

Urgent treatment and referral of children with suspected serious bacterial infection by General Practitioners

There has been an increase of children (including adolescents) with serious bacterial infections in the last year, often associated with, or subsequent to, a viral infection. The largest increase has been in severe Group A Streptococcus infections, but also Streptococcus pneumoniae and Staphylococcal infections. These bacterial infections include pneumonia, empyema, septicaemia, meningitis, and bone and soft tissue infections.

Children with these infections can deteriorate rapidly, and antibiotic treatment is time-critical and improves outcomes. It is important that whenever serious bacterial infection is suspected in primary care, the first dose of effective antibiotics is given as soon as possible*, and the child referred to a hospital urgently via ambulance or Emergency Retrieval (PIPER) so complete assessment and investigation can occur.

In a child with suspected serious bacterial infection:

Fever (temperature >38° C) plus other symptoms and signs in a sick child, including:

- erythematous, sunburn-like or purpuric skin rash
- lethargy, persistent drowsiness or high-pitched cry
- hypoxaemia, grunting or other signs of severe respiratory distress, pneumonia or pleural effusion
- cold or mottled limbs, >3 seconds capillary refill, tachycardia
- severe limb pain or refusal to walk
- inability to feed or persistent vomiting
- oliguria

No one sign is specific, but the more signs that are present, or the more severe, the more likely it is there is a serious bacterial infection. Prolonged fever (>5 days) or very high fever (T>40 C) are also more likely to indicate a serious bacterial infection. Parents of children with serious bacterial infections often correctly express concern about their failure to improve or their significant difference from normal.

* Take a blood culture if you can, but if not possible, diagnostic tests can still be done at a hospital.

Give first dose of ceftriaxone 100mg/kg up to 2g IM or IV, or benzylpenicillin 50mg/kg up to 1.8g IM or IV, and urgently refer by ambulance.

PIPER can also be contacted from a primary care clinic or urgent care centre on 1300 137 650 for management and transfer advice and support.