

Adrenaline (Epinephrine)

Selection of the correct strength of adrenaline injection is crucial.

Form	1 in 10,000 (1mg per 10ml) prefilled syringe (Resuscitation trolley only) 1 in 1,000 (1mg per 1ml) ampoule			
Reconstitution	Prefilled syringe: Already in solution Ampoule: Already in solution. <u>Dilute further before IV administration.</u>			
Compatibility & Stability	Sodium Chloride 0.9% Glucose 5%			
Administration	<p><u>IV injection</u> Use 1 in 10,000 (1mg per 10ml) prefilled syringe where available. If the prefilled syringe is not available the 1 in 1,000 (1mg per 1ml) preparation may be diluted to 1 in 10,000. Dilute 1 ml with 9mls Sodium Chloride 0.9% and mix well.</p> <p>Give by rapid IV injection. Administer via a central venous access device if already in place, or into a large peripheral vein. IV injection administered via a peripheral vein should be followed by a 20ml flush of Sodium Chloride 0.9% to aid entry into the central circulation.</p> <p><u>IV infusion</u> Use 1:1000 ampoules and administer through a central line, using a syringe driver to control the rate of infusion.</p> <p><u>Single Strength Adrenaline</u> Add 3mg Adrenaline (3ml) to 47mls of Glucose 5% to give 50ml of a solution containing 60 microgram/ml Adrenaline Then an infusion rate of 1ml/hr = 60microgram/hr = 1microgram/min</p> <p>That is:</p> <table style="margin-left: 40px;"> <tr> <td>1ml/hr = 1 microgram/min</td> </tr> <tr> <td>2ml/hr = 2microgram/min</td> </tr> <tr> <td>3ml/hr = 3microgram/min</td> </tr> </table> <p>For hyperglycaemic patients, drug maybe added to Sodium Chloride 0.9%</p> <p><u>Double Strength Adrenaline:</u> See HDU IV guidelines.</p>	1ml/hr = 1 microgram/min	2ml/hr = 2microgram/min	3ml/hr = 3microgram/min
1ml/hr = 1 microgram/min				
2ml/hr = 2microgram/min				
3ml/hr = 3microgram/min				
Extravasation	Tissue infiltration may lead to local ischaemia. Tissue necrosis may occur due to low pH. Administer via a central venous access device if possible.			
Notes	<ul style="list-style-type: none"> Continuous blood pressure and ECG monitoring required. When administered via an infusion use invasive blood pressure monitoring and monitor blood glucose. Repeated local administration may produce necrosis at the sites of injection. Discoloured solutions or solutions containing precipitate should not be used. 			

Information provided relates to Adrenaline manufactured by MercuryPharma and prefilled syringes manufactured by Aurum.

This information has been summarised to act as a guide for those administering IV medication. The monograph should be used in conjunction with the drug data sheet and BNF for information on dose, adverse effects, cautions and contra-indications. Further information is available from pharmacy on 22142 or 22546.