

Ceftriaxone administration in children

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Contents

		Page
	Statement from Wessex ID network	
1	Introduction	
1.2	Scope	
1.3	Aim/Purpose – outline objectives and intended outcomes	
2	Implementation (including training and dissemination)	
3	Process for Monitoring Compliance/Effectiveness of this policy	
4	References	
Appendices		
Appendix A	Consultation signatures	

1.1 Introduction

Ceftriaxone is a commonly used antibiotic, especially in children being ambulated on IVAbs. Current practice in most UK hospitals is to give this medication slowly over 30 minutes, however there is a lack of clarity in the advice from the drug manufacturers about how quickly it can be given. 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

Speed of administration:

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.

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

1.2 Scope

This guideline applies to all prescribers of ceftriaxone and pharmacists checking prescriptions.

1.3 Purpose

- To allow a dose of 80mg/kg (max 4 grams) ceftriaxone to be administered by IV infusion over 10 minutes.
- To allow the second dose of ceftriaxone to be administered 12-24 hours after the 1st dose.

2 Implementation

Dosing recommendations will be added to the Wessex empirical antibiotic guideline and Wessex microguide. A hyperlink to this statement will be added to all dosing recommendations.

3 Process for Monitoring Effectiveness

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.

4 References

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

Appendix A

Paediatric Regional Guideline Consultation Documentation:

Dorchester	Will Verling
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Jersey	Mark Jones
Poole	Steve Wadams
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Salisbury	Nick Brown
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* this person agrees they have read the guidelines, consulted with relevant colleagues and members of MDT, managers and patients, young people & their families as appropriate. Any queries raised during consultation and review process should be documented with responses and any changes made to guideline.

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