

Louth: Antimicrobial Guidelines - Louth Hospitals: Antimicrobial Guidelines: Neonatal - ■Cef-O-taxime IV

Neonatal - Cef-O-taxime IV

Broad-spectrum third generation bactericidal cephalosporin antibiotic.

MEDICATION SAFETY ISSUES

Confusion with other cephalosporins e.g. Cef-TRI-axone and Cef-UR-oxime.

Should not be used in patients with a known allergy to a cephalosporin.

Individuals who have a hypersensitivity reaction to penicillin may have cross sensitivity to cephalosporins.

USES

Meningitis and severe neonatal infections.

PRESENTATION

Cef-O-taxime 1 g Wockhardt, Claforan® 1g Sanofi.

DOSAGE [1]

Neonates: Meningitis and Severe Infections

Age	Dose	Frequency
Neonate under 7 days	50mg/kg	Every 12 hours
Neonate 7-21 days	50mg/kg	Every 8 hours
>21 days	50mg/kg	Every 6 hours

For less severe infection doses of 25 mg/kg/dose have been used for neonates.

Renal Impairment [1]

Dose reduction may be required in renal impairment refer to BNFC and seek advice on assessment of renal function.

RECONSTITUTION [4,7]

Cef-O-taxime is available as a dry powder containing 1 gram per vial.

To prepare Cef-O-taxime solution 100 mg/mL:

To each vial of Cef-O-taxime add appropriate volume of Water for Injection as per table below and shake well to mix to give Cef-O-taxime 100 mg/mL solution.

This can be further diluted with sodium chloride 0.9% or glucose 5% if required.

Brand	Approx displacement volume	Diluent to be added	Final Concentration
Cef-O-taxime 1g Wockhardt	0.6mL	9.4mL	100mg/mL
Cef-O-taxime 1g Claforan®	0.4mL	9.6mL	100mg/mL

ADMINISTRATION

Give by slow IV injection over 3 - 5 minutes or by IV infusion over 20 - 60 minutes [1].

(Rapid IV push < 1 minute has been associated with life threatening arrhythmias) [1].

Should not be mixed in the same syringe with an aminoglycoside – flush IV line well between the administration of cef-O-taxime and an aminoglycoside to avoid formation of precipitate.

SAMPLE CALCULATION

1.3kg neonate 8 days old with suspected meningitis.

Dose: 50mg/kg every 8 hours = 65mg every 8 hours.

Reconstitute 1g vial (Wockhardt) with 9.4mL WFI as per table above to make 100mg/mL solution

Withdraw 0.65mL of the resultant solution and dilute to an appropriate volume for that baby (e.g. 5mL) with sodium chloride 0.9% or glucose 5% and administer over 20-60 minutes.

STORAGE

Store vials in original outer carton at room temperature. Discard remaining reconstituted solution after dose has been given.

MONITORING

Monitor serum creatinine and urea in neonates who are also receiving aminoglycosides and furosemide.

Dosage interval should be increased in babies with severe renal failure (serum creatinine >200 mmol/L).

Monitor for diarrhoea in infants on prolonged therapy.

SIDE EFFECTS

Candidiasis, rash, fever, transient rises in liver transaminase and/or alkaline phosphatase and diarrhoea. Pseudomembranous colitis may rarely occur. Eosinophilia, neutropenia, thrombocytopenia and haemolytic anaemia have been reported also – if treatment for longer than 10 days, monitor full blood count. Transient pain may be experienced at the injection site- administration as an infusion will reduce pain.

REFERENCES

1. British National Formulary for Children (BNFc). Available from www.medicinescomplete.com , accessed 17/11/2020.
2. Neonatal Formulary 6. The Northern Neonatal Network Sixth Edition 2011.
3. Children's Health Ireland. Paediatric Formulary. Cefotaxime Monograph. Available via smartphone application, accessed 17/11/2020.
4. Summary of Product Characteristics Cefotaxime for Injection or Infusion Wockhardt. Last updated Sep 2017. Available from www.hpra.ie , accessed 17/11/2020.
5. Lexicomp Paediatric 7 Neonatal Dosage Handbook 18th Edition 2011.
6. Pediatric Injectable Drugs – The Teddy Bear Book Ninth Edition.
7. Letter communication from Sanofi Aventis received February 2014: displacement value for Claforan®.

Summary of Changes from Previous Versions

Date	Change
Feb 2021: Rev. No. 2	Updated based on Rotunda Cef-O-taxime Monograph Feb 2019. Changes to OLOL monograph: <ul style="list-style-type: none">• Dosage: Table reformatted as per updated table in Rotunda monograph• Dosage: Frequency of cef-O-taxime 50mg/kg for patients > 21 days changed from 6 to 8 hourly to 6 hourly as per Rotunda monograph and BNFc.• References updated.
Mar 2018: Rev. No. 1	Displacement value for cef-O-taxime 1g (Wockhardt) updated as per SPC update. Claforan® strength and displacement value updated as 500mg vials no longer stocked in OLOL, 1g vials stocked if needed.
Nov 2014	This is the first version of this guideline. It is based on the Rotunda Hospital Neonatal Monograph for Cefotaxime, Doc. No. 3, Revision No. 0, date of issue 19/5/14. There are four changes in the OLOL monograph compared to the Rotunda monograph: <ul style="list-style-type: none">• Insertion of "tallman" lettering to improve medication safety• Presentation of the vials – different brands stocked in OLOL• Reconstitution of the vial – displacement value is brand specific• Sample calculation – reconstitution section