

# glucose

## 5% & 10% infusion bags, 50% injection

© Department of Health, Government of South Australia. All rights reserved

### Synonyms

Dextrose

# glucose

## 5% & 10% infusion bags, 50% injection

© Department of Health, Government of South Australia. All rights reserved

### Dose and Indications

#### For Acute Management of Hypoglycaemia

##### Intravenous Bolus

2mL/kg glucose 10%

Refer to South Australian Perinatal Practice Guidelines [Neonatal Hypoglycaemia](#)

##### Maintenance calorie intake

##### Intravenous Infusion

60 to 150mL/kg/day of 10% glucose

### Preparation and Administration

##### Intravenous Bolus

Administer over 5 to 10 minutes; bolus dose should always be followed by a maintenance infusion of glucose.

##### Central Venous Bolus

Glucose 50% is strongly hypertonic and should always be administered by a central line

##### Intravenous Infusion

5% & 10% glucose bags are available

For higher percentages of glucose, dilute as directed to make 50mL in total

Final Percentage Glucose (approximate)*	Volume of Glucose 10% (100mg/mL)	Volume of Glucose 50% (500mg/mL)
12.5%	47mL	3mL
15%	44mL	6mL
17.5%	41mL	9mL
20%	38mL	12mL
25%	31mL	19mL

Glucose should be infused at a maximum rate of 0.5grams/kg/hr (approximately 8mg/kg/min). This is equivalent to

- > 5mL (10%)/kg/hr
- > 10mL (5%)/kg/hr.

### Compatible Fluids

# glucose

## 5% & 10% infusion bags, 50% injection

© Department of Health, Government of South Australia. All rights reserved

Sodium chloride 0.9%, water for injection

### Adverse Effects

#### Common

Venous irritation and thrombophlebitis (glucose solutions >10%), hyperglycaemia

### Monitoring

- > Blood glucose
- > Electrolytes (sodium and potassium) periodically

### Practice Points

- > Phlebitis is likely with solutions over 10% (a central line **should** be considered for continuous infusions greater than 10% **and is required** for any infusion >12.5% glucose)
- > A 5% solution is isotonic with blood. More concentrated solutions can cause thrombophlebitis. A long line with its tip in a large vessel is therefore best for any solution containing more than 10% glucose
- > Enteral milk feeding should be considered for treatment of hypoglycaemia where appropriate.

### Version control and change history

**PDS reference:** OCE use only

Version	Date from	Date to	Amendment
1.0	November 2012	current	Original version