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Pathogens in infected diabetic foot ulcers treated on out-patient basis.

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Background and aims: Diabetic foot ulcers often harbour mixed flora. Targeted therapy with narrow-spectrum antibiotic therapy reduces the risk for development of multiresistant bacterial strains. Surveys on bacterial flora in a certain region can guide the decision for the initial empiric antibiotic treatment. **Materials and methods:** 89 swabs were collected in the year 2005 from diabetic out-patients with clinically infected foot ulcers, with associated osteomyelitis (OM+, 13 patients) or without it (OM-, 76 patients). They were analysed with respect to the average number of isolated microorganisms, percentage of particular bacterial strains, and antibiotic susceptibility. **Results:** Only 3 swabs were MRSA positive. The OM+ and OM- subgroups differed significantly with respect to the average number of isolates per sample (2.83 ± 1.53 vs 2.24 ± 2.24 , $p = 0.000$) and the percentage of particular groups of microorganisms: *Staphylococcus spp.* 32.35 vs 46.58 %, *Streptococcus spp.* 8.82 vs 13.66 %, *Enterobacteriaceae* and nonfermentative gram-negative bacilli 20.59 vs 16.15 %, Diphtheroids 17.65 vs 8.07 %, *Bacillus spp.* 0 vs 0.62 % and anaerobes 14.71 vs 9.32 % ($p = 0.000$). All isolated Staphylococci were susceptible to vancomycin, 71.2 % to oxacillin, 87.0 % to trimetoprim/sulphamethoxazole (tmt/smx) and 68.3% to clindamycin. The Gram-negative isolates were susceptible to ciprofloxacin in 97.0 %, tmt/smx in 86.4 % and amoxicillin+clavulanate (am/cl) in 71.4 %. All isolated anaerobes were susceptible to metronidazole and am/cl, and to clindamycin in 58.3 %. **Conclusion:** The first line therapy for infected foot ulcers not indicative of osteomyelitis should be directed primarily against Staphylococci and gram-negative organisms (oxacillin, tmt/smx and am/cl). If osteomyelitis is suspected, the initial regimen should also cover anaerobes, metronidazole, am/cl and clindamycin are recommended. Although the overall resistance to ciprofloxacin in the population under the study is low, it should not be prescribed as first line therapy in order to prevent development of resistant bacterial strains. MRSA