Wound Credentialling in Canada

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It is time to create a standardized education program and credentialling system that recognizes advanced practice in wound care in Canada. Credentials have become widely recognized as social currency used for knowledge translation, and they serve to identify one's acquisition of knowledge and skills. They have become a means for employers and consumers to measure or rate the competency of professionals across disciplines.

There is currently a lack of standardization across Canada regarding who is considered the appropriate health-care provider for wound identification and management. Certification programs are already available to recognize many other specialties, but wound care is not among them. As Masturzo et al. stated, "It would appear reasonable to ask why wound care is different."[1] Recognition of advanced practice via certification not only improves patient care[2,3] but also identifies to others working in health care that advanced knowledge, skill and judgment are required to work effectively in wound care.[4]

This article will explore a readiness to define wound care as a distinct and necessary area of practice. We will review the current health-care practices in that area. We will explain how a credentialling process designed to standardize an advanced education program will help establish wound care with a unique identity. The need for wound credentialling will be evaluated based on costs and outcomes. Relevant terms, including *certified, competent, expert,* and *specialist,* will be reviewed to aid in the selection of an appropriate credentialling title. Information from various sources will include the Internet, Google Scholar, professional organizations and databases (CINAHL, Medline, ProQuest, Up-to-date, Scopus and PubMed).

How many wounds?

A recent report released by the Canadian Institute of Health[5] was the first attempt to estimate the prevalence of patients registered in various health-care institutions (hospitals, long-term care, community care and others) across Canada. This report suggested that an average of 4 percent of inpatient

acute care, 7 percent of home care, 10 percent of long-term care and 28 percent of complex continuing-care patients receiving health care in Canada have "compromised wounds."[5] The report also made clear that this estimate, derived from current documentation within administrative databases, grossly underestimates the actual number of patients affected by open wounds. Other estimates in the literature suggest the actual prevalence of various types of chronic wounds is closer to 26 percent,[6] 8 percent[7] and 23 percent.[8] A key strategy to convince health-care decision makers that there is a need for an advanced practice in wound care is to make clear that compromised wounds are a co-condition of many common disease conditions such as cardiovascular disease, cancer and diabetes. In addition, 1.7 percent of patients admitted to hospital after traumatic injuries or undergoing surgical procedures (e.g., joint replacements) will develop pressure ulcers or surgical site infections that require advanced wound care.[5]

Lack of Best Practice-based Care

Providers in the health-care system should be accountable for ensuring individuals receive cost-effective quality care reflective of best practice.[9] Unfortunately, wound management is not always reflective of best practice. For example, the lack of universally adopted standards in the management of persons living with diabetic foot ulcers leads to unnecessary costs and amputations. More than 345,000 Canadians with diabetes will develop a preventable foot ulcer.[10] Eighty-five percent of amputations are secondary to non-healing diabetic ulcers, which may have been prevented by appropriate footwear and adequate foot care.[11] Offloading has been shown to produce faster healing, but it is seen in less than 6 percent of diabetic patients.[12] The cost of diabetic foot amputation is 10 to 40 times greater than the cost of prevention.[5]

In the case of venous leg ulcers, research compiled by the Cochrane review panel[13] shows that the use of compression improves the healing rate. This treatment is strong-

ly recommended by several national and international best practice guidelines and recommendations (Registered Nurses' Association of Ontario [RNAO], Wounds Canada [Canadian Association of Wound Care], Australian Wound Management Association [AWMA], New Zealand Wound Care Society and Wounds UK). However, the Ontario Local Health Integration Network caseload reviews from 2010 through 2011[14] reported only 23 percent of patients with venous ulcers were receiving compression. There are many more examples of recommended best practices for evidence-informed wound assessments and treatments that are not incorporated by clinicians. Clearly, there is great opportunity and need to improve wound care practices in Canadian health-care systems. Further, we believe better integration of advanced practice wound care clinicians who can provide these evidence-informed therapies is critical to lead the necessary changes.

The Costs

The current cost of managing wounds, including treatments, medications, interventions and dressings, creates a financial burden to health-care systems.[5] Annual combined (institutional and home-based) wound care costs are estimated in Canada's health system to be around $3.9 billion.[15] The cost of delivering wound care is plagued by health-care delivery gaps that include lack of care co-ordination across health-care sectors and inequities in accessing specialized expertise, equipment and supplies.[16] An increasingly older population increases the potential for wounds secondary to chronic diseases.[17–19] The associated costs will represent an increasing burden over time.[8,17] As life expectancy increases, and with the average age of the Canadian population projected to rapidly increase, so will the incidence and prevalence of chronic wounds. A recent report by the Wound Care Alliance suggests that, given current estimates of the cost of caring for chronic wounds together with projected changes to Canadian demographics, the proportion of health-care dollars spent on wound care will rise to 30 percent by the year 2020.[20]

The cost of chronic wound management goes beyond financial considerations. The human/personal costs include pain,[5,14,21] infection,[22] prolonged hospitalization,[23,24] altered quality of life,[23,25] depression,[24] anxiety, financial burden and increased mortality.[5] Cost, quality and patient safety concerns reflect the necessity for standardizing wound care practices.

Wound Care Awareness and Interest

In Canada, ensuring that quality care is delivered to Canadians using the skills and opportunities of health-care providers is the responsibility of each province or territory. The Premier of Ontario, Kathleen Wynne, in her manifesto entitled "2014 Mandate Letter: Health and Long-Term Care,"[21] listed priorities for health care, including "championing the delivery of quality coordinated care to patients by making the best use of the skills and capacity of all our health-care providers." This mandate provides us with an opportunity to examine the current process of wound management and suggests new strategies that provide optimal, evidenced-based wound care, not only for residents in Ontario but for other areas of Canada as well.

Support for a credentialling process that recognizes advanced practice skills in the area of wound care is evident in Ontario. The Ontario Wound Care Interest Group (OntWIG), an interest group affiliated with the RNAO, has been endeavouring since 2007 to increase awareness and engage stakeholders, policy makers and politicians in recognizing the challenges in providing evidence-based wound care across the province. In 2013, the annual symposium of OntWIG entitled "From Vision to Action"[26] highlighted the need to identify the processes that would be required to develop credentialling wound care education as an initial step toward improving practice standards and standardizing wound care across the province of Ontario. An OntWIG interdisciplinary working group was formed in

2014 with the mandate to identify the current state of wound education/certification for all regulated health professionals, to identify the processes involved with wound care certification programs in other locations and countries and to make recommendations for the development of a process that would recognize advanced education in the wound care field.[27] This group outlined next steps for developing a formalized designation in Ontario. Steps include establishing an interprofessional framework, developing policy statements, outlining scope of practice and establishing partnerships with professional organizations.[28] The work of OntWIG demonstrates a readiness to examine and advocate for changes that would support the designation for clinicians who choose to do advanced practice in wound management in Ontario. OntWIG has worked in partnership with Health Quality Ontario (HQO) to develop standards for wound care in Ontario. These newly developed guidelines were featured at OntWIG's 7th annual symposium in April 2017. We feel these advancements by OntWIG and HQO would be of interest to other groups working on similar initiatives across Canada.

Currently there are wound care initiatives in provinces around the country. Some, but not all, of the provincial examples include British Columbia, Quebec and, as previously mentioned, Ontario. In British Columbia, a province-wide Nursing Skin and Wound Committee was established in 2008. This committee included representation from regional skin and wound committees from various health authorities (publicly funded health-service providers). The goal of this committee was to develop resources to standardize the wound care provided throughout the province.[29] Their mandate has been to develop practices for wound management reflecting cost-effective evidenced-based research in areas of prevention/treatment and risk-management evaluation indicators.[28,29] The regulatory body for registered nurses working in British Columbia—the College of Nurses of British Columbia—defines the scope of practice specific to wound care. The regulation states "registered nurses may carry out wound care without an order . . . cleansing, irrigating, probing, debriding, packing, dressing and suturing a laceration."[30]

Quebec's association for wound care, the Regroupement Québécois en Soins de Plaies (RQSP),[31] aims to promote practices in the area of wound care across the province. Their mission is to optimize wound care by providing standardization of practices, tools and documentation. The regulatory body for nurses in Quebec is the Ordre des infirmières et infirmiers du

Québec (OIIQ).[32] This governing body authorizes "reserved activities," which enable nurses to take a proactive approach to wound healing. One reserved activity provides autonomy to nurses by allowing them to determine the treatment plan for wounds and skin alterations. In 2016, the OIIQ recognized a new category: prescription nurse. Once a nurse receives education in wound care from recognized university-level programs, they can order laboratory tests (prealbumin, albumin and wound culture), and products, medicines and dressings (not specified) related to the treatment of wounds and skin alterations.

These examples demonstrate that several provincial bodies are grappling with the same issues. Therefore, there is an opportunity, for efficiency's sake, to come together and create a national approach that would create a strong, unified voice to benefit all. Nurses may provide the majority of bedside nursing, but a national approach needs to reflect the interdisciplinary aspect of wound care.

Evidence that Advanced Wound Care Clinicians Improve Clinical Outcomes

The future of wound care needs to reflect wound management that is based on sound empirical evidence embedded within the social context of the individual (e.g., available resources, cultural norms).[33] Evidence has demonstrated improved wound outcomes with the implementation of best practice guidelines.[34–37] Baich et al. noted improvements in wound healing when a provider with advanced wound care knowledge was involved directly or in consultation. [38] This finding was based on a review of literature that determined the value of having enterostomal therapy (ET) nurses in the home-care sector. The article inclusion criteria included: report of the research study, focus on ET nursing and focus on wound care provided in the home. Multiple electronic databases (all indexed years), hand-searched articles and a Google search resulted in eight articles. These articles supported having ET nurses employed in the home-care sector—demonstrating improved healing times, wound closure rates, reduced emergency room visits and support for the home-care nurses.[38]

A study by Zulkowski and Ayello examined whether wound care certification and education affected nursing knowledge regarding pressure ulcers.[40] Their study compared knowledge among U.S.-based registered nurses certified in wound care, nurses with specialty certification outside wound care and nurses without specialty certification. The participants' basic knowledge was tested using a validated tool (Pieper Pressure Ulcer Knowledge Tool).[41] Testing included prevention, staging and general wound knowledge. Results demonstrated nurses certified in wound care achieved a standardized mean score of 89 percent, while those with no certification had a significantly lower mean score of 76.5 percent ($p < 0.05$). There was no clinically significant difference between the knowledge of nurses with certification in other areas (outside wound care) and nurses without certification. Certification in itself provided no added benefit; certification in wound healing resulted in higher mean scores.

These two studies highlight emerging evidence to support the role of advanced practice clinicians in wound care. While preliminary findings suggest clinical outcomes can

be improved when the care is led by a knowledgeable clinician with advanced practice skills and judgement specific to wound care, obviously more research is needed. Research showing that better, more cost-effective wound care is possible will be critical in influencing health-care decision makers. We will need to convince key stakeholders that hiring these highly qualified wound care clinicians will be worth the financial investment.

A Title Makes a Difference

Many titles are used in the literature to describe an individual with advanced knowledge and clinical skills. The variation makes it difficult to establish an appropriate single, all-encompassing title for the advanced wound care practitioner. Establishing a title is an important component of "branding," to help both the public and agencies recognize individuals with a wound care designation based on their advanced knowledge and skills. Defining the most common terms currently in use will provide a basis of understanding for the selection of an appropriate title.

Appendix A contains an overview of various definitions and examples found in literature. The term *expert* requires experience but no guarantee of knowledge. *Competency* relates to acquiring basic knowledge and skills. *Certification* can sometimes be misleading, as there is no clear distinction between attendance/participation certificates and certification based on advanced knowledge and skills. Based on the definitions in Appendix A on page 27, both *certification* and *specialist* reflect an advanced level of clinical knowledge and skills based on formalized education.

The term *specialist* denotes that the individual has attained knowledge and clinical skills required for practising at an advanced level within their field.[3] They have gone through a rigorous credentialling process reflective of formalized evidenced-based learning.[42] The title *specialist* is held in high regard, partly because title protection is sanctioned under regulatory bodies. The College of Physicians and Surgeons has a list of more than 60 specialist roles in the field of medicine, which can then further be broken down into specialized ages and categories, but wound management is not included in this seemingly exhaustive list. The Canadian Nurses Association (CNA) has developed certification programs for 19 specialty areas of nursing practice. The College of Registered Nurses of British Columbia enables nurses to get approved certification in areas of contraception management, sexually transmitted infections, remote nursing and RN first call.[43] The College of Nurses of Ontario grants specialty certification and title protection to registered nurses in the extended class (nurse practitioners).[44] The College of Physiotherapists of Ontario[45] requires registrants to apply for permission prior to using the title *specialist*; currently, orthopedic/manual therapy is recognized. Occupational therapy has no process for specialization, preventing applicants from declaring specialization in their field.[42] Developing a process for specialization status will be an extremely challenging task. This may take many years and result in a delay in providing an interdisciplinary approach to wound care. For this reason, the title *specialist* would hinder, rather than progress wound credentialling processes across Canada.

Where do we go from here?

Establishing a standardized credentialling process across Canada is one of the key pieces needed to address the many significant issues associated with wound care. There should also be other concurrent processes in place to achieve the desired outcomes.

Wound credentialling is much more than a practice issue; it is a policy issue. Organizational policy is required to identify who can hold the titles. Provincial policy is required to provide funding to hire the appropriate providers. Educational policy is required to provide credentialling. National policy is required for standardization across Canada. Regulatory policy through the Regulated Health Professions Act and regulatory bodies is required to obtain specialty recognition for individuals seeking to attain credentialling in wound care.

Cost, quality and patient safety concerns reflect the necessity for standardizing wound management. The enhanced wound care practices provided by specialized individuals will ultimately result in lower overall wound care costs based on proactive, researched-based approaches to wound healing.

Summary

It is time to create a standardized education program and credentialling system that recognizes advanced practice in wound care in Canada. A cascade effect related to chronic wounds is costing Canadian health-care systems at least $3.9 billion per year.[15,46] Quality in health care requires a look beyond individual certification courses or programs to develop an interprofessional process for improvement.[47] There is an opportunity to review and transform current health-care practices.

Wound management involves more than just changing a wound dressing; it involves conducting a comprehensive assessment and developing an interdisciplinary, evidence-informed treatment plan that addresses the underlying cause(s) of delayed healing. A standardized, advanced, interprofessional education program will help establish wound care as a unique identity. Credentialling provides a mechanism to ensure that certification reflects best practice and recognizes the advanced level of clinical knowledge and skills required for interprofessional wound management.

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Appendix A

Terms Defined

Title	Description	Example	Advantage	Disadvantage
Certification	• meets and maintains standards of practice predetermined by a regulatory body[1,2] • organization or professional body grants certification based on minimal standard criteria[1,2] • may require an examination or submission of a portfolio demonstrating knowledge and skill[48,49]	• College of Nurses of Ontario (CNO) specialty certificates in primary health care, pediatrics or adult care[44] • International Interprofessional Wound Care Course (IIWCC) certificate of attendance and credit certificate [50] • Canadian Nurses Association (CNA), certification exams in various subspecialties[51] • Canadian Association of Enterostomal Therapy certification in wound, ostomy and continence care[52]	• an indicator that the professional is qualified in a specialized area of practice[53,54]	• the title itself has no guarantees of competency in practice[55] • certificates awarded based on attendance or years of experience and not reflective of rigorous credentialling[56,57]
Competency	• proficient performing an assigned skill or task based on previously obtained or current knowledge[2,58] • gained through clinical practice, reflection and opportunities[4]	• entry-level requirement of undergraduate nursing degree programs[59]	• organized, efficient, mastering clinical skills, developing a plan based on conscious consideration of the problem[60]	• experienced but lack the efficiency, speed and flexibility of an expert; ignoring subtle associations noted by experts[60,61]
Expertise	• discriminates, noting subtle differences that others do not and they demonstrate consistency over time[56, 62] • expresses pattern recognition and association at an unconscious level[61]	• social acclamation of expertise involves asking a professional who they consider an expert in the field[57]	• has a vast amount of experience and the ability to grasp a situation to define the underlying concern[60]	• often given the title based on years of experience rather than tested knowledge or skills[4,57,61] • may or may not have certification in the domain in which they are considered an expert[56]
Specialization	• demonstrates clinical reasoning reflective of learning, clinical practice and experience[4] • practising at an advanced clinical level within a specific field[4] • area of practice recognized by a member organization, allowing development and demonstration of higher levels of knowledge and skills[3]	• in medicine, continued in postgraduate education pursuing training in a particular field[63] • Clinical Specialty Program for Physiotherapy in Canada[3]	• practitioner skilled in a particular domain, beyond minimal program standards[8]	• establishing specialization may require greater burden to the providers to attain and maintain • developing and maintaining credentialling process – costs, accreditation, testing, quality assurance