

Duration of intravenous antibiotic therapy for children with acute osteomyelitis or septic arthritis: a feasibility study

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Plain English summary

IV antibiotic therapy in children with OM or SA

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Plain English summary

Children's bone and joint infections are treated first with intravenous antibiotics and then oral antibiotics. Historically, long courses of intravenous antibiotics were thought to be needed, which often involve a long hospital stay. At present there is no consensus regarding how long to treat these infections overall, or how long to use each of intravenous or oral antibiotics. This study used a combination of methods to assess if a clinical trial to reduce intravenous antibiotics in children will be feasible in the UK.

Data were collected from 44 UK centres to find out the current bacterial causes of children's bone and joint infections and how these are treated in clinical practice. A qualitative study explored families' views and experiences of having had a child treated for bone or joint infection. A consensus meeting was informed by information from the clinical data collection, web-based clinician survey and qualitative study to establish the final set of outcomes, oral switch criteria and overall future trial feasibility.

We found that clinicians are already switching from intravenous to oral antibiotics at an early stage in selected patients with simple disease, even though there is not yet formal clinical trial evidence of the safety of doing so. This has important implications both for current practice and for the feasibility of different potential trial designs. We also found that a future randomised controlled trial of shorter or longer courses of intravenous antibiotics would be feasible by including only children who need more than a minimum of 7 days' intravenous antibiotic treatment before switching to oral medicine.

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