAWC and World Union 2008, taking the most significant presentations and reprising them especially for the Canadian wound-care reality in two very special events. Watch the CAWC Web site for more information on these unique educational opportunities.

Pressure Ulcer Awareness Program

At the CAWC Annual Conference in Ottawa this past November, the CAWC presented the results of the Pressure Ulcer Awareness Program pilot that ran between April and September 2006. The results of the pilot were stunning, with positive changes seen in awareness, practice, policy and pressure-ulcer prevalence in the facilities that ran the pilot (see Overview of Pilot Program on page 40 of this issue). The program is now available to health-care facilities in Canada. The cost of the program is about the equivalent of treating one pressure ulcer per year. Can your facility afford not to have it? For more information on obtaining the program, please visit the PUAP Web site at **www.preventpressureulcers.ca**, e-mail us at **cawc@sympatico.ca** or call Cary Steinman at 416-782-2350.



CAWC in the News - PUAP Garners Media Attention

Once the PUAP was presented at the CAWC conference, media interest in the program was immediate. Here's a short list of some of the places articles about the program have appeared to date.

Advances in Skin and Wound Care presented preliminary information about the PUAP in their December e-news and followed up with more details in their spring issue. Read the preliminary e-announcement at www.nursingcenter.com/upload/static/403753/ASWC_Inthisissue_Dec06.htm#5.

The autumn 2006 issue of *International Review of Patient Care* featured an article written by our own PUAP team. You can read the article online at www.hospitalmanagement.net/features/feature748/.

An article in *Rehab & Community Care Medicine*'s Winter 2006 issue presented information about the program as well as pressure ulcer prevention tips for patients.

Focus on Research

One of the goals of the Research Committee is "to foster and encourage involvement in research by interested health-care providers and trainees." To that end, we would like to remind you about the three scholarships specifically designated for people who are conducting research projects (see Scholarships, previous page).

We would also like to make you aware that, in addition to offering the research scholarships, the CAWC will be posting a request for proposals (RFP) for a research grant to fund one or more projects. Details and priority topics will be announced soon. Watch for more information on the CAWC Web site **www.cawc.net** in the near future.

Education

The CAWC's S-Series is a popular educational initiative that takes its show on the road each year, reaching hundreds of clinicians in their own regions. This spring the CAWC has planned three dates for the S-Series: Kelowna, BC – March 23–24 at the Grand Okanogan Lakefront Resort; Halifax, NS – April 16–17 at the World Trade & Convention Centre; and Montreal, QC – May 6–7 (in French) at the Hyatt Regency Montreal.

Please visit the Education section of the CAWC Web site at **www.cawc.net/open/education/index.html** for more information and online registration, then mark you calendars so you don't miss out on this great educational program! Registration is limited.

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Immune Deficiency Disease:

A Mother's Journey to Protect Her Son and Control His Wounds

By Claudette Bolding, Founder and President of the Immunodeficiency Foundation, Arkansas Home Area Twin Cities, Gassville, AK.

Claudette and Wayne Bolding.

Immune deficiency disease—I had heard of it in the media, but I had never experienced it. When my son Wayne was born on May 13, 1965, little did I know that I would have a child with this challenging disease. Certainly I did not know about the chronic skin lesions that were a part of it.

Three hours after my son was born, I was told that he would not live due to brain damage and five heart defects. My physician recommended that I not take my baby home. Against advice, I went to the nursery, bundled him up and signed him out of the hospital. While at home, he continued to persevere, and after several months his body became covered with draining wounds. The physician said that my baby had impetigo and treated him with antibiotics. I assured him that I kept my baby and my home very clean. I was told, "That it is an old wives' tale about impetigo being caused by dirt."

My son reached four years of age and continued to have open, draining wounds. I tried every type of over-the-counter ointment and cream to heal and protect his skin. At seven years of age my son had open-heart surgery. Post operatively, he experienced infection, among other complications, and I was told that he might have contracted HIV/AIDS through a blood transfusion. After running a series of tests, we learned that Wayne had immune deficiency disease. He had been born without an immune system and had no B cells and very few T cells. A young boy named David with immune deficiency disease had just been put in a protective "bubble." The physicians told me that Wayne, at age seven, was too old for a protective "bubble" and that he would get an infection and die.

I begged the physicians to study Wayne, to learn from him and not give up. In order to protect him from infection, he was hospitalized and became bedridden, causing multiple pressure ulcers from lack of movement. The staff did not want to change his dressings for fear he had AIDS even though he did not, and I changed his wound dressings while he was in the hospital. A nurse who specialized in wound care heard about Wayne and became involved in his care. This nurse taught me how to effectively care for my son's wounds, which really made a difference for both of us. I became more knowledgeable, and Wayne began his journey to having intact skin.

After two years in the hospital, I prepared for the worst and brought Wayne home to die. That was 38 years ago. To this day, he receives infusions of gamma globulin every two weeks—which has kept him alive. He continues to be plagued by recurrent skin infections. We have tried every wound dressing available over the years. Our objectives are to control the skin lesions and to keep Wayne comfortable. Throughout this experience with immune deficiency disease, I learned the importance of never giving up hope, of always searching for a firm diagnosis and of the value of specialized wound-care nurses.

For more information on immune deficiency disease, visit www.primaryimmune.org.

What is immune deficiency disease?

The hallmarks of immune deficiency disease are recurrent or unusual infection—some being persistent and some due to unusual micro-organisms that rarely cause problems in healthy people. These infections can affect various organ systems (such as the pulmonary system), or cause meningitis and/or sepsis, gastrointestinal infections and cutaneous (skin) infections. No screening is performed for this disease at birth; therefore, it is usually only detected after the individual has experienced recurrent infections. Treatment may include periodic T immune globulin replacement.

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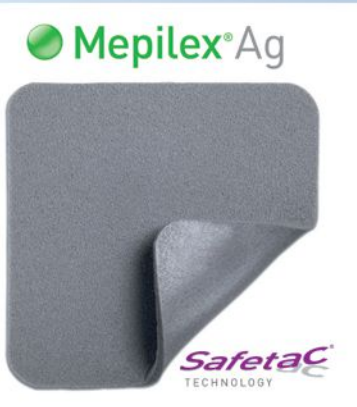

For more information contact your **Mölnlycke Health Care** representative at **1-800-494-5134.**

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