Ceftriaxone Use in Long Term Residential Care Facilities (LTCFs) Position Statement

Target audience

This position statement is particularly relevant for doctors, nurses and pharmacists working in LTCFs.

Out of scope

Service users discharged from acute services to LTCFs on ceftriaxone with clinical microbiologist or infectious diseases physician input and follow up, e.g. OPAT programme.

Background

This document was produced because of concerns of increasing use of ceftriaxone in some LTCFs, and to support decision making around the use of this agent.

Key points

- Ceftriaxone is a 3rd generation cephalosporin with a broad spectrum of antibacterial activity, administered via the parenteral route (intramuscular / intravenous).
- Ceftriaxone is **NOT recommended in empiric guidelines** for the treatment of infections in community settings***** and **should NOT form part of routine antimicrobial prescribing practice** in LTCFs.
- It has a **high potential for generating antimicrobial resistance and is a high-risk antibiotic for causing *Clostridioides difficile* infection**, and would be considered a **Red (less preferred) antibiotic** as per the Green / Red preferred antibiotic initiative in community settings.
- Ceftriaxone is contraindicated in service users with a cephalosporin allergy or a severe penicillin allergy.
- There are significant adverse effects associated with ceftriaxone including: sludging in the gallbladder, injection site reactions, allergic reactions, diarrhoea and blood disorders.
- Giving intramuscular injections to service users on oral anticoagulants may increase the risk of bleeding or bruising at the injection site. With advancing age, muscle mass decreases and subcutaneous tissue increases negatively affect the safety and effectiveness of intramuscular injections in older persons.
- **The oral route remains the preferred route of administration for antimicrobials**, for overall comfort, mobility and to reduce risk of injection site reactions and bloodstream infections. There is significant evidence to support the safety and the efficacy of many oral agents in the community and long term care setting. Consult the community antimicrobial prescribing guidelines for recommended antibiotics on www.antibioticprescribing.ie.
- For service users with swallowing difficulties, consult the pharmacist on the most appropriate oral agent and formulation.
- For service users at the end of life, and for advanced care planning for end of life, consideration should be given to whether antibiotics (in particular, parenteral antibiotics) should be part of the treatment plan for each individual. Using antibiotics may prolong discomfort, cause unnecessary adverse effects and may not confer the intended benefit.
- **If ceftriaxone is being considered, it should be discussed with a clinical microbiologist or infectious diseases physician.**
- The following antimicrobial stewardship principles need to be considered if ceftriaxone is prescribed:
  a) Use shortest possible duration with daily clinical review to assess whether it can be discontinued or changed to suitable oral agent.
  b) Results of microbiological sampling should be used to guide choice of antibiotic where available.
  c) For detailed drug information, refer to the Health Products Regulatory Authority (HPRA) website, the British National Formulary (BNF) or local guidelines where available.

***** Exception: ceftriaxone is recommended for suspected meningococcal disease (alternative agent to benzylpenicillin), prior to hospital transfer