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MRSA infection can be reduced in diabetic foot clinic

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Background: MRSA infection is common in diabetic foot ulcer and is associated with increased morbidity and mortality. In our previous audit in 2002 the prevalence of MRSA was 33.3% so we implemented changes such as active screening for MRSA from foot wound, restrict the use of antibiotics only in clinically infected cases and developed close liaison with microbiologist on choice of antibiotics. In addition we also used disposable gloves and apron and washed hand with alcohol gel after each patient contact in foot clinic. **Aim:** The aim of this audit was to study if these measures reduced the prevalance of MRSA. The secondary aim was to evaluate outcome of these patients and their foot ulcers. **Subjects & Methods:** This was a retrospective re-audit conducted on patients attending foot clinic between January 2006 to December 2007. The list of subjects attending foot clinic in 2 local hospitals was obtained from clinical coding department. Their clinical, biochemical and microbiology record were studied and relevant information was collected. **Results:** We found that the overall prevalence of MRSA has reduced from 33.3% in 2002 to 15% of subjects with ulcers and to 18.7% of total positive cultures by 2006/07. Of the 133 patients with foot ulcers seen in 2006/07, 19 did not have diabetes and were excluded from further analysis. Of the remaining 114 subjects (71 male & 16 type 1 DM), MRSA was isolated from 19 (14.3%) subjects. There were no difference in age, sex, type of diabetes, HbA1c, presence of cardiovascular disease, serum creatinine and total cholesterol between subjects with and without MRSA. Serum albumin was significantly lower in subjects with MRSA (39.6 ± 6.4 vs 32.9 ± 8.6 gm/L; $p < 0.001$). We found that only 42.9% of ulcers with MRSA infection healed by 6 months in comparison to 80.9% of ulcers without MRSA infection ($p < 0.05$). There was higher overall mortality (31.6% vs 11.6%; $p<0.05$) and amputation (35.7% vs 11.3%; $p<0.05$) in subjects with MRSA infection. **Discussion**: Our observation shows that incidence of MRSA can be reduced in foot clinic with strict hygiene but its presence is still associated with higher morbidity and mortality.