Pre-Hospital Antibiotics for Sepsis in Adults

Primary Care Guideline

This guidance is for adults only and does not cover children.

This guideline is designed to support GPs and other primary care clinicians in the diagnosis and antibiotic treatment of sepsis in adults in face-to-face consultations, where the delay to ambulance transfer to hospital is expected to be over 1 hour.

Antibiotic therapy should not delay transfer to hospital, and should only be given if patient is at high risk of sepsis or sepsis is the most likely diagnosis.

Children under 16 years are not covered by this guideline.

Diagnosis of suspected Sepsis

See NICE guidelines Suspected Sepsis for full details.

A summary:

- Use the National Early Warning Score (**NEWS2)** to support the assessment of people with suspected sepsis
- https://www.mdcalc.com/calc/10083/national-early-warning-score-news-2

Assess individuals with any suspected infection to identify:

- possible source of infection (see the recommendations on finding and controlling the source of infection)
- factors that increase risk of sepsis (see people who are most vulnerable to sepsis)
- any indications of clinical concern, such as new-onset abnormalities of behaviour, circulation or respiration.

Consider neutropenic sepsis:

- People who become unwell and have received an anticancer treatment with in last 30 days
- Are receiving immunosuppressant treatment for reasons unrelated to cancer.

Consider meningitis, and / or sepsis and meningococcal

- haemorrhagic, non-blanching rash with lesions larger than 2 mm (purpura)
- rapidly progressive and/or spreading non-blanching petechial or purpuric rash
- any symptoms and signs of bacterial meningitis combined with a non-blanching petechial or purpuric rash.

Management of suspected sepsis in Primary Care:

Call 999

(Patient with high-risk sepsis will be triaged to category 2 response. If meningococcal sepsis suspected, please communicate this to team as they can prioritise this within the category 2 calls)

Dose:

Ceftriaxone 2 grams IM

Allergy – avoid cephalosporins in patients with anaphylaxis to either penicillin or cephalosporins. If rash to penicillin then consider giving. Cephalosporins cross reactivity is extremely unlikely.

Ceftriaxone administration guidelines

Preparation of Injection

- Ceftriaxone comes as a powder
- Reconstitute with 1% lidocaine hydrocholoride
- It should be dissolved into Lidocaine 1% to reduce pain at the injection site but can be mixed with sterile water for injection in an emergency
- Usual dose would be 3.5ml lidocaine 1% in a 1gram Ceftriaxone vial (check packaging on individual brand)

Not for IV use, Lidocaine should never be administered IV

The 2g dose must be split across 2 sites

Administration on Intramcuslar Muscular (IM) injection

Refer to guidance below for IM injection

Shepherd E (2018) Injection technique 1: administering drugs via the intramuscular route. *Nursing time* [online]; 118: 4, 23-25. This article was updated by Shepherd E on 9 March 2022

Use a 21G green needle for administration and clean site with a 70% alcohol wipe (cross-hatch motion for 30 seconds allow 30 seconds for drying)

Use the Z-track injection technique to administer medication

- Pull the target taut maintaining this throughout the injection
- Insert the needle at 90 degree angle
- Depress the plunger slowly 1ml every 10s
- Wait 10s before removing needle

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Document on EMIS and ensure prescription is issued

Please ensure the ambulance service are aware antibiotics have been administered