

# VASOPRESSIN IV INFUSION for vasopressor effect

## Presentation

- Argipressin (synthetic vasopressin) 20 units in 1ml (1ml ampoule)  
Vasopressin 20 units in 1ml (1ml vial) unlicensed

## Prescribing

Prescribe on the critical care infusion chart.

Usual dose range for vasopressor effects: 0.1- 2 milliunits/kg/min

Doses above this must be discussed with consultant intensivist.

1 unit = 1000 milliunits.

For patients under 5kg select 10 units in 50ml

For patient 5kg and over select 20 units in 50ml

Refer to separate guidance for oesophageal varices/ upper GI bleeding/  
SIADH associated with head trauma.

## Storage

Argipressin 20 units in 1ml - refrigerator

Vasopressin 20 units in 1ml unlicensed - room temperature

## Preparation/ Dilution

For vasopressin 10 units: draw 0.5ml vasopressin into 50ml syringe and make up to 50ml using glucose 5 or 10% or sodium chloride 0.45 or 0.9%

For vasopressin 20 units: draw 1ml vasopressin into 50ml syringe and make up to 50ml using glucose 5 or 10% or sodium chloride 0.45 or 0.9%

## Route of Administration

Central access must always be used, unless absolute life saving emergency.

## Rate of Administration

Usual range 0.1- 2 milliunits/kg/min

(recommended maximum dose: 90 millunits/min i.e. above 45kg double check dosing. Above this dose increased risk of peripheral ischaemia)

## Pump programming

Vasopressin 10 units in 50ml= Vasopressin 10/50

Vasopressin 20 units in 50ml= Vasopressin 20/50

Short Code	Default starting dose	Soft Minimum	Soft Maximum	Hard Maximum
Vasopressin 10/50	0.2milliunits/kg/min	0.1milliunits/kg/min	2milliunits/kg/min	4milliunits/kg/min
Vasopressin 20/50				

No bolus function available

## Stability

Use immediately- assign 24 hours expiry on the IV additive label

## Flushes

Aspirate line.

If line cannot be aspirated, flush with sodium chloride 0.9% at the same rate.

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## Common Compatibilities at Terminal Y-site

Adrenaline, amiodarone (both in glucose 5%), calcium chloride, calcium gluconate, dobutamine, dopamine, heparin, insulin, milrinone, nicardipine, noradrenaline, sodium nitroprusside.

Contact PICU pharmacist for further advice on compatibilities.

## Monitoring/ Other comments

This infusion should only be used under the direction of a clinician with critical care training. Full cardiac monitoring must be used whilst infusing vasopressin.

Tissue damage will occur if vasopressin extravasates - follow the extravasation management policy.

Argipressin is synthetic vasopressin and should be used when vasopressin is prescribed.

## Pump calculation equation

$$\text{Pump rate in ml/hr} = \frac{(\text{Dose in milliunits/kg/min}) \times \text{weight (kg)} \times 60 \text{ min}}{(\text{Concentration milliunits/ml})}$$

## Extravasation Risk

Extreme of pH	Hyperosmolar	Vasoactive	Vesicant
Yes pH 3-4	No	Yes	no

## Calculation example

4kg child requiring vasopressin infusion, to start at 0.3 milliunits/kg/min

Prescribe on the critical care infusion chart.

Prepare as follows:

Draw 0.5ml of vasopressin 20 units in 1 ml into syringe and make up to 50 ml using sodium chloride 0.9%. Label syringe as per Trust Policy. Select vasopressin 10/50 and programme to run at 0.3milliunits/kg/min= 0.36ml/hour.

To check infusion rate:

$$\text{Pump rate in ml/hr} = \frac{(0.3\text{milliunits/kg/min}) \times 4\text{kg} \times 60 \text{ min}}{200\text{milliunits/ml}} = 0.36\text{ml/hour}$$