The purpose of this article is to present reference guidelines to assist clinicians when treating diabetic patients with foot wounds. Diabetic patients with limb-threatening foot ulcers often have multiple coexisting medical conditions that frequently become impediments to the resolution of foot wounds. Each foot wound is unique and its etiology is multifactorial; therefore, each foot wound should be managed differently. The treatment algorithm presented in this article is divided into three categories: Algorithm I describes the treatment of septic foot wounds, which may be considered true podiatric surgical emergencies; Algorithm II describes the treatment of ischemic foot ulcers or gangrene with or without underlying osteomyelitis; and Algorithm III describes the treatment of neuropathic foot ulcers with or without underlying osteomyelitis. (J Am Podiatr Med Assoc 92(6): 336-349, 2002)
physician team comprising all medical and surgical specialties. The authors believe that the comprehensive medical team approach to diabetic patients with impending amputation is the most effective method of prevention. This concept is incorporated into the diabetic foot wound care algorithms presented here. These algorithms represent the clinical practice and experience of the authors. They are not meant to be construed as evidence-based, and they are not the result of any formal consensus panel discussions.

In diabetic foot wounds, both ischemia and neuropathy may coexist, with one more pronounced than the other. Wound-care algorithms for the diabetic foot are divided into three categories based on the nature of underlying pathologic mechanisms. Algorithm I describes the management guidelines for septic diabetic foot wounds (Fig. 1). Algorithm II is designed for the treatment of chronic diabetic foot wounds of which the major underlying pathologic mechanism is peripheral vascular disease that may or may not be accompanied by chronic underlying osteomyelitis (Fig. 2). Algorithm III addresses the management of chronic neuropathic diabetic foot wounds with or without chronic indolent osteomyelitis (Fig. 3).

Algorithm I—Management Guidelines for Septic Foot Wounds

Step 1: Initial Assessment

Systemic signs and symptoms of a septic process occur when the infection spreads to deeper tissue planes. Clinically, these patients may have signs of systemic toxic effects, including malaise, fever, lymphangitis, cellulitis, and edema. These patients may have preexisting mal perforans ulcers, wet gangrene, or dermatomycosis of the web spaces that may have served as portals for pathogenic bacteria. Acute foot infections are usually polymicrobial, with anaerobes contributing to significant tissue destruction. Evidence of large numbers of anaerobes may include skin necrosis, a fetid odor, soft-tissue gas, and crepitus. Pain and tenderness are frequently absent owing to neuropathy. These patients may not feel discomfort in the foot or see the problem. On the other hand, patients may experience pain and tenderness in foot infections that coexist with ischemia and minimal neuropathy.

Step 2: Hospital Admission

Diabetic patients with acute foot infection require immediate incision and drainage. Delay in surgical debridement and appropriate antibiotic therapy can result in high rates of amputation and mortality.9

Step 3: Diagnostic Tests

Blood Tests. Initial laboratory tests should include blood culture, SMA-12, a complete blood cell count with differential count, and erythrocyte sedimentation rate, which may help monitor resolution of infection. Blood glucose level should be carefully monitored, as uncontrolled hyperglycemia is common in diabetic foot infection. Glycosylated hemoglobin level is valuable in determining the long-term control of diabetes mellitus.

Imaging Studies. Initial radiographic evaluation for a septic foot is usually plain film foot x-rays examined for evidence of gas in the soft tissue, foreign bodies, and osteomyelitis. Soft-tissue gas is seen as a collection of radiolucent areas dissecting along soft-tissue planes as well as in the subcutaneous tissue. During the initial period of medical stabilization of the patient in preparation for surgery, if prompt magnetic resonance imaging (MRI) is available, it should be used to locate abscess formation (Fig. 4) and to evaluate the extent of osteomyelitis (Fig. 5).

Noninvasive Vascular Examination. Various diagnostic evaluations are discussed in detail in Algorithm II. However, a simple and quick vascular evaluation can be done before taking the patient into the operating room using an arterial Doppler scan or pulse volume measurements. These tests can be omitted if the patient has pedal pulses, digital hair, and brisk capillary filling time, as these are the signs of adequate blood supply to the wound. In the care of septic foot wounds with coexisting underlying arterial occlusive disease, control of sepsis takes precedence over correction of vascular disease. Once sepsis is controlled with surgical debridement and appropriate parenteral antibiotic therapy, steps should be taken toward vascular reconstruction for limb salvage.

Step 4: Medical Management of Infection

Provisional Intravenous Antibiotics. Appropriate parenteral antibiotic therapy along with immediate surgical therapy can lower the mortality rate and save the limb. Initial antibiotic treatment should be broad spectrum, as most diabetic foot infections are mixed infections of gram-positive aerobes, gram-negative bacilli, and anaerobes. Other factors to consider when selecting initial antibiotics are the patient’s preexisting renal and hepatic disorders, previous antibiotic therapy, if any, and the severity of the infection.
In the presence of a deep abscess, evidenced by soft-tissue crepitus, special consideration should be given to the anaerobic component of infection when choosing initial antibiotics. It is the anaerobes that are responsible for abscess formation. Once the specific bacterium is identified by culture and sensitivity analysis, antibiotic adjustments can be made if needed.

**Algorithm I**

**Septic Foot Wounds**

**Initial Assessment**
- Fever
- Malaise
- Lymphangitis
- Fetid exudate
- Subcutaneous fluctuance
- Skin necrosis
- Uncontrolled diabetes mellitus

**Admit Patient**

**Diagnostic Tests**
- Complete blood cell count with differential count
- Erythrocyte sedimentation rate
- SMA-12
- Glycosylated hemoglobin
- Blood culture
- Foot x-rays
- Magnetic resonance imaging
- Noninvasive vascular examination
- Gram's stain and culture

**Management of Infection**

**Medical Management**
- Glycemic control
- Provisional antibiotics
- Care of diabetes mellitus comorbidities

**Podiatric Surgical Management**
- Debridement of abscess, necrotic tissue, bones
- Amputations
- Intraoperative wound culture
- Delayed primary wound closure

**Daily Local Wound Care**
- Daily complete blood cell count, erythrocyte sedimentation rate
- Periodic culture
- Culture-guided parenteral antibiotics
- Periodic foot x-rays
- Daily dressing changes with bedside debridement

**Reevaluation of the Wound on Resolution of Sepsis**
- Ischemic wound ➔ go to Algorithm II
- Neuropathic wound ➔ go to Algorithm III

**Figure 1.** Algorithm I describes the management guidelines for septic foot wounds. (Modified from Han PY: The Diabetic Foot Centers: Operational Manual and Practice Guidelines, Asian American Patient Education Advocate League, Los Angeles, 1999.)

**Glycemic Control.** The relationship between infection and hyperglycemia has been reported in the literature. Infection often leads to hyperglycemia. Conversely, hyperglycemia may impede resolution of infection. If clinical improvement of infection is not evident in a few days with surgical debridement and intravenous antibiotic therapy, it may be because of
Algorithm II
Ischemic Foot Wounds

Initial Assessment
- Gangrene
- Ischemic foot ulcers
- Avascular foot
- Possible chronic osteomyelitis

Diagnostic Tests
- Noninvasive vascular tests (ankle-brachial index <0.7)
- Foot x-rays
- Magnetic resonance imaging if osteomyelitis is suspected

Figure 2. Algorithm II describes the management guidelines for ischemic foot wounds. (Modified from Han PY: The Diabetic Foot Centers: Operational Manual and Practice Guidelines, Asian American Patient Education Advocate League, Los Angeles, 1999.)
Algorithm III

Neuropathic Foot Wounds

Initial Assessment
- Vascularized wound base
- Neuropathic foot
- May have underlying chronic infection
- May be edematous

Diagnostic Tests
- Noninvasive vascular tests (ankle-brachial index >0.7)
- Foot x-rays
- Magnetic resonance imaging if osteomyelitis is suspected

Comorbidity Evaluation and Coordination of Podiatric Wound Care Management of Diabetes Mellitus Comorbidities

Is There Chronic Osteomyelitis, Deep Abscess, or Indolent Soft-Tissue Infection Evident on X-rays or Magnetic Resonance Imaging?

No
- Care of Noninfected Wound
  - Periodic foot x-rays
  - Periodic wound culture
  - Wound debridement
  - Keep the wound moist
  - Off-loading ulcers
  - Total-contact cast
  - Apligraf
  - Regranex
  - Podiatric prophylactic surgery
  - Plastic surgery
  - Glycemic control
  - Is the Ulcer Healed?
    - No
      - Reassess Wound
        - Infection
        - Vascular status
        - Patient compliance and nutritional status
    - Yes

Yes
- Medical Management of Infection
  - Glycemic control
  - Provisional antibiotics
  - Culture-guided antibiotics
- Admit Patient
  - Podiatric Surgical Management of Infection
    - Debridement of bone and abscess
    - Amputation
    - Intraoperative wound culture
    - Delayed primary closure
  - Basic Daily Wound Care
    - Bed rest
    - Dressing change
    - Keep wound moist
    - Bedside debridement
    - Culture-guided antibiotics
  - Is the Wound Clean?
    - No
      - Reassess Wound
        - Infection
        - Vascular status
        - Patient compliance and nutritional status
    - Yes
  - Primary Wound Closure
    - Skin graft
    - Apligraf
    - 2° intention
  - Injury Prevention
    - Podiatric care
    - Custom orthosis
    - Shoe modification
    - Prophylactic podiatric surgery

Figure 3. Algorithm III describes the management guidelines for neuropathic foot wounds. (Modified from Han PY: The Diabetic Foot Centers: Operational Manual and Practice Guidelines, Asian American Patient Education Advocate League, Los Angeles, 1999.)
either an inadequately drained abscess or poor glycemic control. Diabetic patients have defects in polymorphonuclear leukocytes that correlate with the level of hyperglycemia. For these reasons, glucose control is of paramount importance as a part of the treatment of infected foot wounds.\textsuperscript{12, 13, 21, 22}

**Step 5: Surgical Management of Infection**

Antibiotic therapy alone will not resolve the infection. Deep abscesses and infected necrotic tissues should be surgically debrided. The goal of surgical care of the infected foot wound is to free it of necrotic and nonviable tissue, thus stimulating the formation of granulation tissue. If cellulitis originates from plantar foot ulcers and there is radiographic evidence of the bone underlying the ulcer, then the infected bone should also be resected at this time. If it is necessary to control sepsis, the infected part of the foot should be amputated at this time (Fig. 6). Soft tissue that does not bleed at the time of surgical debridement should be considered nonviable and must be excised. The wound is then loosely packed open to achieve delayed primary closure and to closely monitor for resolution of infection during daily wound care.

**Step 6: Postsurgical Wound Care**

Post-surgical wound care consists of bedside debridement, irrigation with sterile saline at each dressing change, and keeping the wound moist. With continuation of culture-guided antibiotic therapy and timely surgical intervention, a wound with adequate blood supply should appear clean, and healthy granulation tissue should appear in a few days. If the wound shows any residual necrotic tissue, the patient should be taken back to the operating room for further debridement and irrigation.

![Figure 4. T1-weighted magnetic resonance image showing abscess formation from plantar to dorsal with the presence of a mal perforans ulcer at the plantar aspect of the foot.](image1)

![Figure 5. The sagittal plane view of a T1-weighted magnetic resonance image with low signal intensity in the bone marrow of the entire foot just distal to the midtarsal joint.](image2)

![Figure 6. To control sepsis in the patient shown in Figure 5, it was necessary to “buy time,” during which control of the infection could be instituted. The option used for this patient was guillotine amputation through the midtarsal joint.](image3)
Step 7: Management of the Wound After Control of Sepsis

Once sepsis is controlled, the wound should be evaluated for vascular status and should be classified as either ischemic or nonischemic.

**Ischemic Wound.** Whether the foot wound is the result of surgical debridement in an attempt to control sepsis or a foot ulcer that has served as a portal for bacteria causing acute sepsis, ischemic wounds are devoid of bleeding granulation tissue at the base and edges of the wound. Once sepsis is controlled, the patient should be evaluated for limb salvage vascular reconstruction (go to Algorithm II).

**Nonischemic (Neuropathic) Wound.** The surgical incision can be primarily closed once sepsis is resolved (Fig. 7). If the patient has an existing neuropathic ulcer that has served as a portal for sepsis, it can now be managed through Algorithm III.

Algorithm II—Management Guidelines for Ischemic Foot Ulcers and Gangrene

**Step 1: Initial Assessment**

Ischemic foot wounds may be in the form of gangrene or foot ulcers with no appreciable amount of granulation tissue present at the base of the wound (Fig. 8). The base of the wound is whitish gray, unlike that of a neuropathic ulcer, which has a beefy red, granular appearance. The ischemic foot usually is characterized by brittle toenails, hairless digits, and shiny, atrophic skin and may be cold and clammy to the touch. The foot may exhibit rubor on dependency and palor when elevated above the heart. Unlike neuropathic wounds, ischemic wounds tend to be accompanied by intense pain.

**Step 2: Diagnostic Tests**

**Noninvasive Vascular Testing.** Patients with an ankle-brachial index less than 0.7 or transcutaneous oxygen measurement of 40 mm Hg or less will probably not experience wound healing without vascular reconstructive surgery.3, 4

**Radiographs and MRI.** Initially, foot x-rays are used to detect chronic osteomyelitis of the bone adjacent to the ischemic wound or foreign bodies. Radionuclide scans may be considered if there are signs of osteomyelitis on the radiographs; however, in the presence of arterial occlusive disease, a larger amount of radiotracer is needed to reach the site of infection in order to avoid false-negative results. Therefore, MRI may be more useful for diagnosing osteomyelitis in the presence of peripheral vascular disease.
Step 3: Diabetes Mellitus Comorbidity Evaluation

Coexisting medical conditions that may interfere with wound healing should be identified at the onset of wound care. For example, peripheral vascular disease commonly coexists with cardiovascular and cerebrovascular diseases. Hypertensive diabetic patients must be screened for renal impairment, which may have a negative impact on the overall care of a foot wound.

If patients have one or more medical conditions, including renal, hepatic, hematologic, neurologic, or immunologic disease, they should be monitored and treated during the course of wound care. If the patient has severe malnutrition, as evidenced by an albumin level less than 20 g/L, a dietitian should be a member of the wound-care team. It is common for diabetic patients to be taking aspirin or coumadin; these medications should be adjusted, especially when invasive procedures and testing are considered. The use of corticosteroids, cytotoxic agents, or immunosuppressive medications should also be monitored by an internist during the course of wound care. A history of bleeding disorders or human immunodeficiency virus may also interfere with diabetic wound management.

Step 4: Is Limb Salvage Vascular Surgery Considered?

A vascular surgeon evaluates the patient for the feasibility of vascular surgery. Patients who have intractable ischemic pain, wet gangrene, a fetid wound, or underlying osteomyelitis may benefit from vascular surgery for limb salvage. Vascular reconstruction, however, is not free of risks. In general, there are concerns about the risks of performing vascular reconstruction in a population with advanced renal disease or extensive arteriosclerosis. For example, an elderly, bedridden patient with dry, noninfected gangrene may be monitored indefinitely rather than subjected to the risks of arteriography, vascular surgery, or amputation. Another example would be a patient with advanced renal disease who might need below-the-knee or above-the-knee amputation rather than being subjected to vascular reconstruction for limb salvage.

Evaluation by a cardiologist before vascular surgery may be required, as cardiac complications from major vascular reconstruction are frequent. Diabetic patients with renal failure should be evaluated and monitored by a nephrologist during and after vascular surgery.

If vascular surgery is deemed feasible, the next step is selection of the proper arteriovascular study of the lower extremities—run-off angiography, magnetic resonance angiography, or computed tomographic angiography—to locate the occlusions or stenosis of the arteries.

Step 5: Arteriovascular Studies

Traditional run-off arteriography is not risk-free and should be used only as prevascular work-up. A major complication is renal shutdown due to the use of radiocontrast materials. Diabetic patients with creatinine levels greater than 5 mg/dL are particularly at risk. In diabetic patients with abnormal renal function, the authors rely on digital subtraction angiography; magnetic resonance angiography or computed tomographic angiography can also be considered.

Step 6: Determine Limb Salvageability

Using the arteriovascular studies, limb salvageability can be determined. If occlusion or stenosis of large and medium-sized arteries is the cause of ischemia and gangrene in the foot, it can be corrected by vascular surgery to achieve limb salvage.

Step 7: Limb Salvage Vascular Procedures

In general, vascular procedures for limb salvage include reconstructive bypass surgery and percutaneous transluminal angioplasty (Figs. 9 and 10). For detailed information regarding vascular repair for peripheral vascular disease, the reader is advised to consult a standard text on vascular surgery.

Step 8: Debridement or Amputation of the Toes and Foot

Immediately after vascular reconstruction, pulses may be palpable, the foot becomes warm to the touch, and capillary filling time should be improved. The base of the ulcer should show new granulation tissue in a few days. The gangrenous toe can now be amputated, with improved potential for healing. The wound, resulting from amputation or debridement, should be left open and should be observed for a few days with standard local wound care.

Step 9: Healing of the Wound

Failure to develop granulation tissue or manifest bleeding with sharp debridement may be an indication of failed arterial reconstruction. Bypass patency and blood flow beyond the distal anastomosis should
be monitored using an arterial Doppler duplex scan. The vascular surgeon should identify and correct the cause of failure as early as possible to achieve limb salvage. If the limb salvage procedure fails, more proximal amputation, such as below-the-knee or above-the-knee amputation, may be necessary.

If vascular reconstructive surgery is successful, the wound should no longer appear ischemic but should be granulating. The newly granulating wound should be carefully protected, and meticulous daily local wound care should be performed to promote healing and prevent infection. The clean wound can then be covered with a split-thickness skin graft, undergo primary closure, or be closed by secondary intention (Fig. 11).

**Step 10: Care of the Nonsalvageable Foot**

In some patients, limb salvage vascular surgery is not beneficial, especially when there is an adequate inflowing arterial source for a bypass but absence of run-off vessels to be supplied by a bypass (Fig. 12). For patients who cannot benefit from limb salvage vascular surgery or for whom surgery is contraindicated, steps should be taken for conservative wound care to prevent infection, preclude weightbearing, and protect from external irritation.

Ischemic wounds in general should not be debrided, as it will lead to progression of tissue damage and further ulceration in the ischemic setting. Instead, the wound should be protected with a dressing to provide a barrier to pathogens and to maintain a moist wound environment. The ischemic foot should be protected with a foot cradle, avoiding contact with shoes or a mattress at all times. Wet-to-dry dressings can be problematic, as the

**Figure 9.** Arteriographic findings from the patient shown in Figure 8 were consistent with multiple stenotic vascular lesions (arrows) in the anterior tibial artery.

**Figure 10.** Arteriogram of the patient shown in Figure 8 immediately after dilation of the anterior tibial artery by means of percutaneous transluminal angioplasty.

**Figure 11.** After revascularization of the foot by means of angioplasty, the patient shown in Figure 8 was maintained nonweightbearing for the next 4 months, at which time the wound was healed.
gauze becomes dry and adheres to the base of the wound, with the following dressing change disrupting the wound bed. Alternative, commercially available products such as hydrocolloid, calcium alginate, or hydrogels should be considered. For chronic and nonhealing ischemic foot wounds, where revascularization is not a viable option, systemic hyperbaric oxygen or electrical stimulation has been reported to be effective.29, 30

### Algorithm III—Management Guidelines for Neuropathic Foot Ulcers

#### Step 1: Initial Assessment

Neuropathic ulcers, by definition, occur in a well-vascularized foot, as demonstrated by palpable pedal pulses, and commonly are the result of neglected and painless calluses or corns. In the presence of neuropathy, these lesions frequently go unnoticed or untreated owing to the absence of pain, which then allows tissue breakdown and eventual ulceration, necrosis, and gangrene. These ulcers tend to be chronic as a result of continuous microtrauma with amputation.

Chronic indolent osteomyelitis underlying the foot ulcer is common, but signs and symptoms are frequently absent. There may be minimal swelling at the site of ulceration, which is often dismissed as chronic induration of soft tissue from a long-standing ulceration. Chronic soft-tissue infection without systemic toxic effects is also common in these patients. Leukocytosis, warmth, and edema are often absent.31 Pathogens may eventually penetrate deeply into the foot, causing a limb-threatening abscess and cellulitis (see Algorithm I). If a malodorous exudate is noticed, then the ulcer should be probed for depth and for the possibility of a sinus tract (Fig. 13). If the bone or joint is exposed, further diagnostic tests are necessary to rule out osteomyelitis or the presence of a deep abscess.

#### Step 2: Diagnostic Tests

In the care of chronic neuropathic foot wounds, periodic foot radiographs and wound culture are helpful in early detection and treatment of infection. Radiographic changes of osteomyelitis may not be clearly distinguishable from those of diabetic neuroarthropathy.32 Radionuclide scans are more sensitive than radiographs in distinguishing osteomyelitis from diabetic arthropathy, but false-negative results may occur,33 especially in diabetic patients with peripheral vascular disease, in whom the radiotracer may not be able to reach the foot in the focus of osteomyelitis. Magnetic resonance imaging is recommended when there is a strong suspicion of osteomyelitis (Fig. 14).

#### Step 3: Diabetes Mellitus Comorbidity Evaluation

Patients are evaluated for significant comorbidities, as discussed in Algorithm II.
Step 4: Care of the Noninfected Neuropathic Ulcer

If the ulceration is free of underlying osteomyelitis or soft-tissue infection, the treatment regimen should be aimed at prevention of infection and closure of the wound as early as possible. To achieve these objectives, basic principles of wound care should be followed. Aggressive and periodic wound debridement of nonviable tissue is essential. Sharp debridement is preferred to using proteolytic agents or whirlpool, as these modalities do not debride neuropathic wounds adequately.34

The causative pressure and shear friction on the wound should be removed by off-loading the site of neuropathic wounds. Removal of pressure and friction can be difficult to achieve in poorly motivated patients; therefore, patient education is important. Total-contact casts are useful in the reduction of plantar pressure.35

In some cases, a split-thickness skin graft, tissue flaps, or a mechanical tissue expander36 can be used for resolving the open wound. Recently, a human skin equivalent, Apligraf (Novartis Pharmaceutical Corp, East Hanover, New Jersey), has been approved for the treatment of diabetic ulcers. Topical Regranex (Ortho-McNeil Pharmaceutical, Raritan, New Jersey), which consists of platelet-derived growth factors, has been marketed for diabetic foot wounds.

The importance of meticulous glycemic control in wound healing cannot be overemphasized. Periodic culture of the wound as well as periodic foot x-rays are important to monitor infection of the bone and soft tissue.

Podiatric surgery to improve foot function or to excise bony protuberances that can lead to ulceration can be considered at this time. Foot surgery, when well planned and executed, can be effective in the treatment and prevention of recurrence.

Step 5: Care After Resolution of the Ulcer

See Step 11 of Algorithm II for injury prevention.

Management of Neuropathic Ulcers with Osteomyelitis

During the course of treatment of neuropathic foot ulcers, bones underlying the ulcers often become infected. In such cases, the management guidelines are as follows:

Step 6: Hospital Admission

Diabetic patients with foot ulcers and underlying osteomyelitis should be admitted to the hospital for parenteral antibiotic therapy, surgical management of osteomyelitis, and control of glycemia.
Step 7: Medical Management of Osteomyelitis

**Glycemic Control.** Meticulous control of diabetes mellitus is the initial step in the treatment of osteomyelitis, as hyperglycemia is the key pathologic factor in the development of foot infection.37, 38

**Provisional Antibiotics.** The choice of an initial antibiotic regimen depends on the Gram’s stain of the exudate. It should not be assumed that organisms isolated from the ulcer are the same organisms causing osteomyelitis. Bone biopsy is necessary for a definitive diagnosis of osteomyelitis.

Step 8: Surgical Management of Osteomyelitis

Intravenous antibiotics alone will not eradicate osteomyelitis in the diabetic foot. Infected bone, necrotic tissue, and abscess cavities must be surgically debrided. If necessary, the infected part of the foot should be amputated at this time (Fig. 15). After initial debridement of the infected bone and soft tissue, a deep cleft may result. The wound is loosely packed open to allow delayed primary closure.

Step 9: Care of the Surgical Wound

Dressings can be changed twice a day or more frequently depending on the status of the wound and the degree of infection. Intravenous antibiotics, based on intraoperative culture of the infected bone, should be administered. Complete eradication of infected bone can be assessed by repeating foot x-rays, MRI, or cultures. If infection persists, the patient should be taken back to the operating room for additional debridement or more proximal amputation.

Step 10: Primary Closure of the Wound

When the foot is free of infection, the wound can be closed.

Step 11: Injury Prevention

See Step 11 of Algorithm II for injury prevention.

Conclusion

Foot wounds in diabetic patients are a major cause of morbidity, and their care has become a significant part of podiatric medical practice. It is important to develop systematic guidelines for the care of this complication. At the Coastal Communities Hospital in Santa Ana, California, a team of physicians from all medical and surgical disciplines was organized in 1996 and dedicated its services to the diabetic population for the prevention of amputation. This model of group practice, established as a hospital department and approved by the California State Health Department, has been effective in preventing foot complications and in caring for diabetic foot wounds. The treatment guidelines used since the inception of the program and the authors’ experiences in the team approach have been presented. It is the authors’ intention to contribute their experiences and expertise in the form of algorithms presented here for the prevention of major limb amputations in diabetic patients.

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Additional References


