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[O89] PROSTHETIC JOINT INFECTIONS IN AUSTRALIA AND NEW ZEALAND: THE FIRST 275 PATIENTS FROM THE PIANO (PROSTHETIC JOINT INFECTION IN AUSTRALIA AND NEW ZEALAND OBSERVATIONAL) STUDY

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Aim: There is a lack of both epidemiological data and of high-quality evidence to guide the management of Prosthetic joint infection (PJI). We hypothesised that there is substantial heterogeneity in the clinical presentation and management of PJI in Australia and New Zealand, and that the proportion with clinical cure at 24 months is independently associated with modifiable variables in surgical and antibiotic management.

Method: Prospective binational multicentre observational study aiming to enrol 400-600 patients with large joint PJI, defined as per IDSA criteria. Following screening and written informed consent, data are collected at baseline and after 3, 12 and 24 months. The main outcome measures are clinical cure, functional status (based on Oxford joint and SF12 scores) and direct health care costs at 24 months.

Results: As of April 2016, 15 sites in Australia and 5 in New Zealand have full ethics approval and have begun recruitment and over 275 patients have been recruited, of whom 59% were male and the average (SD) age was 69 (11.3) years. Obesity was common, with a mean body mass index of 32, and 23% of the cohort were diabetic. The most common joints involved were knees (55%) and hips (39%). Most infections were late postoperative acute haematogenous infections (41%), with early post-operative (<30 days) and chronic infections less common. *Staphylococcus aureus* was the most common causative organism (38%) and debridement and implant retention (DAIR) was the main initial management strategy (61%), with a two-stage revision the next most common (25%). The median duration of IV antibiotics was 42 days, regardless of management strategy. Rifampicin was used in only 38% overall, and in only 60% in the subgroup with Gram positive infections treated with DAIR.

Conclusions: There are no generally agreed upon guidelines for the management of PJI in Australia and New Zealand, and this is reflected in heterogeneity of management strategies. Acute haematogenous infections are more common, and rifampicin use less common than expected. The PIANO study has been successfully established with minimal funding and will serve as a platform for much needed interventional studies to answer important questions about PJI management including the role of rifampicin and the timing and duration of antibiotic treatment.

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