

Development of a Rationalized Antibiotic Protocol for Inpatient and Outpatient Use in a Tertiary Diabetic Foot Clinic -

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Background: The evidence for the choice of empirical antibiotic regimes used for the treatment of diabetic foot infections is limited and often weak. Treatment strategies and choice of empirical antibiotics vary significantly. The principles remains that antibiotic choice must be guided ideally by results obtained from specimens taken from deep within the wound. We aimed to design a rationalized antibiotic protocol guideline for use to achieve high cure rates, accelerated wound healing and reduced amputation rates, whilst lowering the risk of developing multidrug resistant infections. **Methods:** A multi-professional task force comprised of diabetologists, podiatrists, microbiologists, orthopaedic and vascular surgeons and pharmacists reviewed existing local, national and international guidelines for treating diabetic foot infections. We employed the IDSA's Diabetes Infection Classification System to grade infections, in conjunction with studies on prevalent pathogens within diabetic foot infections. *Staphylococci* and *Streptococci* remain the commonest agents in superficial foot infections. Deep foot infections are most often due to a mixture of aerobes and anaerobes with treatment for these being broader spectrum antibiotics. Local resistance patterns were taken into account as was the risk/benefit ratio of prescribing agents associated with higher risk of developing *Clostridium difficile* (*C.difficile*) infection. Consideration was also given to the ease of administration, limiting combination therapies to encourage patient compliance, outpatient treatment strategies to avoid hospital admission where necessary, and optimizing therapy to shortened hospital stay. **Conclusion:** Treatment outcomes have been encouraging with initial audits demonstrating fewer inpatient referrals and shorter hospital stays. Of 9 patients treated with IM Ceftriaxone with borderline infections who otherwise required admission, 7(78%) were treated successfully and did not require hospital admissions or surgery. 2(12%) were admitted and underwent debridement surgery/ digital amputation. We report no cases of *C. diff* following clindamycin and/or ciprofloxacin therapy. Data collection on treatment failures or amputation rates after implementation of these guidelines is ongoing. We have presented a framework for unified treatment strategies for health professionals treating diabetic foot infections within our tertiary centre clinic. Our initial findings are that it has rationalized yet broadened the scope of outpatient treatment options. We intend to gain community ratification of these guidelines to ensure consistency and streamlined services.