Sucrose Octasulfate–Impregnated Dressings for Adults With Difficult-to-Heal Noninfected Diabetic Foot Ulcers and Difficult-to-Heal Noninfected Venous Leg Ulcers

Recommendation

MAY 2024

Ontario Health

Final Recommendation

Ontario Health, based on guidance from the Ontario Health Technology Advisory Committee, recommends publicly funding sucrose octasulfate–impregnated dressings for difficult-to-heal noninfected neuroischemic diabetic foot ulcers and difficult-to-heal noninfected venous leg ulcers.

Rationale for the Recommendation

The Ontario Health Technology Advisory Committee made the above recommendation after considering the clinical, economic, and patient preferences and values evidence reported in the health technology assessment.[1]

The committee members concluded that sucrose octasulfate–impregnated dressings likely increase complete wound healing and result in a greater reduction in wound surface area in adults with difficult-to-heal noninfected neuroischemic diabetic foot ulcers. Committee members also noted that sucrose octasulfate–impregnated dressings result in a greater reduction in wound surface area in adults with difficult-to-heal noninfected venous leg ulcers. Difficult-to-heal ulcers are those that fail to progress through normal phases of wound healing within a reasonable time (usually 6–12 weeks) despite adequate and standard wound care.

The economic evidence showed that sucrose octasulfate–impregnated dressings are highly likely to be cost-effective compared with sucrose octasulfate–free dressings for both diabetic foot ulcers and venous leg ulcers and would lead to cost savings from faster and increased complete wound healing.

Ontario Health Technology Advisory Committee members took into account the lived experience of patients with diabetic foot ulcers and venous leg ulcers who described the burden of their condition and its negative impact on their daily lives, including mobility, employment, social activities, and mental health. The committee also recognized the prolonged journey patients experienced to heal their ulcer, the value placed on avoiding amputation, and the barriers faced in accessing treatment.

The committee acknowledged the importance of ensuring access to high-quality wound management, including regular wound debridement, local infection control, offloading for diabetic foot ulcers, and compression bandages and wraps for venous leg ulcers, as well as access to adequate resources for diabetes management to ensure optimal glycemic control.

Decision Determinants for Sucrose Octasulfate–Impregnated Dressings for Adults With Difficult-to-Heal Noninfected Diabetic Foot Ulcers and Difficult-to-Heal Noninfected Venous Leg Ulcers

Overall Clinical Benefit

Effectiveness

How effective is the health technology/intervention likely to be (taking into account any variability)?

For adults with difficult-to-heal noninfected neuroischemic diabetic foot ulcers, sucrose octasulfate–impregnated dressings likely increase complete wound closure rate and likely result in a greater reduction in wound surface area when compared with dressings that do not contain sucrose octasulfate (Grading of Recommendations, Assessment, Development and Evaluations [GRADE]: Moderate). Sucrose octasulfate–impregnated dressings also likely decrease time to complete wound closure and result in little to no difference in health-related quality of life for adults with difficult-to-heal noninfected neuroischemic diabetic foot ulcers (GRADE: Moderate).

For adults with difficult-to-heal noninfected venous leg ulcers, sucrose octasulfate–impregnated dressings likely result in a greater reduction in wound surface area at 8 weeks (GRADE: Moderate) and likely improve health-related quality of life in the domains of pain/discomfort and anxiety/depression (GRADE: Moderate) when compared with dressings that do not contain sucrose octasulfate.

Safety

How safe is the health technology/intervention likely to be?

The use of sucrose octasulfate–impregnated dressings for noninfected diabetic foot ulcers and noninfected venous leg ulcers is considered safe (GRADE: Moderate). No increase in local infections were reported with the use of sucrose octasulfate–impregnated dressings when compared with dressings that do not contain sucrose octasulfate.

Burden of Illness

What is the likely size of the burden of illness pertaining to this health technology/intervention?

In Ontario, the prevalence of diabetic foot ulcers among adults with diabetes is 1.7%.[2] The prevalence of active venous leg ulcers (not specific to Ontario) is 0.8 to 1 per 1,000 population.[3]

Need

How large is the need for this health technology/intervention?

Difficult-to-heal noninfected diabetic foot ulcers and difficult-to-heal noninfected venous leg ulcers pose a major challenge for both patients and health care providers. They can cause substantial pain and discomfort for patients. There is a need to accelerate the healing process by appropriately managing the wound, along with consideration for more effective dressings and access to high-quality wound care management.

Patient Preferences and Privacy

Patient Preferences and Values

Do patients have specific preferences, values, or needs related to the health condition, health technology/intervention, or life impact that are relevant to this assessment?

Patients reported the negative impact of diabetic foot ulcers and venous leg ulcers on their daily lives, including mobility, employment, social activities, and mental health. Participants also highlighted a desire for effective treatments for diabetic foot ulcers and venous leg ulcers to prevent potential adverse health conditions such as amputation.

Autonomy, Privacy, Confidentiality, and/or Other Relevant Ethical Principles as Applicable

Are there concerns regarding accepted ethical or legal standards related to patient autonomy, privacy, confidentiality, or other ethical principles that are relevant to this assessment?

To support patient autonomy and independence in decision-making, patients should have access to all relevant information about possible treatment options for diabetic foot ulcers and venous leg ulcers.

Equity and Patient Care

Equity of Access or Outcomes

Are there disadvantaged populations or populations in need whose access to care or health outcomes might be improved or worsened that are relevant to this assessment?

In Ontario, certain populations are at higher risk of developing type 2 diabetes, such as Indigenous people and people of African, Asian, and Hispanic ancestry.[4] At the time of developing this recommendation, there is limited access to sucrose octasulfate–impregnated dressings in Ontario as it is available in only a few wound care facilities. This may contribute to unequal access to sucrose octasulfate–impregnated dressings and inequity in outcomes for patients who may benefit from wound care with these dressings.

Patient Care

Are there challenges in the coordination of care for patients or other system-level aspects of patient care (e.g., timeliness of care, care setting) that might be improved or worsened that are relevant to this assessment?

Studies have identified barriers to accessing health care for populations with higher prevalence of diabetes and venous leg ulcers. Such barriers may include travel (e.g., needing to travel long distances to access care), language, financial (e.g., unable to take time off work to visit a health care clinic), and systemic (e.g., limited capacity of health care resources and services in some remote areas) barriers.

Cost-Effectiveness

Economic Evaluation

How efficient is the health technology/intervention likely to be?

Sucrose octasulfate–impregnated dressings are highly likely to be cost-effective based on published literature. Our economic evidence review found a total of 5 economic studies evaluating the cost-effectiveness of sucrose octasulfate–impregnated dressings compared with sucrose octasulfate–free dressings in difficult-to-heal noninfected diabetic foot ulcers and difficult-to-heal noninfected venous leg ulcers.[5-9] Of these studies, three (including a Canadian study[5]) found sucrose octasulfate–impregnated dressings to be dominant (less costly and more effective) compared with sucrose octasulfate–free dressings for diabetic foot ulcers[5-7] and one study found sucrose octasulfate–impregnated dressings to be dominant (less costly and more effective) compared with sucrose octasulfate–free dressings for venous leg ulcers.[8] The remaining study was a health technology assessment that found sucrose octasulfate–impregnated dressings to be cost-saving compared with sucrose octasulfate–free dressings for both diabetic foot ulcers and venous leg ulcers.[9]

Feasibility of Adoption Into Health System

Economic Feasibility

How economically feasible is the health technology/intervention?

Publicly funding sucrose octasulfate–impregnated dressings in Ontario for adults with difficult-to-heal noninfected diabetic foot ulcers would lead to total cost savings of $3.91 million over the next 5 years. Publicly funding sucrose octasulfate–impregnated dressings in Ontario for adults with difficult-to-heal noninfected venous leg ulcers would lead to total cost savings of $3.38 million over the next 5 years.

Organizational Feasibility

How organizationally feasible is it to implement the health technology/intervention?

We do not anticipate any challenges to the organizational feasibility to implement sucrose octasulfate–impregnated dressings into wound care in Ontario. A provincial wound dressing formulary is currently in development in Ontario.

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