

### **CASE 36-3**

A 63-year-old male with uncontrolled diabetes mellitus and coronary artery disease presents with a 1-month history of a pruritic rash on the dorsum of both feet. Five days ago, he developed a tender, edematous crusted plaque on the dorsum of his right foot. Based on his history and physical examination findings you suspect he has developed cellulitis.



**What is the best next step in management of this patient?**

- (A) Sterile skin biopsy for hematoxylin and eosin stain and bacterial, mycobacterial, viral, and fungal cultures
- (B) Culture the wound and order a broad-spectrum antibiotic
- (C) Order a HgbA1c
- (D) Corticosteroid ointment and compression stockings
- (E) Topical clotrimazole cream and compression stockings

The correct answer is (B), culture the wound and order a broad-spectrum antibiotic.

Cellulitis is a potentially serious condition in a patient with diabetes and empiric antibiotics should be started immediately. The pathogenic organisms causing cellulitis in diabetic patients are typically the same as those causing cellulitis in an immunocompetent host. Thus, an antibiotic that covers *Staphylococcus aureus* and group A streptococci should be prescribed. A superficial culture from the wound should be obtained and antibiotics should be tailored accordingly.

A biopsy for culture is not needed to make the diagnosis of cellulitis in most cases. In fact, a biopsy on the lower leg with diabetes is likely to heal poorly and should be avoided if possible. While a HgbA1c can help assess glycemic control in diabetic patients, it would be of little utility in this acute scenario. While topical corticosteroids can be used in the management of dermatitis, they should not be used in the setting of an acute infection. Topical clotrimazole would also not be of major benefit in this case of cellulitis. In addition, compression therapy should be not used until the infection has resolved. Active infections should never be occluded.