

# WoundCare

VOL.8 NO.2 2010  
CAN \$9.95



CANADA

THE OFFICIAL PUBLICATION OF THE CANADIAN ASSOCIATION OF WOUND CARE

E-LEARNING:  
IMPARTING KNOWLEDGE  
AND SHARING WISDOM

BARRIERS TO  
PRESSURE ULCER HEALING

A PATIENT'S PERSPECTIVE:  
LOOKING AT CHRONIC DISEASE  
FROM THE INSIDE



**Bilateral Lower Limb  
Lymphedema Secondary  
to Morbid Obesity**

Canadian Association  
of Wound Care



Association canadienne  
du soin des plaies

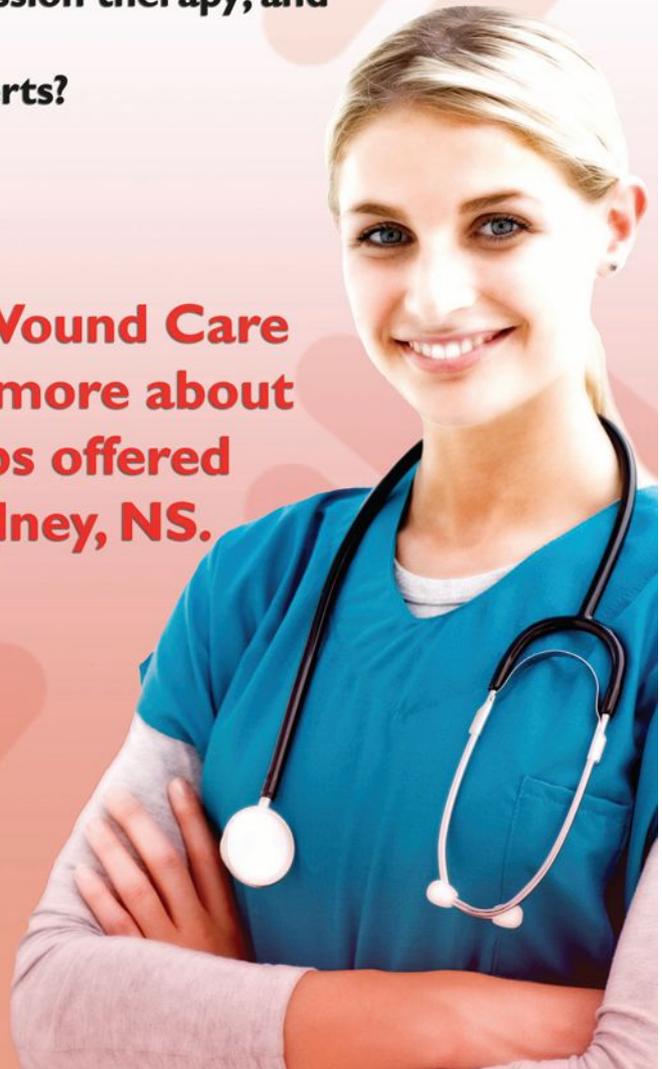
# CAWC'S S-SERIES

## NOW BIGGER AND BETTER!

**Nurses, are you interested in:**

- **Managing and preventing pressure ulcers, venous leg ulcers and diabetic foot ulcers;**
- **Improving your skills in debridement and dressing selection;**
- **Understanding footwear and foot care; pressure, friction and shear; lower limb assessment and compression therapy; and**
- **Networking with wound care experts?**

**If you are, please visit the Canadian Association of Wound Care at [www.cawc.net](http://www.cawc.net) to learn more about CAWC Institute workshops offered from Vancouver, BC to Sydney, NS.**



**President/Présidente**

Patricia Coutts, RN

Martine Albert, RN  
Greg Archibald, MD  
Maryse Beaumier, RN  
Richard Belley, MD  
Mariam Botros, DCh  
Cathy Burrows, RN  
David Haligowski, MD  
Christine Pearson, RN  
M. Gail Woodbury, PhD

**Chairman Emeritus/  
Président émérite**

Gary Sibbald, MD

**Chief Executive Officer/  
Présidente-directrice générale**

Karen Philp

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.

**Bilateral Lower Limb Lymphedema  
Secondary to Morbid Obesity** .....8

**A Virtual Gathering:  
Imparting Knowledge and Sharing Wisdom** .....16

**The Identification of Barriers  
to Pressure Ulcer Healing** .....20

**Canadian Patients Demand Coalition** .....28

## Departments

**CAWC News**

The Latest Association News .....4

**A Patient's Perspective**

Dr. Shane Inlow Looks at Chronic Disease from the Inside .....26

**News in Wound Care**

Upcoming Events and Industry News .....32

**Editor/Rédactrice**

Fiona Hendry

E-mail: [WCCeditor@cawc.net](mailto:WCCeditor@cawc.net)

**Assistant Editor/  
Rédactrice adjointe**

Elizabeth Thorne

**Scientific Advisor/  
Conseiller scientifique**

Heather L. Orsted, RN, BN, ET, MSc

**Publisher/Éditeur**

BCS Communications Ltd.  
255 Duncan Mill Road,  
Suite 803  
Toronto, ON M3B 3H9

**Editorial Advisory Board/  
Comité consultatif de rédaction**

Diane Grégoire,  
RN, ET, BScN, MScN  
Pamela Houghton,  
BScPT, PhD  
David H. Keast,  
MSc, MD, FCFP

**Advertising Sales/  
Publicité et vente**

Courtney Secord  
Phone: 416-485-2292  
E-mail: [WCCadvertising@cawc.net](mailto:WCCadvertising@cawc.net)

**Wound Care Canada** is published by BCS Communications Ltd., on behalf of the Canadian Association of Wound Care. Canada's first publication devoted entirely to wound care, *Wound Care Canada* addresses the needs of clinicians, patients, caregivers and industry.

All editorial material published in *Wound Care Canada* represents the opinions of the authors and not necessarily those of the Canadian Association of Wound Care.

Discussions, views and recommendations as to medical procedures, choice of treatments, dosage or other medically specific matters are the responsibility of the authors. No responsibility is assumed by the publisher or publishing partners for any information, advice, errors or omissions contained herein.

The inclusion of advertising and sponsored material in *Wound Care Canada* does not constitute a guarantee or endorsement of any kind by the Canadian Association of Wound Care.

All rights reserved. Contents may not be reproduced without written permission of the publisher. Printed in Canada. © 2010.

Special thanks to Smith & Nephew for augmenting the *Wound Care Canada* mailing list.

**Canadian Publication Mail  
Sales Product Agreement  
No. 40065546**

**Return mail to  
CAWC, 45 Charles Street East,  
Suite 300, Toronto, ON M4Y 1S2**



*Wound Care Canada* is printed on acid-free paper that contains a minimum of 20 per cent post-consumer fibre.

**The CAWC Gets a New Home**

Earlier this year, the CAWC moved into new offices to accommodate our recent expansion. As a result, the CAWC has a new mailing address. Please update your contact list so you can stay in touch!

**45 Charles Street East, Suite 300, Toronto, ON M4Y 1S2  
Phone: 416-485-2292 (CAWC)  
Fax: 416-485-2291**

# Canadian Association of Wound Care News

## Two New Members Join the CAWC Board of Directors

We are pleased to announce the following new members of the CAWC board of directors.



### Dr. Greg Archibald

As a volunteer board member for CAWC, Dr. Archibald hopes to draw from his experience in academic family medicine procedural curriculum development to influence the provision of enhanced wound care by family physicians and primary care providers through working with various interprofessional academic environments. He also hopes to stimulate research in community practice, particularly in the nursing home sector, to improve wound care outcomes and develop outcomes research initiatives.

The development of team-based care practice standards also interests Dr. Archibald, from the perspective of creating learning environments for future clinicians. As a family physician educator, he recognizes the need to refocus learner experiences to garner enhanced wound management knowledge as a core skill development from undergraduate to postgraduate training. "Our patients and the public we serve deserve attention to this often neglected area of medical care, especially in the face of advanced wound management and the need to further engage in more rigorous research to refine best practices," he says.



### Dr. Richard Belley

Wound management is an important part of a first-line physician practice. In the emergency room, Dr. Richard Belley often meets patients afflicted by wounds. These patients can present challenges that are not fully understood by healthcare providers because of a lack of scientific knowledge about chronic wound care in the medical community and a lack of awareness from healthcare policy-makers. Bridging this gap in knowledge requires wound care education for medical and nursing students throughout the country, and an understanding of the socioeconomic aspects of chronic wounds for healthcare providers and policy-makers so that more resources will be allotted to wound prevention and treatment. "I sincerely believe that I can contribute to these goals, and to the making of a better world for patients afflicted with chronic wounds as a volunteer board member for the CAWC," says Dr. Belley.

## June is Wound Management and Prevention Awareness Month

Starting this year, June is officially Wound Management and Prevention Awareness Month in Canada. In line with this, the CAWC is launching a campaign promoting greater awareness among Canadians about the importance of effective wound management and prevention.

Evidence shows that avoiding preventable wounds is best, but we also know that healing as quickly as possible improves the lives of Canadians suffering from wounds. Each year, June will be our month to acknowledge the dedication and hard work of wound care professionals in caring for Canadians. Join us in facilitating awareness activities throughout the month of June.

Stay tuned to find out how you can participate in and support our efforts. For more information on Wound Management and Prevention Awareness Month, please visit [www.cawc.net](http://www.cawc.net) in the weeks to come.

*continued on page 6*

*PRESENTING*  
**FIRST STEP® ALL-IN-ONE™**

Another advanced low air loss therapy system brought to you by KCI.

A *step* up for your high acuity patients



**An advanced surface for optimized patient care and nursing efficiency**

- 400 lb weight limit accommodates a wide variety of patient sizes
- Optimizes skin microclimate delivery via Low Air Loss
- Helps reduce edema through pulsation therapy
- Turning therapy; continuously rotating patient

For more information,  
including facility case study results,  
call us toll-free at  
**1-800-668-5403**  
or visit our website at  
**[www.kci-medical.com](http://www.kci-medical.com)**



First Step All In One™ MRS units have specific indications, contraindications, safety information and instructions for use. Please consult product labeling and instructions for use prior to use.

Caution: KCI therapeutic support products are medical devices that require the order of a doctor or a licensed healthcare professional at a licensed healthcare facility.

©2008, KCI Licensing, Inc. All rights reserved. KCI USA, Inc., PO Box 659508, San Antonio, Texas 78265-9508, 1-800-275-4524. In Canada, call 1-800-668-5403. GORE® is a registered trademark of W.L. Gore and Associates. All other trademarks and service marks designated herein are property of KCI, its affiliates and licensors. Most KCI products are patented and/or subject to pending patents. KCI is an ISO-13485:2003 certified company. DSL #08-10-004.1, 10/08 Lit. #18-A-109

## CAWC goes to Queen's Park



In March, the CAWC led a group of wound care volunteers to meet with MPPs at Queen's Park in Toronto to ask for a wound management and prevention plan for Ontario.

The CAWC told Ministers and MPPs about the needs of more than two million Ontarians at high risk of developing ulcers, wounds and infections.

"Wound care is the most easily preventable medical cost," said Patricia Coutts, President of the CAWC. "At a time when healthcare spending is under pressure, effective wound prevention and management strategies provide quite possibly the quickest return on investment for all governments, with potential savings of over \$1 billion to reallocate for better health outcomes for all patients in Ontario."

"Last year 75,000 Ontarians were diagnosed with a diabetic foot ulcer," added Karen Philp, Chief Executive Officer of CAWC. "Of those diagnosed, 1,500 people had a limb amputated as a direct result. The majority of these amputations were preventable if the foot ulcer had been prevented or treated effectively."

Christine Elliott, MPP Whitby-Oshawa and Progressive Conservative Party of Ontario Health Critic, and Michael Prue, MPP Beaches-East York and NDP Critic for Disabilities, and Community and Social Services, both congratulated the CAWC and the more than 35 volunteers for raising awareness of the importance of effective wound management and prevention in Ontario.

## CAWC Calls on Healthcare Professionals to Support Relief Effort in Haiti

The CAWC urges Canadian healthcare professionals to help Haiti in the aftermath of the January earthquake. Approximately 300,000 Haitians were injured and thousands continue to suffer from wounds related to amputation, surgery and acute injuries.

The CAWC encourages Canadian wound care experts to donate time or money to Canadian-based international healthcare charities working in Haiti. In February, CAWC announced its donation of \$2,500CAD to the Canadian arm of Doctors Without Borders. The donation is eligible for matching government funds.

"The majority of injuries affecting Haiti's citizens are wound-related, and the country's lack of infrastructure is seriously affecting the recovery of patients," said Patricia Coutts, President of CAWC. "Our donation to Doctors Without Borders will help recruit medical personnel, including wound care specialists like Dr. Alavi, to treat injured people in Haiti."

Dr. Afsaneh Alavi, a CAWC volunteer, travelled to Haiti's capital, Port-au-Prince, on 2 February to provide wound care to Haitians suffering from injuries.

"The need for proper wound care in Haiti is mounting," said Dr. Alavi. "Due to a lack of proper hygiene, inaccessibility to clean water, and habitation in shelters and tents, wounds are rapidly becoming infected and difficult to treat. Poor nutrition, especially in Haitian children, also delays wound healing. Many nations are providing resources, but supplies and personnel are limited, and they need to keep coming."

"I urge CAWC members to go online and volunteer to help the people of Haiti," said Coutts. "The need for effective wound care grows daily."

For more information and to donate to Haiti, please visit the following websites:

- **Doctors Without Borders/Médecins Sans Frontières**  
([www.msf.ca](http://www.msf.ca))
- **Canadian Medical Assistance Teams**  
([www.canadianmedicalteams.org](http://www.canadianmedicalteams.org))
- **Health Partners International Canada** ([www.hpicanada.ca](http://www.hpicanada.ca))
- **Health Care Volunteer** ([www.healthcarevolunteer.com](http://www.healthcarevolunteer.com))

## Wound Care Canada Welcomes Fiona Hendry, Editor

The CAWC is pleased to welcome Fiona Hendry as editor of *Wound Care Canada*. Fiona, a freelance writer and editor since mid-2008, was previously director of publications with the Canadian Diabetes Association. Her extensive writing, editing and project management experience in the healthcare sector will be imperative to enhancing *Wound Care Canada* as it transitions to four issues a year with new authors, more ground-breaking research and even more of the latest news and best practices in wound management and prevention. Please join us in welcoming Fiona to the CAWC!

## New Diabetic Foot Ulcer Tools for Patients

The CAWC is delighted to introduce *Diabetes, Healthy Feet and You*, a brochure and interactive web tool for people living with diabetes. Available in English and French, these tools were developed in collaboration with a patient focus group and an expert advisory group. These tools were funded by the Public Health Agency of Canada and is designed to help educate people living with diabetes about proper foot care practices and empower them to be proactive in managing their care. In addition, the project aims to expand the capacity of health professionals and organizations to apply best practices to screen, educate and counsel Canadians living with type 1 or type 2 diabetes on proper foot care procedures.

Patients with diabetes can use these tools to identify the risk factors associated with foot ulcers and develop habits for daily foot care. The brochure captures the key points related to foot care,

while the website offers visitors the opportunity to take an interactive questionnaire, search for a foot care professional in their region, build their understanding of proper foot care, develop a personal plan for increasing their foot health, read and share personal stories regarding foot care, review a lengthy list of frequently asked questions and more.

Combining the personal experiences, opinions and concerns of patient focus-group members with the professional expertise of our skilled advisory group, the brochure and online tool represent a fusion of thought, perspective and need. Patients speak passionately about the concerns they face and the need for educational materials that are easy to access and understand.

For more information regarding these tools, contact us at [info@cawc.net](mailto:info@cawc.net).

### 2010 CAWC Annual Professional Conference



Please join us for the CAWC's 2010 Annual Professional Conference on 4–7 November, 2010, in Calgary, Alberta. The theme of this year's conference is "Wounds, Neuropathy and Diabetic Foot Care." More than 800 healthcare professionals, clinicians, patients, institution and government administrators, researchers and academics are expected to attend. A preliminary agenda and early-bird registration will be available online soon. Visit [www.cawc.net](http://www.cawc.net) for further information.



### CAWC Institute L-Series Wound Care Workshops

The CAWC Institute L-Series wound care workshops were launched in early 2010 in response to the need across Canada for practical wound management and prevention education.



The CAWC built the 2010 program on the former three-event S-Series to deliver L-Series wound care workshops from coast to coast to coast.

The workshops are extremely interactive, hands-on learning sessions led by an interprofessional team of wound care experts, supported by regional wound care leaders who volunteer their time to educate other health professionals about the best in wound care.

Please contact us at [info@cawc.net](mailto:info@cawc.net) or 416-485-2292 for more information and to register for upcoming workshops.

---

*"This course is very well-organized, informative and interactive. There is nothing I can think to change."*

- Participant at Toronto L1, L2

---

*"Presenters are enthusiastic, informed and empowering."*

- Participant at Toronto L1, L2

---

*"I can't wait for the L3!"*

- Participant at Toronto L1, L2

---

*"Met a wonderful array of people with knowledge and expertise in this area."*

- Participant at Toronto L3

---

*"Excellent and empowering."*

- Participant at Toronto L3

---

*"I am very impressed with the increased knowledge that I have gained over the past three days. I will be able to take this back and provide my clients with better assessments and mobility."*

- Participant at Niagara Falls L1, L2

---

# Bilateral Lower Limb Lymphedema Secondary to Morbid Obesity:

## Barriers to Optimal Care and How to Overcome Them



BY  
Rebecca Cottrill,  
RN

### Rebecca Cottrill, RN,

is a nurse in the dermatology program at Women's College Hospital where she works in the wound care clinic and is a faculty member of the International Interprofessional Wound Care Course.

### Introduction

**T**his paper addresses the need for increased awareness of bilateral lower limb lymphedema (BLLL) and the benefits of BLLL education for both patients and wound care practitioners.

To understand lymphedema, it is important to understand the lymphatic system. Lymphatic structures throughout the body run parallel to the venous and arterial systems. The circulatory system pumps blood around the body. In the capillaries, fluid, nutrients, by-products and oxygen pass from the blood to the tissues, while by-products of metabolism are exchanged from the tissues into the blood. Even when this exchange is working optimally, more fluid stays outside of the circulatory system than returns to the circulatory system. This means there is a net accumulation of fluids, proteins and wastes outside of the circulatory system, resulting in a small increase in fluid pressure. This elevated tissue pressure pushes fluids into the lymphatic vessels, which act as a collection system for this excess fluid to other wastes.

The lymphatic system contains heart-like structures called lymphangions, which pump fluid along the system. Lymphatic vessels have thin walls that rely on movement from the surrounding muscles to pump fluids along the lymphatic system to the thoracic duct and back into the circulatory system. A healthy lymphatic

system will reabsorb up to eight litres of fluid per day, as well as 240 g of protein.<sup>1</sup>

As the forces that propel the lymphatic system are weak and lymphatic structures are quite delicate, the flow of lymphatic fluids can easily become obstructed. When sufficient fluids accumulate in superficial tissues, swelling is visible and palpable. This accumulation can lead to inflammation, which eventually causes the skin to become fibrotic and fragile. The protein-filled fluids may also leak from the skin and cause weeping.<sup>2</sup> When the body becomes overwhelmed with adipose tissue, it can press against the fine structures of the lymphatic system, thus occluding fluid movement and decreasing tissue oxygenation, exacerbating the stagnation of fluids managed by the lymphatic system.

The causes of lymphedema vary greatly. First, some patients develop lymphedema secondary to surgery. For example, breast cancer surgery and other related therapies sometimes damage the lymphatic system, causing unilateral arm edema on the affected side. Second, some patients develop lymphedema from parasitic infection; this is mostly seen in endemic regions. Third, lymphedema can be congenital. In this case, it often presents in childhood or during the teenage years. Fourth, BLLL is secondary to morbid obesity and is assumed to be increasing in prevalence

as obesity rates around the world rise. These increased obesity rates have been attributed to factors such as decreased activity and an abundance of inexpensive, calorie-dense food.

Regardless of the cause, early diagnosis and treatment are crucial for the prevention of late-stage disease (Table 1).<sup>3,4</sup> Education brings the hope of earlier diagnosis and treatment of patients. This is paramount, as late-stage lymphedema can be very difficult to manage and has a profound negative impact on patient well-being.

### The Need for Education

Helping patients with BLLL due to morbid obesity is a challenge that must be addressed by wound care practitioners. BLLL patients often have complicated histories and complex problems. The link between obesity and BLLL has not been well described in the literature. Some theories postulate that the sheer volume of fluid found in the morbidly obese state overwhelms the lymphatic system, causing increased fluid volumes in tissues.<sup>4</sup> Both the low overall activity that is common in morbidly obese patients and gait changes that decrease the efficacy of the calf muscle pump cause fluids to stagnate in extracellular tissues, leading to a chronic inflammatory state and fibrosis.<sup>3</sup> It is also assumed that morbid obesity itself may cause an inflammatory state that damages the delicate lymphatic system.<sup>5</sup>

Patients with BLLL can present to the wound care practitioner with either a history of varied treatments or a complete lack of treatment. Some patients will have been told that nothing can be done to help them. Others may have been told that surgery is an option; however, simple debulking surgeries may injure or remove the delicate lymphatic vessels remaining in the patient's tissues.<sup>6</sup> Some patients may be taking diuretics to treat their lymphedema. Unfortunately, diuretics may exacerbate the negative symptoms of lymphedema by increasing the osmolarity of the lymph fluid. Indeed, diuretics can draw excessive lymph fluid away, leaving behind proteins that then become concentrated. The concentration of these osmotically active molecules only serves to draw more fluid out of the circulatory system to equilibrate pressures in the tissues, thus perpetuating the problem.<sup>6</sup> Many patients are not aware that morbid obesity can cause lymphedema and that weight reduction may improve their symptoms.

Patients suffering from BLLL are particularly difficult to treat due to the complexity of their medical conditions.

TABLE 1

## The International Society of Lymphology Staging for Lymphedema<sup>4</sup>

Stage	Description
Stage 1	Mild pitting edema, at which point lymphedema is reversible
Stage 2	Pitting is often absent and fibrotic changes are noticeable
Stage 3	Characterized by elephantiasis

Morbidly obese patients often present with comorbidities such as type 2 diabetes, hypertension, hyperlipidemia, coronary artery disease and osteoarthritis. Social factors related to morbid obesity, such as higher rates of depression, lower income and decreased mobility,<sup>3,7</sup> can also complicate treatment.

With the dramatic increase in morbid obesity in Canada and around the world,<sup>7</sup> it is highly likely that the wound care community will see many more cases of BLLL. It is therefore now more important than ever that the wound care community understands BLLL.

### Barriers to Optimal Care

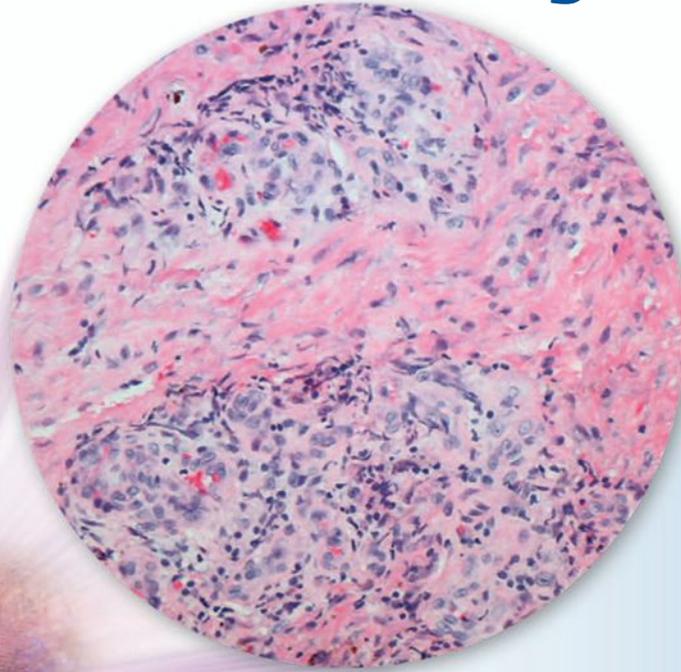
Ideal wound care for these patients should focus on shifting fluid from the limbs. The cornerstone of treatment, as described by the European Wound Management Association and the National Lymphedema Network (Table 2), is multilayer compression bandages, with an intensive initial course of manual lymph drainage by a qualified therapist. Maintaining excellent skin hygiene and exercise therapy are also important to prevent further deterioration.

The treatment regimen suggested in Table 2 is comprehensive and requires a great deal of patient "buy-in" to be successful. Treatment regimens can also be difficult to follow if patients do not fully understand their benefits. These regimens require patients to devote a great deal of time to their condition. Home visits by nurses usually occur three times a week for bandage application, and patients must also visit other healthcare professionals. Bandages can be itchy and uncomfortable and frequent trips to see therapists can be taxing and expensive. In addition, finding manual drainage help for patients with BLLL can be difficult and the costs are often prohibitive. A great deal of patient education is needed in order to achieve patient buy-in to such a laborious treatment plan.<sup>8</sup>

*continued on page 12*

When wounds are trapped in the inflammatory

# Break the Cycle



*Even after sharp or surgical debridement, inflammatory processes can continue to generate microscopic cellular debris*

3 3 ,. ® 7 3 33173D 3 1 3 C76 A 6 7  
63 6D 7 A3

7 A A 173 7 230 73 3 C76 ,. ® 7 3 1 63  
C A 2 3 4 6374 D 63 7B 73 6 3 463 7

Visit [www.santyl.ca](http://www.santyl.ca) for more information

11 7 76 B 3D63 6 033 327 A A 27 7 A3  
C63 72 A 73 63C A 2 31 3 4 D 3 7 6D 3 3 777D  
6 033 3 32 43 DB 4 3 3 C761 3 3 21 7 3  
- 3 4 3 3 ,. ® 7 3 6 A2 03 3 7 32 C63  
230 73 3 71 33 2 A 7 7 A37 C3 3 07632

Please see complete Prescribing Information on adjacent page.

CCC 63 6 7 1

7 7A327 2 0D 3 6 7 2 -  
3 6 7 2 ,. 7 3 7 3 32 23 8 4 3 6 7 2  
3 6 7 237 7 3 7 3 32 23 8 4 3 6 7 2

Collagenase  
**Santyl**<sup>®</sup>  
Ointment 250 units/g

The Continuous, Active Micro-Debrider

# Collagenase<sup>®</sup> Santyl<sup>®</sup> Ointment 250 units/g

*Supports natural healing*

**DESCRIPTION:** Santyl<sup>®</sup> (collagenase) ointment is a sterile topical enzymatic debriding agent that contains 250 units of collagenase per gram of white petrolatum USP. The enzyme collagenase is derived from the fermentation of *Clostridium histolyticum*. It possesses the unique ability to selectively digest denatured and undenatured collagen that binds necrotic debris to the wound surface.

**CLINICAL PHARMACOLOGY:** Santyl<sup>®</sup> (collagenase) possesses the ability to digest insoluble collagen, undenatured and denatured, by peptide bond cleavage, under physiological conditions of pH and temperature. This ability makes it particularly effective in the removal of detritus from dermal lesions, contributing towards the more rapid formation of granulation tissue and subsequent epithelization of dermal ulcers and severely burned areas. Collagen in healthy tissue or in newly formed granulation tissue is not digested.

**INDICATIONS:** Santyl<sup>®</sup> (collagenase) is a sterile ointment indicated for the debridement of dermal ulcers or severely burned areas.

**CONTRAINDICATIONS:** Application is contraindicated in patients who have shown local or systemic hypersensitivity to collagenase.

**WARNINGS:** Debilitated patients should be closely monitored for systemic bacterial infections because of the theoretical possibility that debriding enzymes may increase the risk of bacteremia.

**PRECAUTIONS:** The enzyme's optimal pH range is 6 to 8. Significantly lower pH conditions have a definitive adverse effect on the enzyme's activity, and appropriate precautions should be carefully taken. The enzymatic activity is also adversely effected by detergents, hexachlorophene and heavy metal ions such as mercury and silver that are used in some antiseptics and by cobalt, magnesium and manganese. When it is suspected such materials have been used, the site should be carefully cleansed by repeated washings with normal saline before Santyl<sup>®</sup> (collagenase) ointment is applied. Soaks containing metal ions or acidic solutions such as Burrow's solution should be avoided because of the metal ion and low pH. Cleansing materials such as hydrogen peroxide or Dakin's solution followed by sterile normal saline do not interfere with the activity of the enzyme. The ointment should be confined to the area of the lesion in order to avoid the possible risk of irritation or maceration of normal skin; however, the enzyme does not damage newly forming granular tissue. A slight erythema has been noted occasionally in the surrounding tissue particularly when the enzyme ointment was not confined to the lesion. This can be readily controlled by protecting the healthy skin with a material such as zinc oxide paste. Since the enzyme is a protein, sensitization may develop with prolonged use.

**ADVERSE REACTIONS:** Although no allergic sensitivity or toxic reactions have been noted in the recorded clinical investigations to date, one case of systemic manifestations of hypersensitivity has been reported in a patient treated for more than one year with a combination of collagenase and cortisone. Irritation, maceration or erythema has been noted where prolonged contact of normal skin with Santyl<sup>®</sup> (collagenase) ointment has been allowed, either by

application of the ointment to areas of normal skin or excessive application of the ointment to the wound crater with subsequent spread to normal skin when dressings are applied. The reported incidence for this type of reaction was 1.8%.

**SYMPTOMS AND TREATMENT OF OVERDOSE: Symptoms:** To date, the irritation, maceration or erythema reported on prolonged contact of normal skin with Santyl<sup>®</sup> (collagenase) ointment constitute the only symptoms of overdosage reported. **Treatment:** Santyl<sup>®</sup> (collagenase) ointment can be rendered inert by the application of Burrow's solution USP (pH 3.6 - 4.4) to the treatment site. If this should be necessary, reapplication should be made only with caution.

**DOSAGE AND ADMINISTRATION:** For external use only. Santyl<sup>®</sup> (collagenase) ointment should be applied once daily, or more frequently if the dressing becomes soiled (as from incontinence) in the following manner: **(1)** Prior to application the lesions should be gently cleansed with a gauze pad saturated with sterile normal saline, to remove any film and digested material. If a stronger cleansing solution is required, hydrogen peroxide or Dakin's solution may be used, followed by sterile normal saline. **(2)** Whenever infection is present, as evidenced by positive cultures, pus, inflammation or odor, it is desirable to use an appropriate antibacterial agent. Should the infection not respond, therapy with Santyl<sup>®</sup> (collagenase) ointment should be discontinued until remission of the infection. **(3)** Santyl<sup>®</sup> (collagenase) ointment should be applied (using a tongue depressor or spatula) directly to deep wounds, or when dealing with shallow wounds, to a non-adherent dressing or film dressing which is then applied to the wound. The wound is covered with an appropriate dressing such as a sterile gauze pad and properly secured. **(4)** Use of an occlusive or semi-occlusive dressing may promote softening of eschar, if present. Alternatively, crosshatching thick eschar with a #11 blade is helpful in speeding up debridement then cleanse with sterile saline. It is also desirable to remove as much loosened detritus as can be done readily with forceps and scissors. **(5)** All excess ointment should be removed each time the dressing is changed. **(6)** Use of Santyl<sup>®</sup> (collagenase) ointment should be terminated when debridement of necrotic tissue is complete and granulation is well under way.

**HOW SUPPLIED:** Available in 30 gram tubes of ointment. Sterile until opened. Contains no preservative. Do not store above 25°C.

Product monograph available upon request.

Marketed by

**HEALTHPOINT<sup>®</sup>**

A DFB COMPANY  
1-800-441-8227

Healthpoint Canada ULC  
Petersborough, Ontario, K9J 7A5  
1-800-441-8227  
129041-0209

DIN 02063670  
Reorder No.  
0064 5011 30 (30 g tube)

Some barriers to optimal treatment for patients suffering from BLLL can be attributed to clinicians. Lymphedema can often run its course undiagnosed, particularly in North America where there is low awareness of the condition. This lack of awareness can be attributed to a number of interrelated factors. For example, many family physicians do not receive extensive

training on the diagnosis and treatment of lymphedema. Some healthcare professionals believe there is no benefit to treating BLLL, as negative sequelae seem unavoidable. Moreover, some healthcare professionals believe that treating BLLL is an exercise in futility because morbidly obese people rarely lose weight in a healthy way or achieve long-term weight loss.<sup>9</sup> In

TABLE 2

## Treatment suggestions from the European Wound Management Association (EWMA) and the National Lymphedema Network (NLN)

Recommendations for the treatment of lower limb lymphedema	EWMA	NLN
<b>Identify and treat the cause</b>		
1. Assess the type and severity of lymphedema, as well as social and psychological factors that influence treatment	X	
2. Assess ability to tolerate compression therapy:		
Patients with a reduced ABPI (0.5–0.8) should not receive compression >25 mmHg	X	
Untreated cardiac failure or hypertension	X	
Acute infection with local or systemic symptoms	X	
Untreated deep venous thrombosis	X	
Untreated genital edema	X	
3. Discontinue use of diuretics as they may be harmful		X
4. Initiate complete decongestive therapy:		
Manual lymph drainage	X	X
Multilayer, short-stretch compression bandaging applied daily if appropriate, or hosiery and bandaging	X	X
Remedial exercises	X	X
5. Consider adjunctive therapies:		
Surgical treatment of lymphedema (debulking, liposuction, lymphatic reconstruction)		X
Pressotherapy	X	X
Benzopyrones		X
Daffon 500		X
American horse chestnut seed extract		X
Bromelain 5		X
6. Once intensive treatment is complete, develop a maintenance plan including bandaging and hosiery	X	X
<b>Address patient-centered concerns</b>		
7. Provide patient education in lymphedema self-management	X	X
<b>Provide local wound care</b>		
8. Provide a skin care and hygiene regime	X	X
9. Choose appropriate dressings that account for exudates, pain and allergy issues	X	X
<b>Provide organizational support</b>		
10. Gain access to a specialist practitioner to provide advice on how to modify treatments to suit individual patients	X	

ABPI = ankle-brachial pressure index

TABLE 3

## Treatment Strategies and Barriers to Implementation

Recommendation	Barriers to implementation	Strategies for implementation
Skin care	Decreased mobility Heavy skin folds Heavy limbs	Include during regular nursing visits Two caregivers needed?
Exercise	Heavy limbs Shortness of breath Decreased stamina Cardiac disease No desire to be active	Encourage group activities where social supports can be developed Try different activities to find one that the patient enjoys Consult an occupational therapist/physiotherapist
Multilayer compression >45 mmHg	Assistance required Discomfort Low self-esteem Reminder of illness	Include during regular nursing visits
Manual lymph drainage	Cost Significant time commitment Lack of trained practitioners	The price is sometimes negotiable Therapy should be delivered at the most convenient location
Weight loss	Difficulty of changing a set lifestyle Insufficient support Cost	Group support Psychological support Consultation with a dietitian Consider a program that includes cognitive behavioural therapy
Patient education	Requires a dedicated healthcare professional Requires a motivated patient	Conduct engaging and ongoing education

addition, healthcare professionals may be reluctant to discuss weight issues with patients as this can be embarrassing for both parties.<sup>9</sup>

Other barriers to optimal care for people with BLLL can be attributed to the patients themselves. Many morbidly obese people are embarrassed by their weight, isolating themselves and retreating from the healthcare community.<sup>10</sup> Others are forced into isolation due to pain, fatigue and limited mobility. Still others are unable or unwilling to change their eating patterns, which are often heavily dictated by complex emotional and social issues. Indeed, many patients suffering from BLLL are unable or unwilling to follow demanding treatment regimens.

Because both clinicians and patients neglect BLLL, there is a desperate need for attention, research and education into lymphedema and its management.

### The Obesity Challenge

The need for research and education into BLLL is partially caused by the difficulty of treating the disease. Morbid

obesity, the main cause of BLLL, is very challenging to address. Obesity can be caused by many factors, including lifestyle and environment issues, genetics, metabolism, eating disorders and medical conditions such as hypothyroidism.<sup>7</sup> The basic formula for weight loss is to expend more calories than are consumed. Losing weight is a slow and uncomfortable process for people who are marginally overweight and is significantly more difficult for those who are morbidly obese.

A great deal of behaviour modification is required in order to achieve and maintain weight loss. Most morbidly obese people attempt calorie-restriction regimens; however, they often revert to past behaviours. Since weight loss slows the metabolic process, morbidly obese people regain weight very rapidly when they abandon such regimens. This weight gain can be so discouraging that patients will abandon future attempts at weight loss.

Healthcare professionals can provide much-needed support in these cases: cognitive behavioural therapy

has been shown to help long-term weight loss by addressing many of the lifestyle and behaviour issues that contribute to weight gain.<sup>11</sup> Using this approach, healthcare professionals can help patients identify their desires, adopt healthy behaviours and modify unhealthy thought and behaviour patterns. However, clinicians should never underestimate the challenges of embracing and adapting these behaviours.

### Education is the Solution

It is evident that patients with chronic diseases benefit from education. Patient education often leads to increased adherence to treatment regimens and better patient outcomes. Education also enables patients to optimize the available treatment options. Positive outcomes for patient education programs include an increased sense of coherence, improved health-related quality of life and decreased disability, symptoms and mortality.<sup>10</sup>

Patient education should be patient-driven. Adult learning is motivated by internal drive and is concerned with problem-centred (rather than subject-centred) approaches.<sup>12</sup> Patients require encouragement and structure to attain their goals. Providing positive feedback is important when helping patients adopt healthier behaviours. However, empty praise should be avoided as it can be construed as condescending and can decrease self-efficacy. Feedback should begin on a positive note and negative feedback should be followed by more positive feedback. This approach prevents patients from becoming defensive at the beginning of the evaluation and leaves them with positive feelings.

### Conclusion

The treatment of BLLL is challenging, particularly in patients with morbid obesity (Table 3). Education is the wound care provider's best weapon. Through education, patients become active participants in their treatment and gain a sense of control over their regimen. Education also provides patients with a sense of confidence when facing daily challenges.

Although patients suffering from BLLL are responsible for adhering to their treatment regimen, the wound care community is responsible for providing the necessary tools to help patients make the right choices.

Addressing the needs of these patients can be a great challenge for healthcare professionals. However, it is the role of the wound care community to rise to this challenge and create the awareness necessary to promote positive outcomes for patients with BLLL. 🗨

### References

1. Levick JR. Changing perspectives on microvascular fluid exchange. In Jordan D, Marshall J (eds). *Cardiovascular Regulation*. London, UK: Portland Press, 1999.
2. Ely JW, Osheroff JA, Chambliss ML, Ebell MH. Approach to leg edema of unclear etiology. *Journal of the American Board of Family Medicine*. 2006;19(2):148–160.
3. Yosipovitch G, DeVore A, Dawn A. Obesity and the skin: Skin physiology and skin manifestations of obesity. *Journal of the American Academy of Dermatology*. 2007;56(6):901–916.
4. International Society of Lymphology. The diagnosis and treatment of peripheral lymphedema. Consensus document of the International Society of Lymphology. *Lymphology*. 2003;36(2):84–91.
5. Sullivan MB, Sullivan LG, Kral JG. Quality of life assessment in obesity: Physical, psychological, and social function. *Gastroenterology Clinics of North America*. 1987;16(3):433–442.
6. National Lymphedema Network Medical Advisory Committee. *Position Statement of the National Lymphedema Network. Topic: Treatment*. 2009. Available from: [www.lymphnet.org/pdfDocs/nlnTreatment.pdf](http://www.lymphnet.org/pdfDocs/nlnTreatment.pdf). Accessed 24 March 2010.
7. National Institutes of Health Obesity Research Task Force. *Strategic Plan for NIH Obesity Research*. 2004. Available from: [www.obesityresearch.nih.gov/about/Obesity\\_Text.pdf](http://www.obesityresearch.nih.gov/about/Obesity_Text.pdf). Accessed 24 March 2010.
8. Jallinoja P, Absetz P, Kuronen R, et al. The dilemma of patient responsibility for lifestyle change: Perceptions among primary care physicians and nurses. *Scandinavian Journal of Primary Health Care*. 2007;25(4):244–249.
9. Brown I, Thompson J, Tod A, Jones G. Primary care support for tackling obesity: A qualitative study of the perceptions of obese patients. *British Journal of General Practice*. 2006;56(530):666–672.
10. Osborne RH, Elsworth GR, Whitfield K. The Health Education Impact Questionnaire (heiQ): An outcomes and evaluation measure for patient education and self-management interventions for people with chronic conditions. *Patient Education and Counseling*. 2007;66(2):192–201.
11. Sbrocco T, Nedegaard RC, Stone JM, et al. Behavioral choice treatment promotes continuing weight loss: Preliminary results of a cognitive-behavioral decision-based treatment for obesity. *Journal of Consulting and Clinical Psychology*. 1999;67(2):260–266.
12. Knowles MS. *The Adult Learner: A Neglected Species*. Houston, TX: Gulf Publishing Company, 1990.



## The Next Great Balancing Act

Simultaneously Manage Moisture and Bacteria with Kendall™ AMD Antimicrobial Foam Dressings



### COVIDIEN IS INTRODUCING NEW KENDALL™ AMD ANTIMICROBIAL FOAM DRESSINGS

Kendall™ AMD Antimicrobial Foam Dressings have been engineered to help prepare the wound environment for healing by balancing moisture and bacteria. Open cell polyurethane dressings impregnated with 0.5% Polyhexamethylene biguanide (PHMB):

- Are effective against gram positive and negative bacteria, fungi and yeast
- Provide a balanced environment
- Employ a unique mode of action
- Are effective for up to seven days
- Have no known resistance

To request Free Trial Product visit: [www.KendallAMDFoam.com](http://www.KendallAMDFoam.com)



# A Virtual Gathering: Imparting Knowledge and Sharing Wisdom

*The delivery of web-based wound care education by nurses working in rural and remote First Nations communities.*

BY Elise Nielsen, RN,  
BSN, CETN(C),  
IIWCC,

Juliet Bullock-Piasecik,  
RN, BScN,

Cynthia Sabiston,  
BEEd,

AND

Tracy Scott,  
RN, MN

**Elise Nielsen, RN, BSN, CETN(C), IIWCC,** is a corporate clinical consultant in wounds/ostomy at Saint Elizabeth Health Care in Ontario.

**Juliet Bullock-Piasecik, RN, BScN,** is a community health nurse/home care nurse on Quadra Island, BC.

**Cynthia Sabiston, BEEd,** and **Tracy Scott, RN, MN,** work at Saint Elizabeth Health Care in Manitoba.

## Introduction

In today's healthcare environment, access to education, communication and support are essential to achieving and maintaining a skilled workforce, best practice care and job satisfaction. Delivering affordable, ongoing professional development in wound care can be challenging in rural and remote First Nations communities due to barriers such as geography, isolation, costs and staff shortages.

Nurses working in rural and remote First Nations communities function in a practice environment that is unique and highly complex.<sup>1</sup> They provide comprehensive healthcare in an expanded scope of practice<sup>2</sup> that combines public health, community health, home care and primary care. Furthermore, they work with a population that experiences higher rates of morbidity and mortality than any other segment of Canadian society.<sup>3</sup> Nurses working in these settings are often the only professional health resource in communities of several hundred people, with inadequate human and financial resources and insufficient (and geographically isolated) management supports.<sup>2</sup>

Nurses in these locations may not have ready access to care elements that are considered elsewhere to be integral to best practice in wound care. Rural and remote community nurses often do not have access to multidisciplinary wound team members such as chiropodists, occupational therapists, physiotherapists, dietitians, pain specialists and dermatologists. They also often lack access to certain dressing modalities that are considered routine in best practice care. Their clients must frequently travel long distances by plane, boat, ferry or other means to undergo routine tests and pro-

cedures such as wound cultures, wound debridement and laboratory studies.

A recent survey by the Aboriginal Nurses Association of Canada documented that overwork, burnout and lack of access to professional development and education opportunities are some of the reasons nurses in isolated First Nations communities choose to leave their positions.<sup>3</sup>

The exceptional circumstances encountered in rural and remote communities—coupled with the importance of delivering culturally respectful care—compel many of these nurses to develop unique approaches to care, in the absence of other resources.

Managers strive to respond to nurses' educational needs, but accessing affordable, ongoing clinical education and support is challenging under the best of circumstances. In rural and remote First Nations communities, barriers such as geography, isolation and staff shortages further compound these issues.

## Meeting the Challenge

For the past 10 years, Saint Elizabeth Health Care has partnered with First Nations communities to support care at the local level through a program entitled @YourSide Colleague. This innovative online professional development program provides a secure environment for multidimensional learning experiences. These include access to current educational content, tools and testing, as well as opportunities to interact with experts and peers online. This technology provides a cost-effective approach to training by combining the flexibility of self-directed learning with the structure of scheduled "virtual classroom" sessions. There are

several entry portals to the online program, which have been developed for specific populations.

First Nations nurses have identified the @YourSide Colleague program as an effective vehicle to support local capacity and First Nations-driven health programs and services. It is an education initiative that is successfully overcoming barriers to learning and is gaining national recognition as a leading practice in e-learning.

### **Delivering Wound Care Education to Remote Communities**

In 2008, a seven-week wound management course was created to meet an expressed need of nurses working in and for First Nations communities. This course and the First Nations' portal for @YourSide Colleague have been peer reviewed by nurses working in First Nations communities to ensure cultural integrity. The course is now offered in more than 200 First Nations communities in British Columbia, Manitoba and Saskatchewan.

The course incorporates a blended learning approach using both synchronous (weekly live, interactive webinars) and asynchronous (self-paced, independent learning, including communities of learning and @YourSide Colleague modules) methods. In addition, a wound care expert is available to participants for the duration of the course for non-emergent wound management questions or concerns.

The course objectives are to increase knowledge of wound care best practices and engage participants in a learning community where unique challenges and practice solutions are explored. The webcast course content

covers the CAWC best practice recommendations for wound bed preparation and etiology-specific content that reflects the Registered Nurses' Association of Ontario best practice guidelines. The concepts of addressing co-factors and client-centred concerns are adapted to the realities encountered by rural and remote community nurses. Considerations include a context of practice marked by a paucity of resources, the need for respectful consideration of cultural beliefs and provision of culturally sensitive care.

These culturally sensitive teaching strategies assist learners in increasing their overall presence in communities of learning. Teaching strategies focus on the sharing of stories that are unique and personal to the learners, and which often encapsulate their extremely rich and culturally diverse experiences within their communities. The stories make a great impact on the learning community and build connections among nurses representing remote locations across the three provinces.

A "virtual talking stick" is used to promote sharing, listening and respect for others' experiences. A virtual graduation ceremony acknowledges learner contributions throughout the webcast series or study group and includes the participation of elders (through prayer and song), First Nations leaders and role models and key healthcare providers championing @YourSide Colleague within their communities.

### **Making a Difference**

The success of this course lies in imparting knowledge on best practice wound care and providing a virtual gathering place where these unique nurses can share

## **Engagement Strategies for Web-delivered Courses**

- Use a "virtual talking stick" to pass and share information
- Incorporate storytelling to impart wisdom and enrich content
- Use activities (e.g., polling questions, photo sleuths) to draw the learner into the live content
- Incorporate online learning hours on participation/completion certificate
- Give early and targeted technical support
- Rapidly respond to questions, issues and concerns (both technical and content-related)
- Foster a community of learners to decrease isolation and build supports
- Foster a high level of trust through excellence and expertise
- Conduct ongoing development of web-based engagement strategies

their experiences and wisdom. That the course has achieved this is evident from participants' testimonies (Table 1).

All participants surveyed agreed that they were able to assess and treat their community clients more competently as a result of taking the course. Survey results have also demonstrated that the course increases knowledge and has a positive impact on work, and participants rated the course as culturally relevant to practice with First Nations clients. ☺

### References

1. Martin Misener R, MacLeod M, Banks K, et al. "There's rural, and then there's rural:" Advice from nurses providing primary healthcare in northern remote communities. *Nursing Leadership*. 2008;21(3):54–63.
2. Tarlier DS, Johnson JL, Whyte NB. Voices from the wilderness: An interpretive study describing the role and practice of outpost nurses. *Canadian Journal of Public Health*. 2003;94(4):180–184.
3. Aboriginal Nurses Association of Canada. *Survey of Nurses in Isolated First Nations Communities: Recruitment and Retention Issues*. Ottawa, ON: Aboriginal Nurses Association of Canada, 2008.

TABLE 1

## Voices from the @YourSide Colleague Experience

"[I would like] more education that will allow us as healthcare providers to actually have that capability to change the dressings as needed without sending our clients to the local hospitals as walk-ins or thru emerg."—Participant response to pre-course learning-needs survey

"I provided my client with appropriate medications and dressings, and he also relied on the medicine man as well as traditional medicine. He carried out his rituals to fight off his infections. Some believe that a cure can be achieved through spiritual techniques such as using herbs, spruce gum, boiled spruce cones, fish oils and sweet grass to treat wounds. These items were applied to my client's wounds during a personal ceremony with the beating of the drums in the background. This emphasizes the importance for the nurse to recognize that each person has their own perceptions of health and illness, which are shaped by cultural beliefs. The significance of these cultural rituals and beliefs are paramount to good health; these wishes must be honoured and respected"—@YourSide Colleague course participant response

"What does this mean to me as an Aboriginal nurse? It means that in nursing practice, I need to become critically aware of how I think about things, how I perceive, and sometimes assume, complex matters like culture. It has helped me understand the complex process of wound care, while paying attention to how the client views his or her health. It has taught me to think outside the box. This knowledge has given me the flexibility to view the situation from a social, environmental, psychological, spiritual and holistic position."—Juliet Bullock-Piasek, @YourSide Colleague course participant

Nurses in rural and remote First Nations communities across Canada are gathering online to participate in wound care courses and share their wisdom regarding their unique struggles to integrate best practice for their clients.



### 2010 CALENDAR

**12-13 June**  
Belleville, ON (L1, L3)

**19 June**  
Sydney, NS (L3)

**23-26 September**  
Vancouver, BC (L1, L2, L3)

**14-17 October**  
Toronto, ON (L4: IIWCC)

**21-24 October**  
Moncton, NB (L1, L2, L3)

**18-21 November**  
Winnipeg, MB (L1, L2, L3)

**25-28 November**  
Montreal, QC (L1, L2, L3)

**2-5 December**  
Toronto, ON (L1, L2, L3)

The Canadian Association of Wound Care  
45 Charles Street East, Suite 300  
Toronto, ON  
M4Y 1S2

Phone: 416-485-2292  
Fax: 416-485-2291  
www.cawc.net | info@cawc.net

# What should **your** silver dressing leave behind?



Typical Silver Dressings

SILVERCEL\* Non-Adherent Dressing

## Finally, a non-adherent silver alginate dressing!

Introducing a powerful antimicrobial dressing with a non-adherent layer for **less traumatic dressing changes**.

SILVERCEL\* Non-Adherent Dressing can be removed in one piece without sticking to the wound bed.

Suitable for infected, chronic and acute wounds.<sup>1</sup>

## TOUGH ON INFECTION. EASY ON PATIENTS.

**SILVERCEL\***  
**NON-ADHERENT**  
**Hydro-Alginate**

For further information please contact your local Systagenix Wound Management representative, or visit: [www.systagenix.com](http://www.systagenix.com)

1. Data on file. Systagenix Wound Management.

\*Trademark of Systagenix Wound Management IP Co. BV. © Systagenix Wound Management 2009 WM014/09

# The Identification of Barriers to Pressure Ulcer Healing

## Using Nutrition/Hydration-related Blood Work



BY Chris Fraser,  
HBSc, RD

### Introduction

**A**ny screening process that assists in the prediction of pressure ulcer response to costly or time-consuming wound management—which may include dressings, adjunctive therapies and surgeries—and that assists in the prediction of healing potential will lead to a more appropriate allocation of healthcare resources. In addition, it could help to prevent well-intentioned clinicians from inadvertently contributing to the frustration and disappointment of clients with pressure ulcers by initiating treatments and therapies that are likely to be unsuccessful because all aspects of a person's ability to heal have not been considered and addressed optimally.

It is imperative that wound care clinicians ask the following questions: "Is the patient's nutrition and hydration status being addressed?" and "Will the specialized treatments and therapies be effective if the patient is not optimally nourished and hydrated?" Failure to ask these questions may themselves be barriers to healing.

### Clues to Healing Potential

In a study performed by Houghton and colleagues, subjects with a spinal cord injury (SCI) and chronic stage II, III or IV pressure ulcers were followed as part of a randomized controlled trial. As part of the screening process a comprehensive assessment was performed by an interdisciplinary team (nurse, physical therapist, occupational therapist and dietitian), including nutrition assessment and intervention.

A comprehensive review of nutrition issues was conducted. This included factors that may influence or impact dietary intake, weight status or change and a wide variety of other factors necessary for a thorough and individualized nutrition assessment.

In addition, blood work analysis was performed to screen for markers of nutrition and hydration status and metabolic disorders such as anemia (iron-deficiency anemia, anemia of chronic disease [ACD]), diabetes or impaired glycemic control, thyroid dysfunction, dehydration, hypoalbuminemia and hypoprealbuminemia.

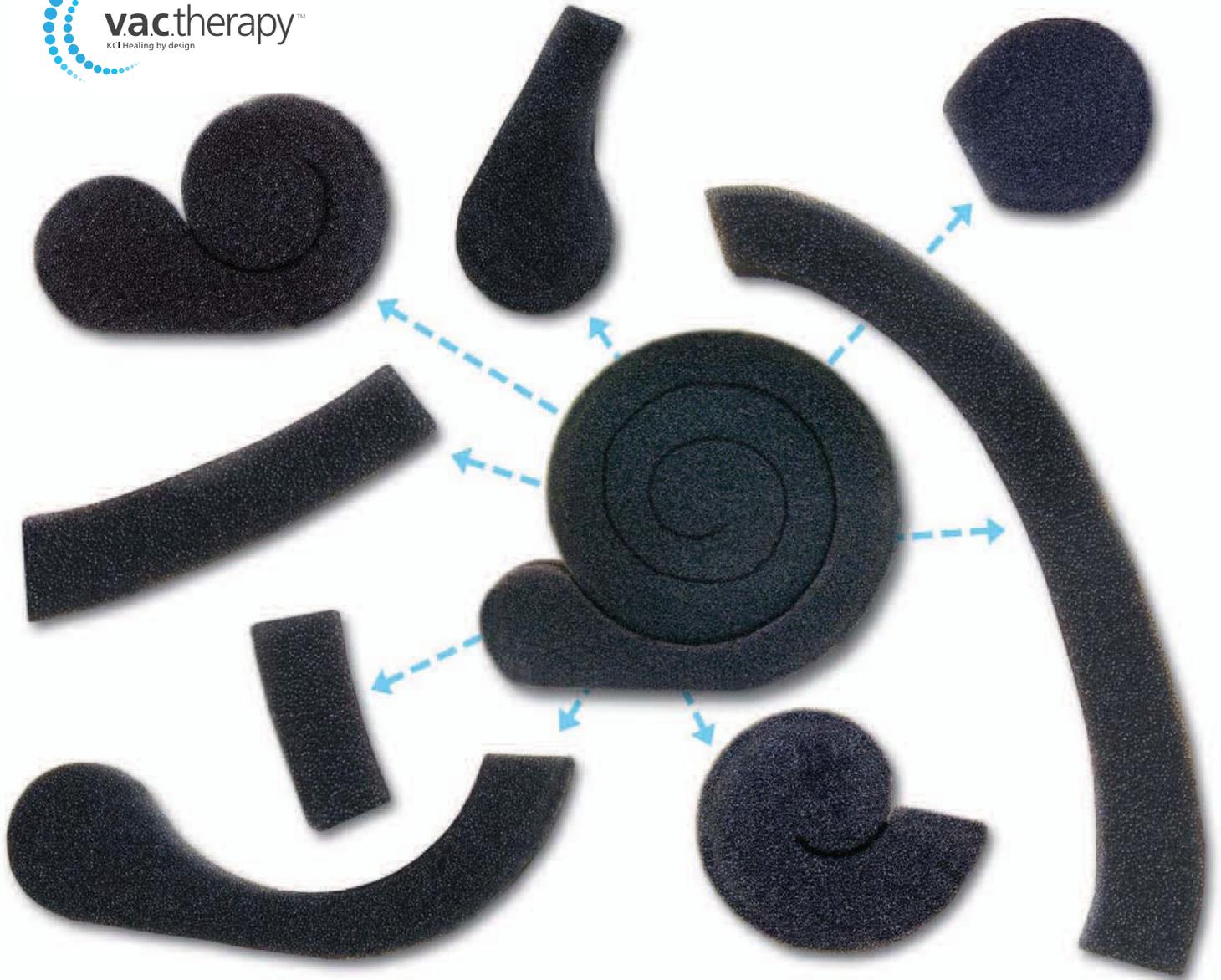
From the nutrition perspective, a judgement on a patient's ability to heal cannot be based on their blood work alone. A comprehensive nutrition assessment must be conducted to identify all potential nutrition- and hydration-related barriers to healing. Indeed, wound healing is much like crime scene investigation! Blood work screening is, however, a necessary step in identifying barriers to healing.

The results obtained by Houghton et al. suggested that only very small differences existed between the mean blood work values of individuals in the healer and non-healer groups. However, the proportion of individuals with two or more abnormal blood values was markedly higher in the group who did not heal over the six-month observation period.

Healing potential decreased when the number of abnormal values increased. The cumulative effect of a

*continued on page 22*

**Chris Fraser, HBSc, RD,** is with the Rehabilitation Program at Parkwood Hospital in London, Ontario.



## How many ways can you make it simple?

### Introducing the easier-to-use\* V.A.C.<sup>®</sup> Simplace<sup>™</sup> Dressing.

Designed to make V.A.C.<sup>®</sup> Therapy placement simpler, faster and easier, the V.A.C.<sup>®</sup> Simplace<sup>™</sup> Dressing includes:

- V.A.C.<sup>®</sup> GranuFoam<sup>™</sup> Dressing in a spiral roll for custom tear-off sizing
- Repositionable 3M<sup>™</sup> Tegaderm<sup>™</sup> Dressing applied in fewer steps
- SensaTR.A.C.<sup>™</sup> Pad with pre-fixed labels for convenient documentation of foam pieces

For more information, call 1-800-668-5403 or visit [www.kci-medical.com](http://www.kci-medical.com).

\*When compared to standard V.A.C.<sup>®</sup> GranuFoam<sup>™</sup> Dressings.



CAUTION: Federal law restricts this device to sale (or sale/rental) by or on the order of a physician.

NOTE: Specific indications, contraindications, warnings, precautions and safety information exist for KCI products and therapies. Please consult a physician and product instructions for use prior to application.

©2009 KCI Licensing, Inc. 3M and Tegaderm are trademarks of 3M Company. All other trademarks herein are proprietary to KCI Licensing, Inc., its affiliates and/or licensors. The V.A.C.<sup>®</sup> System and most KCI products are subject to patents and/or pending patents. DSL#09-03-150.4 • 04/09

featuring a  
**3M Tegaderm<sup>™</sup>**  
Dressing

combination of two or more abnormal blood values, even when mildly abnormal, negatively impacted healing.

### Anemia

If a patient presents with anemia it is imperative that the type of anemia is identified. The complete blood count and iron profile (serum iron, total iron binding capacity, per cent saturation, ferritin) should be assessed to distinguish between iron-deficiency anemia and ACD. It is important to note that it is possible for a patient to have mixed anemias.

Both iron-deficiency anemia and ACD result in a decreased hemoglobin level, which is a barrier to healing. If blood cell morphology is available, iron-deficiency anemia will manifest as microcytic, hypochromic (small, pale) red blood cells; ACD will manifest as normocytic, normochromic red blood cells (normal size and shape), but in lower than normal concentration. If iron deficiency is identified, iron supplementation should be initiated and dietary iron intake increased in order to resolve the anemia and promote wound healing. However, supplementation does not negate the need to investigate and address the underlying cause of the deficiency.

Concurrent medical issues and inflammatory and infectious conditions are associated with ACD, which is a barrier to wound healing. A chronic non-healing pressure ulcer is itself an inflammatory process that may lead to ACD. The ferritin level, in the absence of infection or inflammation, reflects iron stores. However, ferritin is also a positive acute-phase reactant, meaning that it is elevated in the presence of inflammation or infection. It is important that a clinician does not assume that a normal or elevated ferritin level is an accurate reflection of iron status under these conditions. The ferritin level is easier to interpret if assessed concurrently with other markers of infection and inflammation, such as C-reactive protein. Supplementation with iron for ACD is contraindicated.

### Severity of Illness or Injury and Nutrition Status and Risk

Albumin and prealbumin are hepatic proteins that are often cited in the literature as markers of protein or nutrition status. There is much discussion of this among clinicians and authors, with many disputing the value of albumin and prealbumin as nutritional markers, especially in critical and acute care settings.

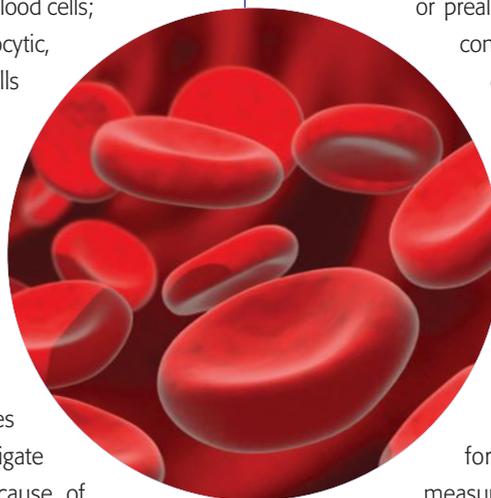
Low values reflect the severity of the illness or injury regardless of protein status and are “red flags” for the potential of a patient to develop malnutrition or become more malnourished. It is therefore imperative that nutrition intervention is launched. In the study by Houghton et al. and in the experience of this clinician in an SCI rehabilitation setting, low albumin or prealbumin values resolve with the consumption of a recommended daily volume of liquid nutrition supplement or provision of nutrition support through supplemental overnight tube feeding.

### Glycemic Control

While the measurement of glycated hemoglobin (HbA1C) levels is not a diagnostic tool for diabetes, it is a valuable measure that reflects glycemic control over the previous two to three months. HbA1C levels above seven per cent are associated with a significantly increased risk for both microvascular and macrovascular complications and impaired wound healing.

Hyperglycemia in the SCI population is largely the result of insulin resistance and impaired glucose tolerance. Some individuals may have normal fasting blood glucose (FBG) levels but impaired glucose tolerance following a meal or carbohydrate load. In the study by Houghton et al., the authors observed that had FBG alone been used to screen for hyperglycemia without concurrent assessment of HbA1C, previously undiagnosed prediabetes and diabetes would have been unidentified in some of the study subjects. It is recom-

*continued on page 24*



# 3M™ Coban™ 2 Layer Lite Compression System

Designed with *Intelligent Compression Dynamics*



Engineered to be  
**Safe,**  
**Comfortable**  
and **Effective**



3M™ Coban™ 2 Layer Lite Compression System reduces the risk of tissue damage on mixed venous and arterial disease patients with ABPI of 0.5 – 0.8 mmHg. This patented two-layer compression system is clinically proven to:

- Be safe, comfortable and effective
- Provide sustained compression for up to 7 days
- Be preferred by patients for comfort
- Be easy to apply
- Enable patients to wear their ordinary footwear and clothing

3M™ Coban™ 2 Layer Lite Compression System is latex free.



mended that both FBG and HbA1C are screened in individuals with pressure ulcers.

Treating ulcers is more effective when screening and management measures are implemented to address underlying factors, such as hyperglycemia, that impede successful outcomes. Controlling serum glucose levels to promote wound healing cannot be overemphasized.

### Thyroid Function

Hypothyroidism is one of many conditions that can adversely affect wound healing. It is a metabolic disorder of great clinical importance and exerts biochemical and histological effects on tissue integrity and regeneration. Hypothyroidism and diabetes mellitus can coexist in clinical settings; the influence of these conditions both individually and concurrently warrants the screening for and immediate management of these conditions for optimal wound healing. It is recommended that patients with pressure ulcers are screened for thyroid-stimulating hormone.

### Hydration Status

Dehydration is a risk factor for skin breakdown and wound healing. The blood urea nitrogen (BUN) to creatinine ratio may be used as an indicator of a patient's hydration status. An elevated BUN level with a normal or low serum creatinine level may indicate under-hydration, although this may not be accurate in patients with renal impairment. A BUN to creatinine ratio of more than 20:1 is a red flag for dehydration, which must be investigated and addressed.

In addition, BUN and creatinine are indicators of renal function. A clinician must be aware of a patient's renal status before recommending enhanced protein, fluid, vitamin and mineral intakes. Supplementation in renal insufficiency, as well as in other comorbidities, is subject to precautions and contraindications.

Following a preliminary review of the data and identification of the trends related to blood work and healing in the Houghton et al. study, the practice changed such that a review of blood values was conducted for individuals with SCI and a severe pressure ulcer (stage IV). When two or more abnormal blood values were obtained, nutrition intervention was initiated to promote resolution of the modifiable

abnormalities and adjunctive therapy (electrical stimulation) was not provided. The blood work was subsequently reassessed and the adjunctive therapy was initiated once the individual's nutrition and hydration status was deemed supportive of healing (i.e., when he or she had fewer than two abnormal values). If only one abnormal blood value was identified, nutritional intervention was provided concurrently with the adjunctive therapy. If no abnormal values were identified through blood analysis, electrical stimulation was initiated with success in most cases.

### Conclusion

Blood work analysis can be a valuable tool in identifying nutrition-related barriers to pressure ulcer healing. The identification of these barriers should lead to appropriate interventions to resolve modifiable nutrition-related issues. A patient's healing potential decreases as the number of abnormal values increases. The cumulative effect of two or more blood work abnormalities, even if mildly abnormal, negatively impacts healing. ☹

### References

1. Anthony D, Reynolds T, Russell L. An investigation into the use of serum albumin in pressure sore prediction. *Journal of Advanced Nursing*. 2000;32(2):359–365.
2. Arnold M, Barbul A. Nutrition and wound healing. *Plastic and Reconstructive Surgery*. 2006;117(7 Suppl.):42S–58S.
3. Barnes P, Sauter T, Zaheri S. Subnormal prealbumin levels and wound healing. *Texas Medicine*. 2007;103(8):65–68.
4. Bauman WA, Spungen AM. Carbohydrate and lipid metabolism in chronic spinal cord injury. *Journal of Spinal Cord Medicine*. 2001;24(4):266–277.
5. Campos AC, Groth AK, Branco AB. Assessment and nutritional aspects of wound healing. *Current Opinion in Clinical Nutrition and Metabolic Care*. 2008;11(3):281–288.
6. Canadian Diabetes Association Clinical Practice Guidelines Expert Committee. Canadian Diabetes Association 2003 clinical practice guidelines for the prevention and management of diabetes in Canada. *Canadian Journal of Diabetes*. 2003;27(Suppl. 2):S1–S201.
7. Duckworth WC, Solomon SS, Jallepalli P, et al. Glucose intolerance due to insulin resistance in patients with spinal cord injuries. *Diabetes*. 1980;29(11):906–910.
8. Ekmektzoglou KA, Zografos GC. A concomitant review of the effects of diabetes mellitus and hypothyroidism in wound healing. *World Journal of Gastroenterology*. 2006;12(17): 2721–2729.

9. Fraser C. The importance of monitoring hydration status in our clients. *Wound Care Canada*. 2009;7(1):18–20.
10. Fraser C. Nutrition and wound care: The importance of investigating the presence of hyperglycemia in individuals with wounds. *Wound Care Canada*. 2007;5(2):20–21.
11. Fuhrman MP, Charney P, Mueller CM. Hepatic proteins and nutrition assessment. *Journal of the American Dietetic Association*. 2004;104(8):1258–1264.
12. Hatanaka N, Yamamoto Y, Ichihara K, et al. A new predictive indicator for development of pressure ulcers in bedridden patients based on common laboratory test results. *Journal of Clinical Pathology*. 2008;61(4):514–518.
13. Holcomb SS. Anemia: Pointing the way to a deeper problem. *Nursing*. 2001;31(7):36–42.
14. Houghton P, Campbell KE, Fraser C, et al. Electrical stimulation therapy increases healing of pressure ulcers in community dwelling people with spinal cord injury. *Archives of Physical Medicine and Rehabilitation*. 2010;91(5):669–677.
15. Keast DH, Fraser C. Treatment of chronic skin ulcers in individuals with anemia of chronic disease using recombinant human erythropoietin (EPO): A review of four cases. *Ostomy/Wound Management*. 2004;50(10):64–70.
16. Marston WA. Risk factors associated with healing chronic diabetic foot ulcers: The importance of hyperglycemia. *Ostomy/Wound Management*. 2006;52(3):26–39.
17. Neidert KC (ed.). *Nutrition Care of the Older Adult: A Handbook for Dietetics Professionals Working through the Continuum of Care*. Chicago, IL: The American Dietetic Association, 1998.
18. Takahashi PY, Kiemele LJ, Chandra A, et al. A retrospective cohort study of factors that affect healing in long-term care residents with chronic wounds. *Ostomy/Wound Management*. 2009;55(1):32–37.
19. Weinberg AD, Minaker KL. Dehydration: Evaluation and management in older adults. *Journal of the American Medical Association*. 1995;274(19):1552–1556.

# Patients with Diabetic Ulcerations?

## Canadian Certified Pedorthists

offer specialized expertise to your healthcare team helping improve patients' foot health and mobility one step at a time



Canadian Certified Pedorthists are the most qualified profession to fully assess and fit a patient's custom orthotic and footwear needs. Extensively trained in the assessment of lower limb anatomy and biomechanics, Pedorthists specialize in addressing the specific needs of people with diabetes through a range of different therapeutic modalities.

With a referral from physicians, nurse practitioners and other healthcare providers, patients with lower limb problems can benefit from pedorthic products and services - including orthotics, orthopaedic shoes and accessories - to help alleviate pain and discomfort.

Patient education, coaching and ongoing adjustments and communication are integral to pedorthic management helping to heal wounds and avoid complications of diabetic ulcerations.

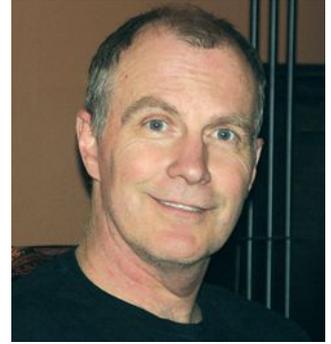
Enhance your team with a Canadian Certified Pedorthist

[www.pedorthic.ca](http://www.pedorthic.ca) or 1-888-268-4404



PEDORTHIC ASSOCIATION OF CANADA

## Dr. Shane Inlow Looks at Chronic Disease from the Inside



Dr. Shane Inlow:  
"I have always been diligent  
about managing my disease."

**Dr. Shane Inlow** was a practicing physician and is a past medical director of the Geriatric and High Risk Foot Clinic in Calgary and a founding member of the CAWC. He spoke recently with Heather Orsted, RN, director of the CAWC Institute of Wound Management and Prevention and a clinical and educational consultant, about living with multiple sclerosis.

### Q When did you first discover you had multiple sclerosis (MS)?

I was first diagnosed with multiple sclerosis in 1986, back in the days before MRI. My main symptom was that I was losing my co-ordination. As an athletic person, I noticed that I was not serving well in tennis and was falling while skiing—things that had come naturally to me before. I had a numb patch on my left chest and I had ringing in my ears.

At that time I had been in my medical practice for six years, married for 12 years and my kids were one, three and six years of age.

### Q What was your reaction when you heard the diagnosis?

It was devastating, because I knew the wheels were going to fall off my future. My biggest concern was that I had just spent 11 years getting my MD and I had only practiced for six years. I refused to quit practicing medicine, as I wanted to use my medical training as much as I could.

### Q What lifestyle changes did you make in the first five years?

I had to retire from certain areas of clinical practice, such as obstetrics and performing minor surgical procedures. Then, in 1987, an opportunity was presented to me to become medical director of a foot and wound care clinic. This met my criteria, in that I did not have to do any manual work due to the availability of highly trained staff in the clinic.

The biggest problem in the early years was non-stop fatigue, which was manageable initially because the clinic was only two days a week. As the clinic became more successful, the demands on me increased. Although work gave me a sense of purpose, academic stimulation and interpersonal interaction, it was taking a toll on my personal life, leaving me exhausted not only after work but for days later, with my family bearing much of these problems.

As time passed, having MS required an explanation to my

patients in the clinic. Some had expressed concerns to staff regarding my staggering gait and slurred speech, thinking I was drunk. Writing skills were a challenge and charting became increasingly difficult. I started using a cane to help others identify my disability.

I really missed sports, but found there was one that I could still play and so I took up golf. I managed to play for more than 10 years.

### Q What have the last 10 years been like?

Due to increasing fatigue, I have had to completely retire from practice. I have always been in a slow decline, with primary progressive disease for the first 15 years and secondary progressive disease for the last 10 years. Walking became increasingly difficult, so I used a scooter for long "walks" and outdoor activities. Five years ago I progressed to a full-time wheelchair. I remain independent with my personal care but need support

with every other aspect of my life, including travelling, cooking, shopping and housework.

Socially, I spend more time in my home than outside my home. I get to the gym often, which is located close to my house, to exercise and swim. I rely on family and friends for most of my social life, as I get too tired in the evenings to go out.

The fatigue tends to be the most difficult complication and wears on your ability to control your emotions. Unfortunately, family and friends have often been the recipients of raw emotions that I was no longer able to buffer.

### Q What are your complications related to MS?

With decreased sensation and mobility, I have found out how vulnerable I really am. A minor bang on my shin led to months of monitoring and wound management, and if I did not know what I was doing I would really get into trouble. I get onto treating injuries right away, no matter

how minor. My risk for pressure ulcers is scary—fortunately, pain sensation in my butt is still relatively intact and I get off my butt when I feel significant discomfort. But it really lets me know how difficult it must be for people who don't have sensation to get things done. I find I can't even sit on my butt for an hour without feeling discomfort. However, if I am up too long, I pay for it for days afterward.

My feet are neuropathic and I wore a new pair of shoes to the gym that I thought fit well. I did not realize how stiff the lateral aspect of the shoe was and after 10 minutes I had trauma that caused my leg to be black and blue from my knee to my toes for a month.

I have recurring painful neuropathy of my left leg so, like a person with diabetes, I need to manage my neuropathy. I have tried all sorts of drugs and treatments, but it seems a warm bath or several minutes on a Whole Body Vibration machine ([www.wbv-md.ca](http://www.wbv-md.ca)) help more than anything.

My autonomic neuropathy has also led to really cold feet. I use an electric heating pad that has low voltage and a restricted heat limit. I know this is a risk, but when my feet are cold my whole body spasms, including my bladder, and I can't sleep.

### **How do you manage your MS?**

I have always been diligent about managing my disease—from exercise, diet, drugs and lifestyle changes to managing stress, fatigue and anxiety. I have kept on top of the research and think I have managed my disease well, in part because I am a medical doctor.

I am aware of the impact of controlling my body, my lifestyle and my environment.

I frequently get calls from others who have just been newly diagnosed with MS. I feel I have helped them just by talking to them about the basics of managing the disease. I find most people with MS try and ignore it and hope it goes away—I am pretty certain it will not! Living with, not fighting against MS—in my opinion—is the key.

### **What do you think your future holds?**

Well, I guess that is part of the management of the disease. I try not to think too far into the future, because that might affect my ability to stay strong and do as much as I can in the present. The big problem is depression when you think of long-term consequences. I try to think in days and weeks, instead of months and years. If I thought that in 10 years I might be in a nursing home, that might depress me and prevent me from being as active as I try to be. My biggest challenge is getting through the day—I need to be very flexible with what I do in a day based on what is happening with my body and my mind.

I know the stats and know the prognosis for people with a disease like mine, and I don't focus on them because I know I am doing a better job managing my MS in part because of my medical knowledge.

I am also reassured by new research in the field of MS that gives me hope. Chronic cerebral spinal vascular insufficiency has been shown to be present in

*“I am reassured by new research in the field of MS that gives me hope.”*

---

many people with MS and the treatment for it is a simple balloon angioplasty. Unfortunately, it is currently only available in Phase II trials in Europe.

### **What would you like to share with healthcare professionals to help them better help their patients with chronic diseases?**

I think, first of all, focusing on the entire living process rather than just on drug therapies. Many doctors think that if there is not a drug available for a particular disease then there is nothing they can do to help you. And I would have been one of them—but I think differently now.

Recognize the importance of exercise, nutrition and lifestyle management for any chronic disease. Embrace alternative medicine as an option, because it may make your patients feel better and that may be all that matters. Unfortunately it is often dismissed by medical practitioners. Listen to and try to embrace total care, putting aside the limited current treatments. Know local medical assistance within the community, such as AADL [the Alberta Aids to Daily Living program], home care and even disability tax programs. Encourage spousal support programs, as the strain to the able-bodied spouse needs TLC. All these little things can make a huge difference in the management of chronic diseases. 🙌

# Canadian Patients Demand Coalition



**Ontario Minister of Health and Long-Term Care, Deb Matthews, listens to patients at the 2009 Canadian Patient Summit.**

**A** wide range of healthcare stakeholders have a voice with governments when it comes to addressing health policy and healthcare decisions. Doctors have national and provincial associations; nurses have professional organizations and unions; and organizations like the CAWC advocate for practitioners and patients with specific conditions. In each case, by coming together to speak with a unified voice, the individual members of these stakeholder groups are able to have their views heard and addressed.

Patients have a unique perspective to share; however, until now they have been left out of the healthcare conversation. The CAWC chaired the first-ever Canadian

---

*“Long overdue to get patient voices together and to empower a coalition to do something!”*

---

Patient Summit, held 28 and 29 March in Toronto, to hear what patients wanted.

Over 200 Canadians shared their stories and planned how patients could become more involved in health policy decision-making. Together, they proposed 17 ideas and then voted. Support was unanimous that a patient coalition be established. Thirty

*continued on page 30*

---

*“If one patient speaks, it is not heard, but if many patients collaborate together, just imagine what we could do nationally.”*

*– John Munroe, First Nations diabetes advocate*

---

# Help your patients reduce the risk of diabetes foot ulcers!

The Canadian Association of Wound Care is delighted to introduce our new diabetes foot care **brochure and online, interactive tool**, developed with funding from the Public Health Agency of Canada.

Know the signs.	Are your feet...	What can I do?
 	Numb, painful or tingling? Do your feet feel like blocks of wood? <b>IF YES</b> →	<input type="checkbox"/> Control your blood glucose levels. <input type="checkbox"/> Have a healthcare professional trim your toenails and care for the skin on your feet. <input type="checkbox"/> Have your shoes professionally fitted.
 	Changing shape? Is one foot different than the other? Any change is important. <b>IF YES</b> →	<input type="checkbox"/> Avoid too much walking. <input type="checkbox"/> Visit your healthcare professional as soon as possible. <input type="checkbox"/> Have your shoes professionally fitted.
 	Dry, callused or cracked? Do they have sores or blisters? <b>IF YES</b> →	<input type="checkbox"/> Changes to your skin should be seen by a healthcare professional. <input type="checkbox"/> Wash a sore or blister with warm water; dry well, and cover with a bandage. See a healthcare professional today. <input type="checkbox"/> Avoid walking on your foot as it heals.
<p>Please continue to check your feet everyday for any changes or signs of injury.</p> <p>If you have answered YES to any of these questions, please see a healthcare professional as soon as possible. Be sure to tell him/her that you have diabetes. Avoid using over-the-counter treatments unless directed to by a healthcare professional.</p> <p>Have your healthcare professional check your feet <b>AT LEAST</b> 1-2 times per year or more if required.</p>		
<p><b>Your Healthcare Professional Team</b></p> <p><b>Chiropodists or podiatrists:</b> specialize in caring for feet</p> <p><b>Diabetes Educators:</b> provide education on diabetes, including foot care</p> <p><b>Doctors:</b> assist in diabetes management, and some have specialized training in foot care</p> <p><b>Nurses:</b> some have specialized training in foot care</p> <p><b>Pedorthists:</b> specialize in fitting shoes</p>		
<p><b>Key Phone Numbers:</b></p> <p>Chiropodist or Podiatrist _____</p> <p>Diabetes Educator _____</p> <p>Family Doctor _____</p> <p>Nurse _____</p> <p>Pedorthist _____</p> <p>Specialist _____</p> <p>For more information, visit <a href="http://www.cawc.net/diabetesandhealthyfeet">www.cawc.net/diabetesandhealthyfeet</a></p>		

## Benefits:

- Gives relevant, user-friendly interactive information;
- Encourages discussion between you and your patients;
- Empowers Canadians living with diabetes to manage their foot care;
- Offers a monthly email foot care tip;
- **Available in both English and French.**

*Coming soon in more languages!*

**Request your copies now: [healthyfeet@cawc.net](mailto:healthyfeet@cawc.net)**

Visit our interactive online tool:

English: [www.cawc.net/diabetesandhealthyfeet](http://www.cawc.net/diabetesandhealthyfeet)

French: [www.cawc.net/diabetetepiedsenske](http://www.cawc.net/diabetetepiedsenske)

**For more information, please call: 416-485-2292**

---

*“If patients designed a system that reflected their needs,  
we would have a much more highly integrated system.”*

*– Deb Matthews, Ontario Minister of Health and Long-Term Care*

---

health-related organizations agreed to stay the course in the creation of the first Canadian Patient Coalition. The coalition’s mandate was set by the patients:

- Advocate for patients to be represented at healthcare policy decision-making tables.
- Advocate for governments to provide patient navigators to help guide patients through the complexities of our healthcare system.
- Support an initiative already started for a single electronic health record for every patient that follows the patient.



---

*“Patients definitely need to have our voices heard,  
our lives depend on this.”*

---

Patients were enthusiastic about how to improve services to get the best health outcomes. They also enjoyed meeting each other and listening to informed discussions.

The Honourable Deb Matthews, Ontario Minister of Health and Long-Term Care, kicked off the conversation by welcoming everyone to this critical discussion. She wants to work with patients and their coalition.

Other notable speakers included Alberta Senator Elaine

McCoy; BC MLA Adrian Dix; Toronto MP Dr. Carolyn Bennett; Catherine Turner from the National Aboriginal Diabetes Association; Globe and Mail health reporter André Picard; 25-year radio broadcasting veteran Andy Barrie; Toronto mayoral candidate and former Ontario Health Minister George Smitherman; and Maureen A. McTeer, Canadian lawyer and author with a special interest in gender issues and health policy.

---

*“Felt very empowered by the day.”*

---

Dr. Gary Sibbald, former CAWC President and current President of the World Union of Wound Healing Societies, joined Irmajean Bajnok, Director of International Affairs and Best Practice Guidelines Programs at the Registered Nurses’ Association of Ontario, and Kevin J. Leonard, patient, professor of Health Policy at the University of Toronto, and President of One Patient, One Record in a session chaired by CAWC member Linda Norton to share their ideas on how health professionals and patients can work together to make a difference. ☺



Information from the Summit will be compiled into a report to be disseminated in May. Please visit [www.canadianpatientcoalition.com](http://www.canadianpatientcoalition.com) for more information and to view clips from the day.

**University of Toronto**

**International  
Interprofessional  
Wound Care  
Course**

Sponsored by

the Dalla Lana School of Public Health  
and  
the Canadian Association of Wound Care

**14 - 17 October 2010  
and  
29 April - 2 May 2011**

For more information and to register,  
please visit [www.cawc.net](http://www.cawc.net).



## CAWC Events

The CAWC Institute of Wound Management and Prevention Sessions by the CAWC Institute of Wound Management and Prevention are designed to help you expand your knowledge and attitudes regarding wound care. You will also develop the skills required to put this knowledge into practice.

Date	Location	Level(s)
12–13 June	Belleville, ON	L1, L3
19 June	Sydney, NS	L3
23–26 September	Vancouver, BC	L1, L2, L3
14–17 October	Toronto, ON	L4 (IIWCC)
21–24 October	Moncton, NB	L1, L2, L3
18–21 November	Winnipeg, MB	L1, L2, L3
25–28 November	Montreal, QC	L1, L2, L3
2–5 December	Toronto, ON	L1, L2, L3

For more information and to register for CAWC Institute sessions, visit [www.cawc.net](http://www.cawc.net).

## Other Events

### European Wound Management Association 20th Conference: Get the Timing Right

26–28 May, 2010  
PalExpo Conference Centre  
Geneva, Switzerland  
[www.ewma2010.org](http://www.ewma2010.org)



### Canadian Association for Enterostomal Therapy 29th Annual Conference: The Wonders of Advancing Wound, Ostomy and Continence Care

27–30 May, 2010  
Niagara Fallsview Casino Resort  
Niagara Falls, Ontario  
[www.caet.ca](http://www.caet.ca), or contact the CAET national office on 1-888-739-5072

### Nurse Blogs MSc Experience in Wound Healing and Tissue Repair

Skin and wound nurse educator Marlene Varga (recipient of the CAWC 2009 Dr. Warren L. Rottman Education Scholarship, sponsored by 3M Canada) is chronicling her journey as an MSc candidate in wound healing and tissue repair through an online blog. Varga, who works at Grey Nuns Community Hospital (Covenant Health) in Edmonton, is undertaking her MSc at the University of Cardiff, Wales, UK. In her blog, she provides a frank and informative account of the pressures, frustrations and rewards of the program, as well as posting photos of her travels in beautiful Wales. Visit Varga's blog at <http://cardiffjourney.blogspot.com>.

## EWMA News

### University Conference Model during the EWMA 2010 Conference

The European Wound Management Association (EWMA) university conference model (UCM) offers students of wound management the opportunity to take part in academic studies while participating in the EWMA conference. This opportunity is available to all institutions with wound management teaching programs for health professionals. The EWMA strongly encourages teaching institutions and students from around the world to participate in the UCM, where they will benefit from international networking and access to lectures by the most experienced wound management experts in the world. Visit the education section of [www.ewma.org](http://www.ewma.org) or contact the EWMA Secretariat at [ewma@ewma.org](mailto:ewma@ewma.org) for more info.

### From Our NAWCC Partners

#### New Guidelines for Pressure Ulcer Prevention and Treatment

The National Pressure Ulcer Advisory Panel (NPUAP) and European Pressure Ulcer

Advisory Panel (EPUAP) Guidelines for Pressure Ulcer Prevention and Treatment bring together the best evidence-based practices from around the world, and are the result of a four-year collaboration between the NPUAP and EPUAP. The guidelines are available in the "resources" section at [www.npuap.org](http://www.npuap.org).

### Get to Know the Wound Healing Society

The Wound Healing Society (WHS) is a U.S.-based non-profit organization composed of clinical and basic scientists and wound care professionals. Their annual meeting is held each spring in conjunction with the Symposium on Advanced Wound Care. It is the largest conference on cutting-edge wound-healing research and evidence-based advanced wound care in North America. In 2010, the first volume of the WHS-sponsored year-book series *Advances in Wound Care* will be published. This book series provides a simple yet authoritative desktop reference for wound care professionals, as well as for graduate students who may not have had sufficient exposure to aspects of wound healing other than their specific area of study. For more information on the WHS, visit their website at [www.woundheal.org](http://www.woundheal.org) or e-mail [info@woundheal.org](mailto:info@woundheal.org).

*All Industry News is supplied by the companies or their agencies and is published as a courtesy by the CAWC.*



## ...healing with Versiva<sup>®</sup> XC<sup>™</sup> dressing

### Versiva<sup>®</sup> XC<sup>™</sup> dressing transforms wounds

Thanks to its gelling Hydrofiber<sup>®</sup> Technology, exudate is absorbed and locked in,<sup>1</sup> trapping harmful bacteria<sup>2,3</sup> and MMPs,<sup>4</sup> creating an optimal moist wound environment that kick starts healing.<sup>5\*</sup>

### Versiva<sup>®</sup> XC<sup>™</sup> dressing. Expect more



Find out more about Versiva<sup>®</sup> XC<sup>™</sup> dressing and arrange a visit from your ConvaTec representative:  
[www.convatec.com/versivaxc](http://www.convatec.com/versivaxc)



For more information, please call our Customer Relations Center (Registered Nurses on staff) at **1-800-465-6302**, Monday through Friday, 8:00 AM to 6:00 PM (EST), or visit our Web Site at [www.convatec.ca](http://www.convatec.ca)

\*As demonstrated *in vitro*

1. Waring MJ, Parsons D. Physico-chemical characterisation of carboxymethylated spun cellulose fibres. *Biomaterials*. 2001;22:903-912. 2. Walker M, Hobot JA, Newman GR, Bowler PG. Scanning electron microscopic examination of bacterial immobilisation in a carboxymethylcellulose (Aquacel) and alginate dressings. *Biomaterials*. 2003;24(9):883-890. 3. Newman GR, Walker M, Hobot J, Bowler PG. Visualisation of bacterial sequestration and bactericidal activity within hydrating Hydrofiber<sup>®</sup> wound dressings. *Biomaterials*. 2006;27:1129-1139. 4. Walker M, Bowler PG, Cochrane CA. In vitro studies to show sequestration of matrix metalloproteinases by silver-containing wound care products. *Ostomy Wound Manage*. 2007;53(9):18-25. 5. Vanscheidt W, Mülner KC, Klovekorn W, Vin F, Gauthier JP, Ukat A. A prospective study on the use of a non-adhesive gelling foam dressing on exuding leg ulcers. *J Wound Care*. 2007;16(6):261-265.



Realise the possibilities<sup>™</sup>

# Erratum

In the Best Practice Recommendations for the Prevention and Management of Open Surgical Wounds, published in the Winter 2010 issue of *Wound Care Canada*, an error appeared in Table 3 (page 10). The correct table appears below. We apologize for this error.

TABLE 3

## Quick Reference Guide for the Prevention and Management of Open Surgical Wounds

Recommendation		Strength of evidence NICE /RNAO
<b>Cause</b>		
1	Complete a holistic assessment to identify factors that may affect surgical wound healing in the pre-operative, intra-operative and post-operative phases	NICE level 2+ RNAO level IV
2	Create a treatment plan to eliminate or reduce factors that may affect surgical wound healing in the pre-operative, intra-operative and post-operative phases of care	NICE level 2+ RNAO level IV
<b>Patient-centred concerns</b>		
3	Include the patient, family and/or caregiver as members of the team when developing care plans	NICE level 4 RNAO level IV
4	Educate the patient, family and/or caregiver to optimize surgical wound healing	RNAO level IV
<b>Local wound care</b>		
5	Assess the surgical wound and document findings using a standardized approach	RNAO level IV
6	Debride the surgical wound of necrotic tissue	RNAO level Ib
7	Rule out or treat a surgical site infection	NICE level 4 RNAO level IIa
8	Provide optimal local wound moisture balance to promote healing by choosing an appropriate dressing for the acute and chronic phases of surgical wound healing	NICE level 1+ RNAO level IV
<b>Re-evaluation</b>		
9	Determine the effectiveness of interventions and reassess if healing is not occurring at the expected rate. Assess the wound edge and rate of healing to determine if the treatment approach is optimal	RNAO level IV
10	Consider the use of adjunctive therapies and biologically active dressings	NPWT: RNAO level IV ES: RNAO level Ib HBOT: RNAO level IV
<b>Organizational concerns</b>		
11	Recognize that surgical wound healing requires a team approach	NICE level 4 RNAO level IV
12	Implement a surgical site surveillance program that crosses clinical setting boundaries	NICE level 4 RNAO level IV

ES = electrical stimulation

HBOT = hyperbaric oxygen therapy

NICE = National Institute for Health and Clinical Excellence

NPWT = negative pressure wound therapy

RNAO = Registered Nurses' Association of Ontario



**CAWC·ACSP**

**Calgary 2010**

## **2010 Annual Professional Wound Care Conference**

*Please join us in Calgary for our professional conference from 4 to 7 November 2010.*

**Learn the best available evidence in diabetes foot, neuropathy and wounds.**

*For more information and to register, please visit [www.cawc.net](http://www.cawc.net).*

## **Congrès professionnel annuel 2010 en soin des plaies**

*Soyez des nôtres à Calgary pour le congrès professionnel qui aura lieu du 4 au 7 novembre 2010.*

**Apprenez les meilleures recherches du pied diabétique, de la neuropathie et des plaies.**

*Pour plus de renseignements et pour vous inscrire, veuillez visiter [www.cawc.net](http://www.cawc.net).*



# Mepilex® Border Ag

**NOW  
AVAILABLE**

## Targeting bacteria and protecting the skin.



**SafetaC**<sup>®</sup>  
TECHNOLOGY

### Two advanced technologies. One antimicrobial dressing.

Mepilex® Border Ag and Mepilex® Ag combine the best of two superior technologies – the antimicrobial action of ionic silver with all the benefits of Safetac® technology.

Inactivate pathogens within 30 minutes<sup>1</sup> of application and maintain sustained release action for up to 7 days<sup>2</sup>.

Safetac® technology protects the peri-wound skin, reduces the risk of maceration<sup>3</sup>, and minimizes pain and trauma at dressing change<sup>4,5,6</sup>.

Contact your Mölnlycke Health Care representative at 1-800-494-5134.

#### References:

- 1,2 Taherinejad and Hamberg. Antimicrobial effect of a silver-containing foam dressing on a broad range of common wound pathogens. Poster publication, WUWHS 2008.
- 3 Meaume S et al. *Ostomy Wound Management* 2003; 49(9):44-51.
- 4 Dykes, P.J., Heggie, R., and Hill, S.A. Effects of adhesive dressings on the stratum corneum of the skin. *Journal of Wound Care*, Vol. 10, No. 2, February 2001.
- 5 Dykes, P.J. and Heggie, R. The link between the peel force of adhesive dressings and subjective discomfort in volunteer subjects. *Journal of Wound Care*, Vol 12, No 7, July 2003.
- 6 White R., A Multinational survey of the assessment of pain when removing dressings. *Wounds UK* 2008; Vol 4, No 1.

The Mölnlycke Health Care name and logo, Mepilex® Border AG, Mepilex® AG and Safetac® are registered trademarks of Mölnlycke Health Care AB. Gamlestadsvägen 3C, Göteborg, Sweden. ©2009 Mölnlycke Health Care. All rights reserved.

### Mepilex® Ag



 MÖLNLYCKE  
HEALTH CARE

CA043061003EN