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La revue officielle de l'Association canadienne du soin des plaies

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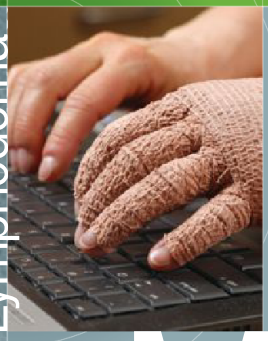

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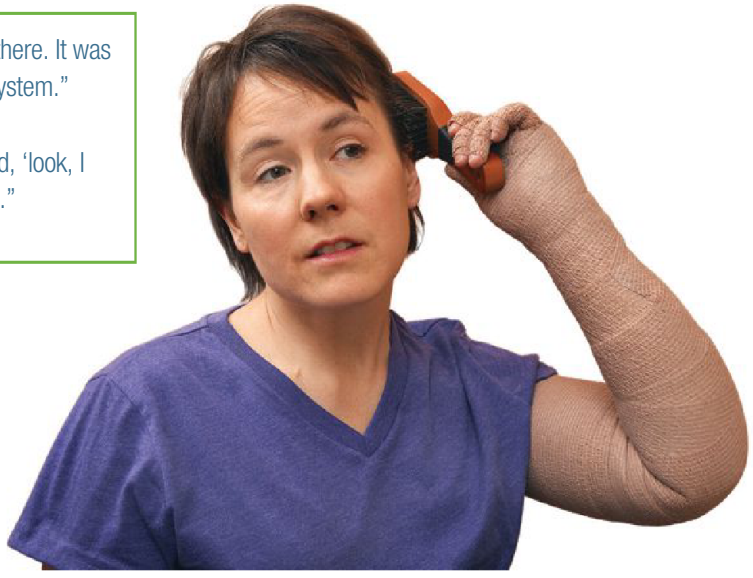

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Features / Reportages

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

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

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

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

Register for the CAWC Institute of Wound Management and Prevention

The CAWC Institute of Wound Management and Prevention is offering educational sessions across Canada throughout 2011. For further information regarding dates and venues, and to register, please visit **www.cawc.net**.

CAWC Receives Further Funding for *Diabetes, Healthy Feet and You* Initiative

In 2010, the Canadian Association of Wound Care (CAWC) received funding from the Public Health Agency of Canada (PHAC) to launch Phase 1 of a comprehensive educational program for people with diabetes called *Diabetes, Healthy Feet and You*. Earlier this year, the association received further funding, allowing it to implement Phase 2 of the program.

Phase 1 wrapped up earlier this year and included the following initiatives, some of which have been translated into as many as 19 languages:

- An interactive website – http://cawc.net/index.php/public/feet – where patients can complete a diabetes self-management questionnaire, develop a personal foot care plan and learn what questions to ask their physician.
- A brochure for clinicians, to help them determine if their patients are at risk for diabetes-related foot complications.
- A patient self-screening brochure and posters, which were designed to assist people with diabetes in recognizing factors that lead to skin breakdown and support early interventions to prevent diabetic foot ulcers.
- Information sheets for patients, on the topics of vascular insufficiency, neuropathy and foot deformity.
- A patient education video, entitled *Diabetes, Healthy Feet and You: Caring for Your Feet.*
- A series of 3 information guides that complement the video by providing patients with quick reference tips on proper foot care, questions to ask their healthcare professional and an explanation of what occurs during a foot exam.

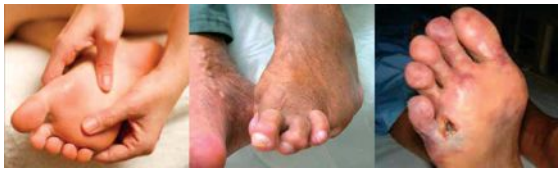
All of the CAWC *Diabetes, Healthy Feet and You* materials were developed with the support of an expert advisory group and a patient focus group. The expert advisory group for Phase 1 was composed of interdisciplinary healthcare professionals from healthcare organizations across Canada.

Due to the success of the Phase 1 initiatives, more funding was received by the CAWC from PHAC to initiate Phase 2 and a second expert advisory group was formed. In late August 2011, the expert advisory group met to plan and outline the next steps and outcomes for Phase 2 of the program. Planned outcomes include: development of a Canadian network of peer educators working in partnership with the diabetes community and healthcare professionals to assist Canadians living with diabetes to keep their feet healthy.

These peer educators:

- will work in the community setting, serving as connectors between patients and healthcare providers to promote good foot health; and
- must be accepted as having the same challenges as their peers, and must be accepted by their peers.

The program will involve 10 communities – one in each province – and two patients who live with diabetes and two healthcare professionals will be identified.



The program will use the materials developed in Phase 1 to inform patients of the early warning signs of neuropathy and foot ulcers, to prevent diabetic foot ulcers, and advocate to ensure effective care.

Program elements include:

- expert advisory group;
- educational/training session;
- research/evaluation program;
- diabetic foot ulcer prevention peer educator outreach action plans;
- diabetic foot ulcer prevention peer educator portal/network; and
- communication and information dissemination.

"Developing a national peer-to-peer education program is a new frontier in wound care and we are excited to be undertaking this new initiative," says Peggy Ahearn, Executive Director, CAWC.

Stay tuned for further details in the coming months!

CAWC Increases Online Presence

The Canadian Association of Wound Care now has a Twitter feed (**@WoundCareCanada**) and a dedicated Facebook page (**http://www.facebook.com/woundcarecanada**), but we're doing even more to ensure that our members, healthcare professionals and the general public have access to the best and most current information at our website (**www.cawc.net**). In 2012, we'll be expanding our online presence to include more information for healthcare professionals, as well as patients and caregivers.

Healthcare and Social Media

Social media, the use of web-based and mobile technologies to turn communication into an interactive dialogue, is influencing the way we communicate with family and friends via such websites as Facebook, Twitter and MySpace. However, many healthcare professionals and corporations are now using it to communicate with peers and patients, in an effort to provide optimal care.

Jackie Hickey, Community Health Advisor with Bayshore Home Health in Toronto, Ontario, provided insights at the CAWC annual professional conference regarding social media and healthcare, specifically wound care, in her session entitled *Social Networking and Healthcare*.

> "There is a connotation to social media that it is indeed social and that's the extent of it … however, healthcare professionals should realize that it can play a very vital role in their patient care."

A registered nurse in practice for 25 years, Hickey notes that "as a clinician, I believe that social media has benefits and capabilities to capture the attention of mass audiences, including healthcare professionals, patients, family members and caregivers." She writes a blog for Bayshore Home Health entitled caring@home (**http://www.bayshore.ca/caringathomeblog/**).

She notes that for some time the younger generations have been taking full advantage of social media websites and applications. They are indeed the wave of the future and can be utilized by people of all ages, for both personal and professional purposes. Hickey believes that the younger generations of clinicians and patients will have a big influence on social media and its role in healthcare.

In the healthcare milieu specifically, social networking provides a means to connect and communicate with other healthcare professionals, patients and caregivers. "The issue with healthcare in this day and age is that you see patients face to face in the clinic for a fairly short period of time, then they walk out the door and 15 minutes later you've forgotten what was said, and they likely have too," she says. "Thus, social networking provides platforms and opportunities for healthcare professionals to share relevant information and foster collaboration on an ongoing basis, literally 24/7."

Hickey is careful to point out that privacy remains a top priority. "We can utilize all the social media tools available – including Facebook, YouTube and Twitter – but we need to build and customize them for the audience that we're addressing." Hence, for example, a Facebook page that is set up to attract patients with a specific disease state must have the proper privacy settings for the individuals who are visiting; in this way, says Hickey, "we can control who has access to specific sites, and the information that will be displayed and shared there."

The sustainability of the healthcare system with respect to human resources is also an issue, Hickey notes. "When you think of shrinking budgets and burgeoning patient populations, building social networking tools into best practices will be crucial; think, for example, of YouTube: it's amazing the vast reach social networks such as these can provide."

Although until now there has been a fairly slow integration of social media into healthcare, some of the "big guns," such as large teaching hospitals and other healthcare institutions, have begun communicating on a large scale through social media settings. Hickey believes that this trend will only continue. "Social media is forever changing, and as users of social media, healthcare practitioners need to adapt and change and grow," she says. "Starting out could involve something as simple as a Facebook page or a Twitter account to provide pertinent and timely information to the communities they serve. Twitter provides a means of communicating instant information … 140 characters at a time! … that is timely and relevant to a mass audience."

CAWC Institute L-Series – Toronto

The Canadian Association of Wound Care Institute of Wound Management and Prevention will be holding an L-Series educational event in Toronto, Ontario, from December 1-4, 2011, at the Delta Toronto Airport West, 5444 Dixie Road. This event will include the following:

Level 1: Knowledge Learning

Basic wound management knowledge to support a best practice approach to patient care, including: wound healing principles; wound bed preparation; pressure ulcers, venous leg ulcers and diabetic foot ulcers.

Level 2: Skills Learning

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Level 3: Attitude Learning

Steps and methods for practicing within a team to develop and sustain prevention strategies, with a focus on pressure ulcer and diabetic foot ulcer awareness and prevention.

For more information, please contact Diana Seminara, Event Coordinator, by telephone (416-485-2292, ext. 225) or email (diana@cawc.net).

The CAWC Institute of Wound Management and Prevention will also be offering L-Series educational sessions across Canada throughout 2012. For information regarding future dates and locations, and to register, please visit **www.cawc.net**.

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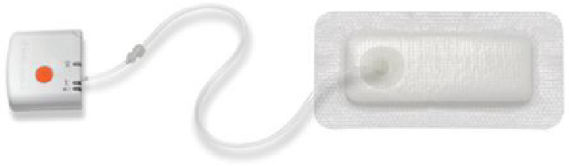

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Zinc Supplementation for Pressure Ulcer Management:

Clinical Considerations in the Absence of a Definitive Test for Zinc Deficiency

BY Chris Fraser HBSc RD

Introduction

Zinc supplementation is often initiated in patients with pressure ulcers; however, there is no consensus and much debate in the literature regarding zinc supplementation to improve wound healing. This is the result of a number of factors, including the difficulty of conducting a randomized controlled trial that singularly and definitively identifies zinc as the key factor and the lack of an assessment tool to determine zinc status.[1–3]

Zinc is a mineral that functions in approximately 100 enzymatic reactions. It plays a role in protein synthesis, collagen formation, cell proliferation, immune function and cellular reactions at the level of DNA and RNA, among myriad other functions.[4,5]

Symptoms of zinc deficiency include appetite loss, blunted taste and smell sensations, increased risk for respiratory and recurrent infections, seborrhea-like dryness and redness of the nasolabial fold and eyebrows, impaired immune function and impaired wound healing.[6,7] Zinc deficiency may be suspected where there is significant wound exudate, delayed wound healing, hair loss, long-term corticosteroid therapy, advanced age, poor nutritional intake, malabsorption, a hypermetabolic state (e.g. physiological stressors) or sepsis.[4,5,8,9]

The literature supports zinc supplementation for pressure ulcer management when there is zinc deficiency. The nutrition recommendations from the National Pressure Ulcer Advisory Panel–European Pressure Ulcer Advisory Panel *International Guidelines for Pressure Ulcer Prevention and Treatment* suggest that vitamin and mineral supplements should be offered when dietary intake is poor or deficiencies are confirmed or suspected;[10] however, the literature also states that there is no evidence for zinc supplementation for pressure ulcer healing when the patient is not zinc deficient.[3,4,8–10]

The dilemma regarding zinc supplementation

There are no universally accepted methods to assess zinc status definitively and accurately; no single test accurately determines an individual's true zinc level.[2,3] Many studies conducted on zinc status and supplementation have used plasma zinc to quantify deficiency; however, plasma zinc levels are homeostatically regulated, are affected by a number of factors and do not necessarily correlate to tissue levels.[11,12]

Dietary reference intakes indicate the level of each micronutrient (vitamin or mineral) needed at each stage of life for *healthy* individuals.[13] When clinicians are presented with patients challenged with a pressure ulcer either alone or in combination with other compounding issues (e.g. acute illness, chronic disease, infection, physical or cognitive barriers to optimal nutrition), they must use their clinical judgment, based on a number of factors, when considering zinc supplementation. Indeed, one author has noted: "The goal for zinc supplementation should be to replenish the body's zinc concentrations in the presence of known or suspected deficiency without providing excessive amounts."[14]

Considerations

Adequacy of intake

It is important to obtain information about patients' typical pre-admission intake of zinc sources, as well as their current intake. To guide the decision to initiate zinc supplementation, clinicians should review the zinc content of all vitamin/mineral supplements, oral nutrition supplements, over-the-counter zinc-containing lozenges marketed to boost the immune system and enteral formulae that the patient receives, and consider these in addition to his/her typical daily intake of zinc from foods.[10] Note that many nutrient analysis programs do not contain complete data for zinc, as this information is often not provided by the food manufacturer; therefore, an analysis of food intake records for zinc adequacy may not be accurate.

Key sources of dietary zinc

The key food sources of zinc are meats (e.g. beef, chicken, turkey, pork), fish and seafood (especially oysters), liver, eggs, milk, beans, whole-wheat products and wheat

Chris Fraser is a Registered Dietitian with St Joseph's Healthcare, Parkwood Hospital, in London, Ontario.

Additional research is needed to determine the effects of various medical nutrition therapy interventions, including zinc, on pressure ulcer healing.

germ. It is important for healthcare facilities to review their menus for zinc-containing sources. Any condition that affects intake will negatively affect optimal zinc status. The key food sources of high-quality protein overlap significantly with those of zinc and iron.

Routes and extent of losses

It is essential that clinicians consider not just intake, but also routes and extent of zinc losses. Zinc is absorbed primarily in the small intestine; however, only 20–40% of ingested zinc is absorbed. Zinc absorption is impaired by intestinal disorders that decrease absorption or increase losses. The primary route of zinc loss is the gastrointestinal tract.[15] A patient who presents with frequent loose stools or emesis may be losing excessive amounts of zinc.

The second greatest loss of zinc is via the urinary tract. Patients who are receiving diuretics or who have uncontrolled diabetes or hyperglycemia (which can be caused by the stress response to trauma, steroids and other factors) will lose excessive zinc. The aging kidney is less able to concentrate urine; therefore, older adults lose a greater amount of zinc via the urinary tract, even under normal conditions. Zinc is further lost in wound exudate.[4,8,16] Patients who present with one or multiple exudative wounds are at risk for impaired zinc status. In addition, fistulae are sources of potentially large zinc losses. Chest tubes and subcutaneous wound drains also contribute to zinc losses.[8]

High fibre and phytate intake decrease the amount of zinc absorbed in the gastrointestinal tract. Phytate found in cereals, legumes and nuts inhibits zinc absorption, while protein facilitates zinc absorption.[17] Therefore, vegetarians may need up to 50% more zinc than non-vegetarians.

Knowledge about patient populations

The current literature indicates that healthy older adults living in the community are at high risk for zinc deficiency and that this deficiency is readily resolved by supplementation. Should a physiological stressor or barriers to optimal intake occur, further strain will be placed on the elderly person's marginal zinc status.[18,19]

An article in the journal of the Dietitians of Canada reported suboptimal zinc status in university students, a population previously not considered at risk for zinc deficiency.[20]

Biochemistry

Albumin is the primary zinc carrier, transporting zinc throughout the body. If a patient has hypoalbuminemia, then the bioavailability of zinc is impaired, since zinc absorption declines when plasma albumin is low. This can occur with trauma, acute stress, infection or sepsis, inflammation, surgery, cortisone excess, over-hydration and protein/energy malnutrition.[8,21]

Nutrition/hydration-related blood work is only one of many components of a comprehensive nutrition assessment. Because blood work may not be readily available and waiting for results can further delay nutrition intervention, many other considerations must be taken into account when determining the appropriateness of supplementation. Diagnosis, changes in weight status and medications must also be considered.[10]

Dentition, dysphagia, preferences, appetite and avoidance issues that affect the intake of zinc-containing foods will negatively affect zinc status. It should be noted that the patients at greatest risk for malnutrition and dehydration are those who are dependent on others for food and fluids.

The recommended daily intake for zinc for healthy adult males and females is 11 and 8 mg, respectively. The tolerable upper limit for zinc in healthy adults – the level of intake that is likely to pose no risk of adverse effects – is 40 mg/day.[13] Many daily complete multivitamin/mineral supplements contain 15 mg of zinc; initiating such a supplement for a patient at risk for, or who presents with, a pressure ulcer is prudent. Only 20% of zinc in an orally administered supplement will be bioavailable.[17] Patients with non-healing stage III or IV pressure ulcers are often given 25–50 mg elemental zinc once or twice daily. Because this can exceed the tolerable upper limit, especially when intake from food and other sources is taken into account, supplementation should not continue long term.[22–24] One recommendation for zinc supplementation to enhance wound healing is 40 mg elemental zinc for 10 days.[25] Another author wrote that zinc is often used for non-healing pressure ulcers in a dose of 15 mg/day; re-evaluation within 4–6 weeks is recommended.[26]

In my own practice, I do not exceed 25 mg elemental zinc twice daily, and typically suggest 25 mg elemental zinc once daily (as gluconate; 175 mg zinc gluconate = 25 mg elemental zinc) for 4–6 weeks following a comprehensive nutrition assessment using informed clinical judgment. Before initiating supplementation, it is important to consult with a pharmacist for guidance regarding potential drug and nutrient interactions.

Adverse effects of zinc supplementation

Acute zinc toxicity is rare. The potential adverse effects of chronic use include gastrointestinal distress,

continued on page 10

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immunosuppression and secondary copper deficiency.[3] Another reported side effect of very high doses of zinc for extended periods is an increase in low-density lipoprotein cholesterol and a decrease in high-density lipoprotein cholesterol.[27] Some publications citing adverse effects of chronic zinc use have reported extremely large doses of zinc for long periods in individuals without unusual zinc losses or physiological stressors.[28–30]

While evidence-based studies and literature reviews are essential to guide safe and appropriate interventions in nutrition and healthcare, these studies utilize very specific and restrictive criteria. A generalized summary (i.e. "There is no evidence for…") based on these restrictive criteria of reviews may lead clinicians to abandon a potentially valuable intervention without applying appropriate clinical judgment. There are various levels of evidence, from randomized controlled trials to expert opinion. One may be stronger than the next, but none is without merit.

Additional research is required to determine the effects of various medical nutrition therapy interventions, including zinc, on pressure ulcer healing.[10]

While it is not appropriate to recommend zinc supplementation strictly on the basis of the presence or stage of a pressure ulcer, neither is it appropriate to deem zinc supplementation for pressure ulcer management ineffective in all cases. Evidence to date is from a minimal number of studies that fall under the strict criteria of evidence-based publications or from small or poorly conducted studies with inconclusive evidence. There is a significant lack of large clinical trials investigating specific nutrition interventions, and more research is required.[25]

Reflection and conclusion

This author receives numerous telephone and email enquiries requesting a "protocol" for nutrient supplementation for pressure ulcers. I am quick to dismiss the concept of protocol (i.e. supplement X nutrient in Y amount for any Stage Z pressure ulcer), as this effectively takes the individual, and considerations such as precautions and contraindications, out of the equation. In fact, these requests for information inspired this article as an example of the need for critical thinking and individualization when providing nutrition intervention for our patients.

The lack of a definitive and accurate measurement tool to determine if a patient has a suboptimal or deficient zinc status requires that clinicians apply sound judgment. This should be based on a comprehensive nutrition assessment that considers precautions of, indications for and contraindications to supplementation.

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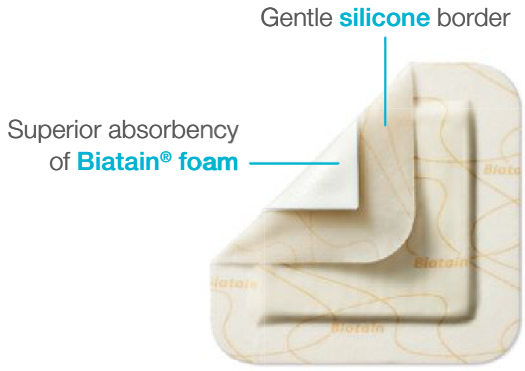

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La supplémentation en zinc pour la prise en charge des plaies de pression

Considérations cliniques faute de test reconnu pour le dépistage de la carence en zinc

PAR Chris Fraser HBSc RD

Introduction

On a souvent recours à la supplémentation en zinc chez les patients qui présentent une plaie de pression, mais son utilité pour l'amélioration de la cicatrisation des plaies de pression ne fait pas l'unanimité et la question fait couler beaucoup d'encre pour de nombreuses raisons, entre autres parce qu'il est difficile de mener des essais contrôlés et randomisés qui permettent de conclure avec certitude que le zinc est le facteur clé et parce qu'il n'existe pas de méthode d'évaluation du bilan en zinc[1-3].

Le zinc est une substance minérale qui intervient dans environ une centaine de réactions enzymatiques. Il joue un rôle dans la synthèse protéique, la formation de collagène, la prolifération cellulaire, la fonction immunitaire et les réactions cellulaires au niveau de l'ADN et de l'ARN, et exerce une myriade d'autres fonctions[4,5].

Les symptômes de carence en zinc comprennent perte d'appétit, émoussement des facultés gustatives et olfactives, risque accru d'infections respiratoires et récurrentes, sécheresse et rougeur du pli nasolabial et des sourcils évoquant une séborrhée, altération de la fonction immunitaire et altération du processus de cicatrisation des plaies[6,7]. On peut soupçonner une carence en zinc quand il y a beaucoup d'exsudat dans la plaie, quand la plaie met du temps à se cicatriser, en présence d'une chute des cheveux, chez les patients qui reçoivent depuis longtemps une corticothérapie, chez les patients âgés, quand l'apport nutritif est insuffisant ou en présence d'une malabsorption, d'un état hypermétabolique (p. ex. facteurs de stress physiologiques) ou d'une septicémie[4,5,8,9].

Selon la littérature, une supplémentation en zinc convient pour la prise en charge des plaies de pression quand une carence en zinc est présente. Selon les recommandations nutritionnelles du National Pressure Ulcer Advisory Panel–European Pressure Ulcer Advisory Panel, intitulées *International Guidelines for Pressure Ulcer Prevention and Treatment*, il faut envisager l'administration de suppléments de vitamines et de minéraux quand l'apport alimentaire est insuffisant ou quand des déficiences sont confirmées ou soupçonnées[10]. Cependant, toujours selon la littérature, il n'y a pas de données probantes sur le rôle de la supplémentation en zinc dans la cicatrisation des plaies de pression en l'absence de carence en zinc[3,4,8-10].

Le dilemme de la supplémentation en zinc

Il n'existe pas de méthode acceptée de tous pour évaluer avec certitude et exactitude le bilan en zinc, c'est-à-dire qu'aucun test ne permet de déterminer exactement le taux véritable de zinc[2,3]. Au cours de nombreuses études sur le bilan et la supplémentation en zinc, la carence a été quantifiée à partir des taux plasmatiques de zinc. Toutefois, les taux plasmatiques de zinc sont régulés de façon homéostasique, dépendent de divers facteurs et ne sont pas nécessairement en corrélation avec les taux tissulaires[11,12].

Les apports nutritionnels de référence donnent la quantité de chaque oligoélément (vitamines et minéraux) nécessaire à tous les stades de la vie chez les personnes en bonne santé[13]. Quand un médecin doit traiter un patient qui présente une plaie de pression, seule ou en association à d'autres problèmes (p. ex. maladie aiguë ou chronique, infection, obstacles physiques ou cognitifs à une alimentation optimale), il doit se fonder sur son jugement clinique et sur un certain nombre de facteurs pour déterminer s'il doit amorcer une supplémentation en zinc. En effet, selon un auteur, « L'objectif de la supplémentation en zinc devrait être de faire remonter les concentrations chez les patients qui présentent une carence connue ou soupçonnée, mais sans administrer des quantités excessives. »[14].

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D'autres recherches devront être menées pour cerner les effets de diverses interventions thérapeutiques nutritionnelles, dont la supplémentation en zinc, sur la cicatrisation des plaies de pression.

Considérations

L'apport est-il suffisant?

Il est important d'obtenir des renseignements sur l'apport en zinc typique chez le patient avant son entrée à l'hôpital, ainsi que sur l'apport actuel. Pour décider de la nécessité d'une supplémentation en zinc, le clinicien doit tenir compte de la teneur en zinc des suppléments de vitamines et de minéraux, des suppléments nutritifs oraux, des pastilles en vente libre contenant du zinc (qui ont pour but de renforcer le système immunitaire) et des préparations entérales que le patient prend, ainsi que de l'apport alimentaire quotidien typique en zinc[10]. Il ne faut pas oublier que de nombreux programmes d'analyse des nutriments ne contiennent pas tous les renseignements sur le zinc, car les fabricants d'aliments ne donnent souvent pas ces renseignements; par conséquent, l'analyse des données sur l'apport alimentaire en zinc peut ne pas permettre de déterminer avec exactitude le bilan en zinc.

Principales sources alimentaires de zinc

Les principales sources alimentaires de zinc sont la viande (p. ex. bœuf, poulet, dinde et porc), le poisson, les fruits de mer (surtout les huîtres), le foie, les œufs, le lait, les haricots, les aliments qui contiennent du blé entier et le germe de blé. Les établissements de santé doivent examiner leurs menus pour s'assurer qu'ils contiennent des aliments qui sont sources de zinc. Tout trouble qui a un effet négatif sur l'apport en zinc a aussi un effet négatif sur le bilan en zinc. Beaucoup des principales sources alimentaires de protéines de qualité contiennent aussi du zinc et du fer.

Pertes en zinc : voie et importance

Les cliniciens doivent absolument tenir compte non seulement de l'apport en zinc, mais aussi de la voie et de l'importance des pertes en zinc. Le zinc est surtout absorbé dans l'intestin grêle, mais seulement environ 20 à 40 % du zinc ingéré est absorbé. L'absorption du zinc est entravée par les troubles intestinaux qui réduisent l'absorption ou augmentent les pertes. Le zinc est surtout perdu par voie gastro-intestinale[15]. Les pertes en zinc peuvent en outre être excessives chez les patients dont les selles sont souvent trop liquides ou qui vomissent souvent.

L'urine est la deuxième plus importante voie des pertes en zinc. Les pertes en zinc sont excessives chez les patients qui reçoivent un diurétique, dont le diabète n'est pas équilibré ou qui présentent une hyperglycémie (qui peut être causée par la réaction de stress à un traumatisme, les stéroïdes ou d'autres facteurs). Comme la capacité de concentration du rein diminue avec l'âge, les personnes d'un certain âge perdent davantage de zinc par voie urinaire, même en situation normale. Il y a aussi une perte en zinc dans l'exsudat de plaie[4,8,16]. Il y a donc un risque accru d'altération du bilan en zinc chez les patients qui ont une ou plusieurs plaies exsudatives. Les fistules sont aussi des sources de perte en zinc pouvant être importantes. Les drains thoraciques et les drains sous-cutanés de plaies contribuent aussi aux pertes en zinc[8].

Enfin, l'ingestion de grandes quantités de fibres et de phytates réduit l'absorption gastro-intestinale du zinc. Les phytates que contiennent les céréales, les légumineuses et les noix inhibent l'absorption du zinc, tandis que les protéines facilitent l'absorption du zinc[17]. C'est pourquoi les végétariens peuvent devoir ingérer jusqu'à 50 % plus de zinc que les non-végétariens.

Patients exposés

Selon la littérature actuelle, les personnes en santé d'un certain âge qui habitent en milieu communautaire sont très exposées à la carence en zinc, mais la supplémentation permet de corriger facilement cette carence. Chez les personnes âgées, la présence de facteurs de stress physiologiques ou d'obstacles à l'ingestion optimale peut altérer encore davantage le bilan en zinc[18,19].

Selon un article paru dans la revue de Les Diététistes du Canada, le bilan en zinc est sous-optimal chez les étudiants d'université, population qu'on ne savait pas jusqu'ici exposée à la carence en zinc[20].

Biochimie

L'albumine est le principal transporteur du zinc dans l'ensemble de l'organisme. L'hypoalbuminurie réduit la biodisponibilité du zinc parce que l'absorption du zinc baisse quand le taux plasmatique d'albumine est faible. Elle peut être causée par un traumatisme, un stress aigu, une infection, une septicémie, une inflammation, une chirurgie, un excès de cortisone, une surhydratation et une malnutrition protéino-énergétique[8,21].

Les analyses sanguines axées sur la nutrition ou l'hydratation ne sont qu'un des nombreux éléments d'une évaluation nutritionnelle globale. Comme les analyses sanguines peuvent ne pas pouvoir être facilement effectuées et comme le délai d'obtention des résultats peut retarder encore davantage les interventions nutritionnelles, il faut tenir compte de beaucoup d'autres facteurs pour déterminer le bien-fondé de la supplémentation, entre autres du diagnostic, des changements de poids et des médicaments[10].

Les facteurs qui ont un effet négatif sur le bilan en zinc sont la dentition, la dysphagie, les préférences, l'appétit et les problèmes d'évitement qui influent sur

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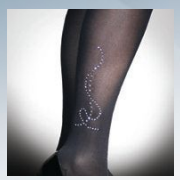

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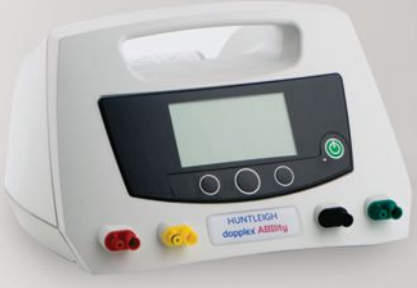

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l'ingestion d'aliments contenant du zinc. Il faut se rappeler que les patients les plus exposés à la malnutrition et à la déshydratation sont ceux qui comptent sur quelqu'un pour leur apport alimentaire et liquidien.

L'apport quotidien en zinc recommandé chez les hommes et les femmes adultes en santé est respectivement de 11 et 8 mg. L'apport en zinc maximal tolérable chez les adultes en santé, soit l'apport qui n'est pas susceptible d'avoir des effets indésirables, est de 40 mg/jour[13]. De nombreux suppléments complets de vitamines et minéraux à prendre tous les jours contiennent 15 mg de zinc; il est prudent d'administrer un tel supplément chez un patient qui présente une plaie de pression ou qui est exposé aux plaies de pression. Seulement 20 % du zinc que contient un supplément à prendre par voie orale est biodisponible[17]. On prescrit souvent aux patients qui présentent une plaie de pression de stade III ou IV qui ne cicatrise pas de 25 à 50 mg de zinc élément une ou deux fois par jour. Comme cette quantité peut dépasser la limite maximale tolérable, surtout quand on tient compte du zinc provenant des aliments et d'autres sources, la supplémentation ne doit pas être de longue durée[22-24]. Selon une des recommandations, pour favoriser la cicatrisation des plaies, il faut prescrire la prise de 40 mg de zinc élément pendant dix jours[25]. Selon un autre auteur, on utilise souvent 15 mg par jour de zinc contre les plaies de pression qui ne cicatrisent pas et une nouvelle évaluation est recommandée après quatre à six semaines[26].

Pour sa part, l'auteure du présent article ne prescrit pas à ses patients plus de 25 mg de zinc élément deux fois par jour. En fait, elle suggère habituellement à ses patients de prendre 25 mg de zinc élément une fois par jour (sous forme de gluconate : 175 mg de gluconate de zinc = 25 mg de zinc élément) pendant quatre à six semaines après une évaluation nutritionnelle globale fondée sur son jugement clinique. Avant d'amorcer la supplémentation en zinc, il est important de consulter un pharmacien pour connaître les interactions possibles avec les médicaments et les nutriments.

Effets indésirables de la supplémentation en zinc

L'intoxication aiguë au zinc est rare. Les effets indésirables possibles de la prise à long terme sont la détresse gastro-intestinale, l'immunosuppression et

la carence secondaire en cuivre[3]. Un autre effet secondaire signalé de la prise prolongée de très fortes doses de zinc est une augmentation des taux de cholestérol à lipoprotéines de basse densité et une diminution des taux de cholestérol à lipoprotéines de haute densité[27]. Les publications faisant état des effets indésirables de la prise prolongée de zinc font mention de cas de prise prolongée de doses extrêmes de zinc par des personnes ne présentant pas de pertes en zinc ou de facteurs de stress physiologiques inhabituels[28-30].

Les études et analyses documentaires fondées sur des données probantes sont essentielles pour que les interventions en matière de nutrition et de soins de santé soient sûres et convenables, mais ces études sont fondées sur des critères très précis et restrictifs. Sur la foi d'un résumé général (soit « Il n'y a pas de données probantes qui démontrent que... ») fondé sur les critères restrictifs des analyses, les cliniciens peuvent abandonner une intervention pouvant être précieuse s'ils ne font pas preuve de jugement clinique. Les données probantes ne sont pas toutes du même niveau, allant des essais contrôlés randomisés à l'opinion d'experts. S'il est vrai que certaines sont plus solides que d'autres, elles présentent toutes un intérêt.

D'autres recherches devront être menées pour cerner les effets de diverses interventions thérapeutiques nutritionnelles, dont la supplémentation en zinc, sur la cicatrisation des plaies de pression[10].

On ne peut recommander la supplémentation en zinc simplement en raison de la présence ou du stade d'une plaie de pression, mais on ne peut pas non plus affirmer que la supplémentation en zinc est inefficace dans tous les cas pour la prise en charge des plaies de pression. Les données obtenues à ce jour viennent d'un petit nombre d'études répondant aux critères stricts des publications fondées sur des données probantes ou d'études petites ou de plan médiocre dont les résultats ne sont pas concluants. D'autres recherches s'imposent, car très peu d'essais cliniques de grande envergure ont été menés pour évaluer des interventions nutritionnelles précises[25].

Observations et conclusion

L'auteure du présent article reçoit souvent des appels téléphoniques et des courriels de personnes qui demandent s'il existe un « protocole » pour la supplé-

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mentation nutritionnelle en présence de plaies de pression. Elle rejette d'emblée le concept du protocole (soit une quantité X d'un supplément Y pour toute plaie de pression de stade Z), car il ne tient pas compte de la personne et de facteurs comme les précautions et les contre-indications. Ce sont en fait ces demandes de renseignements qui l'ont poussée à rédiger le présent article pour démontrer qu'il faut faire preuve de jugement critique et tenir compte de la situation particulière du patient avant de prescrire une intervention nutritionnelle.

Comme il n'y a pas de méthode pour déterminer avec certitude et exactitude si le bilan en zinc est sous-optimal ou si une carence en zinc est présente chez un patient, les cliniciens doivent faire preuve de bon jugement. Ils doivent se fonder sur une évaluation nutritionnelle globale et tenir compte des indications et contre-indications de la supplémentation, ainsi que des précautions qui s'y rapportent.

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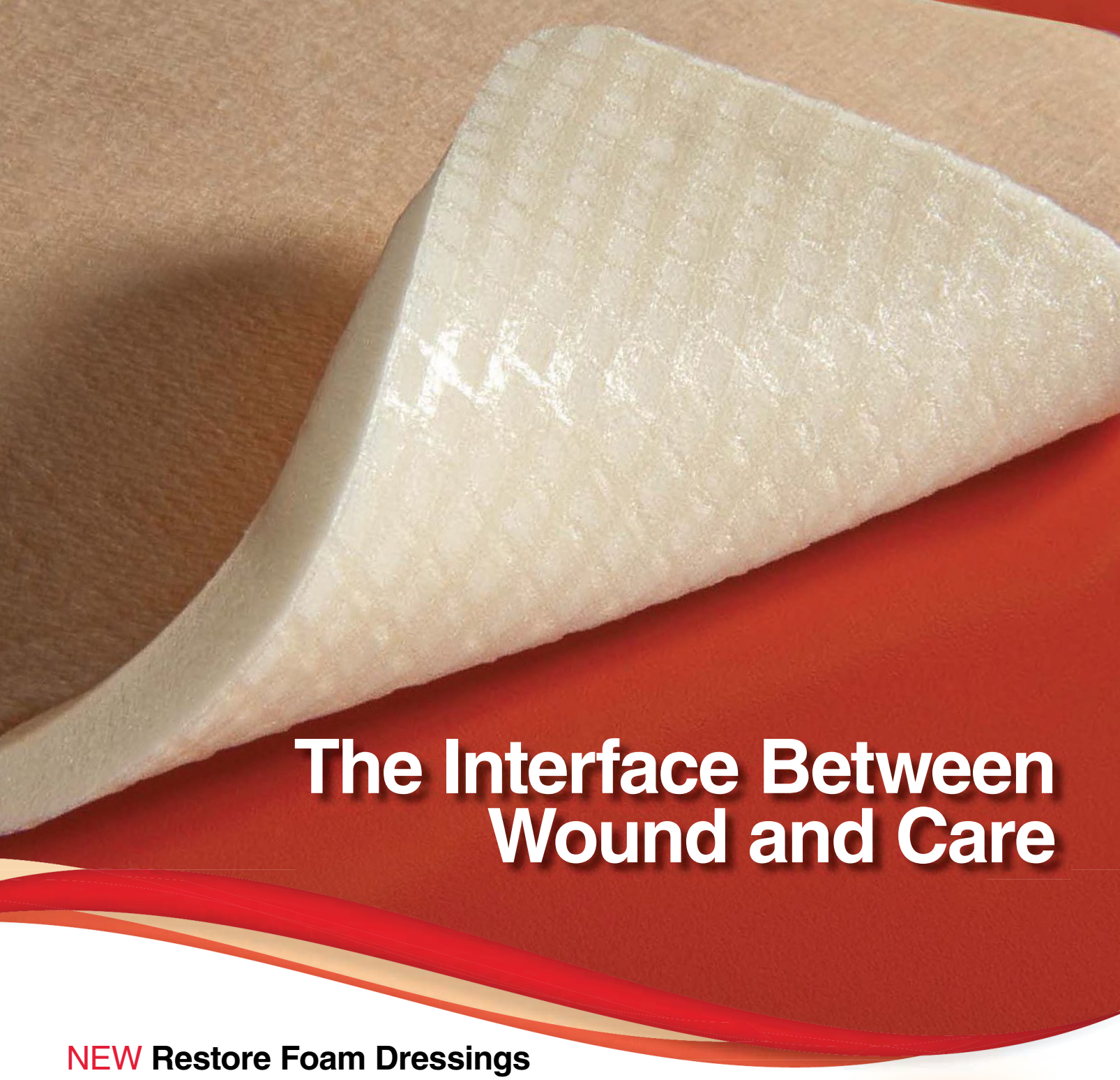

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Who is on Your Road Show?

Collaboration, appraisal and recommendations for education with relevant stakeholders using a new wound care instrument

BY Janet L. Kuhnke
BSN MS ET
AND
Heather L. Orsted
RN BN ET MSc

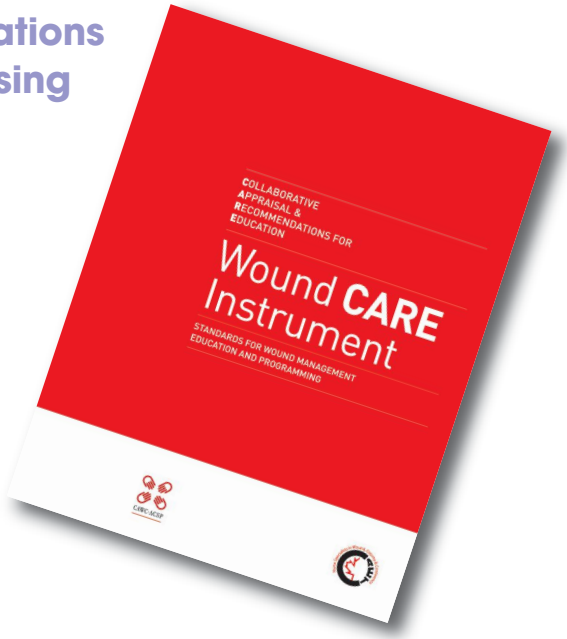
At the 2010 Canadian Association of Wound Care (CAWC) conference, the Wound CARE (Collaboration, Appraisal and Recommendations for Education) Instrument[1] – the result of a collaboration between the Canadian Association for Enterostomal Therapy (CAET) and the CAWC – was introduced to attendees. The Wound CARE Instrument is a document that provides a framework for effective, evidence-informed wound management education.

This document gives practitioners the opportunity to utilize the Wound CARE Instrument standards to:

- evaluate existing wound care programs;
- examine wound care program modules or materials that are being considered for addition to existing wound care programs; and
- develop and create new wound care programs.

At the conference, the presenters described an extensive tour – or "road show" – of key provincial healthcare leaders that was undertaken in Ontario to introduce the Wound CARE Instrument. The session ended with conference participants being challenged to document the names of partners or stakeholders they need to inform about the Wound CARE Instrument, creating their own personal "road show" list. This list may include enterostomal therapists, wound care specialists, clinical leaders, clinical nurse educators, administrators, purchasing specialists, and provincial and federal partners in healthcare. These partners must be made aware of the incredible resource that is now available to them. As leaders and developers of wound, ostomy and continence programs, the Wound CARE Instrument gives you and your stakeholders an opportunity to evaluate existing, planned or under-development wound care programs, giving each a score using the Wound CARE Instrument standards.

Our objective as enterostomal therapists and wound care specialists is to provide the best education opportunities possible for practitioners in all care settings.



The Wound CARE Instrument collaborative project between the CAET and the CAWC will improve the quality of wound care and patients' health outcomes. The educational program or event that you evaluate using the Wound CARE Instrument will be able to adapt and continue over time, building the essential sustainability and transparency required by all our funding agencies.

We challenge you to download and read this report, and within 15 days share it with a colleague or collaborate with at least two stakeholders using the Wound CARE Instrument standards. Create your list of valuable "road show" partners and support best practice in wound care!

The Wound CARE Instrument is available free online in both English and French from the CAWC (www.cawc.net) and CAET (www.caet.ca) websites.

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The Wound CARE Instrument:

CAET and CAWC Partner to Optimize Wound Care Education and Programs

BY Catherine Harley RN IIWCC eMBA

The Canadian Association of Wound Care (CAWC) and the Canadian Association for Enterostomal Therapy (CAET) recently joined forces to create an innovative approach to ensuring a comprehensive, evidence-informed appraisal process before developing or introducing a wound management education initiative or program. The Wound CARE (Collaboration, Appraisal and Recommendations for Education) Instrument was officially launched at the CAWC's Wound Care Conference in November 2010.

The need for the Wound CARE Instrument was established due to inconsistencies in the delivery of wound care across Canada. There was no tool that provided an unbiased, evidence-based framework to guide decision-making in wound care education and programs. To support a more consistent approach, the development of an evidence-based instrument that could be used by various stakeholders was identified as a strong priority for improving wound care.

Development

The Wound CARE Instrument was developed by experts in the field, supported by a task force of experts appointed by CAET and CAWC to review evidence and develop a draft instrument. Four key documents helped in identifying standards that support education and systems change:

1. Health Canada Strategy – Interprofessional Education for Collaborative Patient-Centred Practice;
2. Canadian Interprofessional Health Collaboration – Stronger Together: Collaborations for System-Wide Change;
3. International Diabetes Federation – International Standards for Diabetes Education, 3rd edition; and
4. Registered Nurses' Association of Ontario – Toolkit – Nursing Best Practice Guidelines.

Further to the identification of the standards, a literature search was conducted to locate supporting evidence for the newly developed standards. The first draft was approved in principle by the CAWC and CAET, and then expert wound care educators engaged in a Delphi method to evaluate and support revisions to the draft. The draft Wound CARE Instrument was used in pilot sites across Canada, with very positive outcomes that further improved the tool.

The Chief Executive Officer of the CAWC and the Executive Director of the CAET held face-to-face meetings with the key stakeholders for this instrument, such as the Ontario Quality Health Council, and solicited feedback and in some cases endorsement. After all of the feedback gained from the results of the pilots, Delphi panel and meetings had been incorporated, the Wound CARE Instrument was presented to both the CAWC and CAET Boards of Directors, and approval to launch was obtained from both boards.

Improving health outcomes

The philosophy of the Wound CARE Instrument is that the success of any educational event or wound management program lies in its ability to provide the best possible care for patients as it adapts and continues over time. It is important to take a large amount of information and synthesize it into understandable pieces that can be translated into clinical practice. The instrument supports an iterative approach, bringing about improvements in the quality of care over time as we go through cycles of knowledge creation. The main goal of the Wound CARE Instrument is to positively influence the quality of wound management and improve health outcomes for Canadians by providing healthcare organizations with a framework that allows them to appraise their wound care education and programming in relation to the best available evidence, supporting best practice.

Taking a look at the Wound CARE Instrument, it is clear that it:

- provides a framework to identify the components required to plan, develop, implement, evaluate and sustain evidence-informed wound management education and programming;
- provides a benchmark to appraise the quality of wound management education and programming;

continued on page 25

Catherine Harley
is Executive Director, Canadian Association for Enterostomal Therapy, Ottawa, Ontario.

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…

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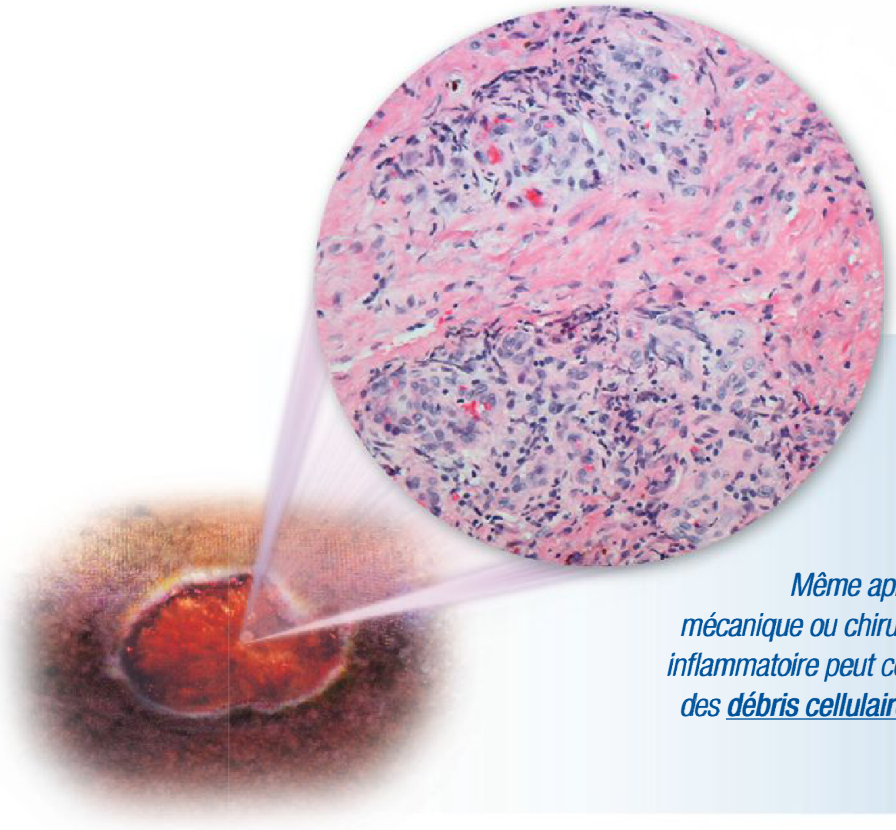

Even after sharp or surgical debridement, inflammatory processes can continue to generate ***microscopic cellular debris***

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- L'onguent SANTYL® avec collagénase cible le collagène de manière sélective sans endommager les tissus sains
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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.

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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.

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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.

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• supports collaboration in the development and implementation of wound management education and programming initiatives;
• informs decisions related to the endorsement, adoption, adaptation, purchase or rejection of wound management education and programming; and
• improves patient care and health outcomes relating to the prevention and management of wounds.

The Wound CARE Instrument is designed for use by leaders such as chief executive officers, directors, policy-makers, managers, administrators, reimbursement and funding agencies, procurement departments, educators and developers of wound management education and programming, wound care specialists, enterostomal therapy nurses or clinical managers and any other health professionals involved in wound care. This may include physicians, dietitians, podiatrists or chiropodists, and occupational and physical therapists.

Five-step approach

There is a 5-step approach to using the Wound CARE Instrument:

Step 1: Select the educational event, initiative or program to be appraised and identify the stakeholders who should be involved.

Step 2: Stakeholders review the proposed or existing educational event/program, considering 5 phases of development: preplanning; preparation and development; implementation; outcomes; and sustainability.

Step 3: Each stakeholder appraises the event or program independently using the Wound CARE Instrument.

Step 4: Stakeholders discuss their independent reviews and arrive collaboratively at a decision to endorse, adopt, adapt, purchase or reject the education or program.

Step 5: The instrument is signed and dated by the stakeholders and kept on file to record appraisals and recommendations.

CAET and the CAWC look forward to an ongoing partnership to raise the bar in wound care delivery. To learn more about the Wound CARE Instrument, visit www.cawc.net or www.caet.ca.

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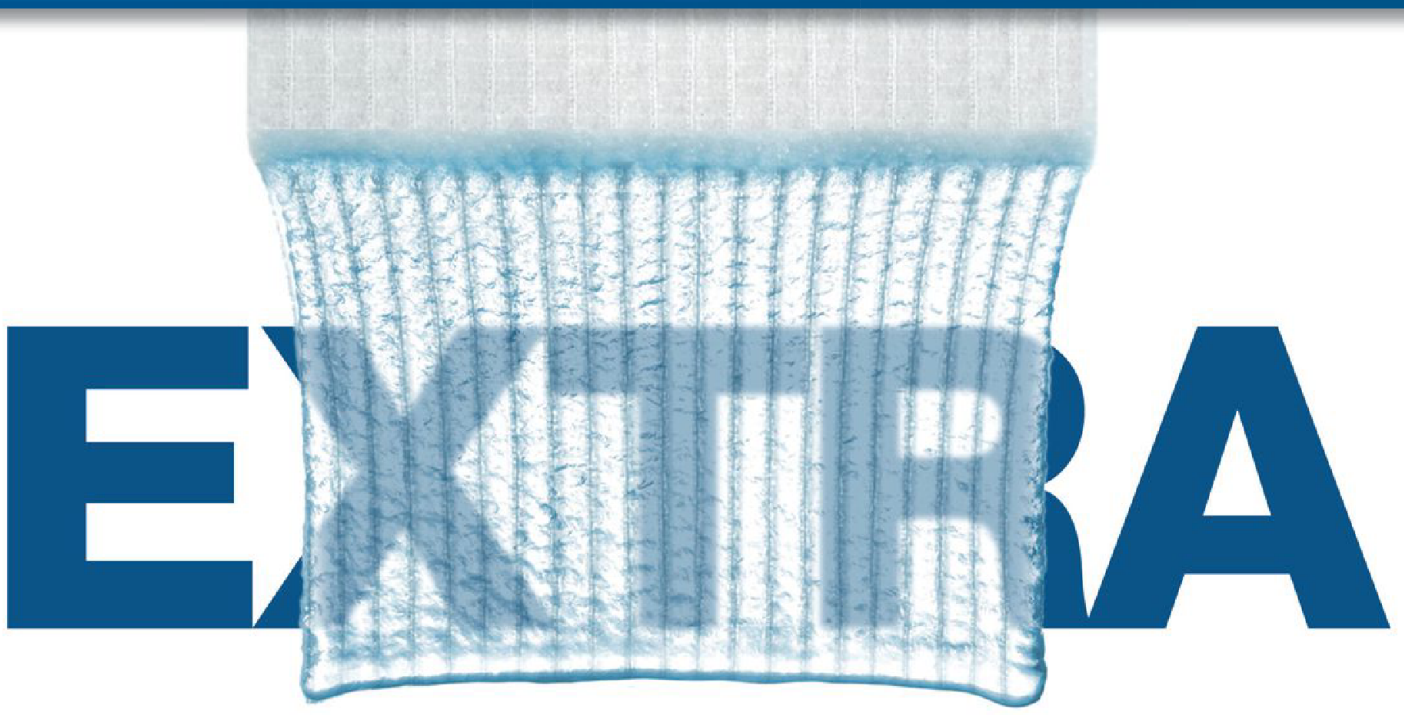

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[a]As compared to original AQUACEL® dressing.

Reference: 1. Preliminary assessment of the physical properties of AQUACEL® EXTRA vs AQUACEL® & DURAFIBER™. *Scientific Background Report*. WHRI3461 TA214. 2011, Data on File, ConvaTec Inc.

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Evaluating Interprofessional Wound Care Education Programs

BY Pat Coutts RN
AND
Peggy Ahearn

Many new programs are emerging from universities, colleges, healthcare institutions, industry and associations in response to an increased need for education regarding wound prevention and management. With diminishing healthcare resources being devoted to educational activities, it is important that these resources are invested in programs of a high quality. Last year, the Canadian Association of Wound Care (CAWC) and the Canadian Association for Enterostomal Therapy (CAET) collaborated to establish standards for wound management education and programming.

The resulting Wound CARE Instrument[1] organizes standards based on the following phases:

- Phase 1: Standards for preliminary planning.
- Phase 2: Standards for preparation and development.
- Phase 3: Standards for implementation.
- Phase 4: Standards for outcomes.
- Phase 5: Standards for sustainability and post-implementation planning.

This tool can be used by facilities and others to evaluate educational events, and make informed decisions regarding which events to support. It can also be used as an aid for those designing educational curricula to help them improve the rigour of their programs.

This commentary provides an example regarding **Phase 2: Standards for Preparation and Development** of the use of this tool in such a capacity by reflecting on the educational programs offered through the CAWC. Areas where the program meets the standards in the preparation and development phase (Table 1) are highlighted throughout.

Preparation and development

The CAWC Institute of Wound Management and Prevention has recently changed its structure to respond to the need for interprofessional collaboration. Interprofessional collaboration is not limited to physicians and nurses, but also includes allied health professionals across various settings, including hospitals, long-term care homes, rehabilitation facilities and the community. The interprofessional team at the CAWC Institute consists of a physician, two registered nurses and a chiropodist. Together with the team director (an occupational therapist with a background in adult education), this team designs and reviews the programs offered by the CAWC Institute **(Standard 2.1)**. Each team member is recognized as an educator and wound care leader within his or her field of practice.

CAWC Institute programs

The programs currently offered by the CAWC Institute include **(Standard 2.2.3)**:

- International Interprofessional Wound Care Course;
- Practice Reflective Portfolio;
- Level 1 (basic learning): Wound Care Knowledge Development;

TABLE 1

Standards for preparation and development from the Wound CARE Instrument[1]

Phase	Standards for preparation and development
2.1	Curriculum has been developed through interprofessional collaboration.
2.2	Curriculum is:
	2.2.1 evidence informed;
	2.2.2 based on adult learning principles;
	2.2.3 reflective of knowledge, skill, attitude and behaviour learning; and
	2.2.4 current with revision plan in place.
2.3	Curriculum is unbiased, generic and non-promotional.
2.4	Physical environment is optimized to support adult learning.
2.5	Promotion and publicity plans are in place.

Pat Coutts is the Chair of the CAWC.

Peggy Ahearn is the Executive Director of the CAWC.

- Level 2 (basic learning): Wound Care Skills Development;
- Level 3 (basic learning): Attitude Development (Prevention Programs); and
- Level 4: Advanced Knowledge (Certificate) – e.g., completion of an approved certificate course with a focus on wound care, such as the International Interprofessional Wound Care Course or the CAET's Nursing Education Program).

These first 4 levels can be used by the learner to prepare for studies at the graduate level through a university, leading to:

- Level 5: Advanced Knowledge (Masters).
- Learners can then complete a Professional Practice Portfolio and submit it to the CAWC Institute for review and feedback to achieve level 6 learning:
- Level 6: Advanced Practice – including portfolio submission.

In each component of the program, learners are encouraged to reflect on their new knowledge and develop a plan to integrate it into their practice setting **(Standard 2.2.3)**.

Meeting all standards

To ensure the dissemination of evidence-informed, up-to-date information, each program component is reviewed in a systematic process. The CAWC establishes interprofessional teams to review and update its best practice recommendations. Once new recommendations have been developed, the team then reviews and revises the relevant components of the education program, recommending changes and adding new evidence **(Standards 2.1, 2.2.1 and 2.2.4)**. The changes are incorporated by the CAWC Institute interprofessional team with a view to fostering adult learning principles **(Standards 2.1 and 2.2.2)**. The program changes, resource materials and source articles are disseminated to the faculty of the CAWC Institute to ensure consistent programming across Canada.

Although industry partners are involved in the CAWC level 2 program (Wound Care Skills Development), providing supplies for skills laboratories and having the opportunity to participate in an exhibition hall environment, all programs use generic terms rather than product-specific names **(Standard 2.3)**. Exhibition hall times are clearly demarcated in the schedule and are separate from the educational content, so participants can clearly distinguish these events.

To optimize the physical environment **(Standard 2.4)** for those in remote locations, a distance education program is offered (the International Interprofessional Wound Care Course) as well as online options (Professional Practice Portfolio and a skin self-study module). The physical environment is optimized for workshop activities, such as the level 2 program (Wound Care Skills Development), ensuring sufficient space for tabletop activities, small group sessions and skills laboratories. Lastly, education events are publicized through flyers, the CAWC website and mailing lists **(Standard 2.5)**.

An effective tool

As illustrated, the Wound CARE Instrument can be an effective tool to both evaluate the rigour of an educational program and assist with the revision and design of educational events.

The Wound CARE Instrument is available for download from: http://cawc.net/index.php/resources/wound-care-instrument.

For more information regarding CAWC education events, visit www.cawc.net.

Reference

1. Canadian Association of Enterostomal Therapists and Canadian Association of Wound Care. *Wound CARE Instrument: Standards for Wound Management Education and Programming* (2010). Available at: www.caet.ca and www.cawc.net. Accessed September 1, 2011.

CAWC Institute of Wound Management and Prevention

The CAWC Institute Toronto Event Includes:

Level 1: Knowledge Learning

Basic wound management knowledge to support a best practice approach to patient care, including: wound healing principles; wound bed preparation; pressure ulcers, venous leg ulcers and diabetic foot ulcers.

Level 2: Skills Learning

Interactive learning and practice of wound care skills, including: local wound care; debridement, infection control and dressing selection; lower leg assessment and compression therapy; foot care and foot wear; pressure, friction and shear management.

Level 3: Attitude Learning

Steps and methods for practicing within a team to develop and sustain prevention strategies, with a focus on pressure ulcer and diabetic foot ulcer awareness and prevention.

Toronto

December 1–4, 2011

Delta Toronto Airport West

CAWC INSTITUTE of Wound Management and Prevention

For more information, please contact:

Diana Seminara, Event Coordinator
Canadian Association of Wound Care
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Jordan Sacks Discusses His

Experience with a Very Painful, Slow-healing Wound

Jordan Sacks is a Toronto-based chartered accountant. Aged 39, he has been married for 11 years to his wife, Lisa; they have 3 children. He spoke recently with *Wound Care Canada* about his wound care experience.

When was the wound diagnosed, and what has been your reaction?

I was diagnosed with Crohn's disease in 1987. I was medically managed for more than 20 years, until I had to have a bowel resection in May 2008. Postoperatively I developed an anastomotic leak, which resulted in septicemia. I was taken back to surgery to wash out my abdomen, reverse the bowel resection and create an ileostomy. As a result of the septicemia, my blood pressure dropped significantly and my organs began to shut down. I ended up in the intensive care unit (ICU), fighting for my life for several months.

During one of my many operations while in the ICU, it was also discovered that a significant amount of muscle and tissue in my right thigh, hip and lower back was necrotic and had to be debrided. As a result, most of my back was used as a skin donor site. The donor site became my wound. Because of my poor health and the fact that I lay on my back 24 hours a day, the wound did not heal. It bled every time the bandages were changed and the more irritated it was, the more sensitive it became. After almost two years of trying various dressings, ointments and creams, my wound had still not healed. In March 2010, I began seeing a dermatologist and wound specialist who was responsible for healing my wound. After many appointments where many painful steroid injections were administered, my wound finally closed. The redness is slowly fading and the sensitivity has decreased significantly.

How did you cope with your wound care regimen?

I had a very hard time of it. Early on at the hospital, I feared the daily dressing change. I was anxious about which nurse I would have and whether he/she would be familiar with the procedure. Because of my anxiety, I asked my wife or my parents to speak to the individual in charge of staff scheduling every day to ensure that the nurse assigned to me knew my wound care routine. I also insisted that my wife be in the room with me to hold my hand and supervise the dressing change because she knew the exact protocol. Before the nurses began (several were required to roll me over and change the dressing as quickly as possible), I was given pain medication.

My wound bled every time the old dressing was peeled off. Eventually the dressing change in the hospital became so painful that I needed a dose of ketamine prior to the procedure, which sedated me sufficiently to remove the old dressing. I would then remain on my side for about 20 minutes so the nurses could finish.

Patients at the rehabilitation hospital were not permitted intravenous lines. As such, I was prescribed strong oral painkillers such as opioid analgesics to mitigate the pain from my dressing change, which often left me feeling nauseous. The pain was worst when I showered; when the water came into contact with the wound, it felt like I was being burned. Many days, the pain from my wound was so excruciating, I couldn't do any physical therapy.

The rollercoaster ride of my wound starting to heal and then breaking down again because of malnutrition, MRSA and pseudomonas I contracted while in hospital was extremely frustrating.

After I was discharged from the hospital, home care began and a Community Care Access Centre (CCAC) nurse changed the dressing 3 days a week. My schedule on those days worked around my nurse's visit. I had to

continued on page 33

Canadian Association of Wound Care

Association canadienne du soin des plaies

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Wound Care Resources

The CAWC is pleased to offer member discounts on tools and resources that add value to your wound care practice, including:

- Product Picker Dressing Selection Poster
- Wound Assessment Pocket Guide
- Sensory Testing Monofilaments
- Bates-Jensen Wound Assessment Tool DVD
- Chronic Wound Care Clinical Source Book
- *and much more!*

Wound Care Canada

Included with your membership is *Wound Care Canada* magazine, Canada's only publication devoted entirely to wound care, which addresses the needs of clinicians, patients, caregivers and industry.

Let Your Voice be Heard

Members may apply to sit on the CAWC Board of Directors. The Board of Directors is responsible for financial oversight, provides policy guidance to the Executive Director, and directs and supports the mandate and vision of the CAWC.

Professional Education

CAWC members receive exclusive discounts on professional education events, including:

- Annual Wound Care Conference. This year's conference will be held from November 3-6, 2011, at the Ottawa Convention Centre
- L-Series educational workshops offered in cities across Canada:
  - Level 1 - Basic wound management
  - Level 2 - Hands-on practice of wound care skills
  - Level 3 - Pressure ulcer and diabetic foot ulcer awareness and prevention

CAWC Membership Application

FIRST NAME: LAST NAME:

COMPANY/HOSPITAL:

HOME ADDRESS:

CITY: PROVINCE: POSTAL CODE:

PHONE (WORK): (HOME):

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☐ NEW MEMBERSHIP ☐ MEMBERSHIP RENEWAL

Membership Category (please check one box)

☐ Membership ($100.00 + $13.00 HST = $113.00)

☐ Student / Retiree/Patient/Lay Caregiver ($75 + $9.75 HST = $84.75)

Method of Payment ☐ Cheque ☐ Visa ☐ Master Card ☐ Amex

CREDIT CARD NUMBER: EXPIRATION DATE (MM/YY):

NAME OF CARDHOLDER:

SIGNATURE:

Please mail completed application form and payment to: 642 King Street West, Suite 200 Toronto, ON M5V 1M7

have my dressing changed before I could do anything else. On average, the preparation for and the dressing change itself took 3 hours, so my mornings were fully booked. On days where I had to go to therapy or other medical appointments, I had to ensure the nurse saw me early enough to get out on time. Coordinating my schedule was very stressful.

Weaning myself off the pain medication to which I had become addicted was a huge challenge, as the pain was still intense. Initially I took a lower dose of morphine and then I began using extra-strength Tylenol. I took oxycodone on the many days when the pain was excruciating. I also encountered a new issue when I got home: the constant and intense itch from my wound. The itch always began immediately after I showered and lasted several hours. On a few occasions, the itch forced me to skip my occupational and physical therapy. While my wound was open I couldn't tolerate anyone hugging me, which was difficult to explain. The wound completely interfered with my ability to live my day-to-day life.

Can you discuss the importance of family/friends/caregiver support?

I would not be here today if I didn't have the unconditional love and support of my whole family and all of my friends. My wife was my advocate when I couldn't be. She became so familiar with my wound dressing changes that the nurses often asked for her assistance. My wife also played a huge role in the decisions that were made concerning my medical care. Although I can never repay her for what she has done for me, my knowledge of her actions made me determined to recover and resume my responsibilities as her partner in life.

My parents and siblings were at the hospital every day, putting aside their own responsibilities to help take care of me. They brought me meals; they ensured that I was never alone and that I received the appropriate care when my wife was at home with our kids. Their ongoing and unconditional support was fundamental to my recovery.

My kids, too young to understand the severity of my condition, visited often and gave me the inspiration to work hard and resume my responsibilities as their father. My in-laws helped take care of our kids while my wife was at the hospital, and our many relatives and friends provided ongoing support without being asked.

What is the importance of your healthcare team?

The nursing care I received through the CCAC while recovering at home was terrific. The nurse came every other day and spent as much time as needed ensuring the wound was properly cleaned and dressed. Having the same person handle my dressing changes was very comforting to me. We developed a relationship and I knew what to expect instead of fearing the unknown. When my regular nurse couldn't see me, she always ensured her replacement was well prepared with detailed written instructions on my dressing change and how it had to be done. When an issue arose, the nurse always contacted my attending physicians to ensure that they were fully aware of my condition and made changes to my treatment accordingly.

The nursing staff of my dermatologist and wound specialist went out of their way to make me feel comfortable. They were extremely kind and caring.

Although they weren't directly involved in healing my wound, many other healthcare professionals deserve recognition for their patience, compassion and commitment to giving me back my life: my family doctor, who assembled a great team of healthcare professionals; my colorectal surgeon, who successfully reversed my ileostomy; my gastroenterologist, who was always available to answer my questions; my hand surgeon, who restored my left hand function; my psychiatrist, who treated my depression; the occupational therapists and physiotherapists, who taught me how to walk again; all of my nurses, who were so compassionate; and the ICU staff and trauma surgeons who saved my life. These people believed in me and are all partially responsible for where I am today.

What would you like to tell other patients experiencing a similar clinical issue?

I believe that determination is the most important factor in the recovery process. My scenario was dire. I went in for a relatively routine operation and thought it was successful. I woke up a couple of months later to this terrible new reality. I had two choices – I could give up and accept my fate, or I could fight to get my life back. I wanted my life back and I was prepared to do anything to get it.

Having an advocate is also extremely important – especially when you can't advocate for yourself. My wife was heavily involved in my ongoing medical care and she was instrumental to my recovery. My family always filled in for Lisa when she was with our kids.

My wound became a huge obstacle to my recovery process. I had to heal the wound so I could focus on

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"I had a very hard time coping with my wound care regimen. Early on at the hospital, I feared the daily dressing change."

my physical rehabilitation program, the most critical part of my recovery. We went to many doctor's appointments. We tried every product available. We talked to many healthcare practitioners. Ultimately, a wound nurse referred me to a specialist who was able to think outside the box and heal the wound. Our persistence paid off.

As a patient, I believe it is very important to recognize the efforts of our healthcare providers and to ensure they know we appreciate what they have done for us. Whether it's a verbal thank you or a written note, our gratitude is extremely important. I went so far as to visit the ICU unit where I had been 3 years earlier to show the nurses and doctors the "proof" that their efforts had paid off; they were appreciative of my visit.

What would you like to say to healthcare providers about dealing with patients like you?

I have met many healthcare providers over the last three years. Fortunately, most went out of their way to help me. I believe that transparency is essential between patients and healthcare providers. Be honest with your patients immediately so a level of trust is established early on. If need be, explain the procedure or medical terminology again and again. If the patient has an understanding of his/her illness and what your treatment plan is going to be, the element of fear is removed. Fear is a huge obstacle that has to be overcome. Finally, I believe healthcare providers should try to imagine themselves or a family member as the patient and ask themselves how they would want to be treated.

Is there anything further that you'd like to touch upon?

For a long time after I awoke to my horrible new reality, I debated whether it would have been better to die. There were many difficult days when I thought about how long it was going to take me to recover and that it would be easier to give up. Then, I thought about the many people who were counting on my recovery – my wife, kids, family and friends. I also knew that giving up wasn't part of my personality. Looking back, I'm grateful that I was strong enough to survive and know I am fortunate to have had the help of so many outstanding healthcare providers in my recovery.

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