Wounds Canada Fall 2019 Conference:

Driving Change in Wound Care

October 3–6, 2019, Niagara Fallsview Casino, Niagara, Falls, ON

Session Summaries – Part I

Wounds Canada held its fall 2019 conference in Niagara Falls, ON, October 3 to 6. Local volunteers attended sessions and prepared the summaries that follow, which include highlights and practice pearls from expert speakers. These summaries reflect half of the sessions; the rest will follow in the next issue of Wound Care Canada.

CAN YOU HEAR ME?

Reporter: Stephanie Chadwick, MCISc-WH NP-PHC NSWOC WOCC(c)
Session speakers: Frank Berns, Linda Moss, Patty Roperti, Sharon Wilson

This keynote presentation featured patients and their families who have experienced wounds within our health-care systems.

Frank Berns was diagnosed with diabetes 20 years ago. He and his wife described the frustration of not being heard while navigating the health-care system, emphasizing that changes are needed to optimize patient care. Their key message was that preventing amputation for individuals with diabetes requires appropriately educated health-care professionals who understand the complex management of diabetic foot ulcers. In addition, they emphasized that while care partners advocate for their loved ones, they are not necessarily heard. The couple suggested that care pathways should be developed and should incorporate access to appropriate footwear, prevention practices and early assessment.

Patty Roperti, Linda Moss and Sharon Wilson shared the care partner's perspective on wound care following their father's death from a severe

pressure injury. The family advocated for better prevention and care programs in order to help others avoid seeing their loved ones develop a pressure injury. The sisters shared a video they created that has aired on news media, capitalizing on bringing a face, a person, a family forward as recognizable advocates for pressure injury complications.

CHANGE: WHAT DOES IT MEAN TO ME AND HOW DO I BECOME AN AGENT FOR CHANGE?

Reporter: Erin Rajhathy, RN BScN MCISc NSWOC WOCC(C)
Session speaker: Irmajean Bajnok

This presentation discussed drivers for change, provided definitions of roles included in the process of change and sought to teach health-care professionals strategies to cope with managing changes they may not support. Situations in which disappointment and devastation occur are common drivers for change. Policy and regulation are essential for sustaining effective change. Credible change agents should make sure language is clear, and remember the key to driving successful change is to remain humble.

Drivers for change can include economy, evidence, policy, social forces, technology and outdated process. Change is complex. Sustainability for change is difficult without adequate buy-in. The participation of personnel at all levels, especially those in decision-making positions such as managers, is essential to successful change and supporting those who are change agents. Structural change begins with the orientation of new staff and is maintained through follow-up discussed in performance reviews.

In a structural change design, buy-in from others is needed. Agency, which occurs when people are empowered, is an alternative strategy for change. This ensures all participants are invested in the change.

Change agents do not work in isolation. The following must be involved for successful change:

- **Sponsor:** This is someone who has the authority to impact the target.
- **Wound care champions:** These individuals are extensions of the change agent and can be influential.
- **Super connectors:** Within all organizations, these are individuals who know everything and everyone and can use informal connections.
- **Stakeholders:** This group includes all levels of stakeholder, especially those with decision-making ability.

Resistance to change should always be expected. Examples of resistant behaviour include denying reading communications, blaming others and increasing workload. Start small. Make sure your team is resilient. Promote solidarity, higher purpose, safe environment, vitality and reason to ensure success.

Key Points:

- Change agents have to collaborate, communicate and speak the same language.
- Ensure committees include those with opposing ideas.
- Get social support, find your super connector and garner sponsors.
- Think about the stories. Patient stories, including those of despair and devastation, are huge driving factors.
- Persist, persist, persist.

DIABETIC FOOT ULCERS

Reporter: Tim Murray, RN BScNP
Session speakers: Ahmed Kayssi, Amanda Mayo, Scott Schumacher, Kristien Van Acker

This session discussed the importance of prevention, the burden of diabetic foot syndrome and the importance of being engaged and creative when finding solutions to complicated situations.

Kristien Van Acker discussed the global burden, incidence and expenditure caps of diabetic foot ulcers. The cost of diabetes has a huge impact on health-care budgets, and prevention and treatment of diabetes need more focus. She shared that 12% of the global health-care budget is spent on diabetes, which exceeds spending on most types of cancer, including breast cancer and colorectal cancer. Furthermore, diabetes costs more than the entire economies of the Netherlands and Switzerland. She discussed some of the work being done to address the challenges being faced, and the progress and success of some programs. According to international guidelines, it is critical that patients be categorized for risk and managed accordingly.

Scott Schumacher discussed the biomechanics of wound healing. Wounds are caused by abnormal forces that must be treated. Two-thirds of people with diabetes develop sensory loss preceding ulceration. There is a 15 to 25% lifelong risk of developing foot ulcers, and 20% of those who have an ulcer will require an amputation. The five-year survival rate following an amputation is 55%.

The pillars of wound treatment are infection management, dressings, debridement, preparation of the wound bed and offloading. The timing of treatment is key to ensure ulcer healing, as the risk of developing infection increases with time.

Scott Schumacher asserted that dressings have little place in the treatment and improvement of wounds, citing several studies supporting this view. In Canada, clinicians tend to focus on dressing changes and antibiotics rather than offloading and biomechanical measures (debridement). In certain cases, the more often wounds are debrided, the quicker healing takes place. Orthotics are hugely important, as offloading is the most important in treatment and prevention of diabetic foot ulcers, but devices are not always easily accessible.

Surgery has a place in some greater phalangeal issues. Flexor tenotomy also has a role in the prevention of lesser phalangeal ulceration. Scott Schumacher shared several examples of how surgical intervention has been successful in preventing and treating ulceration.

Amanda Mayo discussed the role of technology in the assessment and management of diabetic foot ulcers. Smart phones and smart footwear are being used in both treatment and prevention. Currently available tools include the following:

- **Smart pad (podemetrics):** detects changes in heat, which are indicators for foot ulceration

- **Smart socks:** detect heat changes and predict potential foot ulceration
- **Tissue analytics software:** stores and accurately measures wounds
- **Special wound-focused smart watch:** helps track changes with pictures and information
- **Smart grafts:** a high-technology implant that can be placed next to grafts to help diagnose emerging issues
- **Smart shoes:** connect to technology and allow assessment of foot-load information in real time
- **3D printing:** potential for cost-effective and quick production of orthotic inserts by trained technicians (scan and print can be done within an hour)

Ahmed Kayssi discussed the assessment and management of diabetic foot ulcers beyond technological advancements, emphasizing that most patients in Canada are not receiving the standard of care. Multidisciplinary teams have been shown to improve outcomes in limb preservation. Diabetic foot team implementation should be more widely available, as patients would benefit from quicker assessment and treatment.

There are, however, challenges in setting up a diabetic foot team, including low uptake of guidelines, limited podiatry services, lack of early patient identification, poor patient and physician education, and lack of databases.

Key Points:

- Prevention is the forgotten item.
- The most effective risk-stratification tools are sight and touch.
- Financial cost and quality of life cost are both important for treating diabetic foot complications.
- Shoes and prosthetics are crucial in preventing diabetic foot problems.
- Offloading and debridement are more important than dressings.
- Surgery has a significant place in the prevention and treatment of foot ulcers.
- There are many opportunities to leverage technology for better data-gathering and sharing.
- Future research directions will focus on improving the quality of care and detecting adverse developments.

ISSUES AND SOLUTIONS: TACKLING THE ISSUES OF SSIs

Reporter: Eliot To, DCh MCISc (Wound Healing) HBSc
Session speakers: Elaine Calvert, Karen Cross, Corrine McIsaac, Cesar Oerllana, Lacey Phillips, Douglas Queen, Ranjani Somayaji

This session consisted of four subsessions. The first three focused on surgical site infections (SSIs) and the last focused on wound data collection, interpretation and application.

Lacey Phillips presented the Ontario Surgical Quality Improvement Network initiative. The initiative consists of a "community of practice that brings together best practice and quality improvement." The goal of the network is to reduce post-operative SSIs. At the end of her presentation, there was an open call to be a part of the advisory committee for the development of SSI quality standards. Development of the standards will take place throughout 2020, with public consultation in fall 2020, and release in spring 2021.

Cesar Orellana highlighted common skin and soft tissue infections, including impetigo, ecthyma, erysipelas and cellulitis. He suggested that blood cultures are positive in less than 5% of

cases of skin and soft tissue infections. He also presented the empiric oral and intravenous antibiotic treatments for uncomplicated skin and soft tissue infections and infections caused by MRSA (methicillin-resistant *Staphylococcus aureus*). One point to note is that if the lesion is purulent, incision and drainage (I&D) should be the goal.

Karen Cross opened her presentation by suggesting that "not everything is an infection." When teaching residents, she uses the pneumonic "SEEP" (smell, erythema, exudate, pain) to help diagnose SSIs. She highlighted different pre-, intra- and post-operative strategies to decrease the risk of SSIs. These include the use of the Canadian Nutrition Screening Tool and optimization of nutrition, use of a surgical safety checklist to improve communication, use of antibiotics and normothermia, good glycemic control, peri-operative skin preparation and reduction of unnecessary operating room traffic. She employs a monitoring app that allows her to monitor and respond to patient's post-operative concerns remotely and efficiently.

Douglas Queen facilitated a panel discussion with Elaine Calvert, Corinne McIsaac and Ranjani Somayaji on the topic of reliable wound data and evidence in Canada. The discussion was split into "Current State of Play" and "Future State in Canada." Corinne McIsaac suggested that the current state of data collection is "awful, but we're making progress." She said that data collection is difficult, as it is dependent on clinicians diagnosing and coding properly. Ranjani Somayaji stated that some of the challenges are "understanding of wounds and what we're actually collecting." There is a need, she said, for the development of a data dictionary that is standard among clinicians to unify language. The dictionary might include, among other things, definitions of different types of wounds. Another challenge she mentioned was "data consumerism"—how the wound data are interpreted and how to appraise the data. For next steps Elaine Calvert suggested the development of a Canadian wound registry, where clinicians can access data when they need it.

Key Points:

- Ontario Surgical Quality Improvement Network is an example of an initiative to decrease SSIs.
- There is a need for the development of an SSI quality standard in Ontario.
- Impetigo, ecthyma, erysipelas and cellulitis are examples of skin and soft tissue infections.
- *Streptococcus* is the most common causative agent of cellulitis and erysipelas.
- For purulent lesions, incision and drainage should be a goal.
- The more severe the infection, the more likely clinicians need to start IV rather than oral antibiotics.
- Multiple risk factors contribute to SSIs; prevention of SSIs should begin pre-op and continue post-op.
- There's a need for common wound language or a "wound dictionary" for data collection.
- Data collection is important; data appraisal and interpretation are even more important.

THE DIABETIC FOOT: CODE BLUE

Reporter: Tim Murray, RN BScNP
Session speakers: Johnny Lau, Christine Murphy, Cesar Orellana, Giuseppe Papia, Scott Schumacher

Cristine Murphy outlined three habits that are critical to success: being proactive (rather than passive), beginning with the end in mind (a closure plan), and synergizing (working with the team).

Diabetic foot ulcers that previously would have been treated with amputation are now treatable by other means. Some of these treatments were demonstrated through case studies following the principles of using available therapies such as negative pressure wound therapy, debridement, revascularization, antibiotics, cultures, topical antimicrobials and cleansing. She also discussed ischemia and its treatment, and use of the WIfI (wound, ischemia, foot infection) classification system for rapid referral and to quantify risks of amputations.

Scott Schumacher stated that we can get to the point of catastrophe, but it is often easier to prevent complications early than to treat them at a critical point. Biomechanics is a vital consideration for wound healing and longevity.

Several case studies were discussed to examine removing rays, metatarsal abnormalities, fractures and overpronation. Treatment of transmetatarsal amputations were compared to removal of rays, illuminating that both have complications. The former may have fewer complications if the tarsals are kept longer. He also discussed varus (foot rotation) as a result of ray removal, as this can result in ulceration formation.

Cesar Orellana reviewed a complex case study of a limb-threatening diabetic foot infection. Amputation was offered by surgeons; however, negotiation took place and amputation was averted. Instead, they used debridement and NPWT to good effect.

He went on to list the statistics and negative outcomes for diabetic foot ulcers. The International Working Group on the Diabetic Foot (IWGDF) classification was discussed, demonstrating the severity of infection. Factors were outlined that would recommend hospitalization for the patient. Also considered was an oral versus IV antibiotics regimen for diabetic foot infections, dependent on severity and local climate.

Giuseppe Papia emphasized working toward limb preservation at all costs by leveraging the toolbox of surgeries. He presented a case in which the patient wanted his leg preserved. A catheterization lab and arteriogram below the knee demonstrated poor perfusion. Surgeons managed to pass wire through the occlusion and collaterals, and angioplasty was performed. However, the patient still had significant pain symptoms. They decided to perform open surgery to revascularize. This resulted in improved pain relief, and after six weeks the wound showed visible signs of healing. Three months later the wound was closing.

Johnny Lau presented a case study of a 56-year-old male with non-insulin-dependent diabetes and foot pain, presenting with erythema and a hole in the medial aspect of the foot. The panel discussed the case to explore potential courses of treatment. Suggestions included checking circulation and toe pressures, vascular studies, tissue biopsy and blood cultures, debriding and antibiotics. Panel members also recommended clinicians order an x-ray to look for gas, and rule out Charcot foot. They discussed the need to improve swelling and erythema before correcting the bone dislocation with a surgical intervention. In a case like this, it is essential to look at long-term consequences; amputation would destabilize the foot. This patient received multiple pins and plates to successfully realign the foot.

Key Points:

- Be active rather than passive, have a closure plan in mind and work with the team.
- Infection is defined as invasion and multiplication of micro-organisms in host tissue plus host response, resulting in tissue destruction.
- Diabetic foot infections occur in open wounds (break in the protective cutaneous envelope).
- Limb ischemia increases the risk of infection of dermal ulcers and adversely affects outcomes.
- It's not a procedure, it's a project. Maintaining the patient's quality of life and dignity are hard work.
- No one solution fits all; ask others for opinions, and work as a team.

ISSUES AND SOLUTIONS: WOUND CARE IN INDIGENOUS POPULATIONS

Reporter: Eliot To, DCh MCISc (Wound Healing) HBSc
Session speakers: Lindsey Cosh, Chester Ho, Kimberly Lacey, Jane McSwiggan

Lindsey Cosh presented a holistic foot-care prevention model by the Indigenous Diabetes Health Circle (IDHC). The IDHC believes that "Indigenous people have tools, knowledge and ability to make health choices and live free of diabetes, now and in future generations." The focus of their foot-care program is to "support a continuum of foot care services based on education, screening, treatment, support and data collection, strengthen local community collaboration and provide foot care services to Indigenous people affected by or at risk of diabetes and its complications." The program follows the four components of the medicine wheel, and includes outreach and assessments, self-care and ongoing treatment, foot-care subsidies, access to home visits and educational and self-care resources. She concluded her session by giving examples of a few success stories from the foot-care program.

Chester Ho and Kimberly Lacey presented data and initiatives from Alberta Health Services (AHS) and Nova Scotia Health Authorities (NSHA), respectively. Chester Ho provided an update on standardization of pressure injury risk assessment across Alberta and an overview of prevention strategies to come. Their strategic priorities are to "raise awareness of pressure injury prevention, obtain meaningful data, and increase in client voice." Kimberley Lacey presented data on NSHA pressure injury prevalence, which demonstrated a decrease from 14.2% in 2015 to 10% in 2018. She also showcased initiatives such as the annual "bed site" patient skin assessment, the provincial pressure injury policy, and the wound and pressure injury committees.

Jane McSwiggan highlighted different sources of isolation, such as barriers, distance and separations. Any of these factors could cause patients to be isolated. She also contrasted the "generalist" and the "specialist" health-care professional, stating the importance of blending the two. She suggested the importance of bridging the gap of urban and rural patient care by investing in learning and training, community engagement and workforce stability. Finally, she offered solutions to overcome barriers, including knowing one's professional scope, asking for help when needed, and ensuring that active learning and documentation can be accessed in both rural and urban settings.

Key Points:

- Building community and building trust is paramount to the IDHC's prevention-based foot-care program.
- Standardization of pressure injury assessment tools, wound data collection, educational and promotional videos, and patient experience interviews are all helpful tools for pressure injury prevention.
- There is a need for telehealth and outreach for skills development for rural practitioners.

WOUND JEOPARDY

Reporter: Susan Chandler, RN MCIScWH
Session speakers: Robyn Evans, Jolene Heil, Crystal McCallum, Guiseppe Papia, Douglas Queen

In this session, fiendishly worded questions were presented as a Jeopardy game to test wound

knowledge in an interactive and fun team setting. The questions were challenging and resulted in many "aha" moments and much laughter over both the content and the wordplay. The Tip Toes team won with a fantastic score of 14,202 points, 200 points ahead of their nearest rivals.

WHEN THINGS WENT WRONG: LESSONS FROM THE EXPERTS

Reporter: Eliot To, DCh MCISc (Wound Healing) HBSc
Session speakers: Barbara Bates-Jensen, Amani Oakley, Evelyn Williams

Amani Oakley, a lawyer, began the session by defining and explaining legal terminology, including *duty of care*, *non-medical duty of care*, *standard of care*, *causation* and *vicarious liability*. She then presented a case from 2006, in which a patient developed an infection post C-section. The take-away from the case was that standard of care was not met; however, causation was not established, and therefore the case was dismissed. She concluded her portion of the session by suggesting that "records can help you or destroy you." She urged attendees to uphold standard of care and to document properly.

Barbara Bates-Jensen energized the attendees by beginning her portion with a rap. She suggested there are three issues when it comes to documentation: inaccuracies, inadequacies and inappropriate comments. Inaccuracies include wrong wound location, etiology or staging, sizes and the like. Failure to include important wound data, such as size, location, description, and failure to follow policy are examples of inadequate documentation. Inappropriate documentation includes use of personal or unprofessional views, such as providing comments like "patient refuses to understand" or "patient is very stubborn."

Evelyn Williams concluded the session with a fictional case study. She provided practice and communication tips, including taking a thorough history, acknowledging to the patient and family that there is a problem, describing all interventions in place, providing a prognosis, explaining why a lesion might be difficult to heal, stating the risks and benefits for treatment, and even asking the patient or family to see the wound.

Key Points:

- Always deliver good care—care that meets the standard.
- Be conscientious, and take extra precautions when delivering care.
- Adhere to the Mother's Standard of Care: treat patients as if you're treating your own mother.
- Communicate between care providers and with patients and their families.
- Always document accurately, adequately and appropriately.

Stay tuned for more session summaries!

Additional summaries of the sessions presented at Wounds Canada's fall 2019 conference will be published in the March 2020 issue of *Wound Care Canada*. Join our mailing list to ensure you don't miss it—send an email to info@woundscanada.ca.