Canadian Wound Experts Assist Around the World

Bringing International Expertise to Uganda

These reports were submitted by the Canadian teams involved in each project and edited for *Wound Care Canada*.

In late June 2009, as part of the Association for the Advancement of Wound Care (AAWC) Health Volunteers Overseas initiative, three Canadian wound-care experts—David Keast, Anna Towers and Pat Coutts—conducted a site visit to Uganda to evaluate the state of wound and lymphedema care there.

Demographic data demonstrate how different Uganda is from Canada, even though the population of both countries is roughly the same. For example, 45 per cent of the population of Uganda is aged less than 15 years, there is an average of seven children per female and 80 per cent of the population lives in rural areas. The average life expectancy at birth is 50 years for both sexes.[1]

Factors impacting health and health care in Uganda, and particularly wound prevention and care, include the following:

- Water quality and poor nutrition affect wound healing.
- Unsafe traditional cooking methods lead to a very high incidence of burns in children.
- Poor road infrastructure makes delivery of health services difficult.
- HIV/AIDS continues to be a problem.
- A faith-based system of private hospitals is part of missionary outreach. These hospitals are often better resourced than those in the public system.
- A facility called the International Hospital is operated by the International Medical Group and can be accessed by Ugandans of higher socioeconomic status and visitors to the country.

Major Health Problems

Given the relatively short life expectancy of Ugandans compared with that of people who live in developed nations, the major health problems in the country affect younger people. The burden of chronic diseases as seen in older, more developed populations (such as heart disease, chronic obstructive lung disease, cancer and diabetes) is relatively low.

At the two centres visited, lymphedema is not recognized as a common problem, and filariasis-related lymphedema is seen as a problem affecting only the northern part of the country. The prevailing opinion is that, because lymphedema is not painful, it is under recognized. Patients do not present at primary care centres until the condition is already well advanced. At that point, the fatalistic view that nothing can be done is prevalent among health-care providers. The burden of chronic wounds relates more to the following etiologies:

- Burns—both heat- and acid-related
- Trauma—specifically from motor vehicle accidents or from agriculture-related problems
- Post-operative (e.g., dehisced Cesarean-section incisions)
- Infection-related problems
- HIV-related problems, such as Kaposi's sarcoma
- Skin malignancies

Care is provided primarily by nurses, nurses' aids, midwives and clinical officers. There is no real system of physicians trained to provide primary care. Physicians are only available at level-four health centres and above. Few trained pharmacists are available to dispense medications. At the level of the regional hospital and higher, allied health-care professionals such as physiotherapists are available, but their numbers are small.

Summary and Recommendations

There is a genuine need for education and training in wound and lymphedema care. There are both perceived and unperceived needs at the national level. At the two

national referral hospitals visited, there is a perceived need for improved care for burns, trauma and post-operative wounds. While there is recognition that other types of wounds (e.g., diabetic foot ulcers, venous leg ulcers, Buruli ulcers, skin breakdown due to leprosy) exist, these are not seen routinely at this level. Lymphedema, including lymphedema due to filariasis, while recognized, is felt to be a problem of the northern region of the country and not a priority at the hospitals the team visited. However, the commissioner of clinical and health services does recognize the need for wound and lymphedema care in regional areas.

After visiting a number of facilities and interviewing clinicians in Uganda, the Canadian team recommends the creation of a joint initiative between the AAWC, the CAWC and the International Lymphedema Framework to address the identified deficiencies. The initiative would be based around an interprofessional "train the trainer" approach, starting at the national level and working down through the structure of the health-care system to primary care delivery. To ensure its effectiveness and sustainability, the initiative needs to be seen as a partnership between both the Ministry of Education and Sport and the Ministry of Health, as both ministries have responsibilities in the training of clinicians. Both wound- and lymphedema-care education should occur together.

Guyana Diabetic Foot Project Cuts Diabetes-related Major Amputations in Half

The Guyana Diabetic Foot Project is a collaboration between Canadian and Guyanese health professionals aimed at creating a comprehensive diabetic foot care clinic at Georgetown Public Hospital Corporation (GPHC), the national referral and training hospital in Guyana, South America. The Canadian team consists of: Brian Ostrow, R. Gary Sibbald, Kevin Woo, Marjorie Fierheller, Pat Coutts and Laura Lee Kozody. Diabetic foot complications are the single most common reason for admission to a surgical ward at GPHC (10 per cent of all admissions), mostly as a result of severe infection. Overall, 42 per cent of these patients go on to have an amputation, 50 per cent of which are major amputations. This is part of the world pandemic of type II diabetes.

The Guyana Diabetic Foot Project, which completed its first year of activity in July 2009, has used multi-level, longitudinal, primary and secondary education strategies to create an evidence-informed, interprofessional, patient-centred diabetic foot clinic at GPHC: the Diabetic Foot Centre (DFC). Three Canadian expert visits modeling interprofessional care have taken place. Four Guyanese key opinion leaders, chosen to lead the local work, are completing the International Interprofessional Wound Care Course through the University of Toronto. The project has trained more than 50 Guyanese health professionals in applying the best practice recommendations of the CAWC to their local setting.

The DFC opened in July 2008. Both the prevention and treatment components of comprehensive care are promoted at the centre. A specific 60-second screening tool, created to identify high-risk patients, has been adopted by the Ministry of Health. Since the centre opened, more than 1,000 people with diabetes have been screened and more than 800 high-risk and ulcer patients have been seen in the centre. Preliminary data show a dramatic outcome. In the first 11 months of the DFC's operation, the number of patients requiring diabetes-related major amputations was reduced by 56 per cent compared with the previous three years!

The Guyana Diabetic Foot Project works closely with the Ministry of Health to create sustainable new capacity inside the public health system. It is on track to declare the DFC a Centre of Excellence in diabetic foot care in November 2009. After this has been achieved, the next step is to create a national program. A new proposal for funding to support regionalized diabetic foot care has been submitted.

If successful, the new phase will target half of the 37,000 people in Guyana with diabetes and train 353 local doctors, nurses, medexs (medical extensions) rehabilitation specialists and community health workers to provide comprehensive care, including glycemic and anti-hypertensive therapy (recognized high priorities for diabetes control), along with foot care.

This project may serve as a model for other collaborations between Canadian and international health professionals.

Reference

1. World Health Organization. WHO Statistical Information System (WHOSIS) Available from: www.who.int/whosis/en/index.html. Accessed August 11, 2009.