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701. The Microbiology of Septic Arthritis in Young Auckland Children
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Background. Septic arthritis in children can have permanent consequences, hence timely microbiologic diagnosis and targeted antimicrobial management are important. In recent international studies, *Kingella kingae* has been described as an important cause of septic arthritis in young children. The prevalence of this pathogen in New Zealand, where there are very high rates of childhood infections due to *Staphylococcus aureus* and *Streptococcus pyogenes*, is not known.

Methods. We conducted a retrospective review of children less than five years of age with septic arthritis at a tertiary children's hospital in Auckland, New Zealand between 2005 and 2014. Demographic and microbiologic data were collected together with details of clinical presentation, investigations, surgical management and antimicrobial therapy.

Results. There were 68 episodes of septic arthritis in children less than five years of age. 57 (83.8%) occurred in those less than 24 months. Among infants less than three months of age, *Streptococcus agalactiae* was predominant (5 of 11, 45.5%), followed by *Staphylococcus aureus* (4 of 11, 36.4%). The most common pathogen in those aged 3–12 months was *Streptococcus pneumoniae* (5 of 13, 38.5%), followed by *Kingella kingae* (2 of 13, 15.4%). In children aged 12–24 months, *Kingella kingae* was most common, identified in 10 of 33 (30.3%). In those aged 24–60 months, *Staphylococcus aureus* was the only pathogen identified. Of the total 12 cases of *Kingella kingae* septic arthritis, one (8.3%) was detected on a positive blood culture and 11 (91.7%) from synovial fluid. Only one case of *Kingella kingae* septic arthritis had synovial fluid inoculated in to a blood culture bottle, which subsequently showed positive growth whilst solid media remained negative. All *Kingella kingae* isolates were susceptible to amoxicillin. Empiric antibiotic choice varied, although flucloxacillin was most commonly prescribed.

Conclusion. *Kingella kingae* is the leading pathogen in septic arthritis in New Zealand children beyond the neonatal period and under 24 months, with implications for antimicrobial prescribing in this age group.

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