

# Best practice guidelines: Wound management in diabetic foot ulcers



**Author:**  
**Dr Huda Al Dhubaib**  
**General Surgeon**  
**and Diabetic Foot**  
**Specialist,**  
**Kuwait**

In England, foot complications account for 20% of the total National Health Service spend on diabetes care, which equates to around £650 million per year.<sup>1</sup> This is how the economic burden of diabetes is described in *Best practice guidelines: wound management in diabetic foot ulcers*, a recent publication from Wounds International [Figure 1]<sup>11</sup>.

In this 24-page document, the authors describe that the successful treatment of people with diabetic foot ulcers should concentrate on an holistic approach — controlling blood glucose levels, controlling infections, optimising local wound care, and restoring local blood flow.

The document is filled with structured, highly informative tables and illustrations. Many diagnostic and therapeutic classifications are used, with extensive description for clinicians in how to deal with diabetic feet with different complications. Non-pharmacological management options are also included, such as topical antimicrobial therapy using silver, iodine, PHMB, and medical-grade honey.

A section is dedicated to diabetic foot wound management, describing different clinical scenarios with the best solutions, for example how to use antibiotics for difficult and complex infections such as methicillin-resistant *Staphylococcus aureus*. Different debridement methods are described, ranging from conventional sharp debridement to larval therapy. Advice on appropriate dressing selection is excellently portrayed in the form of two large tables describing types of dressings, mode of action, indications and contraindications, assisting the physician in choosing the best method according to the patient's situation and needs. Recommendations and guidance for amputation and post-amputation care are also included.

The document, however, does not provide a complete guide to diabetic foot ulcers. No mention is made of many advanced therapeutic and diagnostic techniques used worldwide in diabetic foot ulcer management. For example, the authors test diabetic vascular viability by using physical examination and Doppler ultrasound, but do not mention the role of computed tomographic angiography and magnetic resonant angiography in mapping the lower limb's vascular tree; both these are recognised

as an essential part of diabetic foot pre-operative examination for patients being prepared for vascular surgical treatment for peripheral vascular disease<sup>12</sup>. In the authors' view, magnetic resonance imaging (MRI) was indicated to exclude osteomyelitis only, but they do not mention other diabetic foot complications that MRI can detect with a high degree of certainty, such as cellulitis, myositis, abscess formation, Sudeck's atrophy, and septic arthritis<sup>13</sup>.

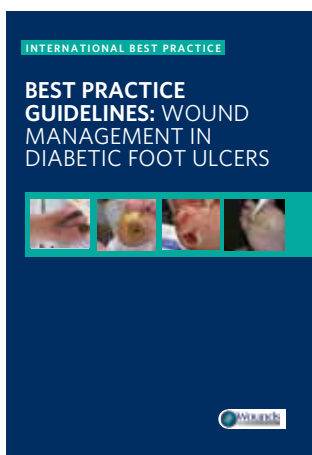
Another point that was not mentioned is the burden of fungal infections, which can be found in up to 27.9% of diabetic foot wounds, with or without concomitant microbial infections<sup>14</sup>. Onychomycosis for example, can be found in 43% of people with diabetes, and it is a source of extensive morbidity, severely affecting quality of life. Examination of the toes for onychomycosis is a crucial part of any diabetic foot treatment protocol<sup>14,15</sup>.

Lastly, the role of nutritional supplements and management for wound healing cannot be ignored, especially in people with diabetes. For example, chronic hypomagnesaemia has been related to the installation of macro- and microvascular complications of diabetes<sup>16</sup>. Vitamin E ( $\alpha$ -tocopherol) and  $\alpha$ -lipoic acid (thioctic acid) are the antioxidants most widely used as adjuvant therapy in people with diabetes<sup>17</sup>.

In conclusion, the monograph is an excellent resource for diabetic foot wound management from a practical point of view, with a potential for future editions that provide a complete picture for the management of diabetic foot ulcers.

## References

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**Figure 1: The Best Practice Guidelines on Wound Management in Diabetic Foot Ulcers is available from [www.woundsinternational.com](http://www.woundsinternational.com)**