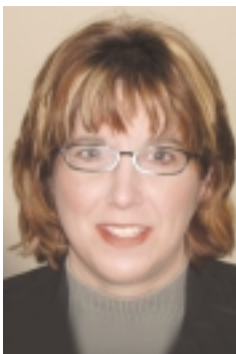


The Challenges of Providing Cost-effective Quality Wound Care in Canada



BY Nicki Waters

Nicki Waters, RN, MSc (c), is a former member of the Skin and Wound Assessment Team, Calgary Health Region, and is currently working with industry in the wound-care field.

Increasing efforts to control health-care spending while maintaining high-quality care are evident worldwide.¹ As in other nations experiencing increased demand and an aging population, Canada is facing pressure to control health-care expenditure.² The emergence of new technologies constantly expands the choices available to health-care personnel and consumers, while providers become further specialized, and funding for health care becomes more threatened in the face of competing societal needs. At the same time, health-care consumers continue to expect quality care without dramatic increase to the taxes that fund it. In this climate of change, quality and value for the money spent in health care has become the primary focus of consumers, providers and funders.³ Wound-care research continues to identify new techniques, including more efficient dressings and advanced technologies⁴; however, the task of transferring the science from the laboratory to the bedside remains one of the greatest challenges to providers.⁵ In today's economic climate, where it is not feasible in practice to provide all available technology to all patients, choices have to be made.⁶ This article will discuss the challenges faced by Canadian wound-care providers related to quality and cost-effectiveness in the management of chronic wounds and identify initiatives aimed at addressing them.

Chronic Wounds

Chronic wounds are usually defined as those that have not progressed as expected through the sequence of biological events that normally lead to wound closure⁷ and are indicative of underlying diseases that affect their healing.⁸ The management of chronic wounds places an enormous drain on health-care resources.⁹ While it has been estimated that chronic wound care costs an estimated \$10 billion annually in North America,¹⁰ these figures are generalized from statistics collected in the United States. Unfortunately, wound care has not been viewed as a priority, and Canadian government reports on health-care costs do not include specific wound-care statistics.³ Until recently, since no national estimates of the prevalence and incidence of chronic wounds in Canada existed, the true impact of this problem on the Canadian health-care system could not be determined. Fortunately, the recent Woodbury-Houghton study¹¹ has helped to correct a large part of this deficit. (*Editor's note:* See page 18 of this issue for a complete report on this study.)

Quality Care

While government initiatives aimed at improving health-care state, "Quality is central to the management and delivery of health services in Canada,"¹² it is evident that this can be interpreted from several

different perspectives. Patients define quality in terms of how well their needs and expectations for care are met, while providers focus on the clinical effectiveness related to correctness of the diagnosis and to the appropriateness and efficacy of the treatment and care provided. From the system's perspective, quality is concerned with the efficiency and cost-effectiveness required to achieve desired health outcomes, while society may measure it in terms of value for money and benefits to the community at large. New directions in the delivery of health care mean that professionals involved must re-evaluate how quality is assessed and how information about the quality of care may be used as well as challenge existing definitions of quality.¹³ Based on these principles, a recent Government of Canada workshop suggested that a quality Canadian health system would be client-centered, integrated, responsive and cost-effective.¹² However, performance measurement in Canadian health care remains in its infancy¹⁴ with the first, limited report by the Canadian Institute for Health Information not published until 2000.¹⁵

Quality Wound Care

The aims of chronic wound management are to address patient concerns, correct intrinsic and extrinsic factors where possible and optimize the healing environment.¹⁶ However, the fact that desirability of one specific outcome over another may differ markedly according to the values and preferences of both patients and caregivers makes the evaluation of quality care difficult.¹⁷ Wound-care professionals may view wound closure as the optimal goal of treatment, while patients may consider alternatives such as pain control as the best outcome.¹⁸ This combination of subjectivity and objectivity in the perception of quality wound care is reflected in the diversity of end points found in studies of wound interventions and compromises their external validity.¹ Barriers to quality chronic wound care can be identified at all levels. Issues such as lifestyle choices and lack of knowledge may affect care from the patient's perspective.¹⁷ The lack of research-based guidelines and pathways influences care at the provider level¹⁹ while the absence of a continuous quality improvement framework is a concern for the system.¹²

However, challenges caused by fiscal restraints—arguably the greatest barrier—are common to all levels.

Cost-effective Care

The term *cost-effective* can be defined as, "economical in terms of tangible benefits produced by money spent."²⁰ While this may be easily assessed in relation to consumer goods, its application to health care is not as straightforward since the question then becomes whether the additional cost in both financial and personal terms is justified by the results achieved.^{21,22} Tools such as The Quality Adjusted Life Year (QALY) that measure outcome as an arithmetical combination of the quantity and quality of life²¹ are often used in health-related analyses, and attempts have been made to design cost-analysis tests specifically for health-care usage;²³ however, no "gold-standard" instrument currently exists.

Cost-effective Wound Care

While it is commonplace for results of wound-care studies to be classed as cost-effective, in reality, the lack of a standard method to calculate costs combined with large variations and flaws in methods used to quantify outcomes compromises the validity and transferability of these studies.^{24,25} Chronic wound care incurs both direct costs, including those of the treatment itself and labour-associated expenses, as well as indirect costs such as loss of wages,^{6,26} while intangible costs such as pain and suffering also factor into the equation.¹⁷ In studies considering only the financial impact on providers, the critical issue of treatment costs being passed on to the patients or their families is overlooked.²¹ Unless all aspects are considered, efforts to evaluate the full economic burden of wounds may be inadequate.²⁵ Additionally, any analysis of the costs involved in wound care cannot be complete without evaluating whether the wound may have been prevented. While the body of evidence pertaining to the benefits of wound prevention protocols is increasing,²⁷ studies identifying costs associated with prevention are limited. Despite initiatives aimed at focusing attention on health promotion,²⁸ the irony remains that, at present, payers may be more willing to finance treatment costs than preventative measures.²⁷

Canadian Health Reforms

To understand the challenges related to quality of care and cost-effectiveness facing wound-care practitioners, it is necessary to view them in the context of reform, which is shaping the future of the Canadian health system. The Canada Health Act, created in 1984, is based on the principles of universality, accessibility, comprehensiveness, portability and public administration.^{29,14} Its initial success in achieving these principles with relatively low per capita expenditure, particularly when compared to the U.S., has meant that health-care issues did not appear high on the government agenda during the following decade.¹⁴ However, spending cuts fueled by the economic climate of the late 1980s and early 1990s, combined with several high-level reviews of the health-care system, resulted in massive structural reforms.³⁰ Although Canada's unique demographics have meant that care has traditionally been governed by each province or territory individually, further fragmentation has resulted in a large variation in standards and methods of care between areas.²⁹ It is evident that two main issues have arisen from these changes that directly affect wound-care provision in Canada: the trend toward community-based rather than facility-based delivery of care and the concurrent increase in costs passed on to the consumer.

Community-based Care

The shift in focus from an acute care to a chronic disease model worldwide has contributed to the increasing demand for home care.³¹ An even greater factor in Canada has been the reduction in hospital budgets brought about by government cutbacks in spending, resulting in shorter hospital stays.²⁹ Consequently, most chronic wound care is now managed in a community setting.⁵ Although all provinces and territories offer home-care programs, no national program exists, and Canadians face varying eligibility, cost, quality and access related to services.³² Necessary changes to the supporting infrastructure have not kept pace with the demand. And despite a general acceptance that community-based care is more cost-effective, a recent extensive government study suggests that home care is "under-funded, under-valued and over-stressed."³³

Costs to Consumers

As the focus continues to shift away from facility-based care, the influence of the Canada Health Act, which was designed to deal only with acute illness, has decreased.²⁹ This has resulted in the health-care consumer bearing a dramatic increase in incidental costs, including the cost of wound-related supplies in many areas of the country. A government document on health-care spending suggests that it makes little sense to guarantee public coverage for medically necessary services that are provided in hospitals but to provide only partial or no coverage when those same services are provided in the community or in the home.³ However, the Canadian government-funded report "National Evaluation of the Cost-effectiveness of Home Care"³⁴ failed to evaluate financial costs borne by consumers and merely states that they "may be substantial." While programs such as the provincially funded Alberta Aids to Daily Living cover or cost-share dressings and other wound-related equipment for home-care patients with chronic conditions,³⁵ a substantial variation in levels of service offered in other areas still exists. A recent survey of wound-care professionals across Canada suggests that the widening gap between acute-care and community-based coverage remains an area of concern throughout the country.³⁶

Rise in Technology

This increase in costs borne by the consumer is particularly apparent when viewed in the context of the rise over the past decades in the availability of new technology, which has resulted in an exponential increase in the types of therapies used to treat chronic wounds.⁴ However, these therapies are often perceived as more costly by funders and in practice may only be available to those able to bear the financial costs personally or through the growing trend of privatization of services.² Debate over the ethics of a "two-tiered system" continues to rage with no obvious resolution in sight.²⁹ Opponents fear that Canada will tend toward a U.S.-style health-care system with inequitable availability of services, while supporters argue that privatization has in fact allowed more equality of access.³⁷

Evidence-based Practice

The need to prove effectiveness of care while containing costs has resulted in the increasing trend toward evidence-based practice (EBP). Based on the concept that treatment options should be evaluated using rigorous research findings,³⁷ its aim is to reduce variability of care and make appropriate use of resources through the promotion of best practices.⁴³ However, Maynard suggests that EBP is not an effective cost-cutting tool since providing evidence-based care directed toward maximizing patients' quality of life may actually increase expenditure.³⁸ On the other hand, population-based "outcomes research" has repeatedly documented that those patients who do receive evidence-based therapies have better outcomes than those who don't.³⁹

Evidence-based Practice in Wound Care

In wound care it is evident that cheapest is not necessarily best.¹⁷ However, unless wound-care specialists are able to provide research-based evidence for new protocols, the possibility exists that funding decisions will be made by untrained individuals with repercussions for both patients and providers.⁶ While randomized controlled trials, which are often a pre-requisite to funding approval, may be the most effective way to demonstrate the efficacy of a product, they are unlikely to demonstrate efficiency and cost-effectiveness. Adherence to the rigid criteria required to conduct these studies not only limits the ability of clinicians to extrapolate data for individual patient situations⁴⁰ but also delays unnecessarily the introduction of new technology due to the time and costs involved. The Canadian Co-ordinating Office for Health Technology Assessment was set up in 1989 to influence decision-makers regarding the effectiveness and cost of technology and its impact on health, thereby encouraging its appropriate use.² Nevertheless, it is evident that approval of a treatment does not guarantee its funding. For example, while hyperbaric oxygen therapy for the treatment of recalcitrant wounds was endorsed by the society in 1997, extensive lobbying supported by evidence-based cost-effectiveness analysis was required before the therapy was accepted for provincial insurance coverage in Alberta.⁴¹

This article is adapted from an assignment submitted by Nicki Waters toward a PG Dip/MSc in Wound Healing and Tissue Repair.

Guidelines

The sheer volume of research available means it is not feasible for all professionals to keep abreast of current findings. The task of translating the evidence into data that can be used to improve practice and approach potential funders is often accomplished through the implementation of clinical guidelines.¹⁹ While the benefit of developing and adopting these tools is recognized, guidelines can be viewed as limiting the autonomy of clinical practitioners to make decisions based on individual patients and imposing the views of the policy-makers on the health service.^{42,44} Continuous monitoring is needed to ensure that guidelines keep pace with evolving research.⁴³ The production and dissemination of recommendations for best-practice multidisciplinary wound care in Canada has recently been undertaken by the Canadian Association of Wound Care (CAWC).⁴⁴ The CAWC's use of *The Appraisal of Guidelines for Research and Evaluation* (AGREE) tool provides a valid framework in this process for both development and ongoing appraisal. The challenge of implementation and monitoring of these guidelines at a national level is being met through the creation of forums for the exchange of wound-related knowledge, while new initiatives to co-ordinate and improve the standard of wound-care education and research are evident Canada-wide.⁴⁵

Conclusion

The 21st century has placed unprecedented demands on wound-care providers to provide quality care while maintaining cost-effectiveness in Canada.⁴⁴ While still in the early stages, initiatives aimed at reducing this tension are currently underway. These include efforts to establish the full impact of chronic wounds,¹¹ introduce and monitor evidence-based guidelines for best practice⁴⁴ and increase focus on wound education.⁴⁵ Although continuous monitoring of the effectiveness of these initiatives will be required, the often over-looked area of wound care is entering an exciting era in Canada, and wound-care providers are becoming better equipped to deal with the changes. ☺

references listed on page 52

The Challenges of Providing Cost-effective Quality Wound Care in Canada

continued from page 26

References

1. Phillips TJ. Cost-effectiveness in wound care. *Ostomy Wound Management*. 1996;41(1):56.
2. Irvine B, Ferguson S. Background briefing: The Canadian Health Care System. 2002. Available online at www.civitas.org.uk/pdf/Canada.pdf. Accessed January 12, 2004.
3. Health Canada. *Costs of Health Problems and Health Care*. 2003. Available online at www.hc-sc.gc.ca/hppb/healthcare/costs.htm. Accessed November 17, 2003.
4. Natarajan S, Williamson D, Stiltz AJ, Harding K. Advances in wound care and healing technology. *American Journal of Clinical Dermatology*. 2000;1(5):269-275.