Diabetic Foot Ulcer Management

Joanne Ogden, RN
Program Manager, Fort Frances Tribal Area Health Services
Fort Frances, Ontario. Canada

In a practice setting with a high incidence of diabetes and diabetic foot ulcers, patients often have numerous comorbidities. Utilizing best practice guidelines and building on our experience with our patient population, we use a multidisciplinary approach to address the underlying issues that have led to the client acquiring a wound.

We perform a complete lower limb assessment and "60-second diabetic foot exam" along with a comprehensive client history. Concerns identified as a result of sensory testing are addressed through client teaching. A certified diabetic foot care nurse and chiropodist address any evidence of pressure (callous) and sheer (bruising, blood, blisters) and concerns related to development of Charcot foot. Infrared thermography scans are performed to identify areas of significant heat or coolness, followed by physician referral. Wounds are assessed for heat and signs of infection because diabetic wounds are often chronically overpopulated with bacteria and can deteriorate quickly. These wounds often present with much slough and eschar and subsequently require frequent debridement. Appropriate offloading is initiated.

Because the diabetic wound can change status as quickly as the client's blood sugar, ongoing and frequent assessments are required. Hb A1Cs are ordered and the clients referred to diabetic education for dietary consultations. Ensuring tight glycemic control improves wound healing and reduces the risk of developing additional complications. Clients are asked to log their blood sugars four times per day and the diabetic educator stays in frequent contact to ensure optimal glycemic control is maintained. Concerns related to poor diabetic outcomes including renal and cardiac issues involving kidney function, lipid status, blood pressure, and vascular flow are addressed by the family physician. Medications are reviewed to ensure they do not affect the wound status or blood sugar levels. Following this protocol has helped our client base have a healthy approach to their at-risk feet. ■

Share your Pearls for Practice.

If your Pearl is selected for publication, you will receive cash honoraria or a free copy of *Chronic Wound Care IV.*
Send your Pearls to the Editor:
bzeiger@hmpcommunications.com.

Commentary from Ferris Mfg. Corp.

Patients with diabetes can be difficult to manage due to underlying disease processes and comorbidities. Studies estimate 14% to 24% of diabetic foot ulcers lead to amputations and of persons requiring an amputation, 50% will have another amputation within 5 years.[1] Also, a patient with an amputation has a 16% to 80% probability of dying within 5 years.[1] Therefore, rapid resolution of wounds — subsequently preventing amputations — is critical in the management of diabetic foot ulcers.

In a representative case study,[2] a woman with type 1 diabetes presented with a deep, *Pseudomonas*-infected Charcot foot ulcer. The wound was 7 cm x 6 cm x 4 cm deep with exposed bone. The wound was managed with daily cadexomer povidone iodine dressing changes and antibiotic therapy. After 5 months of continuing deterioration, amputation was considered. Without initial surgical debridement, PolyMem Wic Silver® cavity dressing was initiated. After 3 weeks, antibiotic therapy was discontinued. At 5 weeks, PolyMem® without silver was started. At 6 weeks, the wound was negative for *Pseudomonas*. At 4 months, the deep ulcer was closed. The only wound cleansing or debridement performed over the 4 months was provided by these multifunctional dressings. ■

December 28: Amputation considered on a 7 cm x 6 cm x 4 cm deep wound with exposed bone. PolyMem Silver was initiated.

April 7: Wound closed.

Reference

1. Reiber GE, LeMaster JW. Epidemiology and economic impact of foot ulcers and amputations in people with diabetes. In: Bowker JH, Pfeifer MA (eds). *The Diabetic Foot, 7th Edition*. Philadelphia. PA: Mosby Elsevier;2008.
2. Aganthangelou C. Deep ulcer on Charcot foot closed after treatment with polymeric membrane silver cavity dressing. Poster presented at the Third Congress of the World Union of Wound Healing Societies. Toronto, Ontario, Canada. June 2008.

Pearls for Practice is made possible through the support of Ferris Mfg. Corp, Burr Ridge, IL (www.polymem.com). The opinions and statements of the clinicians providing Pearls for Practice are specific to the respective authors and are not necessarily those of Ferris Mfg. Corp., OWM, or HMP Communications. This article was not subject to the Ostomy Wound Management peer-review process.