

**AMOXICILLIN / CLAVULANATE**

<b>Trade Name</b>	Amoxiclav (IV formulation) (frequently referred to as Augmentin) Augmentin or Curam (Oral formulation)		
<b>Class</b>	Broad spectrum, beta-lactam, antibiotic		
<b>Mechanism of Action</b>	Inhibits bacterial cell wall synthesis through interaction with penicillin-binding-proteins. Clavulanate is a beta lactamase inhibitor which helps to prevent bacterial resistance secondary to beta- lactamases.		
<b>Indications</b>	Bacterial strains otherwise resistant to amoxicillin		
<b>Contraindications</b>	Hypersensitivity to penicillin History of amoxicillin or penicillin induced hepatic dysfunction.		
<b>Supplied As</b>	<b>IV:</b> 600mg vial (500mg amoxicillin/100mg clavunate) <b>Oral:</b> 125mg amoxicillin + 31.25mg clavulanate per 5mL Chart as 156.25mg per 5mL = <b>31.25 mg / mL</b> suspension <b>Caution:</b> there are two strengths of oral suspension and injection available check carefully before use.		
<b>Dilution</b>			
	<b>Vial</b>	<b>Water Added</b>	<b>Final Volume</b>
	600mg	11.5mL*	12mL
	<b>Concentration</b> <b>50mg/mL</b> Final concentration is based on the total drug components *Displacement value of 600mg amoxicillin/clavulanate is 0.5mL		
<b>Dosage</b>	<b>IV:</b> 30mg/kg/dose <b>Oral:</b> 15 - 30mg/kg/dose Dosing refers to the combination of amoxicillin + clavulanate		
<b>Interval</b>	<b>IV:</b> 12 hourly if < 7 days 8 hourly if ≥ 7 days <b>Oral:</b> 8 hourly		
<b>Administration</b>	<b>IV:</b> Bolus injection over 3 - 4 minutes (If given by infusion the dose should be infused within 4 hours of reconstitution)		
<b>Compatible With</b>	Sodium chloride, Ringers, Lactated Ringers and sodium chloride with potassium chloride. Data on Y-site compatibility with other medicines is very limited.		
<b>Incompatible With</b>	Amiodarone, dextrose, sodium bicarbonate, gentamicin, midazolam, metronidazole, tobramycin. Also incompatible with TPN, lipid, blood products.		

<b>Interactions</b>	There are no known drug interactions where it is recommended to avoid concomitant use. Amoxicillin/clavulanate may increase methotrexate levels and decrease levels of typhoid injection. Serum conc. of amoxicillin/clavulanate may be increased by allopurinol and decreased by fuscidic acid and tetracycline
<b>Monitoring</b>	With prolonged use monitor renal and hepatic function
<b>Stability</b>	<b>IV:</b> Prepare immediately before use, inject or dilute within 20 minutes of reconstitution. <b>Oral:</b> once reconstituted, 7 day expiry.
<b>Storage</b>	<b>IV:</b> Store vials at room temperature, protect from light, heat, moisture. <b>Oral:</b> store at room temperature. Once reconstituted, store in the fridge.
<b>Adverse Reactions</b>	Rash, nausea, vomiting, diarrhoea, raised liver enzymes, headache, agitation, increased risk of candidiasis
<b>Metabolism</b>	Amoxicillin is renally cleared and clavulanate is metabolised by the liver. Half life approx 1hr.
<b>Comments</b>	Administer oral doses at the beginning of a feed to help minimise gastric side effects. Note: Dose calculation for Amoxicillin /clavulanate is based on total drug (not amoxicillin component) – see NZFc for details
<b>References</b>	<ol style="list-style-type: none"> <li>1. BNF for children 2009</li> <li>2. www.nzf.org.nz</li> <li>3. Paediatric Dosage Handbook Taketomo et al 16<sup>th</sup> Ed 2009.</li> <li>4. Notes on Starship amoxicillin and clavulanic acid for newborn intensive care</li> <li>5. Starship amoxicillin and clavulanic acid for newborn intensive care</li> <li>6. Amoxiclav multichem datasheet. Auckland: multichem NZ limited, 2016.</li> </ol>
<b>Updated By</b>	A Lynn, B Robertshawe                     Sept 2010 A Lynn, B Robertshawe                     June 2012 (re-order profile) B Robertshawe                                 April 2019 (update of oral dosing guideline) A Lynn, M Wallenstein, B Robertshawe, A Evison   May 2020 (review /update)