

Outpatient Parenteral Antimicrobial Therapy (OPAT) for Diabetic Foot Infections: Clinical Outcomes and Hospital Admission Avoidance in a Single-Centre Experience

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Background

Diabetic foot infections (DFIs) are a leading cause of hospitalisation and lower limb amputation. Outpatient Parenteral Antimicrobial Therapy (OPAT) offers an alternative to prolonged inpatient care and potentially reduces healthcare costs. We aimed to evaluate the clinical outcomes, safety, and hospital admission avoidance rates of OPAT in patients with diabetic foot ulcers complicated by infection.

Methods

We conducted a retrospective analysis of patients with diabetic foot infections managed through our OPAT service between 2023-present. Data collected included demographics, diabetes type, ulcer grade (Wagner classification), presence of osteomyelitis, vascular status, renal function (eGFR), IV antibiotic regimen and duration, wound healing outcomes, amputation rates, recurrence, and hospital readmissions.

Results

38 patients were included (74% male; mean age 62.6 years, range 42-93). The majority (61%) received combination intravenous antibiotic therapy, most commonly a continuous 24-hour infusion of piperacillin–tazobactam (55%), with or without intravenous teicoplanin at 12 mg/kg (47%).

Key Outcomes

Hospital admission avoided: 79% (30/38)

Wound healing: Healed 11%, Improving 55%, Static 24%, Deteriorating 11%

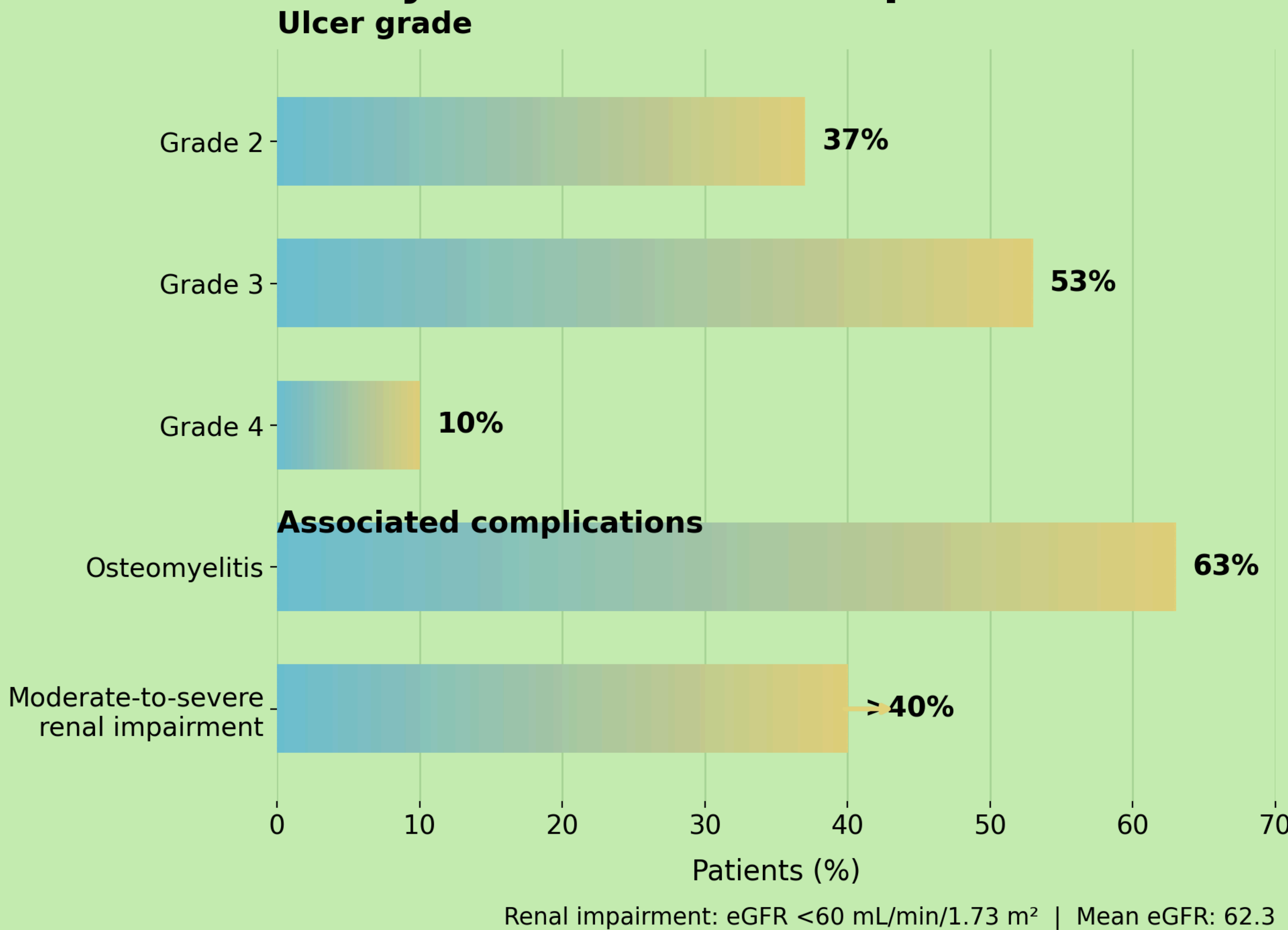
Amputation: Minor 37%, Major 3%

Recurrence rate: 45%

Readmission rate: 21%

Higher ulcer grade (Grade 3-4) was the strongest predictor of poor outcomes (58% experienced deterioration or required amputation).

Ulcer Severity and Clinical Complications



Conclusion

Conclusion: OPAT is a safe and effective strategy for managing diabetic foot infections, and avoiding hospital admission in nearly 80% of cases. Two-thirds of patients showed wound healing or improvement. The high proportion of patients with osteomyelitis (63%) and complex comorbidities demonstrates OPAT feasibility in challenging cases. Recurrence remains a significant concern (45%), warranting further investigation into long-term follow-up strategies and secondary prevention measures.

