Effect of Strict Infection Control Policies on Infection Rates in Elective Foot and Ankle Surgery

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Summary
1737 elective foot and ankle cases were prospectively studied from Dec 2005 to June 2010. For the past two years strict infection control policies on the wards and in the operating rooms have been followed. Before the introduction of the infection control policies our superficial infection rate was 3.3% with 0.7% deep infection rate (818 procedures). After the introduction our superficial infection rate dropped to 1.6% and 0.3% deep infection. The decrease is statistically significant (p<0.001)

Introduction
Infection is probably the most devastating complication of elective foot and ankle surgery. With increasing media attention, it certainly the greatest concern that patients have pre-operatively. This large prospective prospective longitudinal study demonstrates the effect of introducing strict infection control policies on both superficial and deep infection rates.

Methods
1737 elective foot and ankle cases were prospectively studied from December 2005 to June 2010. All cases were brought back to a specialist nurse dressing clinic between 10 and 17 days post op. Data was collected at the dressing clinic with a standardised proforma on the type of surgery, the state of the wound and any additional management required. Patients being treated for pre-existing infection were excluded. For the past two years strict infection control policies on the wards and in the operating rooms have been followed. On the ultra clean ward, rules include a locked door policy where patients cannot leave the ward once admitted, all patients must have a negative up-to-date MRSA screen, pyrexial patients are moved from the ward and no invasive devices are allowed (eg indwelling urinary catheters and external fixators). In the operating room, rules include scrubs are not allowed to be worn outside of the operating suite, surgical hats and masks are to be worn at all times, intravenous cannulae are inserted using a no touch technique, only one dose of prophylactic antibiotics are given and there is careful thermoregulation and

Results
Of the 1737 cases 201 (11.6%) had a minor wound problems such as excessive post op bleeding into the dressings, suture problems, early removal of K wires, delayed wound healing and minor infection. 42 patients required antibiotics (2.4%) 8 patients had a deep wound infection (0.5%) requiring intravenous antibiotics and or further surgery. Before the introduction of the infection control policies our superficial infection rate was 3.3% with 0.7% deep infection rate (818 procedures). After the introduction (919 cases) our superficial infection rate dropped to 1.6% and 0.3% deep infection. The decrease is statistically significant (p<0.001).

Conclusions
This large series prospective study sets a benchmark for infection rates in elective foot and ankle surgery. It also highlights the benefit of a dedicated orthopaedic elective unit with rigorous infection control