Musculoskeletal infection in children

Parent information

Musculoskeletal infection is usually caused by bacteria. There are two main types:

- Osteomyelitis is the medical term for a bone infection.
- Septic arthritis is infection of a joint.

It is possible to have osteomyelitis and septic arthritis together.

Why does musculoskeletal infection happen?

Osteomyelitis develops when the bone becomes infected. In most cases, bacteria are responsible for the infection, although it can also be caused by fungi. Usually the bacteria travel via the bloodstream and settle in the bone or joint. Some people believe there may have been a minor recent injury that makes the bone or joint more vulnerable at the time of infection.

Blood tests

Blood tests are required to establish the diagnosis and ongoing treatment. Blood tests alone cannot confirm osteomyelitis, but can indicate whether there are a high number of white blood cells in your blood, which may suggest if there is an infection. At the beginning of infection, it can be possible to do blood tests that can determine the type of bacterium. This can help choose the right antibiotics.

Imaging tests

If osteomyelitis or septic arthritis is suspected, it is likely you will be referred for further imaging testing. There are several imaging tests that may be able to detect bone damage caused by osteomyelitis. They include:

- X-rays, where low levels of radiation are used to create an image of the affected bone - this test is not usually useful for diagnosis if the condition is in the early stages.
- Magnetic Resonance Imaging (MRI) scan, where a strong magnetic field and radio waves are used to build up a picture of the inside of the affected bone. Depending on the age of your child, sedation or general anaesthetic may be required to perform this test.
- Ultrasound scanning: this may be used to detect fluid in the joint space.

How are osteomyelitis and septic arthritis treated?

Osteomyelitis is usually treated with antibiotics, for at least four to six weeks. In rare cases it is necessary to clear the bone infection with an operation.

Septic arthritis usually requires surgery to wash the infection out of the joint.

The main treatment for both infections is antibiotic medication.
The medication needs to be given intravenously (directly into a vein), this means that your child will require a long term intravenous access. This is a small catheter, usually inserted into a vein under a general anaesthetic, but if your child is old enough to lie still, can be inserted with gas and air (nitrous oxide).

If your child is well enough, they may be able to receive the injections as an outpatient, or by your local children’s community nurses. Your child’s discharging nurse will guide you through their requirements.

**Who will be caring for my child?**

During the treatment they will be looked after by several members of the hospital team. These include:

**Paediatricians (Dr P Heinz or Dr H Bailie):** doctors responsible for managing the infection and antibiotic treatment. They will see your child regularly and advise on the need for blood tests and any antibiotic prescription changes.

**Paediatric orthopaedic surgeons (Miss K Stohr or Mr M Latimer):** Who will be responsible for the long term condition of the bone affected and any surgery for infection wash outs if required. In some cases the paediatric orthopaedic surgeon will need to monitor the growth of the bone long term.

**Paediatric anaesthetists:** doctors specialising in giving children general anaesthetic. You may meet them if your child requires a general anaesthetic for an MRI scan or intravenous line insertion.

**Nurse specialists:** they will be your link between home and the hospital.

**Community nursing teams:** they will be able to administer your child’s intravenous antibiotics at home.

**Care of the PICC line.**

Keep the PICC line clean and dry.

Contact community nurse if the dressing is peeling off or has become soiled or wet.

Observe for redness at entry site of PICC line. Contact community nurse team or clinical nurse specialist. If out of hours call the ward.

**What should I look out for at home?**

- a high temperature (fever) of 38C (100.4F) or above
- intense bone pain
- swelling, redness and a warm sensation in the affected area
- irritable and has a reduced appetite
- is reluctant to use a certain part of their body (most often an arm or leg)
- rash
What will happen at home?:
The dressing on your child's PICC line will need changing weekly by the community nurses or hospital. Blood tests weekly initially and then as directed. The results will be reviewed by the paediatrician. You will be asked to attend clinic with the Paediatric orthopaedic team and or the paediatricians.

Contact numbers:

**Ward F3:** 01223 217569.

**Ward D2:** 01223 217250.

**Nurse specialists:** Paeds orthopaedics Helen Swain 01223 254996 or Paediatrics Angela Higgins Bleep 159 270.

**Paediatrician secretary:** Ruth Collins 01223 586795.

**Community team:** ________________________________

My child's next appointment is: ___________________________

My child's next blood test is due: ___________________________

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Other formats:

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**Document history**

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