Flucloxacillin
Newborn use only

2019

<table>
<tr><td>Alert</td><td>The Antimicrobial Stewardship Team has listed this drug under the following category: Unrestricted.</td></tr>
<tr><td>Indication</td><td>Treatment of sepsis where infection by S. Aureus or susceptible coagulase-negative Staphylococci (CoNS) is suspected or confirmed, and other infections caused by susceptible organisms.</td></tr>
<tr><td>Action</td><td>Bactericidal agent that works by inhibiting the biosynthesis of cell wall mucopeptides.
Flucloxacillin is stable against beta-lactamase producing bacteria.</td></tr>
<tr><td>Drug Type</td><td>Penicillin antibiotic.</td></tr>
<tr><td>Trade Name</td><td>Flucil, Flucloxacillin sodium monohydrate for injection (DBL), Flubiclox</td></tr>
<tr><td>Presentation</td><td>500 mg vial, 1000 mg vial, 125 mg/5 mL suspension.</td></tr>
<tr><td>Dosage/Interval</td><td>IV, IM or IO: 50 mg/kg/dose. Dosing interval as below.

Oral: 25–50 mg/kg/dose. Dosing interval as below.

Dosing interval for all routes
<table>
<tr><th>Day of life</th><th>Dosing interval</th></tr>
<tr><td>Days 0–7</td><td>12 hourly</td></tr>
<tr><td>Days 8–28</td><td>8 hourly</td></tr>
<tr><td>Day 29 +</td><td>6 hourly</td></tr>
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<tr><td>Route</td><td>IV
IM (only if IV route not possible as intramuscular route is painful)
IO
Oral</td></tr>
<tr><td>Maximum Daily Dose</td><td>200 mg/kg/day</td></tr>
<tr><td>Preparation/Dilution</td><td>IV/IO:
500mg vial
Add 4.6 mL of water for injection to the 500 mg vial for reconstitution to make 100 mg/mL solution
Further dilute
Draw up 5 mL of solution (500 mg of flucloxacillin) and add 5 mL sodium chloride 0.9% to make a final volume of 10mL with a concentration of 50 mg/mL.[10]

1g vial
Add 4.3 mL of water for injection to the 1 g vial for reconstitution to make 200 mg/mL solution.
Further dilute
Draw up 2.5 mL of solution (500 mg of flucloxacillin) and add 7.5 mL sodium chloride 0.9% to make a final volume of 10mL with a concentration of 50 mg/mL.[10]

IM:
500 mg vial: Add 1.6 mL of WFI, or lidocaine (lignocaine) 1% to 500mg powder for reconstitution (250 mg/mL)[10] OR

1000 mg vial: Add 3.3 mL of WFI, or lidocaine (lignocaine) 1% to the 1000 mg powder for reconstitution (250 mg/mL).[10]

NOTE: DO NOT ADMINISTER LIDOCAINE (LIGNOCAINE) CONTAINING SOLUTIONS INTRAVENOUSLY</td></tr>
<tr><td>Administration</td><td>IV: Infuse over 30-60 minutes. Can also be given as slow injection over 3–5 minutes.[10]

IM: Inject slowly into a large muscle (if administering a volume greater than 1mL, divide the dose and administer at 2 different injection sites to minimise pain).

Oral: Give 30 to 60 minutes before feeds. Shake the bottle well before measuring dose. Usually reconstituted by Pharmacy. If supplied unreconstituted, reconstitute powder for oral suspension using water for injection with the volume specified on the bottle.</td></tr>
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Monitoring	Monitor liver function tests if using high dose/long course or in existing hepatic impairment. Monitor renal function as the drug is mainly renally excreted.
Contraindications	History of flucloxacillin associated jaundice or hepatic dysfunction. History of a hypersensitivity reaction to beta-lactam antibiotics e.g., penicillins.
Precautions	Use with caution in renal or hepatic impairment. Use with caution in jaundiced or preterm infants as flucloxacillin can displace bilirubin from albumin. IM injection can cause pain and irritation – obtaining IV access as soon as possible is recommended.
Drug Interactions	Aminoglycosides, including gentamicin, should not be mixed with flucloxacillin when both drugs are given parenterally as inactivation occurs. Ensure line is adequately flushed between antibiotics.
Adverse Reactions	Transient diarrhoea – common with oral doses. Hypersensitivity (rare) – urticaria, fever, bronchospasm, anaphylaxis, eosinophilia. Phlebitis (much rarer than with dicloxacillin) – monitor injection site. Hepatitis and cholestatic jaundice (may occur up to several weeks after stopping), isolated cases of nephritis.
Compatibility	Fluids: Glucose 5%, sodium chloride 0.9%. lidocaine (lignocaine) 0.5% or 1% Y-site: Adrenaline (epinephrine), aminophylline, ampicillin, dexamethasone sodium phosphate, digoxin, heparin, hydrocortisone sodium succinate, potassium chloride, ranitidine, sodium bicarbonate.
Incompatibility	Fluids: Amino acid solutions and lipid emulsions. Y-site: Aminoglycosides (e.g., gentamicin), atropine sulfate monohydrate, benzylpenicillin, calcium gluconate monohydrate, ciprofloxacin, dobutamine, erythromycin lactobionate, midazolam, morphine sulfate pentahydrate, vancomycin.
Stability	Use immediately following reconstitution. Vial is for single use only. Reconstituted oral suspension should be discarded after 14 days.
Storage	Vial: Store below 25°C. Oral suspension: Store powder below 25°C, once reconstituted store solution at 2–8°C
Special Comments	IM administration will result in delayed peak serum concentrations compared with administration via Intravenous or intraosseous route
Evidence summary	Refer to full version.
References	Refer to full version.

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Changes in the current version	Dilution sections and displacement volumes have been checked and amended.