FALL 2013
VOL.11 NO.2

Wound Care CANADA

THE OFFICIAL PUBLICATION OF THE CANADIAN ASSOCIATION OF WOUND CARE

Diabetic Foot Canada
Addressing a Growing Issue

Prevention and Management of Intertrigo

CSWD Education for Frontline Nurses

Canadian Association of Wound Care
Association canadienne du soin des plaies

Special pre-conference issue

Contents

Wound Care CANADA

Volume 11, Number 2 · Fall 2013
ISSN 1708-6884

Editor Sue Rosenthal
wcceditor@cawc.net

Art Director Robert Ketchen
wccproduction@cawc.net

Publisher Douglas Queen

Advertising Sales David Stein
416-419-3020 · david@cawc.net

Wound Care Canada is published by 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 writers 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 writers. No responsibility is assumed by the publisher or publishing partners for any information, advice, errors or omissions contained herein.

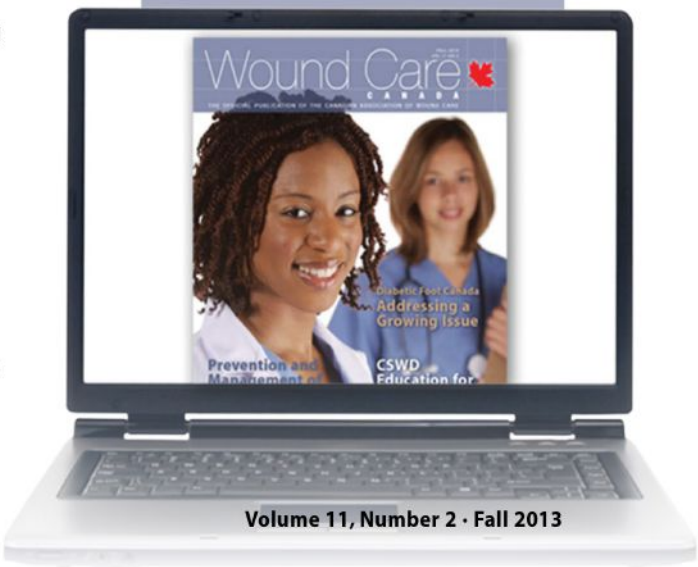
The inclusion of advertising and sponsored material in *Wound Care Canada* does not constitute a guarantee or endorsement of any kind by the Canadian Association of Wound Care.

The Canadian Association of Wound Care (www.cawc.net) is a non-profit organization of health-care professionals, industry participants, patients and caregivers dedicated to the advancement of wound prevention and 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.

Don't Miss Out

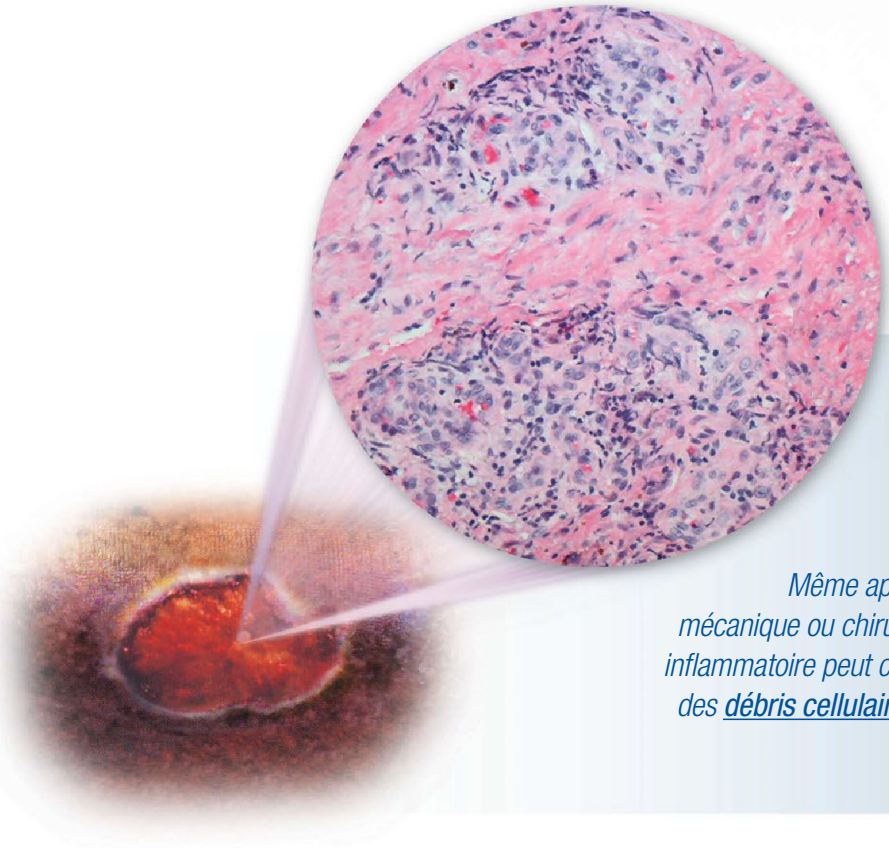
Each time a new issue becomes available, subscribers will be notified by an email that contains a live link to the online magazine. If you are not already a subscriber, just send an email to celine@cawc.net to get on the list. It's free!



When wounds are trapped in the inflammatory phase, debridement is not complete…

Lorsque les plaies sont piégées dans la phase inflammatoire, le débridement n'est pas complet…

Break the Cycle • Brisez le cycle



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

Même après un débridement mécanique ou chirurgical, le processus inflammatoire peut continuer de générer des ***débris cellulaires microscopiques***

- Collagenase SANTYL® Ointment selectively targets collagen without harming healthy tissue
- Continuous, active micro-debridement with SANTYL® Ointment can help wounds progress from the inflammatory to the proliferative phase of healing

Visit **www.santyl.ca** for more details.

- L'onguent SANTYL® avec collagénase cible le collagène de manière sélective sans endommager les tissus sains
- Le microdébridement actif continu avec l'onguent SANTYL® peut aider les plaies à progresser de la phase inflammatoire à la phase proliférante de guérison

Visitez **www.santyl.ca** pour plus de détails.

Occasional slight transient erythema has been noted in surrounding tissue when applied outside the wound. One case of systemic hypersensitivity has been reported after 1 year of treatment with collagenase and cortisone.

Use of Collagenase SANTYL® Ointment should be terminated when debridement is complete and granulation tissue is well established.

Please see complete Prescribing Information on adjacent page.

On a noté un érythème occasionnel et léger sur les tissus environnants lorsque l'application de l'onguent dépasse le pourtour de la plaie. Un cas d'hypersensibilité systémique a été rapporté après un an de traitement à la collagénase et à la cortisone.

L'utilisation de l'onguent SANTYL® avec collagénase devrait être cessée lorsque le débridement est complété et que la granulation est bien entamée.

Veuillez consulter l'information posologique complète sur la page adjacente.

Collagenase Santyl®
Ointment 250 units/g

The Continuous, Active Micro-Debrider

1-800-441-8227 **www.healthpoint.com**

Distributed in Canada by Healthpoint Canada ULC
SANTYL is a registered trademark of Healthpoint, Ltd.
Healthpoint design is a registered trademark of Healthpoint, Ltd.

Distribué au Canada par Healthpoint Canada ULC
SANTYL est une marque de commerce déposée de Healthpoint, Ltd.
Le design Healthpoint est une marque de commerce déposée de Healthpoint, Ltd.

 IN1126-0310

Collagénase Santyl®
Onguent 250 unités/g

L'agent de microdébridement actif continu

Collagenase Santyl®

Ointment 250 units/g

Supports natural healing

DESCRIPTION: Santyl® (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® (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® (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 affected 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® (collagenase) ointment is applied. Soaks containing metal ions or acidic solutions such as Burow'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 granulation 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® (collagenase) ointment has been allowed, either by application of the ointment to areas of normal skin or by excessive application of 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® (collagenase) ointment constitute the only symptoms of overdosage reported. **Treatment:** Santyl® (collagenase) ointment can be rendered inert by the application of Burow'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® (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® (collagenase) ointment should be discontinued until remission of the infection. **(3)** Santyl® (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® (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®

A DFB COMPANY

1-800-441-8227

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

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

Collagénase Santyl®

Onguent 250 unités/g

Favorise la guérison naturelle

DESCRIPTION : Santyl® (collagénase) onguent est un agent de débridement topique stérile enzymatique qui renferme 250 unités de collagénase par gramme de pétrolatum blanc U.S.P. L'enzyme collagénase est dérivée de la fermentation de *Clostridium histolyticum* possédant le pouvoir unique de digérer de manière sélective le collagène aussi bien naturel que dénaturé qui lie les fibres nécrosées à la surface de la plaie.

PHARMACOLOGIE CLINIQUE : Santyl® (collagénase) a la capacité de digérer le collagène insoluble, non dénaturé et dénaturé, par clivage de la liaison peptidique à un pH et à une température physiologiques. Cette caractéristique le rend particulièrement efficace dans l'élimination des déchets des lésions dermiques favorisant ainsi la formation du tissu de granulation et l'épithélialisation ultérieure des zones dermiques ulcérées et gravement brûlées. Le collagène des tissus sains ou du nouveau tissu de granulation n'est pas digéré.

INDICATIONS : Santyl® (collagénase) est un onguent stérile indiqué pour le débridement des zones dermiques ulcérées ou gravement brûlées.

CONTRE-INDICATIONS : L'application est contre-indiquée chez les patients ayant présenté une hypersensibilité locale ou systémique à la collagénase.

MISE EN GARDE : Les patients atteints de conditions débilitantes doivent être surveillés étroitement pour éviter la généralisation des infections bactériennes. Les enzymes de débridement augmenteraient le risque de bactériémie.

PRÉCAUTIONS : Le pH optimal de l'enzyme est de 6 à 8. Un pH nettement inférieur à un effet nettement adverse sur l'action de l'enzyme et des précautions appropriées doivent alors être prises. L'action de l'enzyme est également contrariée par les détergents, l'hexachlorophène et les ions de métaux lourds, comme le mercure et l'argent, présents dans certains antiseptiques, et par le cobalt, le magnésium et le manganèse. Quand on soupçonne l'utilisation de ces produits, la zone affectée doit être soigneusement nettoyée par des lavages répétés avec une solution saline avant l'application de l'onguent Santyl® (collagénase). Les bains contenant des ions de métaux ou des solutions acides comme la solution de Burow doivent être évités en raison de l'ion métal et du faible pH. Les solutions nettoyantes comme l'eau oxygénée ou la solution de Dakin suivie d'une solution stérile saline n'entravent pas l'action de l'enzyme. L'application de l'onguent doit se limiter à la zone affectée pour éviter le risque possible d'irritation ou de macération de la peau saine. Cependant, l'enzyme n'altère pas le nouveau tissu de granulation. Un érythème bénin dans le tissu avoisinant pourrait se produire. Cela peut facilement être évité en protégeant la peau saine avec un produit comme de la pâte d'oxyde de zinc. Compte tenu de la nature protéique de l'enzyme présent dans le médicament, son emploi prolongé pourrait amener une sensibilisation.

EFFETS SECONDAIRES : Bien qu'aucune sensibilité allergique ni réaction toxique n'aient été notées à ce jour dans les compte rendus d'études, on a signalé un cas de manifestations systémiques d'hypersensibilité chez un patient traité pendant plus d'un an avec une association de collagénase et de cortisone. On a noté de l'irritation, de la macération ou de l'érythème dans le cas de contact prolongé de la peau normale avec l'onguent Santyl® (collagénase), soit par application de l'onguent sur les régions normales de la peau, soit par application excessive de l'onguent dans le cratère de la plaie, permettant à celui-ci de s'étendre à la peau normale lors de l'application des pansements. L'incidence signalée de ce type de réaction était de 1,8%.

SYMPTÔMES ET TRAITEMENT DU SURDOSAGE: Symptômes: Jusqu'ici, l'irritation, la macération ou l'érythème signalés en cas de contact prolongé de la peau saine avec l'onguent Santyl® (collagénase) représentent les seuls symptômes signalés de surdosage. **Traitement :** On peut rendre l'onguent Santyl® (collagénase) inerte en appliquant la solution de Burow U.S.P. (pH 3.6-4.4) sur la plaie. La réapplication du produit, si elle est considérée nécessaire, ne se fera qu'avec prudence.

POSOLOGIE ET ADMINISTRATION : Pour usage externe seulement. L'onguent Santyl® (collagénase) doit être appliqué une fois par jour ou plus fréquemment si le pansement se souille (à cause d'incontinence par exemple) de la façon suivante : **(1)** Avant application, les lésions doivent être nettoyées doucement avec une gaze saturée d'une solution stérile saline normale pour enlever toute pellicule et toute matière digérée. Si l'on a besoin d'une solution nettoyante plus puissante, on peut utiliser de l'eau oxygénée ou de la solution de Dakin suivie de solution stérile saline normale. **(2)** En cas d'infection, révélée par la présence de cultures positives, de pus, d'une inflammation ou d'une odeur, il serait souhaitable d'employer un agent antibactérien approprié. Il faut interrompre le traitement au Santyl® (collagénase) jusqu'à rémission de l'infection, si l'infection ne se résorbe pas. **(3)** Appliquer Santyl® (collagénase) directement sur les blessures profondes à l'aide d'un abaisse-langue ou d'une spatule. Pour les plaies superficielles, appliquer l'onguent sur une compresse non adhérente ou un pansement transparent à être déposée sur la plaie; puis recouvrir d'un pansement approprié tel une compresse de gaze stérile adéquatement retenue. **(4)** L'utilisation d'un pansement occlusif ou semi-occlusif peut favoriser le ramollissement de l'escarre, le cas échéant. Ou, si l'on hachure une escarre épaisse à l'aide d'une lame numéro 11, on peut accélérer le débridement. Nettoyer alors avec une solution saline stérile. Il est également souhaitable d'enlever autant de détritus lâches que possible à l'aide de pinces et de ciseaux. **(5)** Enlever tout excès d'onguent à chaque renouvellement du pansement. **(6)** Arrêter les applications de l'onguent Santyl® (collagénase) dès que le tissu nécrosé est suffisamment débridé et que le bourgeonnement est bien entamé.

PRÉSENTATION : Disponible en tubes de 30 grammes d'onguent. Stérile dans l'emballage non ouvert. Aucun agent de conservation. Ne pas entreposer au-dessus de 25°C.

Monographie du produit sur demande.

Mis en marché par

HEALTHPOINT®

UNE COMPAGNIE DE DFB

1-800-441-8227

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

DIN 02063670
No de commande
0064 5011 30 (tube de 30 g)

Welcome to *Wound Care Canada* 2.0!

During the summer I was asked by Peggy Ahearn, Executive Director of the CAWC, to return as editor of *Wound Care Canada* (WCC) after an absence of three-and-a-half years. Founding this magazine in 2002 was one of the highlights of my career and I am delighted to be back. I'm also pleased that we are moving WCC 1.0 into a new phase.

This issue—and all others to follow—is available only online. With over 7,000 subscribers, WCC was expensive to print and mail, so converting to an online-only version is a logical way to eliminate these two costs. And not only have we freed up financial resources, we have also reduced our carbon footprint considerably.

Here are some other features you can expect from WCC 2.0.

The Content

The magazine is designed to take the latest evidence-based information and summarize it online in a reader-friendly format. It will provide a variety of topics and types of articles to appeal to a wide spectrum of interests and levels of experience. Writers for the magazine will be encouraged to keep in mind three underlying principles when formulating how best to present their information: best evidence, ease of reading and applicability to practice. Articles must always answer the question "how can I use this information in my practice?"

As you read through this issue you'll notice the articles are all fairly short. Here and in the future, long articles will be summarized in the magazine itself with links to a more in-depth version on the WCC website (www.woundcare canada.ca). This will keep the readability level high while still providing deeper insights to those who seek them.

The Look

When redesigning WCC as an online-only publication, Art Director Robert Ketchen and I worked together closely to make every type of page readable and eye-catching. This involved selecting and testing a range of font families and sizes, colours and even the amount of white space necessary to make each page "breathe." Through the use of sidebars and colour, the design not only adds to the eye-appeal of the content but also enhances the meaning of the information and makes it easier to remember the key points.

The Team

As you can imagine, an undertaking like this requires the input of a lot of people.

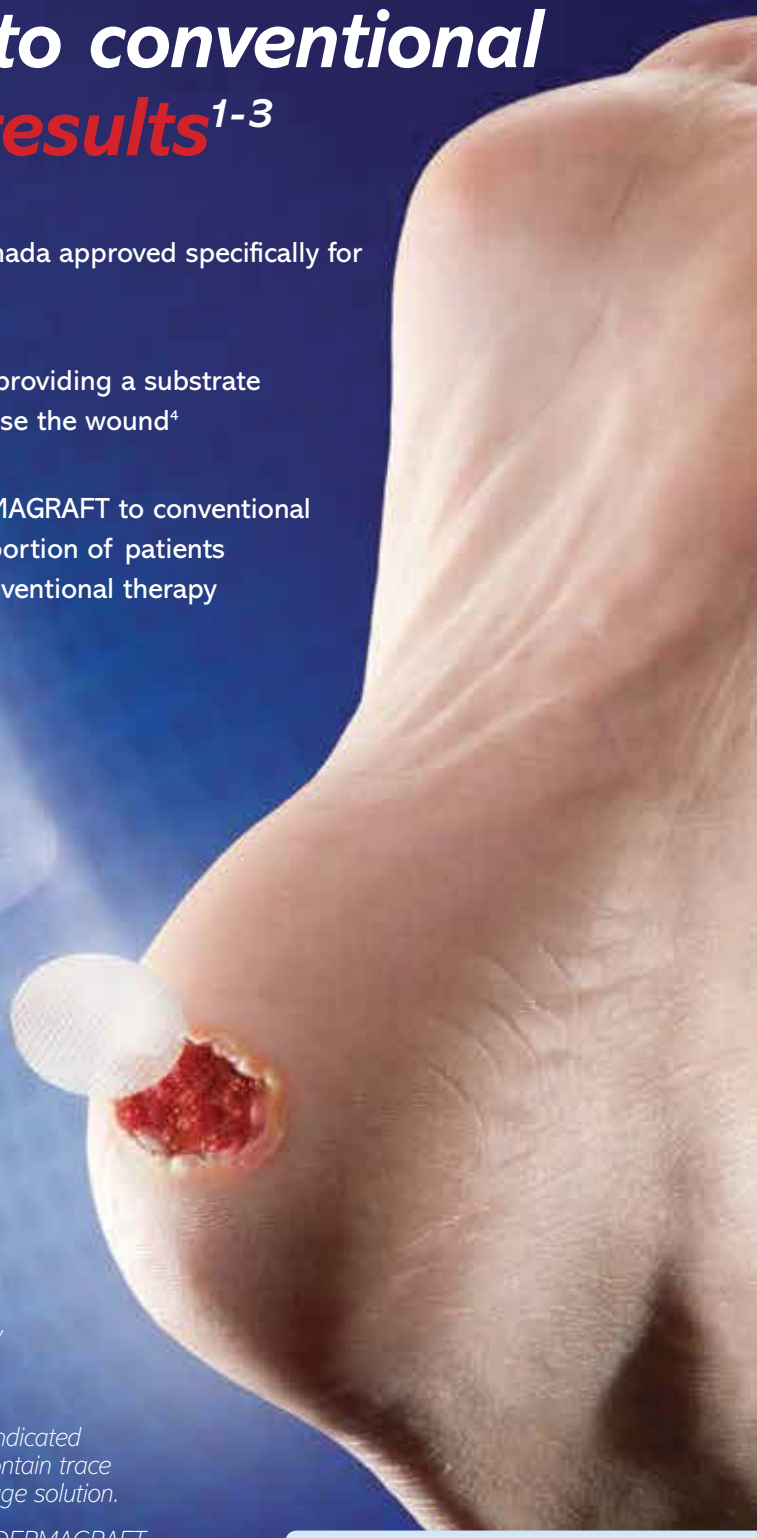
- Our writers are people just like you: clinicians and educators who successfully solve problems every day. Because of their experiences, they have information they can share with their community through the magazine. All it takes is a quick email to me (wcceditor@cawc.net) with an idea or proposal to get the ball rolling.
- The Clinical Advisor and Editorial Board members make sure the articles meet our high standards for evidence-based, best-practice-focused information.
- The Art Director makes design decisions, lays out each issue and manages production details.
- Additional editors assist me with the copy-editing and proofing functions.
- The financial driver of any enterprise of this type is the support of our advertisers—and therefore the role of ads sales is a crucial part of putting together every issue.
- CAWC staff provide administrative support; volunteers contribute in various ways.

And of course there is the feedback provided by readers, who come up with great ideas for articles and suggestions for improvement. Please feel free to drop us a note at wcceditor@cawc.net and let us know what you think about our first issue of *Wound Care Canada* 2.0. We'd love to hear from you!

— Sue Rosenthal, Editor

Add DERMAGRAFT to conventional therapy for proven results[1-3]

- Human fibroblast-derived dermal substitute Health Canada approved specifically for diabetic foot ulcers >6 weeks duration[1,3]
- DERMAGRAFT helps to reestablish the dermal bed by providing a substrate for the patient's own epithelial cells to migrate and close the wound[4]
- In a Phase III randomized controlled trial, adding DERMAGRAFT to conventional therapy resulted in a 64% relative increase in the proportion of patients achieving complete wound closure at 12 weeks vs conventional therapy alone (30% vs 18%, *P*=0.023)[1,2]
- Well-established safety profile[1,2,5]



Dermagraft®
Human fibroblast-derived dermal substitute

DERMAGRAFT is indicated for use in the treatment of full-thickness diabetic foot ulcers greater than 6 weeks duration, which extend through the dermis, but without tendon, muscle, joint capsule, or bone exposure. DERMAGRAFT should be used in conjunction with standard wound care regimens and in patients that have adequate blood supply to the involved foot.

DERMAGRAFT is contraindicated for use in ulcers that have signs of clinical infection or in ulcers with sinus tracts. DERMAGRAFT is contraindicated in patients with known hypersensitivity to bovine products, as it may contain trace amounts of bovine proteins from the manufacturing medium and storage solution.

The most frequently reported adverse events (>5%) experienced by DERMAGRAFT-treated patients in the pivotal trial were infection, accidental injury, skin dysfunction/blister, flu syndrome, osteomyelitis, surgeries involving study ulcer, wound enlargement/skin ulcer, cellulitis, and peripheral edema/localized swelling.

Please see DERMAGRAFT Directions for Use at www.dermagraft.ca.

Customer Support

www.dermagraft.ca
1-877-DERMAGRAFT
or 1-877-337-6247

References: 1. DERMAGRAFT Directions for Use. Shire Regenerative Medicine. 2013. **2.** Marston WA, et al. *Diabetes Care.* 2003;26(6):1701-1705. **3.** Health Canada - Medical Devices Active Licence Listing Website. http://webprod5.hc-sc.gc.ca/mdll-limh/index-eng.jsp. Accessed April 29, 2013. **4.** Roberts C, et al. *Can J Plast Surg*. 2002;10(suppl A):6A-13A. **5.** Data on File-021.

Shire

CAWC Update

By Greg Archibald, MD, CCFP, FCFP, President, CAWC

For the CAWC, 2013 has been a year of collaboration and innovation. Our network of partners has expanded exponentially and includes a number of like-minded groups:

- Canadian Diabetes Association
- Registered Nurses' Association of Ontario
- The Canadian Association for Enterostomal Therapy
- The Ontario Woundcare Interest Group
- MEDEC
- Wound Care Alliance Canada
- Regroupement Québécois en Soins de Plaies (RQSP)
- Public Health Agency of Canada
- Local Health Integration Networks of Ontario
- Ontario Hospital Association
- iMD
- BestLifeRewarded
- Memorial University, St John's, NL
- Industry partners, who make everything we do possible through their generous support

In a special and unique category are our program faculty members. They dedicate their time and expertise to ensure that we deliver evidence-based, practical, leading-edge information.

Working together with all our partners, we can positively impact outcomes in wound care across Canada.

Through collaboration and support with and from these groups, we have been able to expand our programs and become more innovative in our approaches. Our online modules called "Foundations of Wound Care in Just Four Steps" have reached a large audience not accessible through live events.

Earlier this year, our Strategic Forum program brought together a number of companies new to Canada and with new information to share with a panel of experts. Positive feedback was received from both groups on the "win-win" of this event.

In September, we worked with the Professional Development Department of the Faculty of Medicine of Memorial University to organize an accredited symposium that combined wound care and dermatology. This new format received high marks from all attendees due to the expertise of our panel and the enthusiasm of Memorial staff. We see this as a model for future programs in 2014. Please see "Bringing Wound Care Knowledge to Newfoundland" on page 12 for more on this event.

Our innovative approach continues into our 2013 Annual Conference being held in Vancouver, BC. Chaired by our treasurer, Christine Pearson, the program offers as always a wide variety of topics and formats. We will open with a light-hearted message from Roman Danylo that will set the stage for enjoyment as well as education. Don't miss—for the first time—our electronic poster library. There will be over 100 posters to view on a wide variety of topics. Come, learn, network and enjoy Canada's most beautiful city. For more on what to expect at this year's conference, please see **"**From Innovation to Action: The Future of Wound Care Is Now**"** on page 8.

As always, our work is geared to achieving our mission of improving the lives of Canadians with wounds and working with all health-care professionals to reach this goal. Our programs are all designed with this end point in mind.

Our management team, Peggy Ahearn, Douglas Queen, Mariam Botros and David Stein, are pleased to be part of such an important initiative. We also extend a warm welcome back to Sue Rosenthal who rejoins us as Editor of *Wound Care Canada*.

We are now planning for 2014 and looking toward more collaboration and innovation. As we begin our 20th year, we feel that we have accomplished much, but we are on the cusp of much more.

As always, we appreciate the support of our members and look forward to seeing you in Vancouver in November.

CAWC Conference

From Innovation to Action: The Future of Wound Care Is Now

The 19th Annual Conference of the CAWC is being held in the beautiful city of Vancouver, November 7–10, 2013. The venue is the Sheraton Wall Centre, located in the heart of downtown with easy access to all amenities.

This year's theme will focus on innovations in wound care and will cover developments in all areas of wound management, for all levels of expertise and over all disciplines. Wound care has made great strides in the last two decades—from the discovery of the benefits of moist wound healing and the development of advanced wound products to the advent of today's biologics that target specific cellular actions.

As always, our conference faculty will include key opinion leaders from across North America who are highly qualified to share their expertise and clinical experience. The roster of experts is interprofessional, representing members of the teams who provide care in community, long-term- and acute-care settings.

Starting Off Right

The program will start on an upbeat note with a presentation from Roman Danylo. Roman is a comedian and improvisation actor who uses humour to deliver important messages. Roman stars in the CTV network program Comedy Inc. and is a master of a number of characters including Vlad the Russian romantic and Ken Shawn of WFTO news. He also loves to involve audience members in his skits, so be prepared! We want everyone to start the conference in a great mood, ready to learn and share.

It was once said that as much education takes place in the coffee line as in the lecture hall, and at the CAWC we believe that networking and having fun are important parts of the conference experience. Come to connect with existing and new colleagues and friends.

In Vancouver, there's so much to see and do that we are providing information kits about the city. Shopping and restaurants are world class, and Stanley Park is a short distance away for the fitness buffs and nature lovers.

The Sessions

Our ever-popular Foundations of Wound Care stream will once again offer an introduction to wound care. After attending all

four sessions, participants will receive a certificate of completion from the CAWC.

For more advanced practitioners there are a number of sessions in wound research, atypical wounds, lymphedema, biofilms and much more.

Our plenary sessions will cover a wide range of topics from wound care biochemistry to wound care challenges in underserviced areas of Mexico. Come and find out how wound care is delivered in settings with few resources.

All sessions are highly interactive, and CME credits are available for family physicians.

There's More

This important event would not be possible without the support of our corporate sponsors. Our exhibit hall and sponsored sessions give participants an opportunity to be updated on new products and services. The exhibitor reception and opening on Friday afternoon is also a highly anticipated part of the program and enjoyed by both registrants and our industry partners. Each year, there are new and different products and creative ways to display them.

Another innovation this year is the Poster Library. All posters are digital and will be available for viewing on large screens in the Library or in the computers provided in the Cyber Café.

As we did last year, we are making strides to "go green." The syllabus and posters will be provided to all registrants on an E stick that will be included in registration kits. This is our way to save paper and the environment and to not burden attendees with a lot of material to carry home. Our "Program at a Glance" will be provided in hard copy.

And don't miss the Post Conference Workshops! These small-group, hands-on programs provide practical instruction on some of the key areas in day-to-day practice. They are presented by experts in each area in a relaxed, highly interactive format.

Mark Your Calendars!

As always, the CAWC annual conference is the highlight of the year for those of us who are passionate about wound care. A great venue, innovative topics, key opinion leaders and lots of opportunity to network make this event a necessity in planning your wound care agenda for 2013.

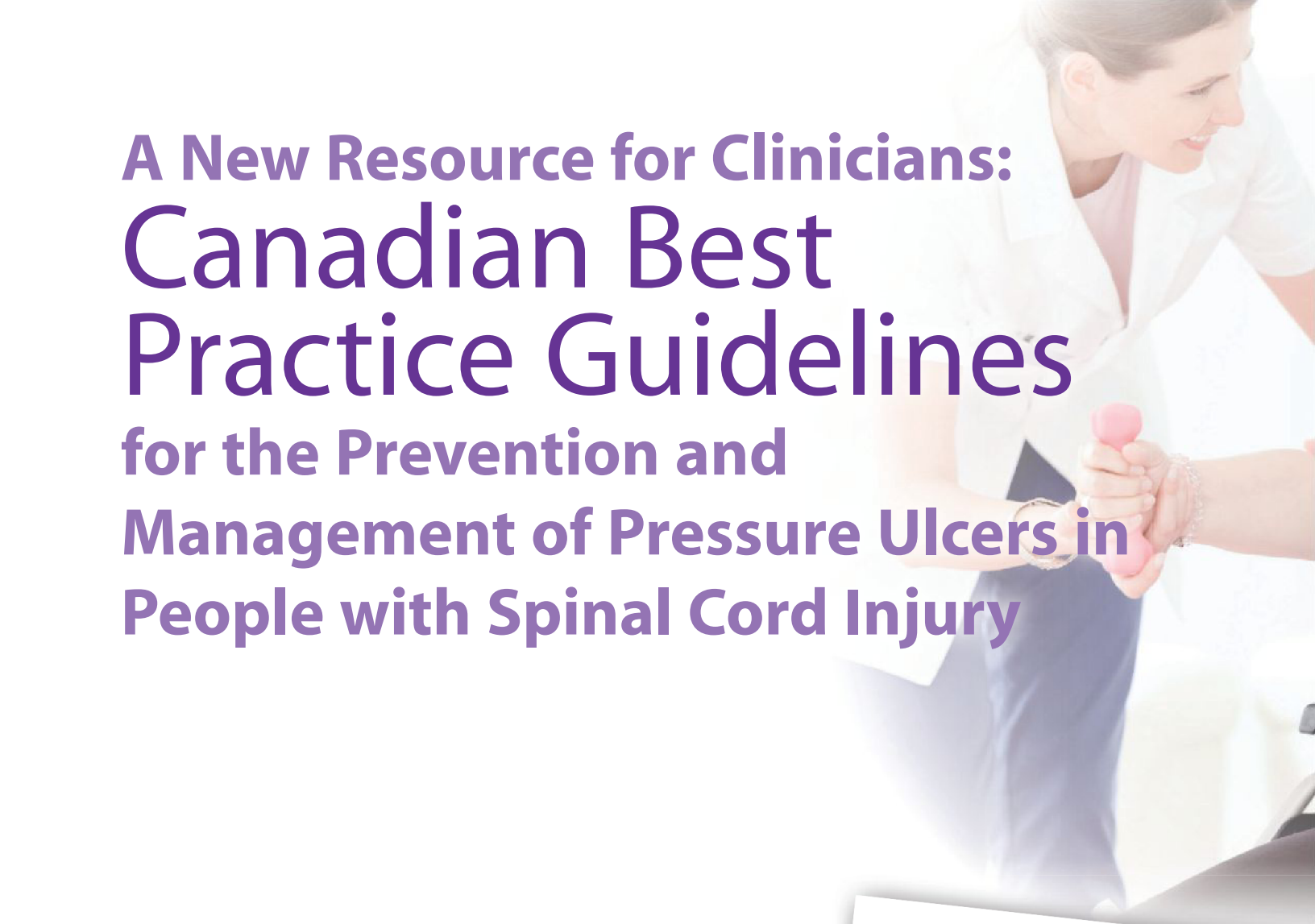
Program Planning Committee

Christine Pearson RN, IIWCC *(chair)*
Virginia Salter RN, IIWCC
Anna Slivinski RD
Joyce Rose RN, IIWCC
David Wilson MD, CCFP
Joel Gagnon MD, FRCSC

A New Resource for Clinicians:

Canadian Best Practice Guidelines

for the Prevention and Management of Pressure Ulcers in People with Spinal Cord Injury



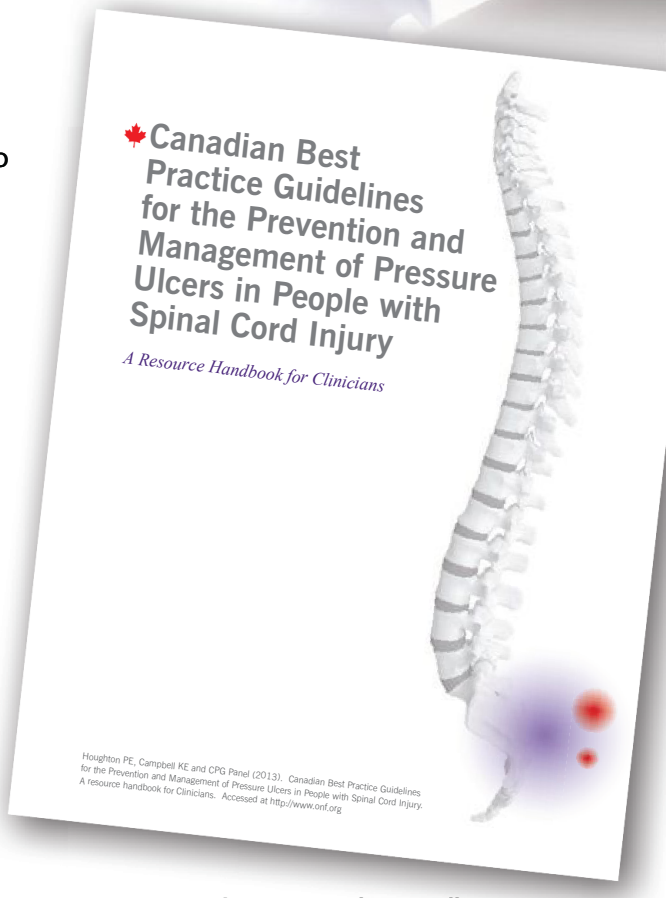
The first-ever Canadian-based best practice guideline (BPG) for people with pressure ulcers and spinal cord injury (SCI) is now available online.

There is a tremendous need to improve the care of these largely preventable complications of SCI so that fewer people are affected and those who are affected are impacted for the shortest time possible. The collation of the most recent information into a BPG provides one of the first comprehensive resources to serve a need for all professionals working with people who have SCI.

About the BPG

This BPG represents the culmination of over two years of work by an interprofessional team of authors that includes a physician, nurses, consumers, an occupational therapist, a physical therapist, registered dietitians, and an engineer.

The authors have compiled information from several existing evidence-based sources



including Spinal Cord Injury Rehabilitation Evidence (SCIRE), several recently completed best practice guidelines for pressure ulcer treatment (RNAO, CAWC and EPUAP/NPUAP) and the previous document produced by the Consortium for Spinal Cord Medicine in 2000.

can be applied to people with SCI. Where the authors felt the situation was unique for people with SCI, new sections have been written. In the new sections, the authors looked to the research evidence that was collated in SCIRE and added practices that are more empirically based.

"We hope this guideline provides a comprehensive approach to skin and wound care for the SCI population and will ultimately help prevent and better manage pressure ulcers in this unique group of people."
— Project leaders Pamela Houghton, PT, PhD, and Karen Campbell, RN, MScN, PhD

This BPG resource is meant to update SCI-specific guidelines related to pressure ulcers and to identify areas in existing guidelines in wound care that

Quick Facts on PUs in People with SCI

- Pressure ulcers are one of the most common complications affecting people living with spinal cord injury.
- The majority of people with SCI will have at least one pressure ulcer at some point post-SCI injury.
- The impact on the quality of life of people who develop a pressure ulcer is substantial, significantly interfering with the ability to participate in daily activities and occupation.
- Some people with SCI have described the experience of a pressure ulcer as being as impactful on their lifestyle as was the original spinal cord injury.

How to Get and Implement the BPG

The guideline is available for free download from the Ontario Neurotrauma Foundation at http://onf.org/system/attachments/168/original/Pressure_Ulcers_Best_Practice_Guideline_Final_web4.pdf.

The authors recommend that clinicians select a section or a few recommendations (preferably the ones with a higher level of research evidence) and tailor them to the local setting for implementation. Doing so will support clinicians who choose to introduce best practices into their local practice setting.

News in Wound Care

Canadian Association of Wound Care / Association canadienne du soin des plaies

Bringing Wound Care Knowledge to Newfoundland

The Canadian Association of Wound Care was recently involved in bringing advanced wound care knowledge to heath-care professionals in St. John's, Newfoundland. Organized under the auspices of the Professional Development and Conferencing Services (PDCS, Faculty of Medicine) of Memorial University of Newfoundland and held at the Medical School on September 13 and 14, 2013, the inter-professional and interactive "Dermatology and Wound Care: New Perspectives that Influence Practice" program had more than 140 delegates in attendance. Delegates included family physicians, nurse practitioners, nurses, pharmacists and other health professionals from across Canada. For those unable to come to St. John's or register on those dates, the program was available live via webcast and archived for access at any time.

The conference featured both national and local guest speakers, including Greg Archibald, MD, CCFP, FCFP, from Dalhousie University, Halifax; Gary Sibbald, BSc, MD, FRCPC (Med, Derm), MEd, MACP, FAAD, MAPWCA, from the University of Toronto; Cathy Burrows, RN, BScN, MScCH, from Wound Prevention and Care, Halifax; Andy Hoar, CPed (C), QEII HSC, Halifax; Dr. Rebecca Law, Associate Professor from Memorial's School of Pharmacy (cross appointment to the Faculty of Medicine), St. John's; and Dr. Tracey Brown-Maher, a Dermatologist and Wound Care Specialist from Eastern Health, St. John's.

"Hosting an event which brings together a diverse health professional group such as this requires innovative planning and learning formats. By offering a range of formats including lectures, hands-on workshops, and interactive case studies, the program was a great success, and I believe our delegates have gained a lot of new and practical knowledge this weekend," said Fran Kirby, Director, PDCS.

Dr. Gary Sibbald was encouraged by the feedback he received from the weekend, and added, "I know the variety included within the program design meant that there was something useful for everybody over the day-and-a-half timeframe."

"I was extremely impressed with the enthusiasm of the participants over the conference," said Dr. Greg Archibald. Noting that the need for this type of activity is clear, he continued, "One family doctor astutely commented that they had never seen this material before and questioned its absence from undergraduate curriculum. I was able to assure her that advocacy is gaining momentum across the country, particularly in Nova Scotia where I practise, to embed it in schools of medicine and the health professions and to create provincial programming."

The Canadian Association for Enterostomal Therapy
Association Canadienne des Stomothérapeutes

Canadian Association for Enterostomal Therapy News

Submitted by Cathy Harley, Executive Director, CAET

The Canadian Association for Enterostomal Therapy (CAET) has just launched three new, innovative programs. "Find an E.T. Nurse" is designed to improve access to an ET nurse if

a patient is experiencing a challenging wound, ostomy and/or continence issue. And two online education courses have been added to our CAET Academy: The Management of Edema in Community Clients (with a focus on lymphedema) and Writing for Publication and Integrating Knowledge into Practice.

The "Find an E.T. Nurse" Program

Canada is one of the largest countries in the world, and with the country's vast geography and small number of enterostomal therapists, it may not always be easy to locate one. The CAET has developed an online program to assist the public and allied health-care professionals in locating an ET nurse by postal code or city anywhere in Canada. The aim is to support patient access to specialized ET nursing care in wound, ostomy and/or continence and strengthen the multidisciplinary approach to wound, ostomy and continence care.

You can access the "Find an E.T. Nurse" program through the CAET home page at www.caet.ca by clicking on the icon of a hand holding a magnifying glass that is made out of the CAET logo.

The Two New Courses

The CAET Academy, Canada's premier online academy for continuing education in wound, ostomy and continence, is pleased to announce the launch of two new courses.

The Management of Edema in Community Clients is a 13-week, online exploration of the best practices in edema management. This course is a must for any health professional working with clients living with or at risk for edema. Supported by an expert in lymphedema management and up-to-date written and visual resources, the course content includes challenges to the integration of lymphedema management into health care, basic anatomy and physiology, the identification of clients at risk, client assessment, edema management strategies and wound management.

The Writing for Publication and Integrating Knowledge into Practice is an eight-month course designed to support learners in creating a publishable clinical paper and to develop an educational enabler to support the translation of that clinical knowledge into practice. Supported by an expert in education and publishing, students will complete four assignments leading to the completion of an "almost ready for publication" article and an educational enabler that they can use in their own workplaces.

These courses are open to all health-care professionals who have an interest in these continuing education topics. For more information on the education programs available through the CAET Academy, please go to www.caetacademy.ca or contact Virginia McNaughton, Director, CAET Academy, at director@caetacademy.ca.

For further information on all CAET programs, please visit www.caet.ca or email office@caet.ca.

Dernières nouvelles du Regroupement Québécois en Soins de Plaies

Nous aimerions vous avertir que notre prochaine journée scientifique sera le 22 mars 2014 au Centre de conférences Delta de Trois-Rivières. Pour plus d'informations et pour vous inscrire, SVP visitez le www.rqsp.ca.

Latest News from the Regroupement Québécois en Soins de Plaies

We are pleased to announce our next scientific day: March 22, 2014, at the Delta Trois-Rivières Conference Centre. For more information and to register, please visit www.rqsp.ca.

The Launch of Diabetic Foot Canada:

An Initiative Aimed at Reducing the Burden of Diabetic Foot Complications

By Douglas Queen, BSc, PHD, MBA;
Mariam Botros, CDE, DCh, IIWCC;
Janet Kuhnke, RN, BSN, MS, ET

Diabetes is the fastest-growing medical condition in the country, affecting more than 2.7 million Canadians who currently live with this disease. The number of Canadians diagnosed with diabetes is predicted to rise at an alarming rate. The statistics for Canada's Aboriginal population are even more concerning, with rates three to five times higher than those of the general population.[1]

About 405,000 Canadians, or 15 per cent of those with diabetes, will develop a foot ulcer.[2]

Foot ulcers and other such diabetic complications are taking a growing, needless toll in lost limbs and lives. Diabetic foot ulcers have a considerable amount of negative impact on patients' psychological, social and physical well-being. Not only are they susceptible to chronic wounds, infections and delayed healing, thousands each year will face the depressing consequences of losing their limbs through amputation. It is arguable that 85% of these cases are preventable.[2,3]

Addressing the Issue

For two decades the Canadian Association of Wound Care (CAWC) has been leading the charge in wound treatment and prevention across Canada. To address the specific issue of complications in the diabetic foot, the CAWC is now heading a multi-partner initiative called Diabetic Foot Canada (DFC), working with several government bodies and not-for-profit organizations such as the Public Health Agency of Canada, Canadian Diabetes Association, Canadian Home Care Association, Canadian Federation of Podiatric Medicine, Registered Nurses' Association of Ontario and Ontario Hospital Association. DFC is focused solely on diabetic foot disease, with a strong tie-in to the important etiological issues of diabetes.

Did You Know

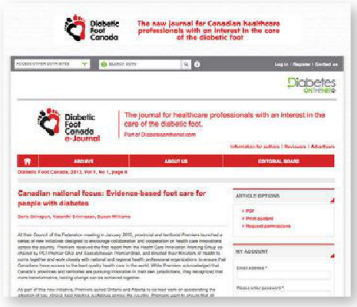
Individuals with diabetes are 23 times more likely to be hospitalized than someone without diabetes.[4]

With this singular focus and by aligning the interests of the Canadian diabetic foot community and multiple levels of governments, this initiative has the power to effect significant change in the prevention and treatment of diabetic foot ulcers across the country.

DFC Programs

Currently, Diabetic Foot Canada offers the following programs:

Diabetic Foot Canada Journal (DFCJ): An online, peer-reviewed quarterly targeted to health-care professionals, including nurses and physicians, who treat patients with diabetic foot ulcers. Article topics in the first issue include exploring the importance of the inter-professional team when caring for patients with diabetic foot ulcers, the impact and results of the addition of a bedside foot ulcer screening tool and an overview of RNAO's newly released second edition of a best practice guideline (BPG) related to the treatment and management of patients with diabetic foot ulcers. DFCJ is available at diabeticfootcanadajournal.com.



Diabetic Foot Canada – Stakeholder Community (VPN Social Portal): An electronic DFC community (a Facebook-like community for professionals) at www.diabeticfootcommunity.ca will allow people to connect with each other and access documents relevant to their work on preventing diabetic foot complications.

Workshops and master classes focused on diabetic foot complications: The highly interactive workshops are led by an interprofessional faculty that focuses on the prevention and management of diabetic foot complications. The goal is to deliver knowledge and attitude change around the assessment and planning of diabetic foot care in a more systematic approach. The College of Family Physicians of Canada has accredited this workshop for up to 5.75 Mainpro-M1 CME credits.

To arrange for a workshop in your area, contact Mariam Botros at botros.mariam@gmail.com. (See "A Workshop on the Prevention and Management of Diabetic Foot Complications" on page 26 for an overview of the inaugural event.)

CAWC Peer Education Program

PEP Talk: Diabetes, Healthy Feet and You: A peer-led, educational program on the prevention and management of foot ulcers consists of workshops led by trained volunteer peer leaders (living with diabetes and neuropathy) supported by health-care professionals, using technology such as a web portal and electronic reminders for community participants. To arrange for the PEP program in your area, contact Mariam Botros at botros.mariam@gmail.com.

Working Together

A key to success for DFC lies in the partnering that ensures a multidisciplinary perspective and a strong patient voice. As the initiative grows and additional partnerships are confirmed, other elements of research, policy and education will be added.

The initiative utilizes the latest technology, evidence and national teams of interprofessional experts to provide educa-

Did You Know

Diabetic Foot Canada is designed to be the national go-to program for online information and education for clinicians and patients in support of effective self-monitoring, early detection and prevention and treatment of costly and potentially life-threatening diabetic foot wounds among Canadians.

Did You Know

Foot complications in persons with diabetes cost the Canadian health-care system more than $150-million each year. With each new case of diabetes, the impact on the health-care system includes increases in emergency visits, complication rates, ulcerations, infections, amputations, dependence upon the help of others and an inability to work.[2]

tion, disseminate best evidence and educational tools and raise awareness of the importance of preventing diabetic foot complications and amputations. Ultimately, the goal of DFC is to improve the lives of persons with diabetes, improve quality outcomes and reduce health-care costs.

For more information about Diabetic Foot Canada, please visit diabeticfootcanada.com.

Parts of this article were adapted from an article written by Douglas Queen and Greg Archibald that was originally published in Hospital News *(July 2013). Reprinted with permission.*

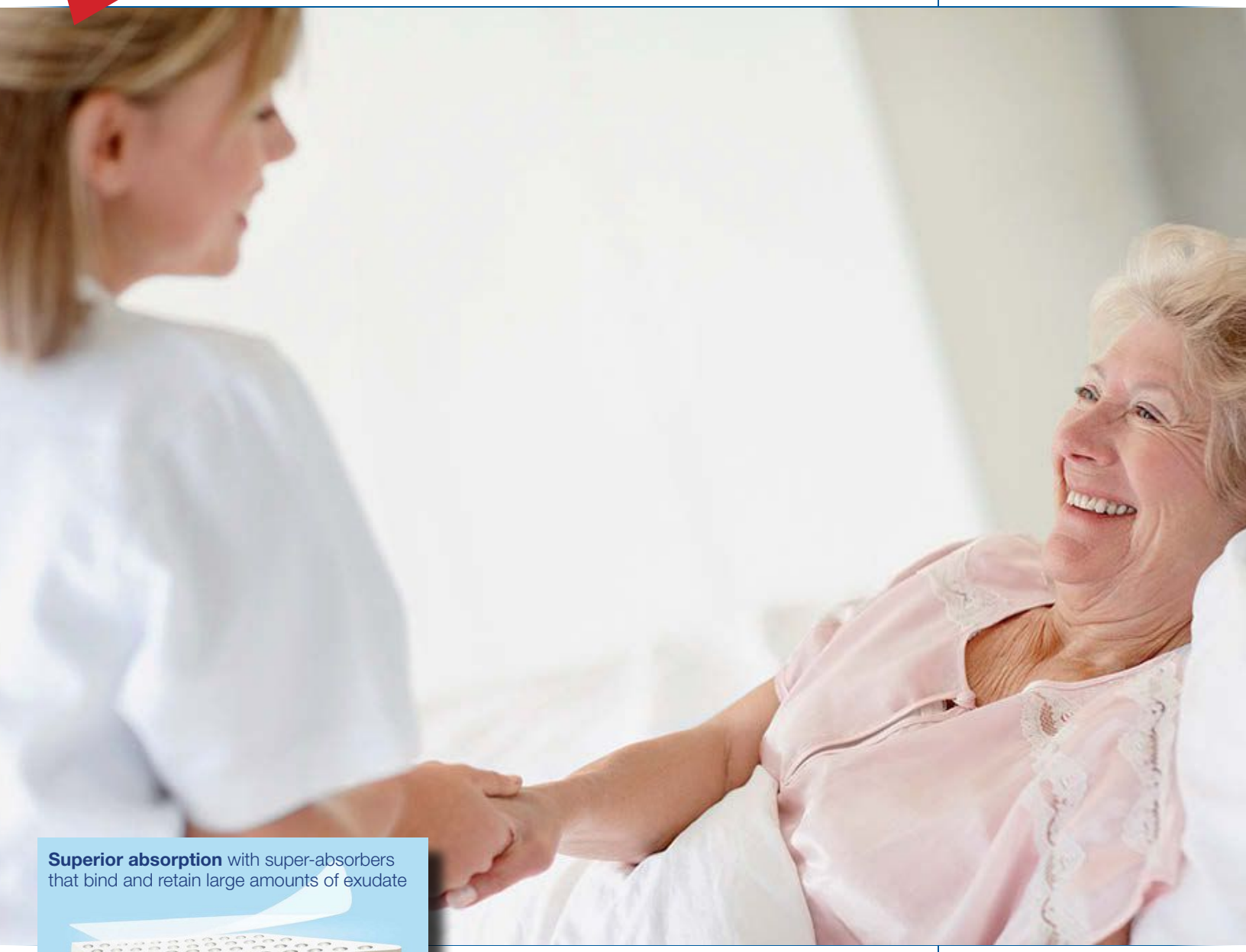
References

1. Canadian Diabetes Association, Clinical Practice Guidelines Expert Committee. Canadian Diabetes Association 2013 clinical practice guidelines for the prevention and management of diabetes in Canada. Can J Diabetes. 2013;37(Suppl 1): S1–S212.
2. The Council of the Federation, Health Care Innovation Working Group. From innovation to action: The first report of the Health Care Innovation Working Group [Internet]. Ottawa: Council of the Federation; 2012 Jul [cited 2013 Sep 28]. 28 p. Available from: http://councilofthefederation.ca/phocadownload/publications/health_innovation_report-e-web.pdf.
3. Media release: World Diabetes Day: Too many people are losing lower limbs unnecessarily to diabetes [Internet]. Geneva (SZ): World Health Organization; 2005 Nov 11 [cited 2013 Sep 28]. Available from: http://who.int/mediacentre/news/releases/2005/pr61/en/.
4. Canadian Association of Wound Care [Internet]. Toronto: Canadian Association of Wound Care; c 2013. Statistics; 2013 [cited 2013 Sep 28]. Available from: http://cawc.net/index.php/public/facts-stats-and-tools/statistics.

New!

Cutimed® Siltec

Foam Dressing with Super-Absorbers and Silicone Layer



Superior absorption with super-absorbers that bind and retain large amounts of exudate

Painfree and atraumatic dressing changes with its silicone layer

The Best of Two Worlds!

The **only** foam dressing with a silicone layer AND super-absorbers, demonstrated to be effective in managing exudate and increasing patient comfort*.

Contact us for a free product trial!

BSN medical

Customer Service 1-877-978-5526
www.cutimed.com

* B. von Hallern, A. Probst, M. Seubert, R. Thul. Multi-center study on the combined use of Cutimed® Sorbact® and Cutimed® Siltec, Medizin & Praxis Special Edition “Pressure Ulcer”, April 2012, 2-8.

Creating a Conservative Sharp Wound Debridement (CSWD) Education Program for Frontline Nurses

By Connie Harris, RN, ET, IIWCC, MSc

A recent research project involving the education, training and mentoring of frontline registered nurses (RNs) to perform conservative sharp wound debridement (CSWD) for clients with diabetic foot ulcers demonstrates that it is possible for individual organizations to create internal CSWD educational programs that meet both quality and risk standards and protect care outcomes.[1] This article outlines some of the factors that must be considered when developing and implementing such a program.

The debridement of necrotic, non-viable tissue in wounds and peri-wound callus is known as conservative sharp wound debridement. It plays an important function in the wound bed preparation paradigm[2,3,4,5] and in evidence-based best practice guidelines and recommendations for many wound types seen in community nursing, such as diabetic foot ulcers, venous leg ulcers, pressure ulcers and open surgical wounds.[6,7,8,9] Necrotic tissue in the wound bed serves as an area ideal for bacterial overgrowth and infection; it can contribute to protein losses in wound exudate and often delays healing. Thick peri-wound callus can increase plantar pressures by as much as 30% in diabetic foot ulcers, thereby preventing wound contraction and healing.[10,11,12]

Performed at the bedside or in the clinic setting, CSWD is considered the most aggressive form of debridement that can be performed by nursing. It is important to note that CSWD

may only be performed by nurses where it is included in the scope of practice for nursing as regulated by each province[13] and allowable only where organizational policy and procedures explicitly permit it.

A Gap in Practice

Despite the cost-savings demonstrated when CSWD is part of a best practice plan of care for diabetic foot ulcers[16] and in venous ulcers,[17] many community nursing agencies are not able to provide CSWD as part of their care delivery, or they may not be aware of what their nurses are actually doing. In a 2011 survey asking "How is CSWD being practised in Canada, by whom, under what authority, and what is their CSWD-specific educational preparation?"[18] almost 50% of respondent nurses who practise CSWD stated that their employing organization did not have policies around performing CSWD. Recent Canadian wound care conferences (Canadian Association of Wound Care in London, Ontario, 2012; Canadian Association for Enterostomal Therapy, Toronto, Ontario, 2013) provided well-attended interdisciplinary presentations on expanding the RN's role in CSWD, further helping to bring this topic into mainstream discussion.

Implementing Training

A wound care delivery model having frontline RNs perform CSWD as part of their regular visits has already demonstrated that it can be successful and cost-effective.[19] Aspects of this model were successfully replicated as part of a recent Red Cross Care Partners (RCCP) Registered Nurses Association of Ontario (RNAO) Best Practice Spotlight Organization (BPSO) research project, involving the education, training and mentoring of frontline RNs to perform CSWD for clients with diabetic foot ulcers—a key component of delivering evidence-based care for this population.[1] RCCP has recently expanded this model by initiating a phased-in training program for over 100 frontline nurses to be designated as wound resource nurses, and by providing education and assistance for CSWD in another organization in a collaborative manner.*

Setting up and administering an education program for CSWD requires several considerations,

*Specific information about the Red Cross Care Partners (RCCP) Registered Nurses Association of Ontario (RNAO) Best Practice Spotlight Organization (BPSO) research project is available in the article "The impact of sharp non-viable debridement by competent registered nurses in individuals with diabetic neurotrophic ulcers in the community sector."[1]

some of which are listed below. As with any program, regular updates are necessary to incorporate changing regulations, recent evidence and fiscal realities.

Legal and Organizational Considerations

Each provincial or territorial regulatory body for nursing has an individual scope of practice. Some clearly allow the performance of CSWD provided the nurse has the knowledge, skill and judgment necessary to assess the individual situation for risks and benefits. Some do not. However, other regulations in each province may prevent nurses from performing CSWD even when the college of nurses allows it. For example, some hospital and long-term-care acts may prevent a nurse from performing CSWD in their employing organization without a medical delegation or transfer of function.

Even in those employment situations where CSWD by nurses is allowed, high-level support and clear organizational policies and procedures that outline the educational and practice requirements for anyone performing CSWD must be present. Although individual organizations carry insurance for liability and risk, they may insist that each nurse carry his or her own personal professional liability insurance if they are going to perform CSWD. This expectation may soon become the norm in Ontario, as by March 31, 2014, liability insurance will be a requirement for any nurse to be registered with the College of Nurses of Ontario.

Content of the Education

There are two excellent, free, online resources to help determine the content of an educational program that aims to provide competence in CSWD. The Australian Wound Management Association (AWMA — www.awma.com.au/pages/competencies.php) outlines the educational content requirements needed by an organization seeking endorsement for accreditation. The Canadian Association for Enterostomal Therapy's Evidence-Based Recommendations for Conservative Sharp Wound Debridement document is available at www.caet.ca/caet-english/education.htm and provides clear organizational, policy and clinical recommendations supported by references and rationale.

Selection of Nurses

As in any sub-specialty of nursing, it is important to match the interest level, professional conduct and skills of the individual nurse to the prospective task. To find nurses to train in CSWD as part of the BPSO research project, nurse managers were asked to identify generalist nurses who had the following attributes so they might be trained to become wound resource nurses:

- is a critical thinker, with good problem-solving skills
- has an interest in holistic wound care; sees the client as more than the dressing change required
- is self-directed and willing to take initiatives
- acts as a strong advocate (champion) for evidence-based practices
- is recognized by peers as having leadership qualities
- demonstrates elements of collaborative practice

The RNAO BPSO study, although small in size, clearly brought forward two conflicting items of qualitative feedback from the nurses:

1. They all felt empowered to be able to provide CSWD and saw improvement in their clients' wounds because they were able to perform CSWD.
2. The intervention added at least 20 minutes to an hour per visit without any additional remuneration.[1]

With the majority of visiting nursing agencies within Ontario, for example, paying nurses on a per-visit rather than hourly basis, even the most dedicated nurse needs to be aware when agreeing to take on the expanded role of providing CSWD that visits take more time and may mean a loss of income if fewer visits are made.

Competencies for CSWD

The AWMA provides guidelines for the creation of competency assessment tools at www.awma.com.au/pages/competencies.php while Vowden and Vowden[20]

and Dowsett[21] provide very practical advice on what a nurse performing CSWD is expected to demonstrate, including some of the following:

- knowledge of all current organizational infection control practices
- access to adequate equipment, lighting and assistance
- capacity to explain the procedure and obtain informed consent
- good knowledge of relevant anatomy
- capability to identify viable tissue
- ability to manage pain and discomfort prior to, during and following the procedure
- knowledge and skill to deal with complications such as bleeding
- recognition of skill limitations and those of the technique
- ability to utilize secondary debridement techniques if needed

An example of a CSWD competency checklist can be found on page 24 and adapted for use.

Delivering the Education

Improvements to the education program following the conclusion of the initial BPSO project include aspects of the online components of education such as pre-learning reading of the seminal wound bed preparation article[1] and the 2011 updates, Parts 1 and 2[4,5] followed by an internally prepared online PowerPoint voice-over covering the physiology of wound healing, the anatomy of the skin and underlying structures.

The face-to-face components are delivered via PowerPoint and lecture, covering the following content:

- code of professional conduct and review of scope of practice
- purpose and types of CSWD
- other debridement methods
- working with other health professionals
- the psychological issues associated with wounds that contain necrotic and other non-viable tissue, their impact on the individual and their family/carers
- review of RCCP policy and procedure
- safe practice considerations
- understanding the consequences of not debriding a wound[22]
- client teaching and informed consent
- potential complications of CSWD
- contraindications
- why and when to debride; when to stop
- pain assessment and management regarding CSWD
- how to manage complications
- when to refer to physicians
- appropriate documentation of the wound pre- and post-procedure, including photography
- outlining a holistic plan of care, which includes provision for ongoing assessment, treatment and clear treatment

CSWD: To Do or Not to Do?

Two famous quotations serve as caveats around CSWD:

"Fools go where angels fear to tread"[14]

is for those individuals who proceed to use CSWD without legislation, policy, knowledge, skill and judgement to be competent or to determine the safety for the patient.

"A little neglect can breed great mischief"[15]

is for those who see necrotic tissue or thick peri-wound callus and do not ask for help.

objectives, as well as planning of frequency and extent of debridement

Participants then watch two videos[23,24] followed by a hands-on practicum using pigs' feet and candles to practise paring, shaving, scoring and removal of tissue, and to identify fascia, muscle, tendon, ligaments and bone. It is recommended that, if possible, organizations delivering this type of education engage a local surgeon or physician who performs sharp debridement to attend the first workshop to ensure safety and to build relationships with staff.

Mentoring

Each organization needs to determine who is best able to provide mentoring during hands-on skill acquisition. It may be a surgeon, an enterostomal therapy nurse or other wound care specialist, or a frontline nurse who is competent in CSWD with more than one year of experience, for example. The number of paid mentored visits should be adequate for the practitioner to feel competent and able to perform independently; this will depend in part on the complexity and variety of patients/clients requiring CSWD during mentored visits.

Documentation

Nurses performing CSWD should document, at the very least:

- client consent to treatment
- the area debrided
- the type of tissue
- the presence of any bleeding and effectiveness of measures used to control it
- the appearance of the wound
- any pain associated with the procedure
- the dressing applied, including a choice to move to an adjunctive or alternate method of debridement

All of these (except pain and wound appearance if using a quantitative scoring system such as the BWAT[25]) are qualitative rather than quantitative in nature. There is one quantitative system, the Saap/Falanga's Debridement Performance Index (DPI),[26] which was developed to evaluate the performance and adequacy of debridement in diabetic foot ulcers (DFUs). It includes the parameters of (a) removal of callus, (b) removal of ulcer's edge undermining, and (c) removal of wound bed necrotic or infected tissue. Although nurses would not be debriding viable ulcer edge where undermining exists, and it has not been validated for use in wounds needing CSWD other than DFUs, it is a place to start and it seems reasonable to use this score for any CSWD performed, to document what was assessed and what was or was not debrided. In order to support nursing actions and measure the outcomes of CSWD being provided, it is necessary to have concise documentation.

Conclusion

In the absence of a set of national standards and competencies for CSWD, and without a formal public education program that provides foundational education, hands-on learning and competency development, the BPSO project demonstrates that it is possible for organizations who wish to fully offer evidence-based, client-focused, quality care for chronic wounds to, with care and diligence, create an internal CSWD educa-

tional program that meets both quality and risk standards, and protects care outcomes.

Connie Harris *is the Senior Clinical Specialist Wound & Ostomy, Clinical Lead for Wound Outcomes-based Wound Pathways, Red Cross Care Partners, Waterloo, ON. Her email is connie.harris@redcrosscarepartners.ca.*

References

1. Harris CL, Harris A, Browne C, Byrnes B. The impact of sharp non-viable debridement by competent registered nurses in individuals with diabetic neurotrophic ulcers in the community sector. Diabetic Foot Canada. Manuscript submitted for publication 2013.
2. Sibbald RG, Williamson D, Orsted HL, Campbell K, Keast D, Krasner D, Sibbald D. Preparing the wound bed--debridement, bacterial balance, and moisture balance. Ostomy Wound Manage. 2000;46(11):14–22,24–8,30–5;quiz 36–7.
3. Schultz GS, Sibbald RG, Falanga V, Ayello EA, Dowsett C, Harding K, Romanelli M, Stacey MC, Teot L, Vanscheidt W. Wound bed preparation: a systematic approach to wound management. Wound Repair Regen. 2003;11(Suppl 1):S1–28.
4. Sibbald RG, Goodman L, Woo KY, Krasner DL, Smart H, Tariq G, Ayello EA, Burrell RE, Keast DH, Mayer D, Norton L, Salcido RS. Special considerations in wound bed preparation 2011: an update [Part 1]. Wound Care Canada. 2012;10(2):20–35.
5. Sibbald RG, Goodman L, Woo KY, Krasner DL, Smart H, Tariq G, Ayello EA, Burrell RE, Keast DH, Mayer D, Norton L, Salcido RS. Special considerations in wound bed preparation 2011: an update [Part 2]. Wound Care Canada. 2012;10(3):25–33.
6. Registered Nurses' Association of Ontario. Assessment and management of venous leg ulcers. Toronto (ON): Registered Nurses Association of Ontario; c2004–2007. 115p Available from: http://rnao.ca/sites/rnao-ca/files/Assessment_and_Management_of_Venous_Leg_Ulcers.pdf.
7. Registered Nurses' Association of Ontario. Assessment and management of stage I to IV pressure ulcers (revised). Toronto (ON): Registered Nurses Association of Ontario; c2002–2007. 115p. Available from: http://rnao.ca/sites/rnao-ca/files/Assessment__Management_of_Stage_I_to_IV_Pressure_Ulcers.pdf.
8. Registered Nurses' Association of Ontario (2013). Assessment and management of foot ulcers for people with diabetes. 2nd ed. Toronto (ON): Registered Nurses' Association of Ontario; c2013. 160p Available from: http://rnao.ca/sites/rnao-ca/files/Assessment_and_Management_of_Foot_Ulcers_for_People_with_Diabetes_Second_Edition1.pdf.
9. Orsted HL, Keast DH, Kuhnke J, Armstrong P, Attrell E, Beaumier M, Landis S, Mahoney JL, Todoruk-Orchard M. Best practice recommendations for the prevention and management of open surgical wounds. Wound Care Canada. 2010;8(1);6–34.
10. Young MJ, Cavanagh PR, Thomas G, Johnson MM, Murray H, Boulton AJ. The effects of callus removal on dynamic plantar foot pressures in diabetic patients. Diabet Med. 1992;9(1):55–57.,
11. Potter J, Potter MJ. Effect of callus removal on peak plantar pressures. The Foot. 2000;10(1):23–26.
12. Slater RA, Hershkowitz I, Ramot Y, Buchs A, Papoppart MJ. Reduction of digital plantar pressure by debridement and silicone orthosis. Diabetes Research and Clinical Practice. 200674(3):263–266.
13. Harris RJ. The nursing practice of conservative sharp wound debridement: promotion, education and proficiency. Wound Care Canada. 2009;7(1):22–30.
14. Pope A. (1688 - 1744) An essay on criticism. 1709.
15. Franklin B. (1706–1790). Available at: www.ushistory.org/franklin/quotable/quote69.htm.
16. Shannon R, Harris C, Harley C , Kozell K, Woo K, Alavi A, Boutros M, Kozody LL, Sibbald RG. The importance of sharp debridement in foot ulcer care in the community: a cost-benefit evaluation. Wound Care Canada. 2007;5(Supp 1):S51–52.
17. Shannon RJ. A cost-utility evaluation of best practice implementation of leg and foot ulcer care in the Ontario community. Wound Care Canada. 2007;5(Supp 1):S53–S56.
18. Rodd-Nielsen E, Harris CL. Conservative sharp wound debridement: an overview of Canadian education, practice, risk, and policy. J Wound Ostomy Continence Nurs. In Press 2013;40(6):1–9.
19. Harris C, Shannon R. An innovative enterostomal therapy nurse model of community wound care delivery: a retrospective cost-effectiveness analysis . J Wound Ostomy Continence Nurs. 2008;35(2):169–183.
20. Vowden K, Vowden P. Wound bed preparation. World Wide Wounds [Internet]. c1992–2001. 2002 Mar. [cited 2003 Feb. 23] Available from: www.worldwidewounds.com/2002/april/Vowden/Wound-Bed-Preparation.html.
21. Dowsett C. The role of the nurse in wound bed preparation. Nurs Stand.2002 Jul;16(44):69–72,74,76.
22. Baharestani M. The clinical relevance of debridement. In: Baharestani M, Gottrup F, Holstein P, Vanscheidt W, editors. The clinical relevance of debridement. Berlin: Springer-Verlag, 1999: Chapter 3.
23. Wethe JD, Sussman C, Fowler E. Sharp debridement videos: series of 3. 1996 Available through Sussman Physical Therapy Inc. Torrance, CA, 90505.
24. Steed DL. Debridement of a full thickness foot ulcer in the patient with diabetes [videocassette]. Johnson & Johnson. 1997.
25. Bolton L, McNees P, van Rijswijk L, de Leon J, Lyder C, Kobza L, Edman K, Scheurich A, Shannon R, Toth M. Wound-healing outcomes using standardized assessment and care in clinical practice. J Wound Ostomy Continence Nurs. 2004;31(2):65–71.
26. Saap LJ, Falanga V. Debridement performance index and its correlation with complete closure of diabetic foot ulcers. Wound Rep Reg. 2002;10(6):354–359.

Competency-based Conservative Sharp Wound Debridement (CSWD)

Mentoring includes a one-on-one practicum with a wound care specialist or wound CNS, until the individual and trainer feel that he/she is competent. The nurse who performs CSWD is expected to demonstrate the following competencies during mentored visits:

	Mentored Visits				Follow-up	
Competency	**1** ✓ or ✗	**2** ✓ or ✗	**3** ✓ or ✗	**4** (if needed) ✓ or ✗	**1** (if needed) ✓ or ✗	**2** (if needed) ✓ or ✗
Date:						
Maintain Red Cross Care Partners infection control practices.						
Access adequate equipment, lighting and assistance (if needed).						
Explain the procedure and obtain informed consent.						
Demonstrate a good knowledge of relevant anatomy.						
Identify viable tissue.						
Manage pain and discomfort prior to, during and following the procedure.						
Demonstrate acceptable skill and technique with CSWD.						
Recognize skill limitations and those of the technique.						
Deal with any complications such as bleeding (may be NA).						
Utilize secondary debridement techniques if needed.						
Document CSWD using RCCP forms.						
Outline a holistic plan of care for ongoing debridement.						

Signature/status of mentor for Mentored Visit 1: _____

Signature/status of mentor for Mentored Visit 2: _____

Signature/status of mentor for Mentored Visit 3: _____

Signature/status of mentor for Mentored Visit 4: _____

Signature/status of mentor for Follow-up Visit 1: _____

Signature/status of mentor for Follow-up Visit 2: _____

Achievement of Competency:

I have mentored this nurse for the _____ mentored visits and feel that he/she has demonstrated sufficient competency to perform independent CSWD.

Signature/status of mentor: _____

Signature of practitioner: _____ Date: _____

Your First Line of Defense against Wound Bioburden

HydroferaBLUE

Hydrofera Blue foam dressings are an effective option in managing wound bioburden that may help prevent infection.

- Broad spectrum antimicrobial activity: Effective against both gram negative and gram positive microorganisms commonly found in wounds, including MRSA, VRE, and candida.
- Cost-effective: In a 40 patient clinical trial,[1] wounds treated with Hydrofera Blue foam dressings healed on average 8 days faster than wounds treated with a nanocrystalline silver dressing, at a savings of 60 —71%.

Put Hydrofera Blue dressings on your team to help defend against infection.

To learn more visit Hollister.com
or call your Hollister Wound Care representative today.

Exclusively Distributed by: Hollister®

1.800.263.7400
www.hollister.com

[1] Patricia Conwell R.N., B.S., C.W.C.N., Lisa Mikulski R.N., B.S.N., Mark Tramontozzi M.D., F.A.C.S. A Comparison of Two Antimicrobial Dressings, A Randomized Prospective Trial Comparing PVA Foam with Two Organic Pigments to a Silver Based Wound Dressing

Hydrofera Blue dressings are not indicated for third-degree burns, and are not for use as an implant. If the dressing dries out, thoroughly moisten it with sterile saline or sterile water before removal. Regular evaluation and cleansing of infected wounds should be a common practice.

A Workshop on the

Prevention and Management of Diabetic Foot Complications

By Sue Rosenthal, BA, MA

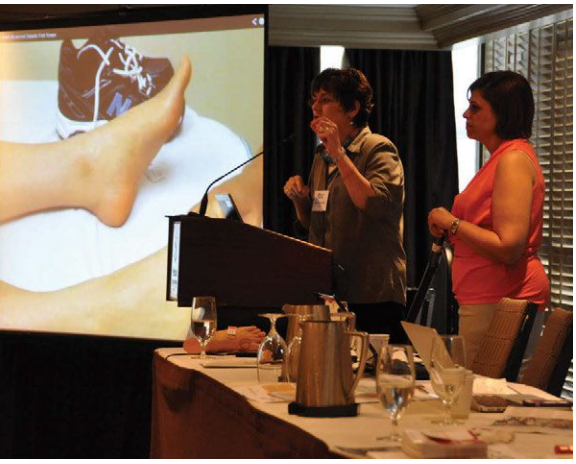
In the face of the staggering numbers of persons with diabetes in Canada, is there any way an individual can make a difference in the rates of foot ulcers and amputations? The answer is a resounding yes, as long as the individual has the knowledge and is part of a team, whether as a patient, caregiver or clinician. To bring this message home, Diabetic Foot Canada presented its first-ever Workshop on the Prevention and Management of Diabetic Foot Complications, on May 31, 2013, in Toronto, Ontario.

With disciplines representing nursing, chiropody, podiatry, family medicine, education, policy making and more, the 100-plus participants, some from as far away as Nova Scotia, spent the day-long session engaged in an interactive presentation that included expert commentary, small-group discussions and individual exchanges with industry representatives. The focus of the workshop was on supporting patient empowerment and the use of a team approach to prevent foot complications in persons with diabetes.

Over the course of the workshop, the topics ranged from a review of the risk factors that contribute to diabetic foot com-

plications to the design of effective prevention and treatment plans. A highlight of the day was the first-person account from a patient with diabetes on how he and his care team worked together to develop a plan that supports his self-management of diabetes and its potential complications.

The interprofessional team concept was reinforced by the make-up of the faculty: Mariam Botros (chiropodist), Robyn Evans (family physician), Bo Fusek (nurse educator), and Janet Kuhnke (ET nurse). Their interaction throughout the workshop clearly demonstrated that the collaboration of teams representing multiple disciplines, in both diabetes care and wound prevention and care, results in strong discussion and decision making, with each perspective adding valuable insight and different expertise.



Highlights

Throughout the workshop, faculty members outlined a substantial amount of specific information along with the role of the clinician in using the information and providing a context for it for the patient. Here are some highlights:

"Foot screens will be done with much more confidence and higher understanding of products."
— Toronto workshop participant

Diagnosis

The diagnosis of diabetes has changed. The preferred tool is now the A1C (glycated hemoglobin), which was not part of the previous diagnostic criteria. A result equal to or greater than 6.5 indicates diabetes.[3] (For more information on the A1C test, please see Goldenberg RM et al., 2011 Position Statement: Use of Glycated Hemoglobin (A1C) in the Diagnosis of Diabetes Mellitus in Adults.) The earlier a diagnosis can be made, the better the chances to have early treatment implemented. Early treat-

BY THE NUMBERS:

The Enormity of Diabetes

9 million The number of Canadians who have either diabetes or pre-diabetes[1]

25 Percentage of persons with diabetes who have a lifetime risk for developing a foot ulcer[1]

85 Percentage of diabetes-related limb amputations that are the result of a non-healing diabetic foot ulcer[1]

49–85 Percentage of amputations that are preventable[1]

With a 5-year mortality rate of amputees at 45%, prevention of foot complications in persons with diabetes is essential![2]

Diabetic Foot Complications

- neuropathy
- ischemia
- infections
- structural deformity
- ulceration
- amputation

Preventing Diabetic Foot Complications

The workshop content included detailed information on the following key elements, which clinicians must address with patients to prevent complications:

- optimizing glycemic control
- smoking cessation
- cholesterol management
- identification of a foot at risk: regular inspection and examination by both patient and clinician
- patient education: education for patients and family members, particularly on what they should be looking for; family members are the biggest supporters of a person with diabetes; they need them when they've lost sensation
- treatment of pathologies
- footwear: mechanics and offloading

ment can result in reduced rates of complications.

Supporting Patient Decisions

Diabetes is a complex disease that is challenging for patients to manage, and it is important for clinicians to imagine what it is like for their patients. Patients need to make many decisions every day in areas that either impact their condition or are impacted by their condition, including financial, logistical, dietary, social and work-related. Members of the team need to support patients in all areas. One way to do this is for clinicians to take what they know from clinical practice guidelines and other recent research and translate it into the real world language and situations that patients actually face.

Ongoing communication and education are important forms of support, and the use of the ABCDEs of Diabetes[4] can be a useful tool for guiding the clinician in interactions with patients when teaching them about chronic care and preventing problems:

A1C: Aim for less than 7%.

Blood pressure: Have a target of 130/80 or better.

Cholesterol: LDL-C<2.0 mmol/L is important for prevention; don't wait until problems arise.

Drugs: Look at ACE inhibitors, statins, ASA, whatever will reduce risk. Many patients measure their health by how many medications they take so a dialogue with patients to explain why medications can be good at reducing risk may be necessary.

Exercise: Create a plan with the patient for regular exercise, which reduces cholesterol, modifies blood sugar and can assist with depression.

Foot care: Examine patients' feet and model what they should be doing. Have regular dialogues about foot care.

Smoking cessation: One of the toughest areas for patients, smoking is often the last thing to change. Research indicates that regularly asking patients about it does help them quit.

Neuropathy

Clinicians must be aware of the types of neuropathy and the role that neuropathy plays in the development of foot complications. Since 40–50% of people with type 1 or 2 diabetes will develop detectable sensorimotor polyneuropathy within 10 years of onset, this is a significant issue.[4]

There are three types:

Sensory: Impaired ability to

"This course is a tremendous opportunity to explore the hands-on assessment of the diabetic foot, including the tools needed for implementation within the health-care system."
— Janet Kuhnke, workshop faculty

feel stimuli, numbness, tingling, burning

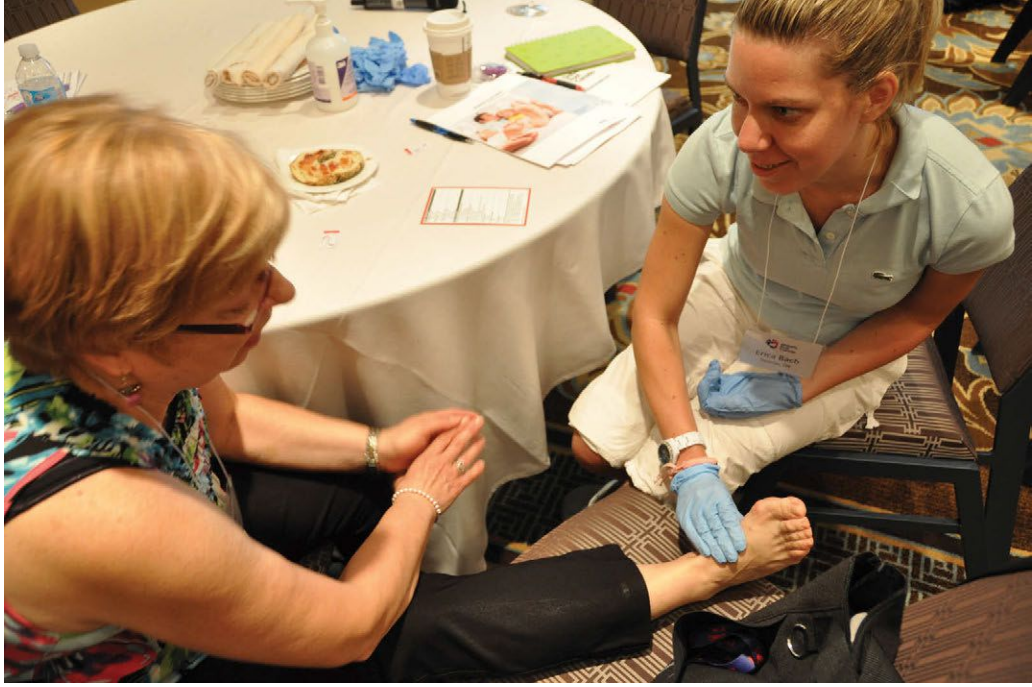
Autonomic: Dry, cracking skin that can create openings for bacteria

Motor: Structural, including turning up of toes, loss of flexors

While diabetes is a significant cause of neuropathy, there are other causes, including excessive alcohol consumption and B12 deficiency, so a metabolic screen may be necessary.

There is no cure for neuropathy so it must be managed through modifying the disease (glycemic control) and addressing risk factors (blood pressure, BMI, smoking, lipids). It is important to remember than 50% of people with neuropathy experience pain. Symptoms can be reduced (by 30–50%) through the use of anticonvulsants, antidepressants, opioids, and topical nitrate spray. As depression is prevalent in this population, antidepressants may be most appropriate with certain patients. Alternative therapies such as TENS and acupuncture should be considered to complement medical approaches.

Patient perspective: As a reminder to clinicians on the need for high-quality education, the guest patient, Adrian, described how unaware he was that he had lost sensation in his feet until he kicked a piece of furniture. He didn't realize his foot was damaged until he saw bone sticking out.



Inlow's 60-second Diabetic Foot Screen

During the workshop, participants were walked through Inlow's 60-second Diabetic Foot Screen tool, an easy-to-use guide that clinicians can use at each patient visit for identifying risks to the diabetic foot. The use of this validated, reliable tool helps clinicians predict and, therefore, prevent foot ulcers and, potentially, amputations. The Inlow tool can be downloaded from the CAWC website at http://cawc.net/en/index.php/resources/60-second-diabetic-foot-screen/.

The main message? A key strategy for amputation prevention is for clinicians to take off patients' shoes and socks and "look, touch, assess."

Focus on Footwear

Part of the Inlow tool relates to an inspection of patients' footwear. With

BY THE NUMBERS:

DFUs

75–80 Percentage of diabetic foot ulcers that occur in distal to metatarsal heads.[7]

28 Percentage of time that the majority of diabetic patients were found to use their offloading devices.[8]

50 Percentage of reduction in wound surface area at four weeks that is a good predictor of wound healing at 12 weeks.[9]

BY THE NUMBERS:

Cost-effectiveness of the Team Approach[10]

66% ↓ in hospital admissions

74% ↓ in hospital days

53% ↓ in nursing home admissions

altered sensation and boney deformity being common conditions in persons with diabetes, proper-fitting footwear becomes an important factor in the prevention and treatment of foot problems. (An Italian study found that 90% of amputations were caused by faulty footwear.)

Clinicians face several challenges in discussing footwear with patients:

1. Footwear is a very personal issue for most patients, and many are resistant to change in this area.
2. Patients often don't bring in all their footwear for evaluation. They should be encouraged to do so.
3. Finances may be a factor in resistance. It can be expensive to turn over all types of footwear.
4. Patients with diabetes often wear shoes that are slightly too tight to give them stability because of poor proprioception. They may be resistant to losing this support by wearing looser shoes. As well, lack of sensation can result in patients' purchasing footwear that is up to two sizes smaller than their actual shoe size.

Patient perspective: A fear of losing mobility and of not being able to enjoy the activities he loves was a major factor for guest patient Adrian in deciding to change his footwear to that recommended by his team. "My orthotics are my greatest friend. Because I can walk I can be physically active. Because I can be physically active I can control my feet. Good shoes, happy feet, happy Adrian!"

"Absolutely fantastic day! Very relevant presentations; clear communication. Interprofessional team collaboration critical to ensure delivery of DM care."
— Toronto workshop participant

A Tool for Home Use

Patients can use in-home scanning thermometers as part of their daily self-management activities. They can be trained to recognize that differences in temperature are an indicator that something is going on (e.g.,

infection, active Charcot, trauma) and their health-care team should be notified. A study indicated that for the group using the thermometers, only 2% had foot complications vs. 20% of a standard therapy group.[5]

Self-management: Prevention of DFU

"Self management is a philosophy of health wherein the individual has the knowledge, skills, judgment and ability and confidence to be an advocate and expert in the management of their own health and wellness."[6]

Because self-management of a chronic disease like diabetes is complex and difficult, the clinician has an essential role in supporting the patient and family.

Challenges to clinicians include:

- listening to the patient to determine how the research fits into their life (clinicians are experts on the research; patients are experts on their lives)
- providing education and support, including guiding them to workshops, resources and other clinicians
- determining how ready they are for change
- individualizing care plans for each patient
- recognizing the need in individual patients for different plans of action for different areas such as exercise, medications and monitoring blood sugar

Patient perspective: Guest patient Adrian was asked what helped the most in his self-management of diabetes and prevention of foot complications. He answered that it was having someone to go to if he needed information or noticed a change that concerned him. It gave him comfort to know there was someone "a mere phone call away, or via an appointment" if it was something more serious. Based on his experience, he now knows that it's better to act quickly rather than wait.

VIPS

Use "VIPS" as a memory aid to guide the assessment and management of diabetic foot ulcers once they occur:

- **V**ascular assessment
- **I**nfection
- **P**ressure offloading
- **S**urgical debridement

Change for Patient Empowerment

To support patient empowerment, workshop participants were exposed to the PIES concept. PIES relates to the need to ensure good practice happens on many levels within the realm of health care:

- **P**ractice
- **I**nstitution
- **E**ducation
- **S**ystem

All clinicians have some responsibility for identifying deficits and initiating improvements in each of the areas.

Practice issues were addressed in detail throughout the workshop and encompassed how individuals bring their knowledge, skills and attitudes to their clinical setting.

At the institutional level, participants were encouraged to consider identifying and correcting deficits in the following

New Resources from the CDA

The Canadian Diabetes Association has just launched clinical practice guidelines and a QRG. To access this new tool, go to guidelines.diabetes.ca, scroll to the bottom of the home page and on the footer click on the Order Resources button. When the list appears, go to Professional Resources and select the item you're looking for.

Reality Check

Participants in the workshop indicated that finances are a significant concern for many persons with diabetes when it comes to making decisions about managing their condition. While recognition of this reality and empathy on the part of the clinician with the patient are important, a national strategy that supports foot care would assist both patients and clinicians as they work together to prevent foot complications.

areas (based on recommendations by the IWGDF[11]):

- education for patients, family members and health-care staff
- a system to detect all people who are at risk, with annual foot examinations of all known patients
- measures to reduce risk, such as podiatry and appropriate footwear
- prompt and effective treatment
- auditing of all services to ensure that local practice meets accepted standards of care

Education for both patients and clinicians was a thread addressed throughout the day. Clinicians need to keep up to date on the latest information and effectively translate the information for patients, using cultural and linguistic sensitivity.

In terms of systemic improvement, each clinician has a role to play and can do something every day to bring about change, by raising awareness or connecting in some way with other decision makers. A goal for workshop participants was to have a national strategy that supports preventative foot care rather than a situation where reacting to problems after they have occurred is the norm.

The workshop was an important step in promoting change in all areas. (See "The Launch of Diabetic Foot Canada: An Initiative Aimed at Reducing the Burden of Diabetic Foot Complications" on page 14 for more on what is being done to move this agenda item forward at a national level for organizations, governments and, ultimately, patients.)

References

1. Canadian Diabetes Association [Internet]. Toronto (ON): Canadian Diabetes Association; c2013 [cited 28 Sep 2013]. Available from: http://diabetes.ca.
2. Armstrong DG, Wrobel J, Robbins JM. Guest editorial: Are diabetes-related wounds and amputations worse than cancer? Int Wound J. 2007;4:286–7.
3. Goldenberg RM, Cheng AY, Punthakee Z, Clement M. Position Statement: Use of glycated hemoglobin (A1C) in the diagnosis of diabetes mellitus in adults. Cdn Journal of Diabetes. 2011;35:247–249. Available from: www.diabetes.ca/documents/for-professionals/CJD--July_2011--Position_Statement.pdf.
4. Canadian Diabetes Association [Internet]. Toronto (ON): Canadian Diabetes Association; c2013. Quick reference guide for all patients with diabetes: ABCDEs; 2013 [cited 28 Sep 2013]. Available from: http://guidelines.diabetes.ca/VascularProtection/ABCDEs.aspx.
5. Lavery LA, Zamorano RG, Higgins KR, Armstrong DG, Lanctot DR, Athanasiou KA, Constantinides GP, Agrawal CM. Home monitoring of foot skin temperatures to prevent ulceration.Diabetes Care. 2004;27:2642–2647. Available from: http://care.diabetesjournals.org/content/27/11/2642.full.pdf.
6. Lorig K, Holman H, Sobel D, Laurent D.Living a healthy life with chronic conditions: self-management of heart disease, arthritis, diabetes, asthma, bronchitis, emphysema and others. 3rd ed. Boulder, CO: Bull Publishing Company, 2006.
7. Sammarco GJ. The foot in diabetes. Philadelphia: LEA & Febiger, 1991.
8. Armstrong DG, Lavery LA, Wu S, Boulton AJ. Evaluation of removable and irremovable cast walkers in the healing of diabetic foot wounds: a randomized controlled trial. Diabetes Care. 2005;28(3);551–5.
9. Sheehan P, Jones P, Caselli A, Giurini JM, Veves A. Percent change in wound area of diabetic foot ulcers over a 4-week period is a robust predictor of complete healing in a 12-week prospective trial. Diabetes Care. 2003;26(6):1879–82.
10. Armstrong DG, Nguyen HC, Lavery LA, van Schie CH, Boulton AJ, Harkless LB. Off-loading the diabetic foot wound: a randomized clinical trial. Diabetes Care. 2001;24(6):1019–22.
11. International Working Group on the Diabetic Foot [Internet]. C 2013. [cited 28 Sep 2013]. Available from: http://iwgdf.org.

Additional Resources

1. Inlow S. Inlow's 60-second Diabetic Foot Screen [Internet], 2011. [cited 28 Sep 2013]. Available from: www.youtube.com/watch?v=fNOkLF62tUQ&feature=player_embedded.
2. Wounds International, Expert Working Group. International best practice guidelines: wound management in diabetic foot ulcers. Wounds International. 2013. Available from: www.woundsinternational.com/pdf/content_10803.pdf.
3. Lawrence LA, Peters EJ, Williams JR, Murdoch DP, Hudson A, Lavery DC. Reevaluating the way we classify the diabetic foot: restructuring the diabetic foot risk classification system of the International Working Group on the Diabetic Foot. Diabetes Care. 2008;31(1):154–156. Available from: http://care.diabetesjournals.org/content/31/1/154.full.pdf+html?sid=b51a258f-6031-4eff-a56c-a14b-69b704e0.

Sue Rosenthal *is the founding editor of* Wound Care Canada *and partner at eQuadra Solutions Inc., a clinical consulting firm that helps clients with the creation, implementation and evaluation of health-related programs.*

RELIABLE NON-ADHERENT AND COST EFFECTIVE

RELIABLE

Povidone Iodine molecule has a broad spectrum antimicrobial action[1,2] and has been proven to be effective against MRSA[3-5]. INADINE®has been shown *in vitro* to be effective against biofilms[6].

NON-ADHERENT

In a clinical evaluation 90% of patients reported no adherence to the wound bed and no pain at dressing change[7].

COST EFFECTIVE

INADINE® is a cost-effective dressing[2,7,8] as demonstrated in clinical evaluations.

NEW

NEW ARTICLE!

Campbell, N. and Campbell, D. et al. Evaluation of a non-adherent, povidone–iodine dressing in a case series of chronic wounds. Journal of Wound Care, Vol 22, No 8, August 2013.

Scan the code to read it now or visit **www.systagenix.ca/INADINE**

INADINE®

PVP-I non adherent dressing

Let's Protect®

Systagenix

Let's heal™

Part of the LET'S HEAL™ family

www.systagenix.ca

References: 1. Sibbald, R.G. et al. Iodine Made Easy. Wounds International 2011; 2(2). 2. Langley, S.R.N. INADINE® wound dressings speed healing, reduce patient discomfort and cuts costs by almost 40%. Burns 1989 Vol.15. 3. Vowden, P. and Cooper, R.A . An integrated approach to managing wound infection Position Document: Management of wound infection. European Wound Management Association (EWMA). London: MEP Ltd, 2006 4. Balmforth, V. INADINE Povidone Iodine non adherent dressing as a treatment for superficial wounds infected with Methicillin resistant Staphylococcus aureus. Case Study, 1996. 5. Gordon, J. Clinical significance of methicillin-sensitive and methicillin resistant Staphylococcus aureus in UK hospitals and the relevance of povidone iodine in their control. Postgrad. Med J. 1993, 69(3):106-116. 6. Hill, K.E. et al. An in vitro model of chronic wound biofilms to test wound dressings and assess antimicrobial susceptibilities. J Antimicrob Chemother 2010:1195-1206. 7. Campbell, N. and Campbell, D. et al. Evaluation of a non-adherent, povidone–iodine dressing in a case series of chronic wounds. Journal of Wound Care, Vol 22, No 8, August 2013. 8. Witkowski, K. Practice Improvements Related to the Use of Antimicrobial/Antiseptic Products. Poster CAWC 2011. 9. Langley, S.R.N. INADINE® wound dressings speed healing, reduce patient discomfort and cuts costs by almost 40%. Burns 1989 Vol.15.

Wound Sleuth

By Rob Miller, MD, FRCP Dermatologist
and Cathy Burrows, RN, BScN, MScCH (Wound Prevention and Care)

This 82-year-old female presented with multiple areas of excoriation and ulceration. Despite a variety of creams and dressings, she failed to heal and was referred to the wound care clinic.

Figure 1 shows multiple areas of excoriation and superficial ulceration with crust formation. The majority of the lesions are on the abdomen and lower legs but also involve the upper back.

What is the diagnosis?

What is the treatment?

Diagnosis

This individual has multiple focal excoriations that are self-inflicted (neurotic excoriations). The tip-off to the diagnosis is the location of lesions on areas that are easily accessible by her "scratching" hand. In most cases of neurotic excoriations, it is common to find lesions on the extensor aspects of the arms and legs as well as the upper back and abdomen and uncommon to find lesions on the flexor surfaces or the mid-back region, as one does not typically scratch in these locations.

The list of differential diagnoses for neurotic excoriations includes a number of skin conditions, including dermatitis herpetiformis (seen with gluten sensitive enteropathy) and scabies. Referral to a dermatologist is quite helpful when the cause is uncertain.

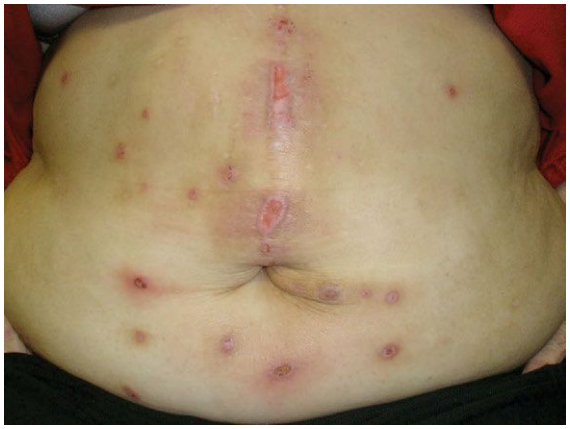


Figure 1

Treatment

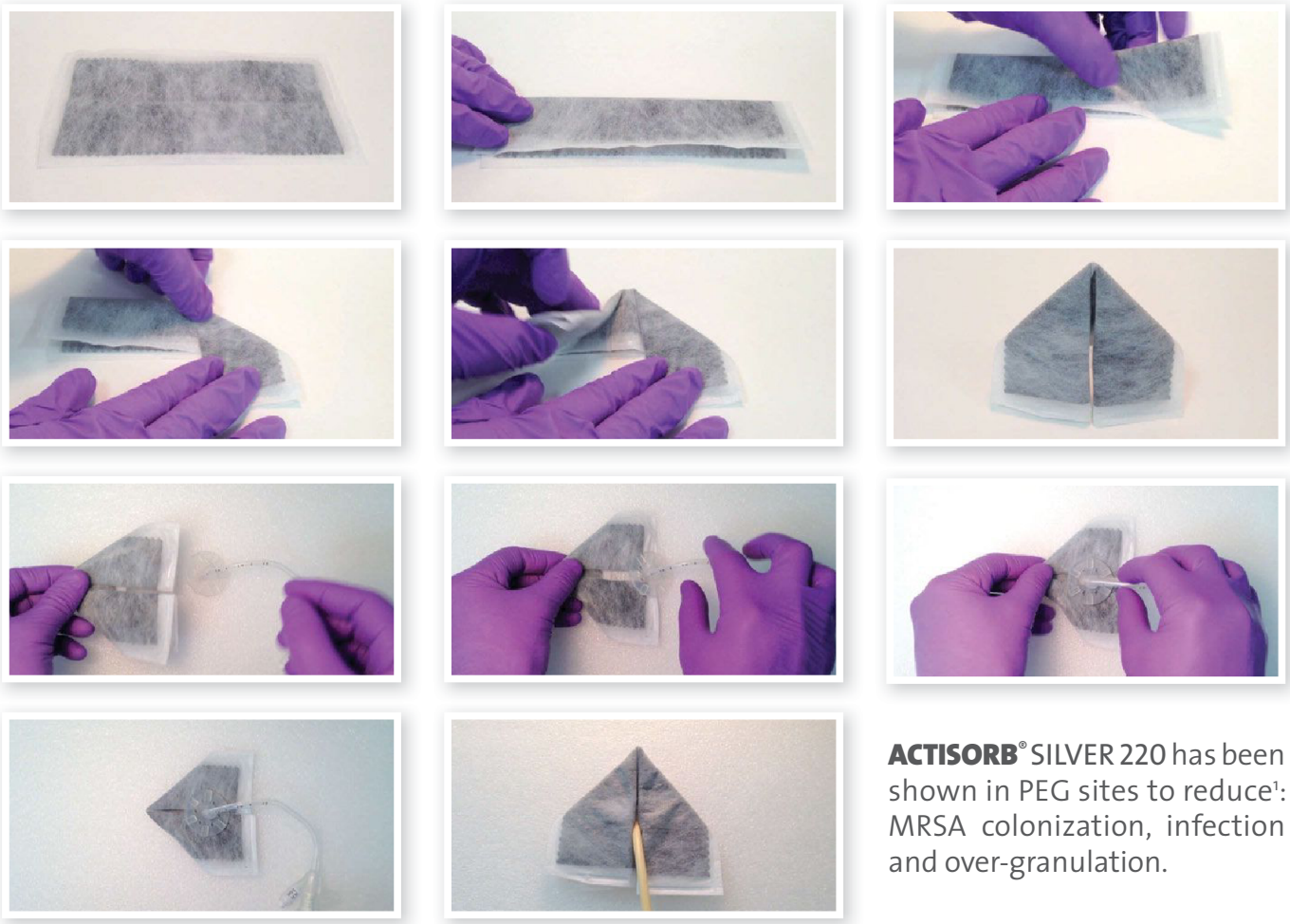
Neurotic excoriations can be an extremely frustrating and difficult management problem, as frequently the individual has no insight into why they are scratching. Unless they stop self-inflicting these wounds, no amount of topical treatment or dressings will help.

Occasionally, some of the anti-depressant medications may be beneficial.

If the ulcers are mainly on the legs, covering them with a foam dressing or using a zinc-oxide-impregnated gauze will help protect the area and keep the person's hands away from them. Frequently, however, they either start picking at themselves elsewhere or relapse to the same areas once the dressings are removed. Fortunately, these ulcers don't have any long-term sequelae and only occasionally become infected.

As this patient was already taking anti-depressants, she was referred back to her psychiatrist for a follow-up to readjust her medication. In some cases, a recommendation to a support group for patients who suffer from obsessive-compulsive disorder (OCD) can also be beneficial.

IDEAL FOR PEG SITES



ACTISORB® SILVER 220 has been shown in PEG sites to reduce[1]: MRSA colonization, infection and over-granulation.

Cut out and keep

ACTISORB®
SILVER 220

Let's Protect*

To learn more about the benefits of **ACTISORB®** Silver 220, please contact your local Systagenix representative at 877.216.0187 or visit us at www.systagenix.ca

Part of the LET'S HEAL™ family

Systagenix
Let's heal™

www.systagenix.ca

*Scan the QR code with your iPhone/Smart Phone to view the video: "How to use ACTISORB® folding technique" Alternatively, visit our website www.systagenix.ca/ACTISORB-ft-video

A Practical Approach to the

Prevention and Management of Intertrigo,

or Moisture-associated Skin Damage, due to Perspiration: Expert Consensus on Best Practice

This article provides an at-a-glance overview of a more in-depth article available on the Wound Care Canada *website. To view the full article, please go to www.woundcarecanada.ca/supplements.*

Consensus panel

R. Gary Sibbald MD
Professor, Medicine and Public Health
University of Toronto
Toronto, ON

Judith Kelley RN, BSN, CWON
Henry Ford Hospital – Main Campus
Detroit, MI

Karen Lou Kennedy-Evans RN, FNP, APRN-BC
KL Kennedy LLC
Tucson, AZ

Chantal Labrecque RN, BSN, MSN
CliniConseil Inc.
Montreal, QC

Nicola Waters RN, MSc, PhD(c)
Assistant Professor, Nursing
Mount Royal University
Calgary, AB

Introduction

Moisture-associated skin damage (MASD) and intertrigo

Moisture is an important risk factor contributing to the development of chronic wounds.[1] Excessive moisture on the skin for a prolonged period of time may result in a spectrum of reversible and preventable skin damage that ranges from erythema to maceration (increased stratum corneum moisture content) and erosion (loss of surface epidermis with an epidermal base). MASD is distinct from damage due to pressure, vascular insufficiency, neuropathy or other factors. This document focuses on intertriginous dermatitis, which is due to perspiration trapped in skin folds plus the effect of friction.

Consensus Statements

Moisture-associated skin damage: Moisture is a risk factor for the development of chronic wounds that is distinct from other risk factors, including pressure, arterial insufficiency, venous stasis and neuropathy.

Definition of intertrigo: Intertrigo, or intertriginous dermatitis, may be defined as inflammation resulting from moisture trapped in skin folds subjected to friction.

Disease classification of intertrigo: A disease code for intertrigo could improve diagnosis of the condition and support research efforts.

Epidemiology of intertrigo: The true incidence and prevalence of intertrigo is currently unknown.

Risk factors for intertrigo: The major documented risk factors for intertrigo include hyperhidrosis; obesity, especially with pendulous breasts; deep skin folds; immobility and diabetes mellitus; all risk factors are aggravated by hot and humid conditions.

Complications of intertrigo: Secondary bacterial infection is a common complication of intertrigo that must be treated effectively to prevent deep and surrounding invasive infection.

Diagnosis of intertrigo: The diagnosis of intertrigo is based on the history and characteristic physical findings supplemented with laboratory testing to rule out secondary infection.

Evidence for intertrigo treatment: No well-designed clinical trials are available to support therapies commonly used to treat or prevent intertrigo.

Principles of management of intertrigo: Prevention and treatment of intertrigo should maximize the intrinsic moisture barrier function of the skin by focusing on at least one of the following goals:

- Minimize skin-on-skin contact and friction.
- Remove irritants from the skin and protect the skin from additional exposure to irritants.
- Wick moisture away from affected and at-risk skin.
- Control or divert the moisture source.
- Prevent secondary infection.

Prevention of intertrigo: The following strategies may help prevent intertrigo from developing or recurring:

- Cleanse skin folds gently, dry gently but thoroughly (pat, do not rub), and educate patients about proper skin-fold hygiene.
- Counsel patients to wear open-toed shoes and loose-fitting, lightweight clothing of natural fabrics or athletic clothing that wicks moisture away from the skin.
- Advise patients to wear proper supportive garments, such as brassieres, to reduce skin-on-skin contact.
- Consider using a moisture-wicking textile with silver within large skin folds to translocate excessive moisture.

Treatment of intertrigo: The following approaches may help treat intertrigo:

- Follow recommended preventive strategies to keep skin folds dry and prevent or treat secondary infection.
- Consider using a moisture-wicking textile with silver between affected skin folds.
- Continue treatment until intertriginous dermatitis has been controlled.
- Treat secondary infection with appropriate systemic and topical agents.
- Revisit the diagnosis in cases that do not respond to usual therapy.
- Initiate a prevention program that can include weight loss, a skin-fold hygiene program and early detection and treatment of recurrences.

Epidemiology

Intertrigo may be found in patients in acute care, rehabilitation, extended-care facilities, hospices and in home care.[2] European studies have found the prevalence of intertrigo to be 17% in a group of nursing home patients and 20% in home care patients.[3] Overall, little evidence quantifies the incidence and prevalence of intertrigo.

Risk Factors for Intertrigo

No formal risk assessment tool exists for intertriginous dermatitis.[4]

Risk factors for intertrigo are numerous, with the most important including hyperhidrosis, obesity and diabetes mellitus.[5] Immunocompromise and increased skin surface bacterial burden may also be risk factors, as may poor hygiene, malnutrition, tight and closed shoes and large, prominent skin folds. A hot and humid climate promotes the development of intertrigo, although this has not been studied in detail.

Pathophysiology of Intertrigo

Although much remains to be elucidated about the pathophysiology of intertrigo, exposure to moisture alone is insufficient to produce skin damage.[6] Both moisture and friction in skin folds are required. The clinical course of intertrigo[6] usually starts with erythema and inflammation, with the occurrence of erosions in the presence of moisture due to macerated keratin and wet edema. Some or all of these features may present concurrently or individually.

Common Differential Diagnoses of Intertrigo

Common differential diagnoses of intertrigo include inflammatory conditions, such as psoriasis, atopic dermatitis and, less commonly, lichen planus. Atopic individuals may also develop dermatitis in the flexural areas due to a combination of factors.[4,7] Contact dermatitis is more commonly irritant than allergic and may be confused with intertrigo. Incontinence-associated dermatitis in skin folds exposed to urine or feces can also be confused with intertrigo. Infections due to fungi, yeasts and bacteria can exist with and without intertrigo, which is characterized by increased local perspiration and moisture.

Complications of Intertrigo: Secondary Skin Infection

Overhydration of the stratum corneum, due to an inability to evaporate or translocate moisture from a skin fold, can disrupt the moisture barrier, allowing irritants to pass into the skin and produce dermatitis.[8] Saturated skin is also more susceptible to friction damage, resulting in further inflammation, which then allows the penetration of organisms to cause secondary bac-

"Every effort must be made to restore a normal environment that will encourage the natural regenerative capacity of the skin."[7]
— TP Kugelman

InterDry®

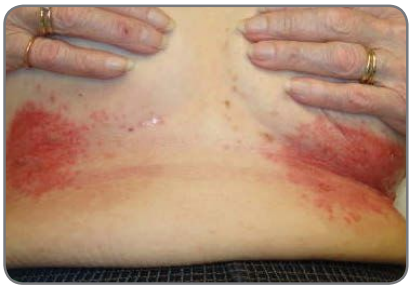
Coloplast

InterDry®

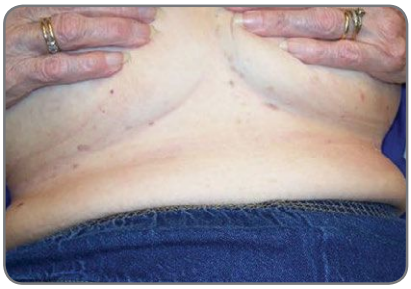
For Skin Fold Management

- Keeps the skin dry by wicking moisture away from the skin
- Helps eliminate itching, odour and inflammation
- Effective antimicrobial action for up to 5 days
- Reduces skin to skin friction

Results using InterDry



Before: Painful, persistant rash under breasts



After 5 days: Complete resolution of symptoms and rash.

Join us at the CAWC Symposium - November 7, 2013 - Vancouver, BC

Coloplast Canada
3300 Ridgeway Drive Unit 12
Mississauga, ON L5L 5Z9
1-877-820-7008
www.coloplast.ca

terial, fungal, or yeast infection, the most common complication of intertrigo. The warm, damp environment in skin folds with associated skin damage provides an ideal environment for organisms to proliferate.

Assessment of Intertrigo

A full history and examination of the entire body surface can help to differentiate intertrigo from conditions that may appear similar.

History

Clues to the diagnosis of intertrigo may often be found in the patient's medical history.[9] Patients with diabetes or immunosuppression may have a greater incidence of intertrigo. In addition, patients who are obese, bedridden, or incontinent are prone to intertrigo. It is also important to identify previous therapies, such as topical or systemic corticosteroids, as they may affect the appearance of the lesion.

Physical Examination

To assess a patient with possible intertrigo, it is important to inspect the entire body, including all skin folds, right to their base. Intertrigo appears as mirror-image erythema, inflammation or erosion within skin folds. Other signs and symptoms include itch, burning, pain and odour. Pain with intertrigo may be severe and sometimes requires pain medication. The burning associated with intertrigo may approximate severe sunburn symptoms and may respond to a combination of pain and antihistamine medication.

Diagnosis

The diagnosis is often clear-cut and is generally based on the clinical presentation of characteristic intertriginous dermatitis: mirror-image erythema, inflammation or erosion within skin folds.[5] If secondary infection is likely, it is appropriate to perform a culture and sensitivity. Biopsy may be uninformative in uncomplicated intertrigo, but in atypical clinical presentations or lesions without a positive bacterial or fungal laboratory test that are nonresponsive to treatment, biopsy may serve a useful function. Examination under a Wood's light may identify secondary infections, such as erythrasma (coral-red fluorescence) or pseudomonas (green fluorescence). Potassium hydroxide examination may demonstrate hyphae in dermatophyte infections or pseudohyphae in candidiasis.

Management of Intertrigo

Management Principles

A previous expert panel agreed that a preventive or treatment approach for MASD should be based on at least one of the following goals:[6]

"1. an interventional skin care program that removes irritants from the skin, maximizes its intrinsic moisture barrier function and protects the skin from further exposure to irritants
2. use of devices or products that wick moisture away from affected or at-risk skin
3. prevention of secondary cutaneous infection
4. control or diversion of the moisture source"

The panel also agreed that a preventive or treatment regimen should be consistent and include gentle cleansing, moisturization if indicated and application of a protective device or product when additional exposure to moisture was anticipated. Furthermore, measures to reduce or eliminate skin-on-skin contact and friction are important.

Prevention

No randomized controlled trial evidence-based literature supports strategies to prevent intertrigo, but common-sense approaches are effective.[5] It is important that skin folds be kept as clean and dry as possible to minimize friction. Gentle cleansing with a pH-balanced, rinse-less cleanser is recommended. Irritated skin folds should be patted dry, rather than wiped or rubbed.[4] Loose-fitting, lightweight clothing of natural fabrics or athletic clothing that wicks moisture away from the skin are good choices. Open-toed shoes may be beneficial in preventing toe-web intertrigo.[5] However, closed-toe shoes would be recommended for patients with diabetes, and a moisture-wicking textile with silver could be

woven between the toes to help translocate moisture. Proper supportive garments, such as brassieres, can reduce apposition of skin surfaces. In addition, placing moisture-wicking textile with silver within large skin folds to translocate excessive moisture may be helpful.[4] Ensuring that 4 cm of the fabric hangs out of the fold allows translocation of moisture. Patient education should include the importance of showering after exercise and carefully drying skin folds; awareness of the risk of intertrigo associated with sweating, such as in hot and humid weather, should be stressed.

Treatment

INEFFECTIVE THERAPIES

A previous expert panel identified several therapies that were ineffective or harmful to prevent or treat intertriginous dermatitis.[4] Powders, such as cornstarch, have no proven benefit and may encourage fungal growth, as cornstarch is a substrate for growth of yeasts.[9] Textiles, such as gauze, various fabrics, or paper towels, placed between skin folds are usually ineffective as they absorb moisture but do not allow it to evaporate, promoting skin damage.[4] Home remedies, such as diluted vinegar and wet tea bags, have never been evaluated in clinical research.

INTERTRIGO AND MOISTURE-WICKING TEXTILE WITH SILVER

Various standard treatments for intertrigo, such as drying agents, barrier creams, topical antifungals and absorptive materials, may be ineffective in some patients. Kennedy-Evans et al. performed a clinical study to determine the efficacy of the moisture-wicking textile with silver instead of standard therapy in patients with refractory intertrigo.[10] Study participants were 21 patients with intertriginous dermatitis from two long-term-care centres. Mean patient age was 53.8 years and mean body mass index was 54.75 kg/m^2. The intertrigo had been present for a varying number of weeks and in most cases other products had been tried without a response. Skin assessment was performed on Day 1, Day 3 and Day 5 for itching/burning, maceration, denudement, satellite lesions, erythema and odour (Table 3).

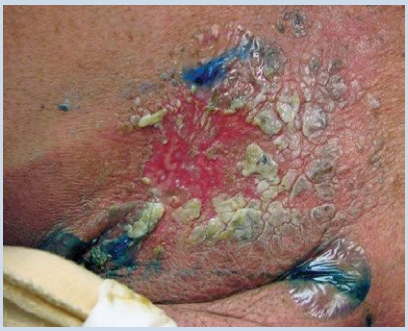
In this study, moisture-wicking textile with silver relieved the patients' symptoms and signs of intertrigo within a five-day period. The moisture-wicking textile with silver is also cost-effective, as it reduces nursing time substantially.

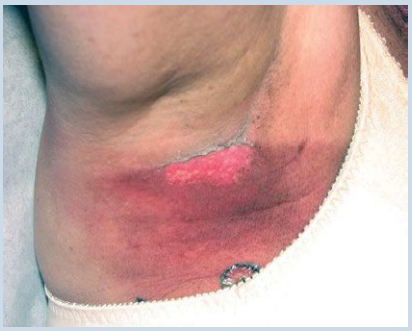
COMMON-SENSE APPROACHES

Intertrigo treatment relies on common-sense approaches because little evidence supports various commonly used therapies. Most importantly, it is necessary to establish or continue a skin-care regimen that

A Case of Axillary Intertrigo

A 60-year-old woman with a history of right-sided mastectomy presented with denuded and erythematous skin at the right axillary fold (Figure 1). The lesion was very painful, and a foul odour and drainage were present. The condition had been present for two weeks. Nystatin powder had been ineffective in improving the problem. At presentation, the lesion was cleaned gently and patted dry. A piece of moisture-wicking textile with silver was placed within the axillary fold and secured at the shoulder, leaving adequate textile exposed for translocation. The textile was replaced after five days. At seven days, there was significantly less drainage and redness and the denuded skin was almost healed (Figure 2).





Figures 1 and 2. Axillary intertrigo before and after seven days with moisture-wicking textile with silver

focuses on keeping the skin folds dry and prevents or treats secondary infection.[4] The moisture-wicking textile with silver has been shown to be effective in treating intertrigo. Treatment of secondary infection may require topical and possibly oral therapy. Treatment should continue until the intertriginous dermatitis has resolved.[1] It is also important to recognize that eroded intertrigo skin is not completely healed until the normal skin thickness is re-established and the barrier function restored. Weight loss is always an appropriate preventive and treatment strategy in obese patients, but it is notoriously difficult to achieve.

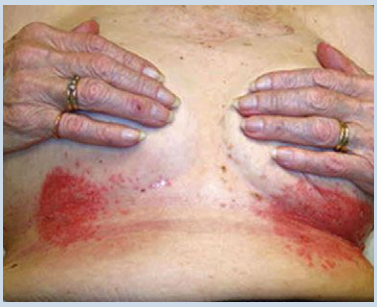
Conclusion

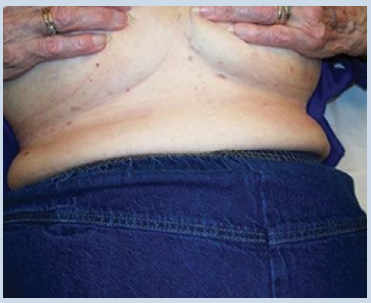
Intertrigo is a common condition associated with MASD, which may be found in a variety of clinical settings, including acute, chronic, long-term and home care. Overall the limited information about intertrigo currently available is a cause for concern. The incidence and prevalence of intertrigo are unknown and little evidence supports the use of commonly used therapies. The information in this consensus document has been synthesized for educational purposes for clinicians and as a stimulus for more research into this common condition.

A Case of Inframammary Intertrigo

A 92-year-old female presenting for care of venous stasis ulceration complained of a persistent, painful rash underneath her breasts that had been unresponsive to treatment with a variety of oral and topical therapies. Candida intertrigo was present with erythematous papules, satellite lesions, denudement, weeping and a musty odour. Initial treatment was with an oral prescription antifungal for five days. When this was ineffective, a topical antifungal powder was prescribed twice daily for two weeks. The rash persisted and was then treated with an antifungal cream twice daily for two weeks

At the next visit, the intertrigo was gently cleaned and patted dry. A piece of moisture-wicking textile with silver was then placed beneath each breast, leaving 4 cm exposed for translocation, and secured in place using a sports bra. Substantial improvement was noted by 14 days with complete resolution by 21 days.





Figures 3 and 4. Inframammary intertrigo before and after moisture-wicking textile with silver

Table 3. Signs and Symptoms in Study Patients

Sign or Symptom	Day 1	Day 3	Day 5
Itching/burning	15	1	0
Maceration	10	1*	1*
Denudement	7	3	1
Satellite lesions	5	1	1
Erythema	21	⇵	⇵
Odour	12	⇵	2*

* One patient had maceration and odour due to urine soiling of textile that was not removed immediately
† Statistically significant decrease

The development of this consensus document has been supported by Coloplast.

Editorial support was provided by Joanna Gorski of Prescriptum Health Care Communications Inc.

References

1. Gray M, Bohacek L, Weir D, Zdanuk J. Moisture vs pressure: making sense out of perineal wounds. J Wound Ostomy Continence Nurse. 2007;34(2):134–42.
2. Muller N. Intertrigo in the obese patient: finding the silver lining. Ostomy Wound Manage. 2011;57(8):16.
3. Mistiaen P, van Halm-Walters M. Prevention and treatment of intertrigo in large skin folds of adults: a systematic review. BMC Nurs. 2010;9:12.
4. Black JM, Gray M, Bliss DZ, Kennedy-Evans KL, Logan S, Baharestani M, Colwell JC, Goldberg M, Ratcliff CR. MASD part 2: incontinence-associated dermatitis and intertriginous dermatitis: a consensus. J Wound Ostomy Continence Nurs. 2011;38(4):359–70.
5. Janniger CK, Schwartz RA, Szepietowski JC, Reich A. Intertrigo and common secondary skin infections. Am Fam Physician. 2005;72(5):833–8.
6. Gray M, Black JM, Baharestani MM, Bliss DZ, Colwell JC, Goldberg M, Kennedy-Evans KL, Logan S, Ratcliff CR. Moisture-associated skin damage: overview and pathophysiology. J Wound Ostomy Continence Nurse. 2011;38(3):233–41.
7. Kugelman TP. Intertrigo—diagnosis and treatment. Conn Med. 1969;33(1):29–36.
8. Voegeli D. Moisture-associated skin damage: an overview for community nurses. Br J Community Nursing. 2013;18(1):6,8,10–12.
9. Guitart J, Woodley GT. Intertrigo: a practical approach. Compr Ther. 1994;20(7):402–9.
10. Kennedy-Evans KL, Viggiano B, Henn T, Smith D. Multisite feasibility study using a new textile with silver for management of skin conditions located in skin folds. Presented at: The Clinical Symposium Advances in Skin & Wound Care at the Wound Ostomy and Continence Nurses Society 39th annual meeting; 2007 Jun 9–13; Salt Lake City, Utah.

REGISTER NOW!

The 19th Annual Canadian Association of Wound Care Conference

From Innovation to Action: The Future of Wound Care is Now

November 7–10, 2013

Sheraton Wall Centre, Vancouver, British Columbia

For further information, please visit www.cawc.net.

Canadian Association of Wound Care

Association canadienne du soin des plaies