

HYDRALAZINE

Trade Name	Apresoline injection (Novartis)										
Class	Vasodilator antihypertensive										
Mechanism of Action	Predominantly arteriolar vasodilator through a direct relaxation of vascular smooth muscle by altering cellular calcium metabolism.										
Indications	Treatment of mild to moderate neonatal hypertension.										
Contraindications	Idiopathic systemic lupus erythematosus, severe tachycardia, high output heart failure, myocardial insufficiency due to mechanical obstruction, cor pulmonale, porphyria.										
Supplied As	20mg ampoule, powder for injection										
Dilution *Two dilution steps required*	IV: <table border="1"> <thead> <tr> <th>Drug</th> <th>Water Added</th> <th>Total Volume</th> <th>Concentration</th> </tr> </thead> <tbody> <tr> <td>20mg</td> <td>1mL</td> <td>1mL</td> <td>20mg/mL</td> </tr> </tbody> </table> <p>Then further dilute by taking 1mL (20mg) and diluting with 19mL of normal saline to give a final concentration of 1mg/mL</p> <p>Oral: Injection diluted as above to 1mg/mL may be given orally</p>			Drug	Water Added	Total Volume	Concentration	20mg	1mL	1mL	20mg/mL
Drug	Water Added	Total Volume	Concentration								
20mg	1mL	1mL	20mg/mL								
Dosage	IV: 0.1 to 0.5 mg/kg/dose. Max 2 mg/kg/dose Oral: 0.25 to 1 mg/kg/dose. Max 3 mg/kg/dose. Converting from IV - oral dose is approx. 2 times the IV dose.										
Interval	IV: 6 hourly Oral: 8 hourly										
Administration	IV: Slow iv bolus over 5 minutes Oral: Give with feeds to enhance absorption										
Compatible With	0.9% sodium chloride, Lactated Ringers (Hartmann's), Ringers At terminal injection site: TPN (without lipid), dobutamine, heparin, hydrocortisone succinate, potassium chloride, prostaglandin E ₁ .										
Incompatible With	5% dextrose, aminophylline, ampicillin, diazoxide (hypotension), furosemide, phenobarbital.										
Monitoring	Frequent BP and heart rate. Periodic FBC during long-term use. Blood in stools.										
Stability	Discard opened vial immediately after use Discard unused reconstituted 1mg/mL solution immediately Use a new vial to draw up each dose										

Storage	Room temperature. Protect from light and heat.
Adverse Reactions	Tachycardia, hypotension, diarrhoea, vomiting, temporary agranulocytosis
Metabolism	Hepatically acetylated. Low oral bioavailability due to extensive first-pass metabolism by liver and intestines.
Comments	Beta blockers and diuretics are often used in conjunction to compensate for reflex tachycardia and fluid retention
References	<ol style="list-style-type: none"> 1. BNF for Children 2007 2. NZHPA Notes on Injectable Drugs 5th Edition 2004 3. Neofax 2007.
Updated By	A Lynn, F Robertson April 2009 A Lynn, B Robertshawe Oct 2012 (re-order profile,double dilution,discard vial) A Lynn, B Robertshawe May 2021