

Wessex Paediatric Infection Network: Statement regarding ceftriaxone prescribing

Written by Saul Faust and the Wessex ID network 23/11/2017

1. Administration of ceftriaxone 80mg/kg over 10 minutes

In order to facilitate ambulating children on IV ceftriaxone, 80mg/kg ceftriaxone (generic) is safe to give over 10 minutes by slow intravenous injection. Although most hospitals currently use 30 minute infusions, there is lack of clarity from the manufacturers regarding speed of administration. Common practice in other countries, including America and Australia, is to give it more quickly and the European-wide medicines authorisation states that giving it over 10 minutes is acceptable.¹

A recent University Hospital Southampton (UHS) evaluation of ceftriaxone 80mg/kg administered over 10 minutes to 30 children showed no adverse events (which can include reflex vomiting if the infusion is given by rapid push) and this practice was preferred by the majority of parents and young people because it meant that they spend less time having their medications. The administration of ceftriaxone as a 10 minute infusion has been approved by both the Southampton Children's Hospital Governance group and the University Hospital Southampton Medicines committees.

Children receiving intravenous antibiotics as part of the UHS paediatric intravenous antibiotic service, including 10-minute infusions of ceftriaxone, will have clinical observations recorded on a proforma, in order to collect data on the implementation of this service. Any adverse events will be reported back to the Wessex paediatric infectious diseases network.

2. Timing of 2nd dose of ceftriaxone

The EU FP7 funded GriP Neonatal and Paediatric Prescribing Book will be published in 2018. Its aim is to produce a handbook on Neonatal and Paediatric Prescribing that complements the BNFC, which facilitates translation of essential pharmacological principles into good prescribing practice. Chapters have been peer reviewed, and the book will be endorsed by GriP, RCPCH, NPPH and BNFC.

The Prescribing in infection (i) antibacterials chapter states:

- If a first dose of ceftriaxone has been given overnight it can be moved to day time by giving the second dose early, any time from 12 hours following the initial dose
- A regimen of 80mg/kg with the first two doses being given at a 12 hourly interval was previously widely and effectively used for paediatric meningococcal sepsis without adverse effects

In addition

- In patients of any age ceftriaxone must not be mixed or administered *simultaneously* with any calcium-containing IV solutions (such as TPN or Hartmann's), even via different infusion lines or at different infusion sites
- In patients older than 28 days of age ceftriaxone and calcium-containing solutions may be administered *sequentially* one after another through a different IV site or through the same IV site if thoroughly flushed with normal saline.

References

1. Summary of product characteristics. http://mri.cts-mrp.eu/download/NL_H_1622_003_FinalSPC.pdf (accessed 23/11/2017)