

# Wound Care

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PRESSURE ULCER PREVENTION:  
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THE BWAT PICTORIAL GUIDE  
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DIABETIC FOOT SCREEN:  
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**Effective Management  
of Minor Pediatric Burns**

Canadian Association  
of Wound Care



Association canadienne  
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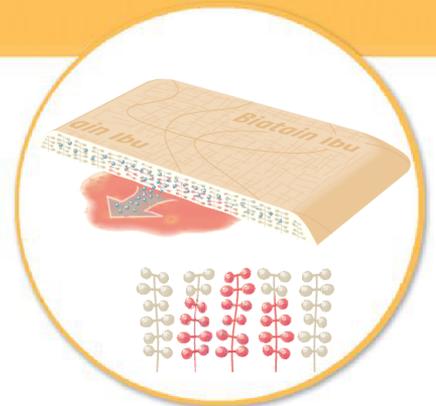
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- 1- Dorniech et al. Effect of an ibuprofen-releasing foam dressing on wound pain: a real-life RCT. Journal of Wound Care 2008;17(8):342-348.
- 2- Steffansen & Herping. Novel wound models for characterizing the effects of exudate levels on the controlled release of ibuprofen from foam dressings. Poster presented at EWMA, 2006.
- 3- Caring for patients with difficult to heal ulcers. In preparation.
- 4- Jørgensen et al. Pain and quality of life for patients with venous leg ulcers: Proof of concept of the efficacy of Biatain Ibu, a new pain reducing wound dressing. Wound Repair and Regeneration. 2006;14(3):233,239.
- 5- Schäfer, Elmar, Tsiftsis, Dimitris D., Jortikka, Annikki, Orsted, Heather, and Alessandro Scalise: Effects of an Ibuprofen Releasing Foam on Painful Exuding Wounds: Quality of Life Parameters from an International Comparative Real Life Study Poster presented at EWMA, 2008
- 6- Gottrup et al. Less pain with Biatain Ibu: Initial findings from a randomized, controlled, double blind clinical investigation on painful venous leg ulcers. International Wound Journal. 2007;4[suppl.1]:24-34.



**Biatain**



# Out of Your Head and Into Your Practice



Sue Rosenthal

One of the most inspiring attributes of wound-care professionals is the attention they pay to lifelong learning. Implementing new knowledge, as we know, can be a tough task—for all kinds of reasons. Much education is focused on technical clinical information; but clinicians need to know more than *what* to do, they need to know *how* to do it.

To assist readers in this important aspect of “how,” we present a number of articles that focus less on clinical information and more on processes to aid implementation. Doug Baron’s article on minor burns in pediatric patients is accompanied

by an enabler to assist clinicians in applying what they know. A grouping of three articles—by Connie Harris et al., Heather Orsted and Gail Woodbury—on the development of two new tools sheds light on the process of validation. It also clearly demonstrates that the creation and refinement of practice or education enablers, which can be essential elements in moving knowledge into practice, is often a long and complex process. Also in this issue, Kimberly Stevenson challenges readers to reflect on whether they are actually *applying* best practice principles—which are

generally well known to even novice clinicians—to the prevention of pressure ulcers in real-life scenarios.

Those of you planning to attend the CAWC annual conference in Quebec City at the end of October will see a continuation of this theme of moving “what” you know into the actual delivery of best practice. The agenda blends the best of a conventional conference with the format of the very successful CAWC Theme Meetings of 2008. I hope to see you all in Quebec City for four days of clinical knowledge learning, team building and strategy development for implementing knowledge. ☺

## Appliquez votre éducation à votre pratique

Les professionnels en soins des plaies détiennent une qualité des plus inspirantes : l’attention qu’ils portent à l’éducation pour la vie. Comme nous le savons, l’implantation de ces connaissances peut s’avérer une tâche bien difficile, pour toutes sortes de raisons. Une grande partie de l’éducation est axée sur l’information clinique technique, et malgré l’importance de « quoi » faire, les cliniciens doivent savoir « comment » le faire. Afin d’aider les lecteurs à bien cibler cet important aspect du « comment », nous vous proposons quelques articles qui soulignent moins l’information clinique et mettent une plus grande emphase sur les processus pour assister à l’implantation. L’article de Doug Baron sur les

brûlures mineures chez les patients pédiatriques s’accompagne d’un outil pratique qui viendra aider les cliniciens à appliquer ce qu’ils savent. Un regroupement de trois articles de Connie Harris et coll., Heather Orsted et Gail Woodbury portant sur le développement de deux nouveaux outils met en lumière le processus de la validation. Il démontre clairement que la création et le raffinement de la pratique ou des outils pratiques pour l’éducation (qui peuvent s’avérer des éléments essentiels du transfert de la connaissance dans la pratique) font partie intégrante d’un long processus compliqué. Kimberly Stevenson lance les lecteurs au défi pour savoir s’ils *appliquent* véritablement les principes de la

meilleure pratique (normalement bien connus des cliniciens novices) à la prévention des ulcères de pression dans leur pratique.

Ceux et celles qui prévoient participer au congrès annuel de l’ACSP à Québec fin octobre auront l’occasion de poursuivre ce thème du transfert de « quoi » vers l’application véritable de la meilleure pratique. Ce programme marie ce qu’il y a de mieux d’un congrès traditionnel au format des conférences thématiques de l’ACSP de 2008. J’espère avoir l’occasion de vous voir à Québec pour ces quatre jours d’apprentissage de connaissances cliniques, de constitution d’une équipe et de développement de stratégies pour l’implantation des connaissances. ☺

### Sue Rosenthal, BA, MA,

specializes in health and wellness communications and has been associated with the CAWC since 2000.

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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.

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**Corrections**

Regarding the article "The Nursing Practice of Conservative Sharp Wound Debridement: Promotion, Education and Proficiency" by Ruth J. Harris in *Wound Care Canada*, 2009;7 (1):26: The Registered Nurses Association of the Northwest Territories and Nunavut does not have a policy on conservative sharp wound debridement but does have a scope of practice document with a decision-making tool for registered nurses to determine if they have the knowledge and skill to perform a procedure such as conservative sharp wound debridement. The practice of conservative sharp wound debridement in the Northwest Territories and Nunavut may also be governed by employer-based policies.

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## CAWC Events

The 15th Annual CAWC Conference is the must-attend educational wound-care event of the year. It will take place from October 29 to November 1, 2009, at the Centre des congrès de Québec in Canada's most European and historical location: Quebec City. The conference will be fully bilingual, with simultaneous translation available at all sessions. For additional information and to register, please visit [www.cawc.net](http://www.cawc.net).



## From Our NAWCC Partners

### CAET Announcements

The Canadian Association for Enterostomal Therapy (CAET) has announced the launch of its best practice recommendations for enterocutaneous fistulae (ECF). This is a comprehensive resource summarizing the current literature on the treatment of ECF. To place an order, please call the CAET National Office at 1 (888) 739-3035.

The CAET has also announced Virginia McNaughton, RN, BA, MPA, CETN(C), as the new director for the enterostomal therapy nursing education program.

### Wound Care Education from the APWCA

The American Professional Wound Care Association (APWCA) will be offering "The Essentials: A Comprehensive

Review and Refresher Course on Wound Care Management and Intervention" in September 2009 in Philadelphia and in January 2010 in Los Angeles. This will provide a broad-based review of the standard treatments for diabetic, ischemic, venous and pressure ulcers. For additional information and to register, please visit [www.apwca.org](http://www.apwca.org) or call (215) 364-4100.

The Council for Medical Education and Testing (CMET) is offering a physician-specific wound-care certification exam in order to credential all prescribing physicians in the field of wound care. The exam is endorsed by the APWCA and recognized by the American College of Hyperbaric Medicine. It is intended to be the first step to obtaining specialty recognition in wound care.

It will be offered in October 2009 in San Antonio, in November 2009 in New York, in April 2010 in Philadelphia and at a yet-to-be-finalized date in Los Angeles. For additional information and to register, please visit [www.councilmet.org](http://www.councilmet.org) or call (215) 364-4100.

### AAWC Launches the "500 Patient Campaign"

The Association for the Advancement of Wound Care (AAWC) announced a new initiative at the Symposium on Advanced Wound Care and Wound Healing Society Spring Meeting in April 2009. During the opening session, the AAWC President, William J. Ennis, made a plea to the audience to support the "500 Patient Campaign." With a modest \$30 tax-deductible donation to the AAWC in the form of membership dues, you could sponsor an AAWC Patient Member. These members will have access to a patient advocacy group—a large body within the AAWC that seeks to spread awareness of patient needs. In time, the AAWC will develop specific benefits for Patient Members.

Join the AAWC's 500 Patient Campaign. Tell a patient that you would like to sponsor him/her and sign up online at [www.aawc.org](http://www.aawc.org). For additional information, call (610) 560-0484.

## EWMA News

### The EWMA Patient Outcome Group

The European Wound Management Association (EWMA) Patient Outcome Group is currently working on a set of revised guidelines for clinical trials in wound care and measuring outcomes. The group plans to publish the document in March 2010. To read more about the EWMA Patient Outcome Group, please visit [www.ewma.org/english/patient-outcome-group](http://www.ewma.org/english/patient-outcome-group).

### EWMA Collaboration with Eucomed AWCS

With support from the EWMA, the Eucomed Advanced Wound Care Sector (AWCS) is currently working on a wound-care awareness event that will be held in Brussels, Belgium, in October 2009. The event will target members of the European Parliament, health attachés and key Commission officials. The objective is to create awareness of wound care, specifically prevention, treatment and product availability.

### EWMA 2010 Conference in Switzerland

The EWMA 2010 Conference (in co-operation with the Swiss Association for Wound Care, French and German sections) will take place in May 2010

*continued on page 54*

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<sup>1</sup>Driver V., et al. Health Economic Implications for Wound Care and Limb Preservation. *Journal of Managed Care Medicine*. 2008;11(1):13-19.

<sup>2</sup>Blume, P.A., et al. Comparison of Negative Pressure Wound Therapy Using Vacuum-Assisted Closure With Advanced Moist Wound Therapy in the Treatment of Diabetic Foot Ulcers, n=342. *Diabetes Care*. 2008;31:631-636.

<sup>3</sup>Armstrong, et al. Negative Pressure Wound Therapy after Partial Diabetic Foot Amputation: A Multicentre, Randomised Controlled Trial, n=162. *Lancet*. 2005;366:1704-10.

<sup>†</sup>RCT defined as Randomized Controlled Trial.

\*AMWT defined as advanced moist wound therapy. \*\*For both studies, data calculated at the end of the 112-day active treatment phase.

\*\*\*Median time for advanced moist wound therapy was not achieved within the 112-day active treatment phase.

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# Minor Pediatric Burns



By Doug Baron

**T**he management of pediatric burn injuries can be challenging for the wound-care practitioner. This article outlines strategies for the effective management of minor pediatric burns.

## The Extent of the Problem

In a retrospective analysis of Canadian hospital data from 1994 to 2003, Spinks et al.<sup>1</sup> found that hospital admissions due to burn injuries declined by approximately 4.8 per cent per year during that time. Even so, an estimated 40 children will die from burns this year in Canada and nearly 800 will be admitted to hospital with significant burn injuries.<sup>2</sup>

## Major and Minor Burns

It is important for the clinician to immediately assess the burn to determine if it is major or minor, as this information will direct treatment decisions. The American Burn Association<sup>3</sup> has described major burns as meeting at least one of the following criteria and therefore requiring referral to a burn centre:

- Partial-thickness burns on >10 per cent of the total body surface area (TBSA) (the surface area of one's palm is approximately one per cent of the TBSA)
- Burns involving the patient's face, hands, feet, genitalia, perineum or major joints
- Full-thickness burns in any age group
- Electrical or chemical burns
- Any suspected inhalation injury
- Any co-existing medical conditions that could complicate burn management
- Any concomitant trauma associated with the burn injury
- Any burns of children in a facility without the equipment for or expertise in the care of children
- Burns in any person requiring special social, emotional

or rehabilitative intervention

Burns not falling into any of the above categories are considered to be minor in nature.

## Common Causes of Minor Burns in Children

Children aged less than five years are at the highest risk for scald injuries, and there is a high prevalence of contact burns in children aged less than 12 months.<sup>1</sup> In my own practice, I tend to see contact burns more often during the colder months of the year, mainly from contact with glass-enclosed fireplaces. Burns from fire and/or flame tend to occur more frequently in the summer months and in children aged less than five years.<sup>1</sup>

In Calgary, we have seen an increase over the past year in the incidence of friction-type burn injuries from children touching moving treadmills. Fortunately, the majority of burn injuries seen in children are minor and can be managed on an ambulatory basis.

## Treatment of Minor Burns

Referral to our outpatient burn clinic is most often from our own Alberta Children's Hospital emergency department, but we also receive some patients directly from adult emergency departments and community physicians. Assessment and treatment of these injuries requires a holistic approach to care. Figure 1 shows how you can adapt the wound-bed preparation paradigm designed by Sibbald et al.<sup>4</sup> to a child with a burn injury.

## Take a Thorough History

The severity of a burn injury is dependent upon a number of factors, and it is important to take a detailed history from the patient (or parent, in the case of a young child). This includes the mechanism of injury and the immediate post-burn first aid applied, which can determine the extent or depth of the heat injury

**Doug Baron, BScPT (IIWCC),** is the burn clinic co-ordinator and team leader for the outpatient musculoskeletal physiotherapy services at the Alberta Children's Hospital in Calgary, Alberta.

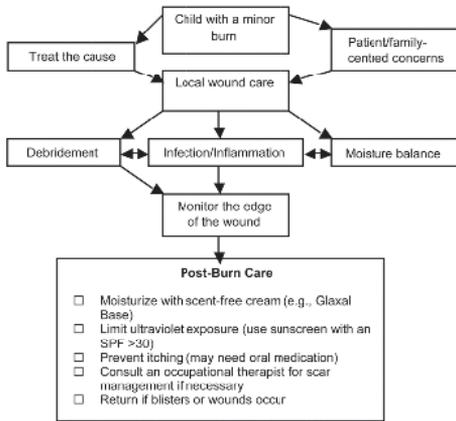


To view a practice enabler developed by Doug Baron, please visit the **Wound Care Canada** section of the CAWC Web site at [www.cawc.net](http://www.cawc.net).



FIGURE 1

## A wound-bed preparation paradigm for burn injury



Adapted from Sibbald et al.<sup>4</sup> and Alsbjorn et al.<sup>5</sup>

sustained. It is well known that the thickness of a child's skin is less than that of an adult, and children thus have deeper injuries from the same thermal exposure. As well, the combined surface area of the head and neck compared with the rest of the body in a child is larger than in an adult. Thus, a small burn on a child could be much more severe than the same size burn on an adult.

Co-morbid diagnoses can also have an effect on the expected wound-healing time. A quick review of the child's social situation can reveal whether the parents are smokers (inside vs. outside), if there are other siblings in the home and if there are any pets (some toddlers like to play in the dog's water dish!). A current medication list can indicate whether the child is being given any medications that could interfere with wound healing.

### Treat the Cause

If we follow the paradigm of Sibbald et al.,<sup>4</sup> we should teach families about the prevention of burn injuries. While it might be a bit late for the current injury, one can certainly educate parents on the risks of burns in and around the home. The Safe Kids Canada Web site ([www.safekidscanada.ca](http://www.safekidscanada.ca)) includes a comprehensive review of burn injury prevention.

### Address Patient/Family-centred Concerns

It is very important to address the concerns of the patient and family as this will foster adherence to the plan of care that is eventually developed with them. Many parents are very concerned about the cosmetic appearance of a burn injury and, invariably, we have to

answer the question "Is it going to leave a scar?" Education about the depth of the injury and expected wound-healing timeframes will give them a better idea of what to expect. From our experience, we know that burn injuries requiring longer than two to three weeks to achieve closure have an increased risk for the development of hypertrophic scar tissue. This is especially true in people of non-Caucasian races, who can produce more scar tissue even with a seemingly minor injury.

This is where effective communication with other members of the team is so important. (Our burn team includes plastic surgery, nursing, physical therapy, occupational therapy, social work, psychology and medical photography.) Those injuries tending toward the deep partial- to full-thickness end of the depth spectrum should have an assessment by a plastic surgeon and longer-term follow-up by an occupational therapist for burn scar management.

### Manage pain

Management of pain in the pediatric patient is paramount, and it is always recommended that parents provide some form of analgesia for their child prior to a visit for a dressing change. This is done over the phone on the first contact with the family. That first experience with burn pain during a dressing procedure can certainly have a lasting effect on future visits. Distraction in any form is an effective method to assist the child in coping with the dressing change routine. We use anything from toys to light projectors to children's television shows and movies with good effect.

### Local Wound Care

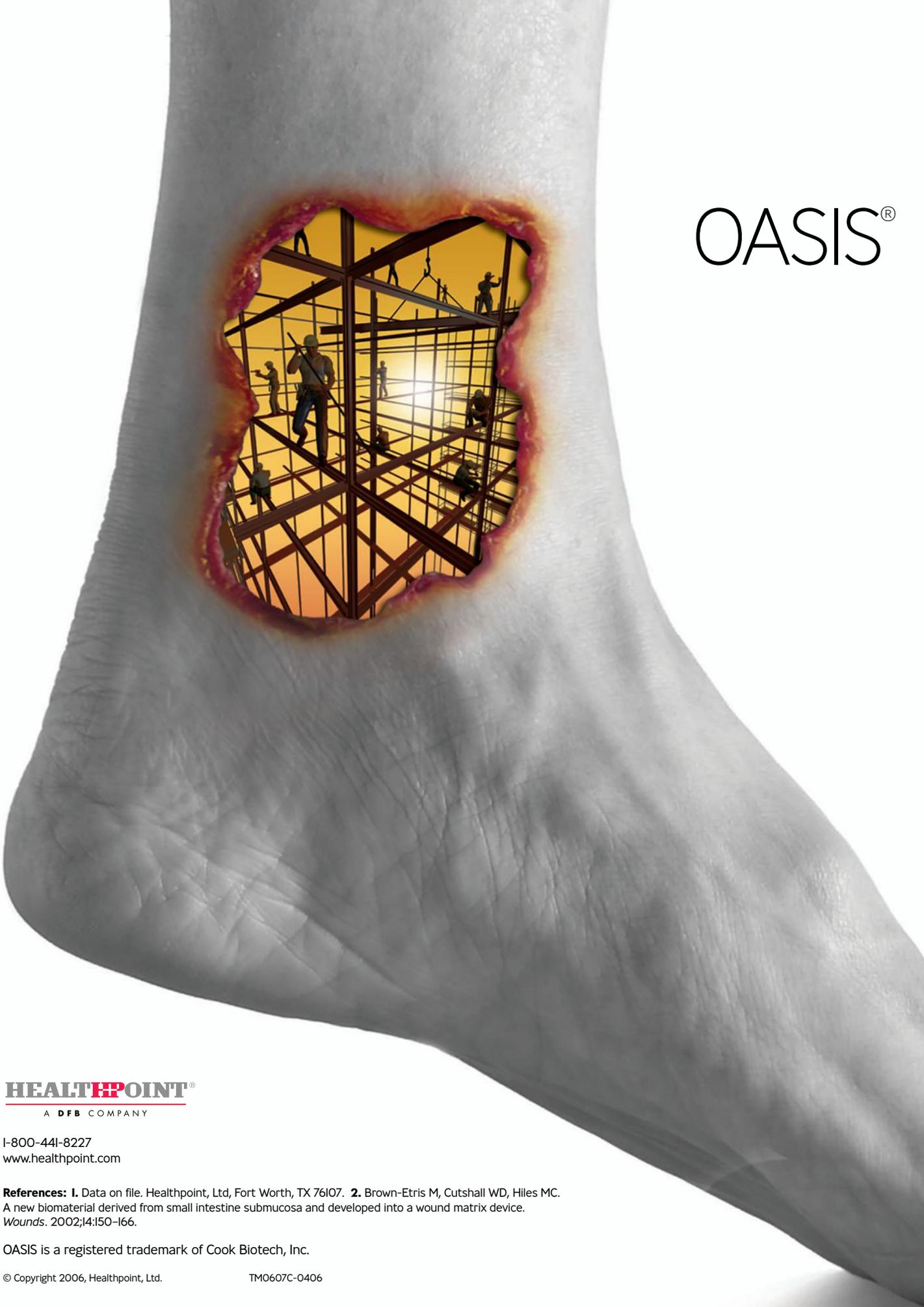
#### Wound cleansing

It is essential to cleanse burn wounds with low-toxicity solutions such as sterile water or saline. Potable tap water with mild baby soap is also an option. We have the luxury of access to a fluid and blanket warmer to ensure patient comfort. Minimizing desiccation of the burn wound can certainly help to prevent depth conversion to a deeper burn injury. This is a point that I have addressed with our own emergency department physicians and nurses when children first present to our facility.

#### Debridement

Debridement of nonviable tissue is important to ensure that the bacterial burden is minimized. Debridement

*continued on page 14*



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can take a number of forms, the discussion of which is beyond the scope of this paper. However, conservative sharp debridement with forceps and scissors or simple gauze with fingertips (some children are very fearful of shiny instruments) are the two most common methods. It is very important to have an assistant to help with debriding burn wounds in patients who are awake to ensure that the area is stabilized in order to prevent further injury.

Debridement of burn blisters remains a topic of controversy in the literature. Sargent<sup>6</sup> has developed some guidelines surrounding this issue, which a number of my burn-care colleagues reviewed using the Appraisal of Guidelines for Research and Evaluation tool<sup>7</sup> as part of my International Interprofessional Wound Care Course selective paper. As a result, I developed a practice enabler for my physical therapy colleagues at Alberta Children's Hospital (see Web Connect).

#### Inflammation/infection and moisture balance

Preventing infection and managing inflammation are very important, and there are many different types of advanced wound dressings available that are useful for these purposes. In my own practice I tend to rely on these advanced dressings (hydrocellular foam impregnated with silver, silver hydrofibre dressing, nanocrystalline silver or simply topical antibiotic\* and foam) more than the common silver sulfadiazine (SSD) and gauze-type dressings. If SSD is used, dry gauze is rarely used as a cover dressing. Instead we use foam (or a diaper in the case of burns in the groin area in infants). These types of advanced dressings tend to maintain an appropriate moisture balance to ensure proper migration of the wound edge. In a true superficial partial-thickness burn injury, the silver hydrofibre is allowed to dry out and adhere to the burn wound, and the edges are trimmed as the epithelial cells migrate beneath. This can be very helpful as the number of dressing changes required is significantly reduced.

Minor burns to the head and neck are usually treated with regular cleansing and frequent application of a topical antibiotic ointment without a dressing. Parents are instructed to watch for signs that wound infection may be approaching. These include an increase in pain (or irritability), wound exudate and/or odour, high fever, decreased appetite and lethargy. This is a rare occurrence in minor burn injuries, but awareness is important.

#### Post-healing and Rehabilitation

As a physical therapist, I aim to ensure that my clients can maintain adequate range of motion and function of the affected area. This may include providing parents with home exercise programs but, fortunately, children are naturally inquisitive, tactile individuals and tend to be very active. This makes the physical therapy part of rehabilitation relatively easy, but can make life difficult for the occupational therapist if splinting and garments are used in the post-burn period. Alsbjörn et al.<sup>5</sup> recommend that once wound closure is achieved, parents should be reminded of the importance of moisturizing the burn scar with a scent-free cream as well as providing ultraviolet protection in the form of sunscreen or clothing. Medications can be required if the burn scar becomes itchy or irritated. Some become so irritated that children can scratch open new wounds in the fragile burn scar, requiring them to return for further treatment.

In conclusion, the management of minor burns in the pediatric population represents a challenge, but a multidisciplinary team of dedicated professionals following the wound-bed preparation paradigm can effectively execute best-practice-based prevention, assessment, treatment and follow-up. This will certainly provide the child with the best possible opportunity to maximize his or her outcome.

\*Note: The risk of developing resistance/sensitization is low in the acute burn wound due to the fact that the topical antibiotic is used for only a very short time period and only in those burns with an intact blood supply (i.e., superficial partial thickness).

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**MÖLNLYCKE  
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# Healthy Eating on a Budget:

## Practical Strategies for Eating Well in a Tough Economy



by Chris Fraser

### Chris Fraser, HBSc, RD,

provides nutrition intervention for patients in the spinal cord injury and acquired brain-injury rehabilitation programs at the Parkwood Hospital site of St. Joseph's Health Care in London, Ontario, and is a member of Parkwood's Chronic Wound and Skin Health Team. She has presented on nutrition and wound management extensively throughout Canada and has been a frequent author of wound-related articles. She is a member of the College of Dietitians of Ontario and Dietitians of Canada.

**A**s health-care professionals and wound specialists, we may feel limited in our interventions with a client because of his or her financial challenges. Inadequate funding may be a significant barrier to accessing optimal equipment, care and services. Similarly, we may encounter financial barriers when recommending enhanced nutrient intake to our clients.

Consuming a variety of foods from each food group is essential in order to obtain the full range of nutrients—protein, carbohydrates, fats, vitamins and minerals—required for health and healing.

Below are some practical strategies, cost-saving tips and “best-value” foods within each food group to help our clients achieve good nutrition on a budget.

### Meat and Meat Alternatives

This food group provides the best sources of protein, iron and zinc, all essential nutrients for wound prevention and healing, as well as many other essential vitamins and minerals.

#### Best value

The best-value meat and meat alternatives are dried/canned beans and lentils; peanut butter; eggs; ground beef and other ground meats (regular ground beef is the best buy, but be sure to drain the fat); canned tuna; utility-grade chicken that may be missing a leg or a wing but is no less nutritious; and blade, rump roasts, pot roasts or stewing beef.

#### Cost-saving tips

- Purchase less expensive cuts of meat and marinate them and/or cook them for longer in water, broth,

tomato juice or other liquids.

- Cold cuts purchased at the delicatessen counter are less expensive than the pre-packaged varieties.
- Wieners are cheap, but provide only half the protein and iron of other meats.
- Purchase a whole chicken and cook it whole or cut it up yourself.
- Flaked tuna is more affordable than chunk tuna; solid tuna tends to be more expensive.
- Plain frozen fish is less expensive than fresh or battered fish.
- Cook meatless meals more often using dried or canned beans (such as kidney beans and beans in tomato sauce) and lentils; they are a high-protein, economical substitute for meat. They are also cholesterol-free and contain nutrients that are heart-healthy and help to moderate blood-sugar levels.

Consider this comparison: a three-ounce cooked chicken breast OR one and a half cups of canned beans in tomato sauce OR one and a half cups of kidney beans OR half a cup of canned tuna = approximately 21 grams of protein.

Non-meat sources of iron are absorbed better by the body when they are eaten at the same time as food or drinks that contain vitamin C (found in fruits and vegetables and their juices) or when cooked in cast-iron cookware.

### Milk Products

Milk and milk products are sources of high-quality protein as well as calcium, vitamin D and many other essential vitamins and minerals. If recommended, higher-fat varieties (such as whole milk and yogurts

*continued on page 18*

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<sup>1</sup> Padmanabhan A, Stern M, Wishin J, Mangino M, Richey K, DeSane M. Clinical evaluation of a flexible fecal incontinence management system. Am J Crit Care. 2007;16(4):384-393.  
<sup>2</sup> Cognos. Redistributed YTD Sales through August 2008. Data on file, ConvaTec.

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with at least 3 per cent fat) provide extra calories that will spare protein in the diet so that it is available for functions that only protein can do, such as wound healing and strengthening the immune system.

#### *Best value*

The best-value milk products are skim-milk powder, evaporated milk, processed cheese slices, cheddar and mozzarella cheeses, plain yogurt and fluid milk.

#### *Cost-saving tips*

- Choose store-brand cheeses and yogurts.
- Mild or medium cheese is less expensive than old cheese.
- Purchase store-wrapped cheeses to save money.
- Substitute evaporated 2% milk for cream.
- Bags of milk tend to be less expensive than cartons.
- Buy plain yogurt and add your own fresh, frozen or canned fruits and high-fibre cereals. Larger containers are cheaper per serving than the single-serving sizes.
- Skim-milk powder is almost half the cost of fluid milk. It stores well and is a good source of calcium and protein. Mix one-third of a cup (75 mL) of skim-milk powder into one cup (250 mL) of water to replace fluid milk purchased in cartons or bags. Or consider mixing one cup (250 mL) of skim-milk powder into one litre of fluid milk to make a high-protein milk. Skim-milk powder can be added to yogurt, puddings, casseroles, cream soups, hot cereals, mashed potatoes, pasta dishes and sauces and can be included with other dry ingredients when baking to boost the protein content of these foods. Two tablespoons (30 mL) of skim-milk powder provide five grams of protein.

Note: skim-milk powder contains natural carbohydrates (sugar), which may impact blood-sugar levels in people with diabetes.

#### **Vegetables and Fruits**

Vegetables and fruits are healthy sources of the energy (calories) needed for skin health and healing. They also provide essential nutrients such as vitamin C, beta carotene (which is converted to vitamin A in the body) and folic acid. Furthermore, they provide fibre and nutrients that contribute to bowel health, cardiovascular disease risk reduction and the moderation of blood glucose levels.

#### *Best value*

The best-value fruits and vegetables are apples, bananas, grapefruits, oranges, cabbage, potatoes, carrots, turnips, rhubarb, plain frozen vegetables, canned tomatoes and frozen 100% juices (especially orange juice).

#### *Cost-saving tips*

- Buy locally grown fresh fruit and vegetables when they are in season.
- Buying in bulk saves money and allows extra to freeze.
- If you are not going to freeze or share, buy only the amount of fresh fruit and vegetables that can be used before they spoil.
- Wash and cut fruit and vegetables yourself; pre-washed, cut and packaged products are far more expensive.
- Buying apples, oranges and potatoes in pre-packaged bags is cheaper than buying them individually.
- Frozen and canned fruits and vegetables are your best choices out of season; just remember that canned vegetables tend to be high in salt, and fruit canned in syrup is higher in sugar than fruit canned in juice or water.
- The best-value frozen vegetables are peas, corn, green beans, mixed vegetables and spinach.
- Purchase plain frozen vegetables, which are far more affordable and lower in fat and salt than varieties that are frozen with sauces added.
- Cabbage is less expensive and more nutritious than lettuce.

Buying frozen juice from concentrate and adding water, rather than purchasing the pre-mixed juice from concentrate, can save up to 10 cents per glass. Avoid “fruit drinks,” “fruit punches” and “fruit beverages,” which are high in sugar, low in nutrients and may cost more. Small juice boxes are the least economical way to buy juice.

#### **Grain Products**

Grain products such as breads, cereals, pasta and rice are great sources of carbohydrates, our body’s preferred source of energy, as well as of fibre, iron, vitamins and minerals. Whole-grain products provide more nutrition than “wholewheat” products; white breads, rice and pasta are more processed and less nutritious than the whole-grain or brown varieties.

#### *Best value*

The best-value grain products are whole-grain rice, macaroni, bread, rolled oats and hot cereals.

### Cost-saving tips

- Plain rice and pasta, especially store brands, are far less expensive than canned or frozen rice and pasta mixes, which are also often higher in fat and salt.
- Plain pasta shapes such as macaroni and spaghetti can be less expensive than other shapes.
- Purchase extra plain rice and pasta when they are on special offer. They can be stored for long periods of time in a cool dry place.
- Purchase bread and baked goods that are labelled “day-old,” which are available at discounted prices. Freeze bread and take it out of the freezer as you need it; it stays fresh in the freezer (bread can be frozen for up to two months) and will prevent the need to throw out mouldy bread.
- The most economical and nutritious cereals are the whole-grain and plain varieties; pre-sweetened, high-sugar cereals provide less nutrition and cost more.
- Cereals that you cook (e.g., oats) are less expensive than ready-to-eat cereals.
- Long-grain rice is half the price of minute rice and takes just a few minutes longer to cook.

### Other Money-saving Hints

- Purchase staple foods from bulk-food stores or the bulk bins in the grocery store.
- Clip coupons for foods that you regularly buy.
- Bargains at grocery stores are often found on the top and bottom shelves.
- Never throw out leftovers. They can be eaten the next day or used in mixed dishes such as casseroles, stews and rice and pasta dishes.
- Take your lunch to work rather than buying it; even buying a large coffee and a muffin each day can cost around \$50 per month!
- The money spent on “fast food”, “pick-up” and “delivery” meals buys a much larger volume and variety of more nutritious foods and beverages.
- Pack lunches and snacks in reusable containers rather than baggies or plastic wrap, which add to the grocery bill.
- Consider container gardening during the spring and summer; fresh vegetables can be grown in planter pots or plastic bins on apartment balconies.
- Look in the phone book or online for “collective kitchens” in your area; members contribute a small fee per family member for ingredients that are made into meals and shared among the participants.

Collective or community kitchens provide social environments and nutritious, economical meals.

- Store-brand liquid nutrition supplements and meal replacements are nutritionally comparable but less expensive than name-brand supplements.
- Some Meals-on-Wheels programs offer subsidized meal plans for clients who qualify.

Funding programs may be available that we can assist our clients to access. For example, in the province of Ontario clients can apply to the Ontario Disability Support Program (ODSP). ODSP members may qualify for additional monthly funds under the “Special Diets Application” program. Awareness of provincial/territorial or other financial assistance programs adds to our expertise and the value of our holistic interventions for our clients. ☺

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# Improving Health-related Quality of Life

## For Patients with Painful, Exudating, Chronic Wounds

BY  
 Kevin Y. Woo,  
 Heather L. Orsted,  
 Kristine Gjødsbøl

**C**hronic wounds result from a disruption of the skin barrier that alters the structural and functional integrity of the integument. Due to underlying wound pathology and co-existing diseases, local wound factors and patient-centred concerns, normal wound healing may be thwarted and not follow an orderly sequential trajectory. The impact of chronic, stalled wounds on any individual is tremendous, compromising quality of life (QoL) due to

myriad interrelated factors, of which pain is consistently described as the most disabling and devastating.<sup>1,2</sup> As our society continues to age, chronic wounds are becoming more prevalent and complex, demanding an organized and systemic approach to wound caring.

### What is Wound Pain?

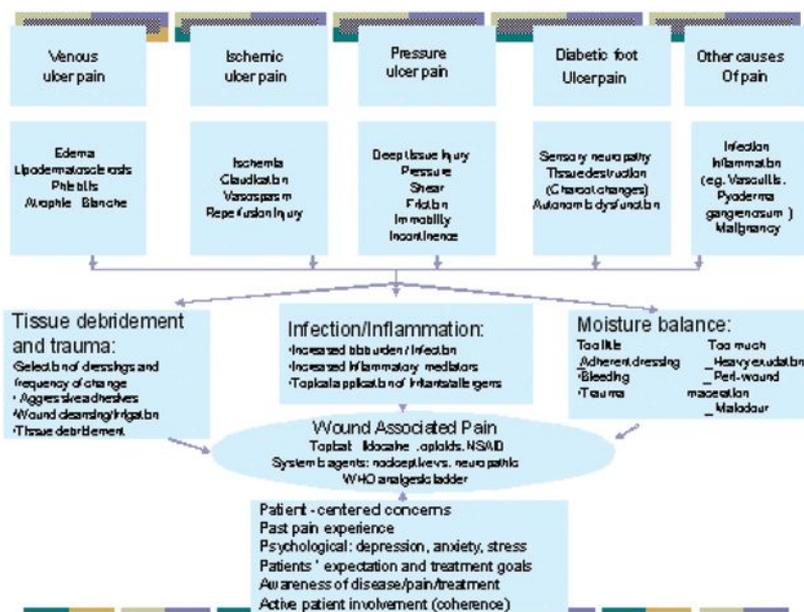
According to a model proposed by Woo et al.,<sup>3</sup> the mechanism of wound-related pain is multifaceted.

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**FIGURE 1**  
**The influences on pain by wound type**



Reprinted with permission from Woo et al.<sup>3</sup>

Depending on the types of wounds, pain can be influenced by conditions that are intrinsic to the underlying etiologies, as described in Figure 1. In addition, tissue trauma, infection and poor moisture balance (too much or too little) are the local wound-care factors that have been demonstrated to precipitate and exacerbate pain. Consistent with the notion that pain is a subjective and personal experience, patient-centred factors are central to understanding the complexity of pain. These factors may include anxiety, past pain experience, expectations and relationships with caregivers that account for the variable individual responses to a similar noxious stimulation.

### The Effect of Pain on Patients

Pain is consistently reported by patients as one of the worst aspects of living with chronic wounds.<sup>1,2,4,5</sup> As a result of pain, many individuals have to restrict their physical activities, leading to immobility, loss of independence, social isolation, depression and feelings of hopelessness.<sup>6</sup> For many individuals, the pain is worse at night, disrupting sleep and contributing to fatigue and lack of energy.<sup>7</sup> In a qualitative study of patients

#### The patient experience

Patients have described the pain eloquently, as the following quote illustrates: "...the worst thing I have ever gone through in my life, and believe me I have had surgery, multiple surgeries. I've never had nothing hurt like this. Never. It feels like someone is sticking a hot poker in you. They're sticking pins in you the whole time. And it never stops hurting. The damn thing never stops hurting."<sup>4</sup>

The persistent pain experienced by people with chronic wounds can be difficult to imagine. It is frequently described as burning or like having acid thrown onto the skin.<sup>7</sup> Another patient has described the pain as follows: "One day I was thinking I was going off my head. It was itching and scratching and burning, [I] couldn't concentrate."<sup>9</sup>

with venous leg ulcers, six out of 10 patients reported pain levels as "horrible" or "excruciating."<sup>8</sup>

### Assume all chronic wounds are painful.

To address the primacy of pain as part of chronic wound management, a new international consensus document on the assessment and management of chronic wound pain has been published.<sup>3</sup> The key message from this document is to "assume all chronic wounds are painful unless the patient indicates otherwise." While pain is often experienced during dressing-related procedures (e.g., wound cleansing, dressing changes), chronic, persistent pain is equally distressing between treatments—even at rest. Assessment and treatment should no longer simply concentrate on the pain during dressing changes alone.<sup>3</sup>

### Assessing for Chronic Wound Pain

Potential causative factors should be identified as wound-related pain may be associated with nerve damage, trauma or infection. Dressing removal is painful when dressings adhere to the wound bed because of dried-out materials, aggressive adhesives, abnormal granulation tissue and capillary loops growing into the product matrix and the glue-like nature of dehydrated or crusted exudate.<sup>10,11</sup> Several authors have validated that the presence of unexpected pain or tenderness, along with other criteria, is indicative of wound infection.<sup>12,13</sup>

A thorough pain assessment should include the following components:

- A detailed pain history: past experience, meaning, cultural norm
- Description of pain: intensity (0–10), quality (e.g., burning, heavy, aching)
- Pain pattern: precipitating factors (e.g., anxiety before dressing change), alleviating factors (e.g., music with dressing change), temporal variations (e.g., night pain)
- Impact of pain: mood, social, spiritual, activities of daily living

By exploring the meaning of pain from patients' perspectives, we can identify values, preferences and barriers that may influence the choice of treatment

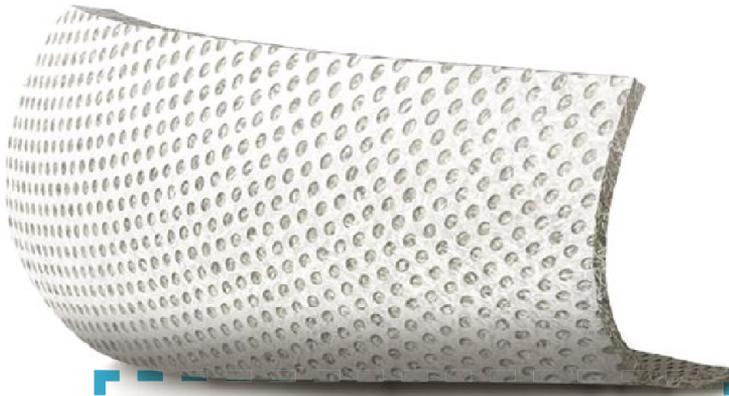
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### Did you know...

Wound-related pain can be temporary (acute) or persistent (chronic). *Acute* wound pain can be aggravated whenever the wound is being handled or manipulated, such as during dressing removal, wound cleansing or debridement. *Persistent* wound pain is the background symptom that exists at rest and between wound-related procedures. Evidence indicates that up to 80 per cent of patients with chronic wounds experience persistent pain between dressing changes.<sup>3</sup>

strategies for pain and treatment adherence. When talking to a patient, remember that you only get the answers to the questions you ask.

Elderly people do not always express their concerns relating to pain because they believe wound pain to be both unavoidable and untreatable.<sup>14</sup> Certain cultural considerations may create additional barriers for patients regarding the verbalization of their pain status. To empower patients to be active participants in their own care, the National Patient Safety Foundation suggests three questions that patients should ask at their visits with health-care providers.<sup>15</sup> The questions that constitute the "Ask Me 3" model ([www.AskMe3.org](http://www.AskMe3.org)) are:

- What is my main problem?
- What do I need to do?
- Why is it important for me to do this?

Studies have demonstrated that by implementing the "Ask Me 3" model, patients express better communication with their providers and are more satisfied with their care. Subsequently, the number of missed visits and call-backs (patient calls for clarification or more information) is reduced. Despite the concerns of many health-care providers, this interaction does not add significant time to the length of patient visits.<sup>16</sup>

### Management of Wound Pain

Wound-related pain is often underestimated and under-treated. However, multiple non-pharmacological strategies and pharmacological agents are available to control wound-related pain. The selection of an appropriate agent should take into account the type and severity of the pain. For optimal pain management,

consider the use of non-pharmacological approaches combined with pain medication.

### Non-pharmacological treatments

Common non-pharmacological pain management strategies are aimed at reducing the potential effect of psychological factors (e.g., anxiety, stress) that may aggravate the pain experience. Relaxation techniques, music therapy, touch therapy, visual stimulation, hypnosis, stress-reducing strategies, guided imagery, behavioural and cognitive therapy and distraction have all been suggested as options for managing wound pain. Other modalities that may be complementary therapies for pain control include transcutaneous electrical nerve stimulation, acupuncture, massage, laser therapy and thermal therapy. The everyday clinical utility of these techniques in the management of wound-related pain is unknown due to the paucity of wound-pain-related research concerning these adjunctive therapies. Non-pharmacological modalities alone may not be sufficient to provide adequate pain control, and they are often used in conjunction with other systemic and topical agents. Patient preference must be sought and incorporated in the plan of pain management.

### Appropriate dressing materials

The repeated application and removal of adhesive tapes and dressings can mechanically strip the stratum corneum on the skin surface from the epithelial cells. This can precipitate pain and skin damage.<sup>17</sup> In severe cases, erythema, edema and blistering have been observed.<sup>18</sup> By limiting skin damage with dressing removal, it is possible to minimize pain at dressing changes. Considering pain as an outcome indicator, Dykes and Heggie<sup>19</sup> concluded that removal of a silicone dressing was less painful ( $n=24$ ,  $p<0.01$ ) than removal of dressings that required a higher peel force. However, this study was conducted with healthy volunteers, and results from intact skin may not be applicable to patients with wounds and fragile peri-wound skin.

### Topical agents

Topical agents or dressings play a critical role in alleviating wound-related pain.<sup>3</sup> Briggs and Nelson have reviewed the literature pertaining to topical interven-

tions for pain in patients with venous leg ulcers.<sup>20</sup> They found strong evidence to support the use of an anaesthetic cream containing lidocaine/prilocaine prior to the debridement of venous leg ulcers.

Advanced wound dressings containing ibuprofen may be suitable for reducing persistent and acute wound pain.<sup>21–24</sup> There are many advantages to using local rather than systemic treatment. Any active agent is delivered directly to the affected area, bypassing the systemic circulation, and the dose needed for pain reduction is low, with minimal risk of side effects.

The use of topical morphine offers an alternative pain management strategy. Although pain improvement was indicated in several studies of patients with chronic wounds, this formulation is not commercially available, and the lack of pharmacokinetic data precludes the routine clinical use of these compounds use at this time.<sup>25–28</sup>

### Systemic treatments

Pain is in general categorized as nociceptive, neuropathic or a combination of both. Nociceptive pain, caused by tissue damage, is often described as gnawing, aching, tender and throbbing. According to the recommendations of the World Health Organization (Table 1),<sup>3</sup> most patients with mild to moderate pain respond favourably to oral non-steroidal anti-inflammatory drugs or acetaminophen. For severe pain, opioid analgesics

(weaker and then stronger) should be utilized. To minimize adverse side effects of opioid (such as confusion, constipation, drowsiness), it is prudent to start at a low dose and titrate slowly to the desired therapeutic dose (start low, go slow). Neuropathic pain, which is due to nerve injury, is typically experienced as burning, stinging, stabbing or shooting sensations. Patients experiencing neuropathic pain may benefit from adjuvant therapies such as tricyclic anti-depressants and anticonvulsants. Antidepressants and anticonvulsants exert a different mechanism to block pain transmission, and their use does not imply pain is related to psychiatric or seizure disorders. The dosing of these medications for pain management is much lower than that for the treatment of depression and convulsion.

### The Effect of Pain on Other QoL Considerations

The patient's QoL might influence the healing of the wounds and their desire to comply with the necessary treatment. More importantly, it has a huge impact on patients' lives and their acceptance of the condition of wounds and treatment. Being able to live as normal a life as possible is often the most important treatment priority for wound patients, and health-care professionals can play a significant role in supporting a patient's QoL.

Patients with chronic wounds often report pain to be the most dominant factor of having a wound, and the

TABLE 1

## Pain treatment recommendations according to the World Health Organization<sup>3</sup>

Start treatments at a low dose and increase slowly.

	Neuropathic pain	Nociceptive pain
First line	Tricyclic antidepressant: amitriptyline, nortriptyline, desipramine	Non-steroidal anti-inflammatory drug (NSAID) or acetaminophen
Second line	Anticonvulsant: gabapentin/pregabalin	Weak opioid (e.g., codeine)
Third line	Serotonin-norepinephrine reuptake inhibitor (SNRIs) antidepressant: duloxetine, venlafaxine Anticonvulsant: carbamazepine, sodium valproate	Strong opioid (e.g., morphine)

factor that most compromises QoL because of the affect of pain on daily activities. For example, painful leg ulcers often limit the mobility of the patient, and simple activities such as climbing the stairs or stepping onto a bus become very difficult. The pain can also lead to a decrease in activities of daily living such as housework, meal preparation and bathing. Uncomfortable dressings can lead to altered clothing and/or shoe options, which can contribute to social isolation and a feeling of being housebound.

It is important for the health-care professional to identify and address problems that affect a person's QoL, not only in the case of wound pain but also with regard to potential issues such as exudate leakage or odour.<sup>23,29</sup>

This can be done by:

- Asking questions related to health-related QoL
- Identifying important influencing factors (e.g., wound pain)
- Addressing those influencing factors (e.g., treat pain, support faster wound healing, manage exudate) by using the best possible treatments available

It is not only possible to improve a patient's QoL—it is also the *responsibility* of all health-care professionals to do everything they can to support a holistic approach to care. ☺

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# 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** 75-year-old female patient is referred to the wound-care clinic with a history of a scaly leg. She has had leg ulcers in the past that have healed, but she is now concerned about the size and discoloration of her lower leg.

On examination, you see that her leg is covered with a thick, tenacious, greyish scale (Figure 1).

Superior to the large area of heaped-up scale you notice hyperpigmentation that, in places, appears to follow the veins. Distal to the ankle region there are a number of small reticular veins, as well as hyperpigmentation.

**Question:** What is the nature and cause of this scaling and what should be done?

**Answer:** This patient has developed chronic lipodermatosclerosis as a result of her venous leg ulcers. The hyperpigmentation is a result of chronic venous stasis, as are the spider and reticular veins on the inferior ankle region. The hyperpigmentation is a result of the breakdown of the red blood cells in the dermis and the subsequent deposition of hemosiderin. The hyperpigmentation also represents increased melanin production by the melanocytes in the epidermis, which occurs as a result of the inflammation.

In addition, she has developed retention hyperkeratosis as a result of chronic irritation and inflammation of the lower legs. The scales are composed of the superficial layers of the epidermis, which occur as a result of the chronic inflammation in this area. Poor personal hygiene may also be part of the etiology for this condition.

In rare cases, hypothyroidism can result in thickening of the skin.

Removal of this thick hyperkeratosis is difficult and requires time and patience. There is no need to remove it other than for cosmetic reasons. However, such



hyperkeratosis can sometimes lead to small fissures in the skin, which may lead to secondary infection. In addition, it may create some degree of odour from the increased growth of bacteria.

Initially, I would treat this condition with a moisturizing cream that contains lactic acid, which helps to break down and remove some of the scale. If that does not work, then occluding it with petroleum jelly at nighttime may gradually soften up some of the thickened skin so that it can be removed with a pumice stone or other abrasive material. Once the scale is removed, the skin must be continually moisturized to help prevent repeat build-up. ☺

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# Pressure Ulcer Prevention: When Are We Negligent?

BY  
Kimberly Stevenson

I recently reread the position paper by the Wound, Ostomy and Continence Nurses Society (WOCN) titled "Avoidable versus Unavoidable Pressure Ulcers." In reviewing the definitions of what constitutes an avoidable versus an unavoidable pressure ulcer, I began to think about how these definitions make hospitals, nursing homes, home-care offices and health-care providers liable in providing the care necessary to avoid a pressure ulcer.

The WOCN provides the following definitions of avoidable and unavoidable pressure ulcers:

**Avoidable pressure ulcer:** "Avoidable" means that the resident developed a pressure ulcer and that the facility did not do one or more of the following: evaluate the resident's clinical condition and pressure ulcer risk factors; define and implement interventions that are consistent with resident needs, resident goals and recognized standards of practice; monitor and evaluate the impact of interventions; or revise the interventions as appropriate.

**Unavoidable pressure ulcer:** "Unavoidable" means that the resident developed a pressure ulcer even though the facility had evaluated the resident's clinical condition and pressure ulcer risk factors; defined and implemented interventions that are consistent with resident needs, goals and recognized standards of practice; monitored and evaluated the impact of the interventions; and revised the approaches as appropriate.<sup>1</sup>

Although legal cases related to pressure ulcers are more common in the U.S. than in Canada, this does not shield us from the possibility of being involved in legal action, nor does it relieve us of the same duty to ensure

that we are providing the care necessary to prevent pressure ulcers. Upon reflection of what defines avoidable pressure ulcers, I began to think about how we may or may not be meeting these standards in daily practice. Our best practice guidelines and recommendations to date are the *Nursing Best Practice Guideline: Risk Assessment and Prevention of Pressure Ulcers* and *Best Practice Recommendations for the Prevention and Treatment of Pressure Ulcers*, from the Registered Nurses' Association of Ontario and the Canadian Association of Wound Care (CAWC), respectively.<sup>2,3</sup> Let's look at how these guidelines and recommendations align with the WOCN definitions.

## "Evaluate the resident's (patient's) clinical condition and pressure ulcer risk factors"

In other words, identify and treat any potential causes of pressure ulcers. You need to ask the following questions:

- Has a complete patient history and physical examination been completed and documented to determine overall health and risk factors that may lead to the development of pressure ulcers?
- Has a validated pressure ulcer risk scale (PURS), such as the Braden, been used to determine the patient's risk? Has the patient's risk level been documented?

## "Define and implement interventions that are consistent with resident needs, goals and recognized standards of practice"

Once a PURS has been used to identify the level of risk, the following questions become important:

- Has the PURS score been documented and a care plan created based on the level of risk?
- Has the risk-related care plan been documented and are all interdisciplinary staff members who interact

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For additional resources related to this article, please visit the **Wound Care Canada** section of the CAWC Web site at [www.cawc.net](http://www.cawc.net).



with the patient aware of the risk and the plan of care?

- Has the care plan addressed patient-centred concerns?
- Does the care plan reflect the best practice recommendations?
- Have the risk score parameters been used to assess and modify the risk, such as reducing situations where pressure may be increased, maximizing nutritional status, managing moisture or incontinence, maximizing mobility and activity and reducing or eliminating friction and shear?
- Was the interdisciplinary team consulted when developing the care plan?

According to the CAWC best practice recommendations, gaining the necessary organizational support is also fundamental to prevention:

- Have all health-care providers, patients and their families been educated regularly to ensure that they are aware of the risk and what they can do to prevent pressure ulcers?

In Canada, the Pressure Ulcer Awareness and Prevention (PUAP) program is the most comprehensive program available to date. The PUAP program, developed by the CAWC, provides all of the tools necessary to incorporate best practices at the bedside into daily care. The program helps facilities to achieve these standards for prevention by providing the skills and tools to identify the risk, develop a care plan and communicate the risk to all staff, patients and their families while incorporating an interprofessional team approach. The PUAP program includes patient and family education to ensure that all persons responsible for pressure ulcer prevention are aware and involved for maximum impact. This raises the following questions:

- Are we actively using the best practice guidelines and recommendations that we have available to us? Are they incorporated into our policies and procedures?
- How do we transfer knowledge into practice?
- Are we doing what we know we should be doing? This is a very common concern in many facilities across the country and continues to be a challenge for many clinicians.

**“Monitor and evaluate the IMPACT of the interventions or revise the interventions as appropriate”**

Once the risk has been established and the care plan developed, how often does your facility monitor and

evaluate the risk? Barbara Braden’s recommendations for the frequency of risk assessment in acute care are to assess on admission and at least every 48 hours thereafter, as patient status can change rapidly. The intensive care unit should complete a validated PURS such as the Braden every shift if the patient is unstable and daily if the patient is stable.

Long-term care facilities should complete a validated PURS on admission, every 48 hours for the first week, weekly for the first month and then monthly to quarterly or whenever health status changes. Home care should also assess risk on admission and then at every nurse visit. Family members should also be taught how to assess the skin. This is especially important when patients are on weekend passes.<sup>4</sup>

- How often does your facility monitor and alter the care plan to ensure that it is updated and that all risk parameters are addressed and modified to prevent a pressure ulcer?

The PUAP program helps facilities evaluate care through weekly high-risk rounds. This makes certain that the care plan for all high-risk patients is reviewed by an interprofessional team. It also ensures that the care plan stays current and reflects the risk, and that care is modified regularly.

- How does your organization measure the outcomes of the interventions you have set in place to reduce pressure ulcers?
- How do you know if what you are doing is working?
- If outcomes are not being measured and you are not evaluating your care, does this make you liable?

As the PUAP national manager, I interact with many facilities across the country. Most of the facilities I have spoken with complete prevalence and incidence (P&I) data only every few years, if at all.

- Is this frequency adequate to measure the care that we provide related to pressure ulcers?
- Even if P&I studies are completed, what is done with the information? What action plans are developed to address the results?
- What do facilities benchmark themselves against to determine whether they are doing well in terms of preventing pressure ulcers?

To help facilities address this common gap, the PUAP program assists in evaluating the care that facilities provide. This is done through monthly chart reviews that identify gaps in care. The program also helps facilities

build internal capacity to measure P&I at least annually and develop measurable outcomes for success. The PUAP program also provides facilities with gap analysis tools to determine what can be done better and to develop appropriate action plans for improvement.

### Going Back to the Literature

The WOCN position paper recognizes the complexity of pressure ulcer development. It also suggests that intrinsic risk factors are not always captured by risk-assessment tools, and that not all of these risk factors can be removed or modified. Finally, the paper recognizes that prevention and management are not always under the control of nurses exclusively and that there are clinical circumstances where interventions may be contraindicated. Other factors to consider include the following:

- Pressure ulcer staging is largely based on a visual change to the skin and/or tissues. Some damage cannot be identified visually until it has reached a dangerous or irreversible stage.
- Patients' rights play a significant role. Individuals may refuse some or all aspects of their care and may not adhere to a pressure ulcer prevention plan.
- In the case of palliative care, consideration must be given to interventions that are necessary but may be inappropriate near the end of life.<sup>1</sup>

### Recommendations

The WOCN position paper recommends further study to determine how co-morbidities and intrinsic factors contribute to pressure ulcer development and the corresponding implications for clinical practice. It also recommends further research to "provide the scientific evidence supporting pressure ulcer prevention interventions, and to guide critical thinking and decision making when deviation from the interventions is indicated."<sup>1</sup> The paper also suggests that continued effort is needed to support the development of effective processes to ensure that clinicians consistently implement evidence-based practice related to pressure ulcer prevention across the entire health-care continuum.

For the Canadian health-care system, the PUAP program is a solid start to ensuring that facilities get the help they need to transfer pressure ulcer prevention knowledge to the bedside and achieve the standards of care outlined in the best practice guidelines and recommendations. Finally, the WOCN position paper

states: "Continued support and study is also needed to develop and expand the list of risk factors that are more predictive of pressure ulcer development. While many wound-care experts agree some pressure ulcers are unavoidable, the accurate identification of these wounds is made after appropriate interventions have failed."<sup>1</sup>

The WOCN position paper also recommends that all preventative measures be accurately documented; if there are clinical reasons that preventative measures are not appropriate or feasible, clinicians must document these and the rationale must be evident.<sup>1</sup>

The purpose of the WOCN position paper was to refute the assumption that all pressure ulcers are avoidable. While true, we still must strike a balance between what we know we need to better understand through research and the current best practice recommendations.

### Conclusion

If you have answered *no* to any of the questions raised throughout this article, does that make your facility potentially liable should a pressure ulcer develop in one of your patients? As nurses, does failing to ensure that we provide the standard of care to prevent pressure ulcers place us at risk for negligence? I do not claim to have the answers to these questions—only a medical lawyer would. Rather, my goal in writing this article was to provoke thought on how well Canadian health-care systems in general—and we as practitioners in particular—are preventing pressure ulcers, and how well we measure up against the standards outlined in the literature.

For more information on the PUAP program, Canada's only generic, evidenced-based pressure ulcer prevention program, please contact Kimberly Stevenson at (250) 764-6283 or [stevenson@preventpressureulcers.ca](mailto:stevenson@preventpressureulcers.ca). ☺

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# The Bates-Jensen Wound Assessment Tool (BWAT): Development of a Pictorial Guide for Training Nurses

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## Abstract

Wound documentation is essential for communication between health-care providers and to determine appropriate treatment plans. Accurate and meaningful wound documentation requires consistent, thorough wound assessment and a method of tracking assessment data. The Bates-Jensen wound assessment tool (BWAT) is a standardized tool designed for easy assessment, meaningful communication and accurate

tracking of wounds. In order to use the tool, nurses must have a working knowledge of wound vocabulary and wound-assessment skills. Because many nurses are visual learners, the authors decided to create a visual method of training nurses in the use of the BWAT. In this article, we describe the development and validation of a pictorial guide that can be used to augment wound assessment and documentation using the BWAT.

## Introduction

**A**ccurate wound assessment is a key component of wound management. It is necessary both for decision-making regarding topical treatment based on wound status and for signalling signs of deterioration that require other interventions.<sup>1</sup> This is a skill that all health-care professionals involved in wound care should be able to perform. However, Doughty<sup>2</sup> has described it as a process that should be simple but is in fact complex—requiring visual and physical assessment skills combined with clinical judgment and experience.

One standardized wound-assessment instrument is the BWAT. In the early 1990s, Barbara Bates-Jensen developed the pressure sore status tool (PSST) as an instrument to measure and track wound healing. Use of the PSST provides objective numerical scores before, during and after treatment and at the time of healing. The PSST has been validated and has demonstrated reliability with both nurses specializing in wound care and licensed nurses in long-term care settings.<sup>3,4</sup>

In 2001, the PSST was revised and renamed the BWAT. The tool name was changed after requests from

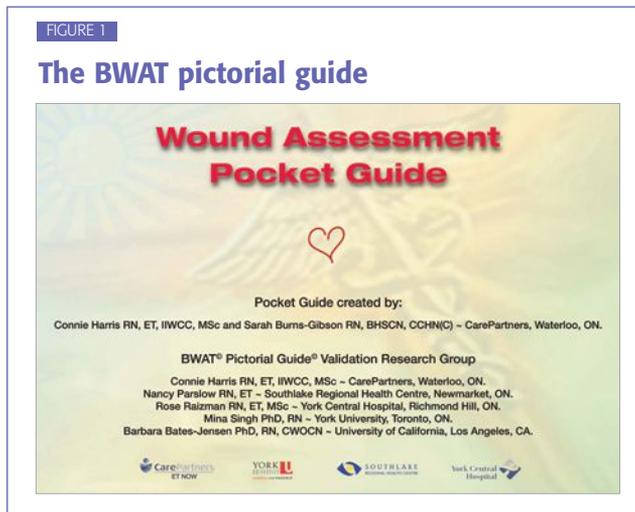
users who were having difficulty getting the tool approved for use with chronic wounds that were not pressure ulcers. The BWAT contains 13 items to assess the wound: size, depth, edges, undermining, necrotic tissue type, amount of necrotic tissue, granulation and epithelialization tissue, exudate type and amount, surrounding skin colour, peripheral tissue edema and induration. Each item has five categories with an associated score, one of which the nurse must choose as the most appropriate response. The sum of these scores indicates the progression of wound healing.

Consistent use of the BWAT within facilities provides a quantifiable method of documenting wound assessments and can help to set benchmarks for the healing of wounds of different etiologies.<sup>5</sup>

However, in order to use the BWAT accurately, nurses must have a working knowledge of wound vocabulary and wound-assessment skills. Formal training in the use of the BWAT is generally accomplished on an institution-by-institution or nurse-by-nurse basis, with no organized uniformity in education. Most experts believe

A portion of the introductory material contained in this article was originally submitted to the University of Wales College of Medicine, Cardiff, Wales, UK, MSc in Wound Healing and Tissue Repair Program by Connie Harris as a required assignment.

that showing wounds or providing photographs of wound characteristics is the preferred method for teaching nurses wound assessment skills. While some clinicians have created educational resources for the BWAT accompanied by wound photographs, there is no validated pictorial guide for training.



### Development of the Pictorial Guide

Early in 2008, three enterostomal therapy nurses (ETNs), Connie Harris, Nancy Parslow and Rose Raizman, were working as clinical nurse specialists in wound care in acute and community nursing settings in Southern Ontario. They recognized that, if they wished to introduce the BWAT as the assessment and documentation instrument in their organizations or facilities, wound assessment education would also be needed. The clinicians hypothesized that the creation of a visual or pictorial guide to the BWAT would facilitate this educational process, and thus increase the accuracy of wound assessments. Validation of the photographic content would be necessary in order for the pictorial guide teaching tool to have any merit or credibility.

Permission to utilize the guide was granted by the author of the BWAT, Barbara Bates-Jensen, who agreed to act as an advisor to the project. The employers of the clinicians all agreed to support this project. Mina Singh, Graduate Program Director in the School of Nursing, Faculty of Health, at a university affiliated with the two acute-care facilities, agreed to serve as a secondary researcher to assist with methodology and analysis for the project.

Before beginning any development activities, ethics

approval was obtained from the ethics review boards of the acute-care hospitals, university and community nursing agency. This included informed consent to use wound photographs of patients for this educational purpose, including those of patients from one additional site. No identifying information appears on any of the photographs in the project and none was released to any of the participants in the validation phase.

The proposal for the BWAT pictorial guide consisted of three phases of development and testing.

### Phase One

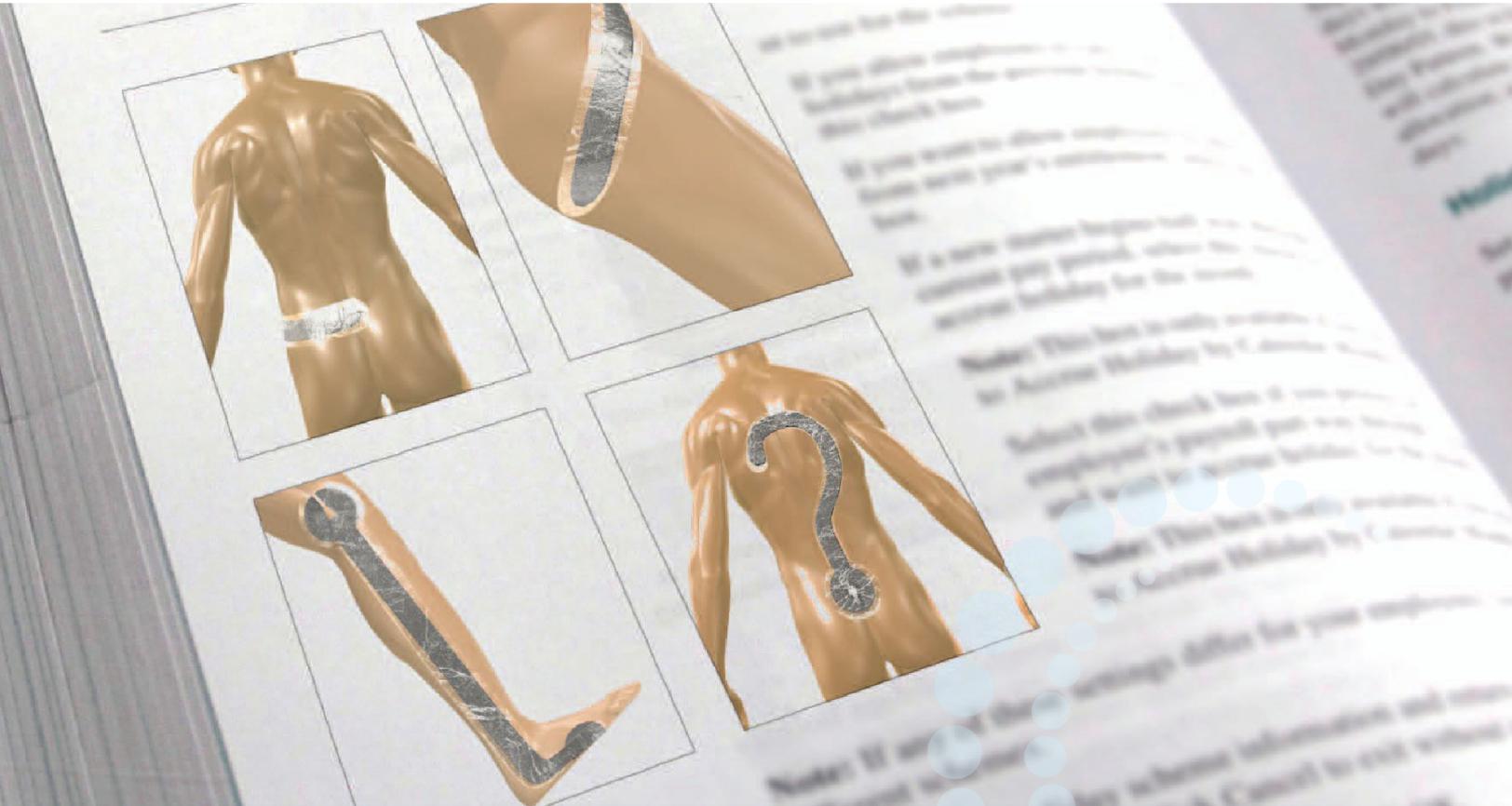
First, digital wound photographs were gathered by the three ETN researchers. Photographs were obtained for each of the five descriptors for 11 of the 13 wound characteristics on the BWAT: depth, edges, undermining, necrotic tissue type and amount, exudate type and amount, skin colour surrounding the wound, peripheral tissue edema, granulation tissue and epithelialization (the items *wound size* and *peripheral tissue induration* were not included at this point). A total of 75 photographs were chosen to depict the 11 characteristics. These photographs were of varying etiologies: 22 were pressure ulcers, five were diabetic foot ulcers, 18 were venous stasis ulcers, 23 were surgical wounds and seven were of other etiology.

To obtain these 75 images, photographs were shared electronically with the developer of the BWAT so that she could validate their content, which was rated as either matching or not matching the characteristic. The art director of the CAWC, Robert Ketchen, volunteered to rate the quality of the photographs based on publication standards as either acceptable or not acceptable.

### Phase Two

The second phase of development occurred with 15 ETNs attending a Canadian Association for Enterostomal Therapy Ontario Regional Meeting. Informed consent was obtained and participants completed a brief survey. The survey included demographic characteristics and questions about the current wound-assessment techniques used by participants. The 15 ETNs had a mean of 11.5 years of experience (standard deviation 9.37), and 80 per cent of them spent the majority of

*continued on page 36*



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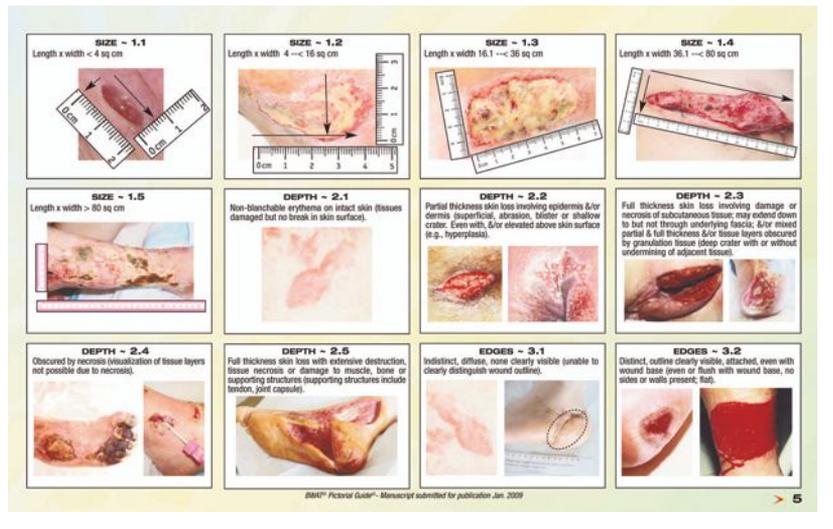
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FIGURE 2

## An example of a page from the BWAT pictorial guide



their time working in wound care. The BWAT was already being used by five of the ETNs in their practice; four ETNs used an agency-created tool and another four had no tool (two participants did not respond to the question).

The validation exercise consisted of a PowerPoint presentation showing the 75 photographs (Figure 3), providing one or two examples of each of the five



Initial validation exercise—item 10.3 = non-pitting edema extends  $\geq 4$  cm around wound. This photo was rejected.

wound characteristics for each item. Pen and paper evaluation forms were used by participants independently and simultaneously in a silent (non-verbal) session to indicate whether the photographs matched the characteristic (yes or no response), and to generate comments and feedback about how the photographs could be improved. Those photographs that met consensus remained in the guide. Consensus was defined as 75 per cent of the raters endorsing a photograph.

The participants approved 73 per cent (n=55) of the 75 photographs presented, which meant that 20 photographs were rejected and needed to be replaced. In addition, 10 new photographs had to be obtained to represent the characteristics of wound size and peripheral tissue induration. Furthermore, the researchers determined that five of the validated photographs were not optimal: one because pre- and post-assessment photographs were able to better demonstrate assessment of edema, two because the position of the camera created an awkward angle and better images were obtained, and two because the amount of undermining was not clear. The alternate photographs were provided for these items for validation in the next round, during the final phase of development of the pictorial guide. Of the photographs that were retained from phase two, many required cropping or the addition of dotted lines to show undermining, or measuring guides to provide size references. These changes were made.

### Phase Three

The third phase of validation was performed online. In this phase, nine nurses (eight ETNs and one master's-prepared wound specialist) were asked to rate the wound photographs, but only seven responded. As with the previous group of nurses, this group also had approximately 10 years of experience, with 75 per cent of their practice devoted to wound care. The BWAT was used by three nurses in their practice, while the other four used a facility-developed or informal tool.

A PowerPoint presentation and electronic data-collection forms were used by these nurses to independently rate the photographs as accurately reflecting the BWAT characteristic that it appeared with. The participants answered "yes" or "no" and were asked to provide

*continued on page 38*

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comments on how the photograph could be improved if they had answered “no.”

The nurses reviewed 53 (Figure 4) photographs, 17 of which were new photographs to represent the 10 characteristics of wound size and peripheral tissue induration and 36 of which were replacement photographs for those not validated in phase two. More than one photograph was used to demonstrate some of the characteristics, such as induration, epithelialization and granulation, where “before and after” photographs were utilized. Nine of the photographs were of pressure ulcers, 14 were of venous ulcers, 13 were of surgical wounds, three were of diabetic foot ulcers and 14 were of other etiology. The panel of nurses approved all 53 of the wound photographs, with a minimum consensus level of 57 per cent (one item) and maximum of 100 per cent (21 items) Although the item with only 57 per cent consensus did not meet the original desired consensus level of 75 per cent, a decision to include it was made by the researchers because the comments indicated that the participants were thinking about the appearance of deep tissue injury rather than the peri-wound hemosiderin deposits that the photograph captured. Four additional items only achieved 71 per cent consensus, but, with a sample of seven, it was not possible to achieve 75 per cent, and the researchers agreed that these photographs would be considered to be validated.

### Summary

For the purposes of the development of the pictorial guide (Figure 1), 128 photographs were reviewed. Of

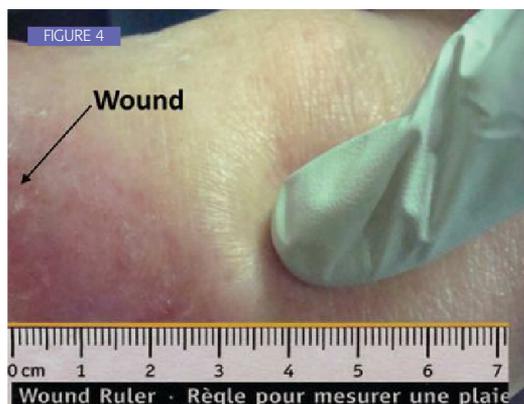
these, 103 were validated and appear in the pictorial guide to demonstrate the 65 BWAT characteristics (Figure 2). The pictorial guide includes photographs of wounds of various etiologies. The photographs have been evaluated for both their ability to depict wound characteristic item choices on the BWAT and their photographic clarity for duplication and publication purposes. It is hoped that use of the BWAT pictorial guide as an educational tool will improve nurses’ skill in conducting and documenting wound characteristics as a first step to improving the quality of wound-care outcomes.

Note: The BWAT may be used free of charge, with permission from the author, and is available at: [www.geronet.med.ucla.edu/centers/borun/modules/Pressure\\_ulcer\\_prevention/puBWAT.pdf](http://www.geronet.med.ucla.edu/centers/borun/modules/Pressure_ulcer_prevention/puBWAT.pdf). The BWAT includes two pages that provide guidelines for use of the tool.

The BWAT pictorial guide is available in published format on glossy card stock in a 16-page spiral-bound booklet and in a companion DVD containing a PowerPoint presentation with a recorded audio script, and a competency-testing PowerPoint file containing 35 wounds with which to practise the BWAT scoring. These can be used for teaching the BWAT in groups or as a self-learning activity. Please contact [resources@carepartners.ca](mailto:resources@carepartners.ca) for further information.

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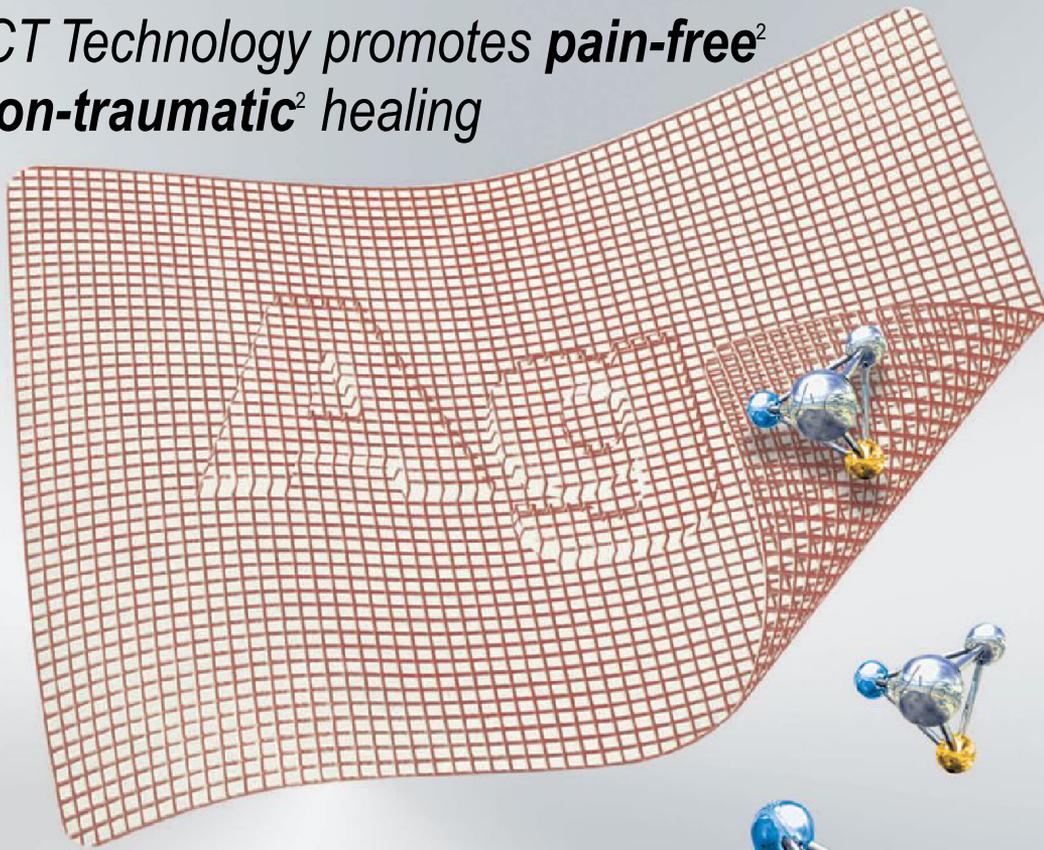


Peripheral tissue edema. 10.3 = non-pitting edema extends  $\geq 4$  cm around wound (non-pitting edema appears as skin that is shiny and taut). These photos were validated in Phase Three.

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<sup>1</sup>Lazareth, I., S. Meaume, M. Sigal-Grinberg, P. Combemale, T. Guyadec, A. Zagnoli, J.L. Perrot, A. Sauvadet, S. Bohbot, *The Role of a Silver Releasing Lipido-colloid Contact Layer in Venous Leg Ulcers Presenting Inflammatory Signs Suggesting Heavy Bacterial Colonization: Results of a Randomized Controlled Study*, **Wounds A Compendium of Clinical Research and Practice**, Vol. 20, No. 6, June 2008

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# Development of the Inlow 60-second Diabetic Foot Screen: A Practice-ready Bedside Tool to Guide Assessment and Care



BY

Heather L. Orsted

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## Introduction

This article follows the development of the 60-second Diabetic Foot Screen from its beginnings as a thought in a physician’s mind, to an article on diabetic

foot assessment for *Wound Care Canada* and to a screening tool that is becoming part of a diabetic foot ulcer prevention education program.

## Background

**D**iabetes takes a daily toll. It is a serious condition and the world’s fourth leading cause of death. It currently affects an estimated 246 million people globally, but this number is rapidly increasing. According to the International Diabetes Federation seven million people develop diabetes each year, and the number of people affected is expected to hit 380 million by 2025.<sup>1</sup>

Diabetes causes many physiological changes. These can lead to a cascade of events resulting in alterations in the foot. Structural changes, along with arterial insufficiency and sensation deficits, predispose the person with diabetes to develop foot problems that can lead to skin ulceration and, in some cases, amputation and even death.<sup>2</sup>

Best practice dictates that any person with diabetes visiting their health-care professional should have both feet assessed at every visit. But how often is that actually done, and what is actually assessed?<sup>3,4</sup>

Shane Inlow, as founding medical director of the Geriatric and High Risk Foot Clinic in Calgary, decided

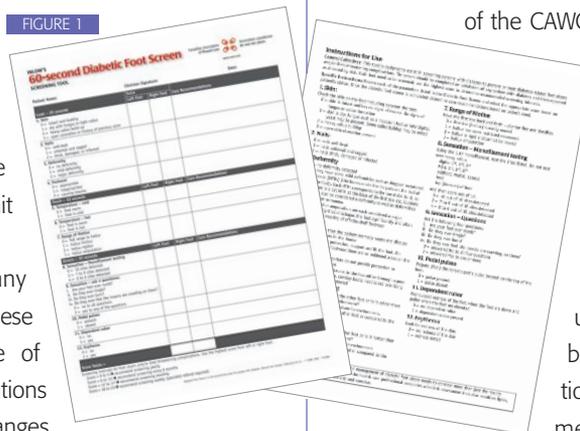
to address this question by developing a simple yet effective foot-assessment strategy that can easily be used in office practice.

Inlow is known as a clinical expert in the field of diabetic foot ulcers. He was a founding board member of the CAWC, founding scientific advisor of *Wound Care Canada*, and a prominent health-care educator at the regional, national and international levels. He has also authored several papers on diabetic foot ulcers, including the 2000 best practice recommendations. All of this experience meant he was well qualified to take on this project.

In an article titled “The 60-second Foot Exam for People with Diabetes,” which was published in *Wound Care Canada* in 2004, Inlow outlined a user-friendly 60-second approach to foot assessment in people with diabetes, covering the key points of a cursory assessment (Table 1).<sup>5</sup>

Inlow’s ability to pinpoint the key components of a diabetic foot assessment has made this article popular among wound-care professionals. A 60-second invest-

FIGURE 1



ment for a complete foot assessment for persons with diabetes is attractive to those in professional practice.

### The Significance of Assessment

The risk factors for foot ulceration in persons with diabetes have been well described in the literature.<sup>6</sup> They include neuropathy, foot deformity, peripheral vascular disease and poor glycemic control. While the identification of risk factors is important, clinicians need to be aware that once any risks for ulceration have been found, it is expected that a plan of care will be put in place to reduce those risks. Although we have best practice recommendations for the prevention and management of diabetic foot ulcers,<sup>6</sup> there is no basic standard assessment/treatment form or tool for clinical use. An algorithm within the best practice recommendations leads the clinician through a pathway for assessment and treatment (Figure 2), but a bedside tool would be advantageous.

Over the years, clinicians and students at the International Interprofessional Wound Care Course (IIWCC) at the University of Toronto have expressed interest in Inlow's approach and indicated that they have integrated his 60-second assessment into their practice. However, although the Inlow article provides simple and straightforward guidance, it does not provide a practice-ready bedside tool to guide assessment and care.

When First Nations and Inuit Health (Ontario Region, Health Canada) approached the CAWC in 2009 to develop a workshop on diabetic foot ulcer prevention, the development of a tool to improve assessment, treatment, evaluation and communication seemed to be the best course of action. The First Nations Diabetes Report Card states that diabetes is a serious and fast-growing concern for our Aboriginal people.<sup>7</sup> Risk factors are often

compounded by neuropathy in persons with undiagnosed diabetes, as well as by an often low level of foot care in the community.<sup>8</sup> A new screening tool based on Inlow's article would provide practitioners with a practical means of easily and quickly assessing risk and treating diabetes-related foot complications in any clinical situation.

### Developing the 60-second Diabetic Foot Screen

The first step in the development of the tool was a discussion with Inlow regarding whether he felt revisions were required to his original paper. The assessment criteria paralleled parameters identified in the literature<sup>6</sup> and those identified by the International Working Group on the Diabetic Foot.<sup>9</sup> The assessment criteria from the original article were then clearly delineated into parameters to form the framework for the development of the new screening tool.

The second step was the creation of a draft of the tool. This was sent out for review to several health-care professionals who work with persons with diabetes: a nurse, a chiropodist and a family doctor. Minor revisions were made in content and format. Instructions for use were developed—along with recommended frequency of use—and a glossary of terms was added. Efforts were made to align with the screening recommendations from the International Working Group on the Diabetic Foot.<sup>9</sup>

The Inlow 60-second Diabetic Foot Screen (Figure 1) has been designed as a clinic, hospital, home-care or bedside screening tool. The screen should be completed on admission or with the first visit of any client with diabetes. Both feet need to be screened using 12 assessment parameters: skin, nails, deformity, footwear, temperature (hot), temperature (cold), range of motion,

*continued on page 42*

TABLE 1

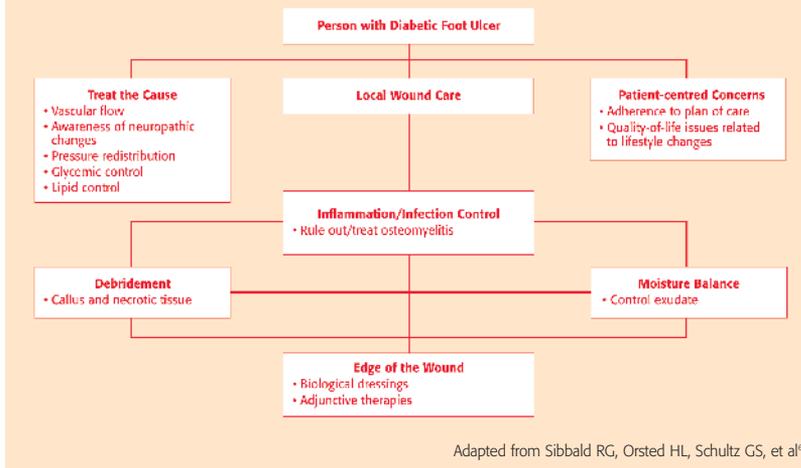
### The 60-second foot exam for people with diabetes

	Questions	Physical exam
First 15 seconds	Are your feet ever numb?	Look at the feet/shoes. Visually examine the foot for skin condition, colour, calluses, toenail condition and structure deformities.
Next 15 seconds	Do they ever tingle?	Palpate the foot for temperature and ROM in general (but of the big toe specifically).
Final 30 seconds	Do they ever burn? Do they ever feel like insects are crawling on them?	Check for sensory intactness, especially light touch using a 10-gram monofilament.

Reprinted with permission from Inlow.<sup>5</sup>

FIGURE 2

## Pathway to assessment of persons with diabetic foot ulcers



sensation (touch), sensation (questions), pedal pulse, dependent rubor and erythema. Each parameter has multiple assessment statements and associated scores that are matched to the clinical presentation. In the absence of a foot, the amputation site should be assessed. Once parameter assessments have been completed, the tool has a space for the clinician to insert care recommendations. Based on the total score identified through parameter assessment, the clinician is able to determine a recommended follow-up screening routine. The accompanying glossary acts as a cue for each parameter.

### Implementation of the 60-second Diabetic Foot Screen

Tools do not stand alone, so the next step was to create a case-based educational event to give clinicians a working knowledge of the new tool. A one-day workshop was developed for First Nations nurses sponsored by First Nations and Inuit Health. The workshop explored the screening tool parameters in depth and reviewed common treatment options.

For example, if footwear was assessed to be inappropriate and presenting a risk for skin breakdown, strategies for helping the person with diabetes to select appropriate footwear were reviewed. Another example related to the identification of heavy callus build-up. The clinicians were taught how to manage the callus and teach the patient to provide ongoing care to prevent further build-up. Undetected or untreated callus formation can lead to ulceration and may even progress to infection and amputation.

In addition, three cases were explored: prevention of a diabetic foot ulcer, management of a simple diabetic foot ulcer and management of a complex diabetic foot ulcer.

### Evaluation of the 60-second Diabetic Foot Screen

No tool should be implemented without an evaluation plan. As mentioned earlier, an initial review was completed by expert clinicians. Furthermore, all of the nurses in the workshop went home with an evaluation form to determine the usability and content validity of the new tool. The development team wants to know if the parameters that clinicians are being asked to assess correspond with observed parameters in their patients with diabetic foot ulcers. A second part in the evaluation is based on ease of use: how difficult is the tool to use in actual practice by clinicians involved in client care?

The tool is currently being used and evaluated by several groups across Canada, and all have been asked to complete an evaluation.

### Next Steps

We are currently receiving evaluations on the tool and will revise it based on the feedback. The tool will then be assessed for predictive validity and interrater reliability in clinical settings. Once the full evaluation has been completed and any revisions made, the tool and educational program will be made available for widespread distribution. ☺

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\*Reference 2005 Philips L, Busby J (2006) Pressure Ulcer Epidemiology in the UK: 2005-2006. Poster presentation at Wound UK, Harrogate.

# The BWAT Pictorial Guide and the 60-second Diabetic Foot Screen:

## A Commentary on Developing and Validating Clinical Materials



BY

M. Gail Woodbury

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**T**his issue of *Wound Care Canada* contains articles on two wound assessment tools: the Bates-Jensen wound assessment tool (BWAT, see page 33) and the Inlow 60-second Diabetic Foot Screen (see page 40). I have developed this commentary to discuss (a) the development of a pictorial guide that is intended to help clinicians use the former and (b) a form that is intended to facilitate the use of a screening tool. We can learn much about assessment tool development and validation by examining these two tools.

### Why Are Assessment Tools Developed?

Assessment tools are developed for three reasons: discrimination, prediction and/or evaluation.<sup>1</sup> These terms are defined in Table 1.

Why do we care about the reason(s) for assessment tool development? Because the reasons determine the type of validation that is required to prove that the tool can do what it is intended to do.

TABLE 1

### Reasons for the development of assessment tools<sup>1</sup>

**Discrimination**—to distinguish between individuals or groups on the basis of an underlying dimension or characteristic (e.g., quality of life)

**Prediction**—to assess the likelihood or risk of future development of an outcome of interest (e.g., ulcer, amputation)

**Evaluation**—to measure the amount of change that occurs over time (e.g., wound healing over time)

### The Reasons Behind the BWAT and the Inlow Tool

I would argue that the BWAT was developed for the purpose of discrimination—to provide a way to describe wound appearance. Some people use the BWAT to track wound healing, which suggests an evaluative purpose. To my knowledge, however, no studies have proven that the BWAT can detect change. If that is true, the BWAT should not be used as an evaluative tool until it has been validated as such. Why not? If you are treating a person and using the BWAT to document wound change, what can you conclude if you do not notice change? One might be tempted to say that the wound has not changed. However, it may be that change has occurred, but has not been detected by the BWAT. If you know that a tool can detect change and you find that your patient's values are not changing, you can conclude with some certainty that your treatment approach is not working. To summarize, an assessment tool should not be developed for one purpose and used for another.

The Inlow 60-second Foot Screen was developed as a screening test for persons with diabetes, with the goal of preventing complications, ulcers and amputations. This suggests that it is a risk assessment or predictive tool that can be used to guide prevention and treatment strategies. It is recommended that the screen be completed on admission and repeated as indicated by risk. This suggests that items can be expected to change over time, and that implies that the tool might be evaluative. The fact that data are collected to classify patients into categories suggests a discriminative purpose.

For further details on the development of the Inlow 60-second Foot Screen, see the original Inlow article in *Wound Care Canada*.<sup>2</sup>

### Validation of the BWAT and the Inlow Tool

It is not enough that a tool is developed using a careful process. After development, it is necessary to validate the tool or demonstrate its psychometric or clinimetric properties (validity, reliability and/or responsiveness).<sup>3</sup> General and specific types of validation and their definitions are outlined in Table 2.

One difficulty in establishing validity using an established criterion measure is choosing an appropriate gold standard.

When predicting risk, it is necessary to validate a tool by determining its predictive validity in relation to a future event (e.g., the development of an ulcer, amputation). This can be described in terms of sensitivity, specificity, positive and negative predictive values, likelihood ratios and/or receiver operating curves.

With this in mind, what are the appropriate types of validation for the BWAT and the Inlow tool in relation to the reasons for their development? Table 3 shows validation that should be conducted according to the reasons for development.

Next, what validation has been done? As described in Harris et al.'s article in this issue, the BWAT is a modified version of the pressure sore status tool (PSST). It has been amended for computer use, and an algorithm has been developed to guide treatment planning. The properties of the PSST that were assessed prior to

TABLE 2

### Types of validation

*Validity*, in general, determines if a tool is measuring what it is intended to measure.

*Face validity* is when a measure only appears to measure what it is intended to measure. It is the simplest form of validation and is not discussed a great deal.

*Content validity* is when a measurement reflects the specific and whole area of content.

*Concurrent validity* illustrates the relationship between results obtained using a tool of interest and those obtained using another established measure or gold standard when both are measured at the same time.

*Predictive validity* illustrates the relationship between results obtained using a tool of interest and those obtained using another trusted measure or gold standard that is obtained in the future (e.g., an outcome or an event).

*Reliability* describes, in general, the ability to obtain the same score when a measure is obtained repeatedly under the same conditions.

*Intrarater reliability* (test–retest) describes the same rater's ability to obtain similar results on repeated testing when no change in the patient's condition has occurred.

*Interrater reliability* describes the ability of two or more raters to obtain similar ratings when measuring the same thing under the same conditions.

*Responsiveness* describes the ability to detect a real change due to the treatment effect using a measurement tool.

TABLE 3

### Types of validation that should be conducted according to the reasons for development

Validation properties	BWAT		Inlow		
	Discrimination	Evaluation	Discrimination	Prediction	Evaluation
Face validity	Yes	Yes	Yes	Yes	Yes
Content validity	Yes	Yes	Yes	Yes	Yes
Concurrent validity	Ideally	–	Ideally	–	–
Predictive validity	–	–	–	Yes	–
Intrarater reliability	Yes	Yes	Yes	Yes	Yes
Interrater reliability	Yes	Yes	Yes	Yes	Yes
Responsiveness	–	Yes	–	–	Yes

modification are discussed in a chapter on wound assessment in the fourth edition of *Chronic Wound Care: A Clinical Source Book for Healthcare Professionals*.<sup>4</sup> When a tool is modified, however, it cannot be assumed that the validation of an earlier version is applicable to the modified version. Therefore, further validation must be done to prove that the modified version functions as intended.

### Connecting the Dots

In this issue, Harris et al. report on the development of what they refer to as a “validated pictorial guide” for the BWAT. The guide has been designed to help wound-care practitioners perform a systematic and comprehensive wound assessment using the BWAT. This pictorial guide is not a new wound-assessment tool; rather, it complements the current written descriptions of characteristics that need to be identified when evaluating wounds using the BWAT. This pictorial guide provides a good enabler for improving responses to and documentation of the BWAT. As a training enabler, the face validity of the photographs has been tested. This does not mean that the BWAT itself has been validated for discrimination or evaluation (i.e., for measuring healing).

Orsted reports on the development of a bedside form for documenting the Inlow 60-second Diabetic Foot Screen and a method for scoring and categorizing risk. The form is a much-needed enabler for ensuring complete documentation and ascertaining risk. The predictive validity of this screening tool as a risk scale has not yet been shown in a research study. However, with the use of this tool and as clinicians become more aware of the risk of foot ulcers, it is likely that prevention strategies will be implemented and foot ulcer

development reduced. From a clinical perspective that is a good thing, but from the perspective of showing the predictive validity, it is possible that the statistical documentation could be poor. It will require additional testing to determine if the tool’s risk categories are associated with ulcer development and amputation.

### Summary

The BWAT pictorial guide is an appealing enabler containing photos that are validated to the extent of having face validity. Presumably, clinicians who can identify the response categories accurately will be able to provide more accurate BWAT scores.

The Inlow 60-second Diabetic Foot Screen bedside tool is a valuable new addition to enable consistent assessment and documentation of feet and foot ulcer risk.

### Key Points in Understanding Tools

- Know what type of validation to expect for any tool based on the reason(s) for its development (discrimination, prediction and/or evaluation).
- The more purposes a tool has, the more types of validation it requires.
- Appropriate validation, for a particular purpose for development, is required to help understand the results of assessment.
- Tools should be used only for the particular purpose for which they have been validated.
- The words *validated tool* are often used without truly understanding their meaning. A tool must be validated for a particular use. Some tools are validated for one purpose and not another. Be sure you know what you mean!
- Finally, I suggest that we start speaking more specifically about the extent and type of validation in relation to tool usage.

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# First Nations Diabetic Foot Workshop



BY  
Heather L. Orsted

**Heather L. Orsted, RN, BN, ET, MSc in Wound Healing and Tissue Repair,** is Co-Director and Course Co-ordinator – International Interprofessional Wound Care Course, Departments of Medicine and Public Health Sciences, University of Toronto and Clinical and Educational Consultant for the CAWC.

In Canada, the prevalence of diabetes is three to five times higher in the Aboriginal population than in the non-Aboriginal population.<sup>1</sup>

In March 2009, in response to a request from First Nations, Inuit and Aboriginal Health (FNIAH) (Ontario Region, Health Canada), the Canadian Association of Wound Care held a workshop for nurses who work with First Nations people.

Working with co-ordinator Valerie Muchenje from FNIAH, we met with several First Nations nurses to discuss needs and review content for the workshop. An interprofessional team consisting of nurses Heather Orsted and Pat Coutts, physician David Keast, chiropodist Mariam Botros and Renée Thomas-Hill, a First Nations elder, worked together to create the program to help the nurses navigate through the complex world of an Aboriginal person with diabetes. Thomas-Hill is the First Nations elder for the Southern Ontario Aboriginal Diabetes Initiative (SOADI). She was instrumental in assisting our team with the ethnic and cultural adaptations required to fully assist with quality-of-life issues that would enable greater adherence to treatment recommendations.

Through support from FNIAH, 48 nurses attended the CAWC's Toronto S1 and S2 and then spent a third day focused on the prevention and management of diabetic foot complications as they relate to First Nations people. During the S1 and S2, the participants learned theory and assessment skills. To build on this knowledge, the third day involved case-based learning using the Inlow 60-second Diabetic Foot Screen tool (see article page 40).

### Beyond Traditional Learning

When we think of learning, we often think of knowledge and skill development. This, however, was an excellent adventure in reflecting on new knowledge and new



Workshop leaders Mariam Botros, Valerie Muchenje, David Keast, Heather Orsted, Renée Thomas-Hill and Pat Coutts.

skills and then moving toward the development of attitudes and behaviours that really allow for a consolidation of best practice into an internal belief system.

During the day we had a surprise visit from a nurse's young patient who had lived the experience we had been discussing (he had been in the hotel as part of another conference). This was a great learning experience for all as he described how important his elders had been to him as a teenager when he had to come to terms with his diabetes management.

Another enlightening moment came when watching a video by Thomas-Hill entitled "Come Play with Me." This video is used to guide children toward a healthier lifestyle that will help them to avoid diabetes.

This expanded experience of the S-Series proved very valuable to all, as it allowed for a tailoring of learning toward a special population. Specific populations require specific knowledge, and involving a First Nations elder taught us much about the importance of culture. It showed us that knowledge and skills often remain the same, but that changes in attitudes and behaviours are key elements in implementing best practice. ☺

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An Interview with **Jan-Marie Morgan, RN (EC) NP, MScN**

# Wound Care in Dubai:

## A Canadian Contribution to Global Wound Care



Jan-Marie Morgan

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

**Jan-Marie Morgan, RN (EC) NP, MScN**, is a practice development nurse and wound-care specialist at the Rashid Hospital in Dubai, United Arab Emirates. She was previously the wound-care specialist at St. Joseph's Health Care, Hamilton, Ontario, where she co-ordinated an outpatient diabetes foot ulcer clinic. She is a primary health-care nurse practitioner and holds a master's degree from McMaster University in Hamilton.

### **Q** How did you first get involved in wound care?

It is hard to pick the moment when wound care became my passion. I have always had an interest and I remember, even as a graduate nurse at St. Boniface General Hospital in Winnipeg, following Dr. Ken Dolynchuck around, looking over his shoulder and asking a ton of questions. I then took the International Interprofessional Wound Care Course (IIWCC) in 2002, immediately after getting my nurse practitioner licence because I knew that with my extended scope of practice I could really make a difference.

### **Q** What are some of the wound-care programs you were involved with while in Canada?

I was an active member of the CAWC, and my hospital was a pilot site for the Pressure Ulcer Awareness Program in 2006. I have been involved in the IIWCC for several years as a marker, and I have served on advisory boards for different industry partners developing generic wound-care education programs. I also developed the curriculum and co-ordinated the Wound Care Institute for the Registered Nurses' Association of Ontario, which runs for one week per year.

### **Q** What motivated you to make the move to Dubai?

I nursed in Saudi Arabia in the '90s, so the move to Dubai wasn't a hard decision. I had spent time in Dubai and knew what I was getting into. It was my husband's job that ultimately brought us here.

### **Q** Could you tell us about your current role at Rashid Hospital in Dubai?

Rashid Hospital is one of three hospitals in the government system in Dubai—Dubai Health Authority. It is the largest trauma centre in the region, seeing approximately 11,000 patients in the emergency department (ED) every month. The operating theatres do about 900 trauma cases a month, so you can imagine the wound workload!

The job is very busy and quite interesting. As the practice development nurse for the department of surgery, I am responsible for the nursing practice of over 300 surgical nurses. This aspect of the job has proved to be a bit of a learning curve for me, but changing nursing practice was a big part of my master's degree, so I am able to lean

on that knowledge. I am also the wound-care specialist for the hospital. I was very lucky that the hospital already had two nurses dedicated full-time to wound care and four physicians and a physiotherapist on a referral basis. We also have an outpatient wound clinic that links with the primary health clinics in the area. There are many challenges with length of stay in the hospital due to wound-related issues. The biggest part of my role is providing education around wound-care best practices to nurses, doctors and allied health staff associated with the hospital and helping the wound-management team to build a strong program at Rashid Hospital.

### **Q** What inspires you to come to work every day?

*continued on page 52*

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The people here truly want to learn about wound care, and I have never had such an easy time of changing the practice of the nurses. It is a very friendly place to come to work every day and I love what I do.

**Q Are the wound types that you see every day similar to what you were seeing in Canada?**

Actually, no. In Canada, I worked with a large dialysis population and ran the diabetic foot ulcer clinic. In Dubai, in the trauma centre, the types of wounds are very different. I have learned a ton about burns and will be directly involved with the new burns unit that is opening here this year. I had never worked with burns before so I have had to learn quickly. Pressure ulcers are an issue worldwide, so I can still be within my comfort zone at times! We ran the first pressure ulcer prevalence and incidence study here in April 2009, which was very exciting.

**Q Can you describe the differences in setting up a wound-care program in Dubai versus in Canada?**

Dubai is a medically driven health-care system. Nurses are not used to questioning a doctor's orders and most lack the confidence to do so. Nurses here are mostly from India or the Philippines, so there are always cultural differences and language barriers to overcome. Although the hospital is based on English, most patients do not speak it and therefore translation is a must when doing any kind of care. Advanced wound-care products are available here, but povidone-iodine or gauze is the dressing of choice throughout the UAE. Sometimes I feel like I'm in a time warp!

**Q Is there a multidisciplinary approach to wound-care in your facility? If so, how is it structured?**

The head of our wound-care team is a plastic surgeon, Dr. Marwan Al Zarouni. His passion for wound care is endless, and he is an excellent surgeon. There is me and then two full-time nurses, one of whom has taken the IIWCC. They initially see all patients, in and out, and decide if the physician needs to become involved. We also have a physiotherapist, a general surgeon, another plastic surgeon and a vascular surgeon who attend rounds for all our difficult patients every Thursday. Occupational therapists, social workers and dietitians are involved at the ward level as needed. We are still working on establishing a valid referral system and wound-care protocols for the hospital.

**Q Does wound care move across the continuum of care from the hospital to the community? Is home care involved?**

The community is generally not well-equipped to handle complex wounds. We have 26 primary health-care (PHC) clinics in the region and we are trying to educate the personnel and get them the up-to-date dressings to provide wound care. All they have been used to is povidone-iodine and gauze. A dressing that would be done in the home in Canada is done in the hospital here, with the patient taking up a bed unnecessarily.

**Q What role do you play in wound care education within your facility and beyond?**

I run basic full-day education ses-

sions for all the nurses in Rashid Hospital. The nurses from the PHCs attend as well. The wound-management team has set up a Wound LINK nurse system in the hospital, which has a Wound LINK nurse from all units. I chair that group and provide them with further education as needed. The team has also set up a Link DR program within the Dubai Health Authority and has provided education there as well. We are also working with Dr. Gary Sibbald and the group from the University of Toronto to bring the IIWCC here this year. I have partnered with industry to provide generic education in the region and have already been to Beirut in Lebanon for the weekend a few times! This will be a good way to see the region.

**Q What do you see as your greatest challenge in wound care working in the UAE?**

Education and building capacity in the region will be the challenge. As I said, changing the nursing practice is the easy part in wound care. It is the physicians that will remain the challenge. I think once the IIWCC is up and running here, it will help to change the practice of the physicians in this medically driven culture.

**Q What changes have you been able to make in terms of wound-care delivery that have had the most positive outcomes so far?**

I have only worked here for a short time so mountains have not moved yet! However, the first

*continued on page 54*



Rashid Hospital in Dubai, United Arab Emirates.

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week I was here there was an incident with a burn patient in the ED. The nursing staff were concerned with how the patient's burn was treated in the ED. The nurses were angry and the physicians frustrated. After talking to all parties involved, I put together an education session for all nurses on burn care. A shelving unit dedicated to burn care was created in the ED so that staff do not have to run all over the ED to find the products needed to provide appropriate burn care. Although this was a very simple thing to do, the feedback from the patients and the staff has been very positive.

### **Are you making any other contributions to wound care in the Middle East?**

Beside what I have listed above—industry talks and IIWCC—I also chair an interest group that is composed of IIWCC graduates

from throughout the UAE. We are a very new group and meet every two or three months. We support each other, share projects and provide a network based on common knowledge in wound care. We are hoping to standardize wound care in the region and create the first wound-care association in the Middle East. Wouldn't it be nice to see the World Union here one day?

### **Who has been your greatest mentor in wound care and why?**

Wow, that's a tough one. Dr. Karen Campbell for her enthusiasm and vast knowledge—one of my first wound-care workshops was with Karen. Dr. Rosemary Kohr for her incredible use of the English language and for helping me to become a better writer. And Laura Teague and Debbie Mings for their ability to think outside the box and help me to see things from all angles.

These are four women who have had a major impact on my education and my career. They have all influenced me in different ways and I am very fortunate to have learned from them. I am honoured to call them friends and colleagues. No matter where I am in the world, I know that I can call on them for advice and guidance. Once a mentor, always a mentor!

### **Do you have any words of advice for health-care professionals who are interested in working in a hospital in Dubai?**

There are two systems in Dubai—private and government—and I can only speak from the government side. Unfortunately, the pay in Dubai is very poor for bedside nursing staff and, as a result, we have very few Western-trained nurses in those roles. There are other higher-level opportunities in Dubai, provided the nurse has

at least a bachelor's degree. A recruiter would be the best person to answer any questions that nurses may have, and they can be found on the Internet. Dubai is a fun, fast-growing city and I very much enjoy living here. Yes, even in the heat!

### **Where do you see yourself five years? Do you have any plans to move back to Canada?**

One thing I have learned is that long-term plans can change in a heartbeat, although we are hoping to remain in Dubai for four more years. I am learning a lot from the practice development nursing role here in Dubai and would like to pursue a career in practice development once I return to Canada. It will be difficult to pull me away from wound care, but I feel that I may be able to impact change from an even higher level in the future. ☺

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## **News in Wound Care ...continued from page 8**

in Geneva. The conference will be trilingual, with all conference materials and sessions provided in English, French and German. Online registration and abstract submission will open on November 1, 2009. The abstract submission deadline is January 15, 2010. For additional information, visit [www.ewma.org/ewma2010](http://www.ewma.org/ewma2010).

### **EWMA 2011 Conference in Belgium**

The EWMA 2011 Conference will take place in May 2011 in Brussels.

The conference will be held in co-operation with the Belgium Federation of Wound Care.

## **Industry News**

### **KCI Announces New Director of Sales**

KCI Medical Canada, Inc., is pleased to announce the appointment of Mike Jessop to the position of director of sales. With over 23 years of industry experience, Mike brings excellent sales leadership skills to this organization. KCI Medical

Canada is excited that Mike is joining the team and wishes him great success in his new role. To discover more about the organization, visit [www.kci-medical.com](http://www.kci-medical.com).

### **ConvaTec to Introduce a Negative Pressure Wound Therapy System in Canada**

ConvaTec Inc., is pleased to announce that it will be launching a negative pressure wound therapy system in Canada. This system features innovative technology that

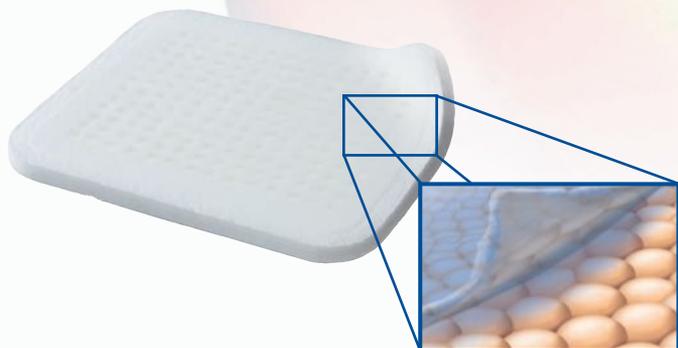
utilizes negative pressure to promote healing by creating controlled tissue strain and removing excess fluid. Every aspect of this system, from the wound interface to the user interface, has been designed to attain optimal clinical and economic outcomes. For additional information, call 1 (800) 465-6302.

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# Wound Management In A New Light *with*

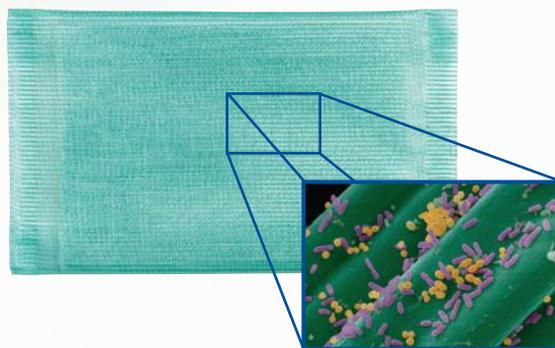
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# Getting the Most Out of a Conference



By Sue Rosenthal,  
Editor,  
*Wound Care  
Canada*

**M**any of you will be attending the Annual CAWC Conference in Quebec City this year, or you may be planning to attend other similar events. Conferences are an investment of your time and money, so you want to make every second count. Here are some tips for getting the most from any conference you attend, whether you're a first-timer or a seasoned conference-goer.

## Before You Go

- Book off a vacation day or two to see the sites. Quebec City is one of Canada's most beautiful locations!
- Arrange to meet with colleagues that you only see at conferences. Book "dates" to make sure you connect with everyone you want to see.
- Make checklists of everything you think you'll need, such as clothing, personal care items, medications, stationery, electronics, chargers and fitness gear.

*"On breaks, I sit and take five to 10 deep breaths to create some silence for a moment. I also do ankle rotations during sessions to promote circulation. It is a long time sitting for a nurse!"*

—Maryse Beaumier, Trois-Rivières, QC

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

- Visit the hotel Web site and check it out on a map so you know where it's located, if there's parking, how long it takes to get there from the airport and so on. See if there's a pool or workout facility in the hotel or nearby.
- Register for any sessions that need pre-registration.
- Create some objectives for yourself. Be realistic and specific about what you hope to accomplish.

## When You Arrive

- Depending on the time of day, take a walk in the

neighbourhood around the hotel and conference venue. It's good to know how far away the nearest drugstore, convenience store and restaurants are and how long it will take you to walk to the conference site.

*"I work out a plan with colleagues and divide attendance to different presentations."*

—Diane Grégoire, Gatineau, QC

- Register as soon as you can. In the mornings, just before the sessions start, the line-ups can be long. Don't risk being late for a session because you hoped no one else would be at the registration desk.
- If it's your first time at the conference, plan to go to the first-time attendees' event. It's a great way to meet people and to learn about where to go and what to do.

## Preparing for Each Day

- Dress in layers. Conference rooms, large or small, are impossible to keep at a constant temperature, and everyone's idea of a perfect temperature is different. Layers are the best solution.
- Not sure how to dress? Comfort is an important consideration, but so is making a good impression (you never know who you'll meet). Most experienced conference-goers dress in casual business attire with comfortable footwear.
- Make sure your bag contains everything you'll need for the day so you don't have to return to your room. Preparing a checklist is a good way to ensure you don't forget anything important.
- Eat a good breakfast. Think of yourself as a thinking-marathoner for the days of the conference and feed your brain with high-quality nutritional foods.
- Bring some easy-to-eat foods along with you.

Conferences often supply snacks and meals, but they may not be what you want when you want it. You know yourself, so come prepared.

### Choosing Sessions

- Once you get your registration package, check out the confirmed agenda and finalize which sessions you want to attend. If you're attending with colleagues, discuss whether you want to split up or attend certain sessions together. The syllabus will contain an abstract for each session and will give you details on what to expect.
- As tempting as it is to go full throttle for the entire conference, if you're exhausted because you're trying to do it all you probably won't be able to get the best value for your time. So identify your A-list sessions and your B-list sessions. If you start to flag, drop a B-lister so you'll be fresh and alert for your A-list sessions.

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*“I purchased a couple of pairs of compression socks before the last conference. Wearing them improved my energy level and made a big difference in how my legs felt by the end of each day.”*

—Kyle Goettl, London, ON

- Consider attending a session on something completely outside your area of expertise. It's surprising how much you can learn from people who don't do what you do.

### During Sessions

- If you want a good seat, arrive early. This is a good time to introduce yourself to someone seated nearby and expand your network.
- If you arrive late, quickly and quietly take a seat.
- Turn off your cell phone or put it on vibrate.
- If a session doesn't meet your needs, leave it and join a different session. All CAWC sessions start by stating their objectives (these are in the syllabus, too), but it sometimes happens that a session isn't what you thought it would be.

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*“Nothing makes me more grumpy than sore, tired feet. Forget fashion; I wear comfortable walking shoes since there are usually great distances to walk and lots of standing.”*

—Gail Woodbury, Toronto, ON

- 
- Participate as much as you can. You'll get the most out of sessions if you put something into them.
  - Take notes, but don't bury your head in your notepad.

### The Exhibit Hall

- Bring business cards if you have them. Some exhibitors have prize draws.
- Ask questions! The company representatives at the booths are extremely knowledgeable about their products.

### Getting Through the Day

- Hydrate adequately. Water's the perfect choice.
- If you're sitting a lot, get up, walk around and stretch when you can.
- If you normally have a fitness routine at home, try to continue it during the conference. Do you run or walk in the morning before work? Do it here. Pack your yoga mat. Use the hotel swimming pool. Check out the fitness room.
- Set aside a few minutes to find some quiet time or go outside for a change of scene.
- Know where the washrooms are.
- At the end of each day, write a mini-summary. With so much going on it's easy to lose track of important ideas if you don't write them down.

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*“Participer à un congrès représente pour moi l'occasion idéale de mettre à jour mes connaissances : j'apprends des conférenciers, de mes échanges avec les gens que je rencontre, et je suis informée des nouveaux produits en visitant les exposants.”*

—Louise Forest-Lalande, Montreal, QC

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continued on page 62

# Canadian Wound Experts Assist Around the World

## Bringing International Expertise to Uganda

These reports were submitted by the Canadian teams involved in each project and edited for *Wound Care Canada*.

In late June 2009, as part of the Association for the Advancement of Wound Care (AAWC) Health Volunteers Overseas initiative, three Canadian wound-care experts—David Keast, Anna Towers and Pat Coutts—conducted a site visit to Uganda to evaluate the state of wound and lymphedema care there.

Demographic data demonstrate how different Uganda is from Canada, even though the population of both countries is roughly the same. For example, 45 per cent of the population of Uganda is aged less than 15 years, there is an average of seven children per female and 80 per cent of the population lives in rural areas. The average life expectancy at birth is 50 years for both sexes.<sup>1</sup>

Factors impacting health and health care in Uganda, and particularly wound prevention and care, include the following:

- Water quality and poor nutrition affect wound healing.
- Unsafe traditional cooking methods lead to a very high incidence of burns in children.
- Poor road infrastructure makes delivery of health services difficult.
- HIV/AIDS continues to be a problem.
- A faith-based system of private hospitals is part of missionary outreach. These hospitals are often better resourced than those in the public system.
- A facility called the International Hospital is operated by the International Medical Group and can be accessed by Ugandans of higher socioeconomic status and visitors to the country.

### Major Health Problems

Given the relatively short life expectancy of Ugandans compared with that of people who live in developed nations, the major health problems in the country

affect younger people. The burden of chronic diseases as seen in older, more developed populations (such as heart disease, chronic obstructive lung disease, cancer and diabetes) is relatively low.

At the two centres visited, lymphedema is not recognized as a common problem, and filariasis-related lymphedema is seen as a problem affecting only the northern part of the country. The prevailing opinion is that, because lymphedema is not painful, it is under recognized. Patients do not present at primary care centres until the condition is already well advanced. At that point, the fatalistic view that nothing can be done is prevalent among health-care providers. The burden of chronic wounds relates more to the following etiologies:

- Burns—both heat- and acid-related
- Trauma—specifically from motor vehicle accidents or from agriculture-related problems
- Post-operative (e.g., dehisced Cesarean-section incisions)
- Infection-related problems
- HIV-related problems, such as Kaposi's sarcoma
- Skin malignancies

Care is provided primarily by nurses, nurses' aids, midwives and clinical officers. There is no real system of physicians trained to provide primary care. Physicians are only available at level-four health centres and above. Few trained pharmacists are available to dispense medications. At the level of the regional hospital and higher, allied health-care professionals such as physiotherapists are available, but their numbers are small.

### Summary and Recommendations

There is a genuine need for education and training in wound and lymphedema care. There are both perceived and unperceived needs at the national level. At the two

national referral hospitals visited, there is a perceived need for improved care for burns, trauma and post-operative wounds. While there is recognition that other types of wounds (e.g., diabetic foot ulcers, venous leg ulcers, Buruli ulcers, skin breakdown due to leprosy) exist, these are not seen routinely at this level. Lymphedema, including lymphedema due to filariasis, while recognized, is felt to be a problem of the northern region of the country and not a priority at the hospitals the team visited. However, the commissioner of clinical and health services does recognize the need for wound and lymphedema care in regional areas.

After visiting a number of facilities and interviewing

clinicians in Uganda, the Canadian team recommends the creation of a joint initiative between the AAWC, the CAWC and the International Lymphedema Framework to address the identified deficiencies. The initiative would be based around an interprofessional “train the trainer” approach, starting at the national level and working down through the structure of the health-care system to primary care delivery. To ensure its effectiveness and sustainability, the initiative needs to be seen as a partnership between both the Ministry of Education and Sport and the Ministry of Health, as both ministries have responsibilities in the training of clinicians. Both wound- and lymphedema-care education should occur together. ☺

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## Guyana Diabetic Foot Project Cuts Diabetes-related Major Amputations in Half

The Guyana Diabetic Foot Project is a collaboration between Canadian and Guyanese health professionals aimed at creating a comprehensive diabetic foot care clinic at Georgetown Public Hospital Corporation (GPHC), the national referral and training hospital in Guyana, South America. The Canadian team consists of: Brian Ostrow, R. Gary Sibbald, Kevin Woo, Marjorie Fierheller, Pat Coutts and Laura Lee Kozody. Diabetic foot complications are the single most common reason for admission to a surgical ward at GPHC (10 per cent of all admissions), mostly as a result of severe infection. Overall, 42 per cent of these patients go on to have an amputation, 50 per cent of which are major amputations. This is part of the world pandemic of type II diabetes.

The Guyana Diabetic Foot Project, which completed its first year of activity in July 2009, has used multi-level, longitudinal, primary and secondary education strategies to create an evidence-informed, interprofessional, patient-centred diabetic foot clinic at GPHC: the Diabetic Foot Centre (DFC). Three Canadian expert visits modeling interprofessional care have taken place. Four Guyanese key opinion leaders, chosen to lead the local work, are completing the International Interprofessional Wound Care Course through the University of Toronto. The project has trained more than 50 Guyanese health professionals in applying the best practice recommendations of the CAWC to their local setting.

The DFC opened in July 2008. Both the prevention and treatment components of comprehensive care are promoted at the centre. A specific 60-second screening

tool, created to identify high-risk patients, has been adopted by the Ministry of Health. Since the centre opened, more than 1,000 people with diabetes have been screened and more than 800 high-risk and ulcer patients have been seen in the centre. Preliminary data show a dramatic outcome. In the first 11 months of the DFC's operation, the number of patients requiring diabetes-related major amputations was reduced by 56 per cent compared with the previous three years!

The Guyana Diabetic Foot Project works closely with the Ministry of Health to create sustainable new capacity inside the public health system. It is on track to declare the DFC a Centre of Excellence in diabetic foot care in November 2009. After this has been achieved, the next step is to create a national program. A new proposal for funding to support regionalized diabetic foot care has been submitted.

If successful, the new phase will target half of the 37,000 people in Guyana with diabetes and train 353 local doctors, nurses, medexs (medical extensions) rehabilitation specialists and community health workers to provide comprehensive care, including glycemic and anti-hypertensive therapy (recognized high priorities for diabetes control), along with foot care.

This project may serve as a model for other collaborations between Canadian and international health professionals. ☺

### Reference

1. World Health Organization. WHO Statistical Information System (WHOSIS) Available from: [www.who.int/whosis/en/index.html](http://www.who.int/whosis/en/index.html). Accessed August 11, 2009.

# Canadian Association of Wound Care News

## Conference

The CAWC conference in Quebec City will combine the best elements of both a regular conference and a process-focused workshop to create a one-of-a-kind event. Join us from October 29 to November 1, 2009, at the Centre des congrès de Québec in Quebec City for four days of learning, networking, showcasing the latest research and socializing with wound carers from across Canada and around the world.

Frontline clinicians, health-care decision-makers, educators—and even people who aren't currently working in wound care

but would like to get into it—will benefit from attending this event. For the most complete experience, BYOT (bring your own team)!

Highlights of the conference include the following:

- A unique three-step approach (delivered on day two of the conference)

designed to change practice. You won't want to miss these interactive plenary and breakout sessions!

- A variety of streams for customized learning. The range of topics covered will provide something for everyone.
- The latest from industry in a full day of satellite symposia sessions, learning lunches, power breakfasts and the country's largest wound-care trade show.
- Professional networking opportunities.
- Social events for every taste!
- Post-conference workshops focused on specific clinical topics.

All sessions will be fully bilingual. For more details and to register, visit the CAWC Web site at [www.cawc.net](http://www.cawc.net).



## New Leadership, Expanded Vision

The CAWC is pleased to announce that Dr. Karen Philp began her tenure as chief executive officer on July 13, 2009. She comes to the CAWC from the Canadian Diabetes Association where she was vice president for public policy and government relations and a strong advocate on behalf of Canadians affected by diabetes, as well as the health professionals who care for them. She has worked with government, the medical and research community, other health charities and business leaders to make a real difference to the quality of life of patients and their families.



"We're extremely pleased to have Karen join us in our efforts to support the education, prevention and treatment of various forms of wounds," said Cathy Burrows, president of the board of directors. "Karen has distinguished herself as a strong leader who will proactively champion the CAWC's vision to promote the prevention and management of wounds on behalf of Canadian patients and health-care providers."

## Coming Soon: A New-look Web Site

With traffic to the CAWC Web site at an all-time high, we needed to do some significant upgrades to the site. Over the course of 2009, we have been busy creating an exciting new hub for the CAWC's communications. To be launched in 2010, the revised Web site will have a new look, expanded functionality and some brand new sections to better serve the needs of health-care professionals, decision-makers, patients and their families and caregivers, media representatives and government personnel.

*continued on page 62*



# The New Face of Silver

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## Educational Programming Reaches the Next Level

After an extremely successful year of presenting educational events, the CAWC is once again expanding its complement of educational programs. In 2010, clinicians will be able to choose from a wider range of educational events and programs than ever before! Here are some highlights of the year ahead.

### Conference

The 2010 wound-care conference will be in Calgary, Alberta, from November 4 to 7. The Board of Directors will be announcing the theme at this year's conference. More details will be coming soon.

### Onsite education

Our popular S-Series will expand in order to meet the enormous demand we have received from all over the country. To accommodate the need, we are planning

four or five one-day S1 events, rather than the usual three. These will be smaller events in smaller centres, requiring fewer people to travel large distances.



In 2010, the S2 program will be expanded into a two-day event, allowing for a deeper exploration of the wound-bed preparation workshop, an increase in the length of the dressing-selection workshop and an increase in both the lower leg assessment and compression therapy sections of the lower leg workshop. There will be an addition of two other shorter workshops—one

on foot care and one on footwear—making for a truly transformative event. We will offer two S2 events. Attendance at an S1 event will continue to be a prerequisite for enrollment in an S2 event.

### Online education

To complement the onsite education, an online education program will be launched in 2010. The online modules will provide an economical and convenient method of education for those who prefer to study at their own pace or who would like to reinforce learning that has already taken place during the S1.

Over time, the online education program will provide wound-care clinicians and others with an exciting range of courses for all disciplines and levels of expertise (including patients).

Stay tuned!

## Getting the Most Out of a Conference ...continued from page 57

### Networking

- Introduce yourself to someone new in each session you attend. The fact that they're at the same session means you share an interest—and before you know it you will have started a mini-network!
- Bring business cards to exchange with people you meet.
- Attend the social events. While there, don't just hang around with the people you already know.

*“I like to set a couple of objectives for every conference I go to. For the upcoming CAWC conference, one of my objectives is to talk with two other wound/ostomy clinicians to see how they ‘do business’.”*

—Janet Kubnke, Victoria, BC

*“In order to get the most out of the conference I always spend the evening before going through the syllabus to choose which sessions I want to attend. I highlight them so it is easy to follow in the days to come. The other recommendation I have is to make sure you meet as many people as you can. Business cards are a great way to connect. The people you meet will be great contacts for the future.”*

—Cathy Burrows, Halifax, NS

- Check the event bulletin board every day to see if anyone's looking for you or if a group that shares your interests is meeting.

### When You Get Home

- Set aside some time to organize your notes. Summarize next steps so you can create an implementation plan. Then implement it!
- Write a report for yourself and your supervisor. This will help you focus on how to transfer what you've learned into positive

practice changes.

- Talk to colleagues who also attended the conference to debrief the high points and discuss implementation issues.
- Fill in any online survey forms relating to the conference. Organizers rely on feedback to ensure that next year's conference meets your needs.
- Reflect on whether you met your objectives for the conference and what you would do differently next time. ☺



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