

Outpatient Surgical Management of Patients with Complex Wounds Through a Multispecialty Wound Care Clinic

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Introduction/Purpose: Management of patients with lower extremity wounds is complex and generally attributed to diabetes, neuropathy, and/or peripheral vascular disease (PVD). Often, these patients have poor control of their disease and limited resources. Hospitalizations related to lower extremity wounds are expensive with relatively high length of stay. Much of this time is spent organizing outpatient interventions. The purpose of this study is to evaluate the efficacy of outpatient surgical management of patients with lower extremity wounds that could lead to hospitalization. We hypothesize that through a multispecialty wound clinic, utilizing wound care specialists, orthotist/prosthetist, infectious disease specialist, and orthopaedic surgeons, at-risk patients could be identified for non-healing wounds through successful outpatient surgical management with preoperative insurance approval of postoperative wound care, offloading devices and antibiotic treatment.

Methods: Patients seen through our outpatient multispecialty wound clinic were evaluated and those who underwent an outpatient surgical procedure over a 12-month period were identified. Additional inclusion criteria included failure of non-surgical management and 90-day minimum follow-up. Exclusion criteria included any patient who was septic, medically unstable, or unable to comply with the postoperative plan. Preoperative parameters regarding disease severity (HbA1c), infection severity (WBC, ESR, CRP), and wound healing potential (albumin, total protein) were identified. In addition, preoperative determination of wound severity was measured using Wagner's Score. Outcomes included hospitalizations related to their wound within 90 days, requirements for additional surgical procedures, and time to resolve their wound postoperatively.

Results: Nineteen patients met the inclusion criteria. Average age was 58.6 years and eleven were male. Ten had diabetes, thirteen had neuropathy, and five had PVD. Average preoperative HbA1c was 7.9, and average WBC, CRP, ESR, albumin, and total protein was 8.1, 1.1, 29.6, 3.7, and 7.0, respectively. All patients had preoperative conservative intervention. Eight patients were preapproved for outpatient IV antibiotics and four for wound vac therapy. Table 1 outlines the procedures performed. Patients presented an average of 7.3 weeks following their outpatient procedure until resolution of their wound. One patient was re-admitted to the hospital within 90 days for a problem related to their initial wound.

Conclusion: Our study demonstrates that outpatient surgical management of medically stable patients with lower extremity diabetic, neuropathic, and/or PVD wounds resulted in wound resolution and eliminating hospitalization. This is accomplished with the preoperative organization through a multispecialty wound care clinic for patient's postoperative needs, eliminating the time spent in the hospital during admissions waiting for OR availability, insurance approval and organization of outpatient wound care and antibiotics. This traditional process results in high medical costs without active intervention. Outpatient management can save valuable hospital resources as well as a substantial cost savings by eliminating days spent in the hospital.

Table 1. Outpatient Procedures Performed

Patient	Procedure
1	Hallux MTPJ Amputation
2	I+D, GSR
3	Second MTPJ amputation, GSR
4	Hammer Toe Correction
5	I+D
6	Tendoachilles Lengthening
7	GSR, Peroneus Longus to Brevis Transfer, First MTPJ Disarticulation
8	I+D, Bone Biopsy
9	GSR, I+D, Tendon Transfer
10	I+D, fourth metatarsal osteotomy and partial excision
11	GSR, TMA
12	Second MTPJ amputation
13	GSR, I+D, TMA
14	Fifth ray amputation, I+D, Second MTPJ amputation
15	Bilateral tendon release lesser toes
16	First ray amputation, I+D
17	I+D
18	I+D

I+D-Irrigation and Debridement, GSR-Gastrocsoleus Recession, MTPJ- Metatarsal Phalangeal Joint, TMA-Transmetatarsal Amputation