A QUEBEC PERSPECTIVE

Enhancing Diabetes Care And Preventing Foot Ulcers In Indigenous Communities: Two Examples Of A Holistic Approach In The Province of Quebec

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Abstract: This review recognizes a dual initiative undertaken to address diabetes management and prevent diabetic foot ulcers within Indigenous communities in the Province of Quebec (Canada). It highlights two intertwined projects: *Culturally Adapted Diabetes Management and Interprofessional Care* and *Prevention of Diabetic Foot Ulcers: A Pilot Project.* Both initiatives underscore the importance of culturally adapted care, patient engagement and collaborative approaches in addressing diabetes management and preventing diabetic foot ulcers within Indigenous communities.

Key words: *diabetic foot ulcers, Indigenous populations, culturally adapted diabetes management, Quebec.*

How to cite: Blanchette V, Talos L, Bleau S, Lamothe K, Garneau M-H. Enhancing diabetes care and preventing foot ulcers in Indigenous communities: Two examples of a holistic approach in the province of Quebec. Limb Preservation Journal. 2023;4(2): 16-20. DOI: https://doi.org/10.56885/HFSD38870.

A recent systematic review has been published on the burden of diabetic foot disease among Indigenous peoples in Canada.[1] The use of an equity lens in this project demonstrated that we need to change our approach to diabetic foot research, prevention and care within the perspective of truth and reconciliation,[2] including the essential integration of Indigenous peoples' ways of knowing, being and acting.[3] We need to understand the unique situation of Indigenous peoples and the necessity to promote culturally safe and quality healthcare within Indigenous communities. Efforts are being made to manage the complications of diabetes, particularly in the lower limbs, and ongoing attention and support are needed to meet the needs and expectations of Indigenous peoples to ensure equitable prevention, access and care.

Within this context, there are current initiatives underway in Quebec, two of which were discussed in the session dedicated to Quebec at the Wounds Canada virtual Limb Preservation Symposia: *Culturally Adapted Diabetes Management and Interprofessional Care* and *Prevention of Diabetic Foot Ulcers: A Pilot Project.* Both initiatives highlight the importance of culturally adapted care, patient engagement and collaborative approaches to diabetes management and diabetic foot ulcer prevention in Indigenous communities. We report here the highlights of the presenters who kindly shared with us their initiative within their organization.

Culturally Adapted Diabetes Management And Interprofessional Care In Indigenous Communities

McGill University and affiliated health centres have developed an initiative to address the challenges of diabetes management within Indigenous communities with a focus on cultural adaptation and interprofessional collaboration. The aim was to dismantle barriers and promote effective diabetes care in populations that are disproportionately affected by the disease.

OBJECTIVE AND CONTEXT

- Identifying barriers to effective diabetes management in Indigenous communities
- Developing culturally sensitive tools and practices for diabetes education and care
- Introducing an interprofessional model of care to bridge gaps in health-care access and address geographical disparities.

CHALLENGES IN INDIGENOUS DIABETES CARE

Indigenous populations face an alarming disparity in diabetes prevalence, with early onset and severe complications.[4] Geographical disparities hinder access to specialized diabetes care and resources. As such, the prevalence of microvascular diseases, limb amputations, foot abnormalities, retinopathy and renal issues is notably high. Access to specialized diabetes care is also hindered by geographical distance from urban centres, resulting in limited health-care resources and support.

CULTURALLY ADAPTED CARE

McGill University's *IPS Diabetes Fast Track Clinic* demonstrates its commitment to culturally adapted care through a partnership-based approach, where health-care providers collaborate with patients to tailor diabetes management strategies. As an example, the clinic acknowledges the cultural context of dietary practices, incorporating traditional foods while promoting effective glucose control. Moreover, culturally sensitive tools from organizations like the National Indigenous Diabetes Association[5] are utilized to facilitate education and communication.

INTERPROFESSIONAL COLLABORATION

To overcome geographical barriers, an interprofessional model of care is introduced. Specialist expertise is combined with local health-care teams to provide continuous support. Information sharing between urban specialists and remote caregivers ensures consistent, patient-centred care. The *Libre View platform* facilitates seamless communication, enabling real-time discussions and collaborative decision-making.

BUILDING STRONG THERAPEUTIC RELATIONSHIPS

The success of diabetes management hinges on strong therapeutic relationships built on partnership rather than hierarchy.[6,7] Consequently, this

project leveraged resources from the National Indigenous Diabetes Association[5] to facilitate culturally relevant education. Additionally, the initiative at McGill emphasizes a patient-centred approach, enabling individuals to actively participate in treatment decisions, fostering ownership of their health and promoting adherence to recommended interventions.

OVERCOMING CHALLENGES AND FUTURE PROSPECTS

Despite technological mishaps and limitations in remote areas, successful diabetes management relies on understanding the cultural, financial, and lifestyle contexts of Indigenous patients.[6,8,9] This report underscores the need for health-care providers to demonstrate cultural humility, acknowledge disparities and actively collaborate with patients and local health-care teams. Future endeavours could involve enhancing communication between urban and remote health-care providers and expanding the use of technology to bridge gaps in diabetes care.

RESULTS AND IMPACT OF THE INITIATIVE

- Empowerment of patients to actively manage their diabetes
- Improved communication between specialists and caregivers in remote communities
- Enhanced diabetes outcomes through culturally adapted care and collaborative decision-making.

TAKEAWAY POINTS

This initiative exemplifies the importance of culturally adapted care and interprofessional collaboration in addressing the challenges of diabetes management in Indigenous communities. By fostering strong therapeutic relationships and involving patients as active partners, this approach holds the promise of improved diabetes outcomes and enhanced overall health and well-being for Indigenous populations.

Preventing Diabetic Foot Ulcers In Indigenous Communities: A Pilot Project

This is a pioneering pilot project that aims to address the rising concerns regarding diabetic foot complications within an Indigenous population in Quebec. The prevalence of type 2 diabetes within this population was a growing concern. Diabetes escalation raises apprehensions about diabetic foot ulcers and related amputation issues, necessitating a proactive approach to prevention.

OBJECTIVES

- Develop and implement a preventive strategy to reduce diabetic foot ulcers
- Identify suitable offloading devices for ulcer prevention and treatment
- Address barriers related to footwear and foot health awareness.

INITIATING THE PILOT PROJECT

The pilot project originated from a collaborative effort, combining internal data compilation and funding to hire an orthotist to 'kickstart' the initiative. In tandem with existing diabetes management services and resources - such as nurses who performed monofilament testing, vascular testing with ankle-brachial index and wound care - the project aimed to address a critical gap in biomechanical foot health care. The initial steps involved identifying suitable offloading devices for diabetic foot ulcers, with a focus on patient comfort and compatibility with various activities.

CHALLENGES AND SOLUTION EXPLORATION

The geographic and lifestyle diversity of this Indigenous community posed unique challenges. The total contact cast, considered the gold standard in offloading,[10] was deemed impractical due to time constraints and the need for extensive training. Moreover, accessing orthopedic or adapted shoes, as well as orthotic services, proved difficult, as basic footwear sizes and styles did not align with individual preferences and needs. Recognizing these barriers, the project team worked to identify effective offloading solutions that could be feasibly integrated including patient preferences.

CUSTOM SOLUTIONS FOR DIABETIC FOOT HEALTH

The pilot project culminated in the selection of offloading solutions that proved most beneficial. Custom insoles emerged as a primary solution, tailored to individual patients' needs, including those with amputations or partial foot conditions. These insoles, along with specialized shoes,

effectively distribute pressure points across the feet, aiding in ulcer prevention. These specialized shoes, often hiking boots or trail shoes, were selected based on patients' outdoor activities and preferences. In addition, engagement and education were emphasized, thus encouraging patient involvement in discussions about their needs and preferences.

ADDRESSING SENSORY NEUROPATHY

Sensory neuropathy, i.e., reduction in pain sensitivity, posed an additional challenge. Patients' lack of awareness regarding foot health made preventative measures crucial. To address this, pressure mapping tools were employed to visually demonstrate high-risk areas and potential ulcer development points. Photographs illustrating pressure distribution provided patients with a tangible understanding of their foot health risks.

TAILORED FOOT HEALTH SOLUTIONS

The cornerstone of the project's success lay in understanding individual needs and preferences. By engaging patients in discussions about their daily activities and preferences, one could tailor offloading solutions to their specific requirements. From indoor slippers for those who preferred staying indoors to specialized outdoor shoes for those who enjoyed outdoor activities, each solution was designed to align with patients' lifestyles.

RESULTS AND IMPACT

- Customized solutions for foot health led to improved patient adherence
- Visual aids enhanced patient awareness of foot health risks
- Specialized footwear solutions provided practical preventive measures
- Ongoing education and engagement efforts aimed at sustaining foot health awareness.

TAKEAWAY POINTS

The pilot project for preventing diabetic foot ulcers in this Indigenous population underscored the importance of customized solutions, effective visual aids and patient engagement. By addressing barriers unique to the community and tailoring interventions accordingly, the project aimed to minimize the impact of diabetic foot diseases.

Going forward, the focus will remain on refining and expanding these solutions, enhancing patient education and fostering awareness about the significance of foot health within this Indigenous population. ■

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This presentation is from the 2023 Wounds Canada Limb Preservation Symposium, a virtual one-day event held on April 23, 2023. A video recording of the full presentation can be accessed at https://drive.google.com/file/d/1X8KZzsbgsz7mIn-qNYQI3GeH-60b0K9w1/view?usp=sharing