

South Australian Perinatal Practice Guidelines

Insulin infusion regimen

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Purpose

- > Obtaining and maintaining physiological blood glucose levels during labour and birth and for caesarean section (peri-operatively)

Indications

- > Women with Type 1 diabetes in pregnancy who enter labour, have labour induced, or are scheduled for caesarean section
- > Women with Type 2 diabetes or gestational diabetes who are being managed with insulin may not always require an insulin infusion intrapartum. If the blood glucose is ≥ 8.0 mmol / L, the physician should be informed and consideration given to an insulin / dextrose infusion. (This is not necessary if delivery is imminent.) (for further information, refer to the PPG 'Diabetes mellitus and abnormal glucose tolerance')

Insulin preparation

- > In a 50 mL syringe for an infusion pump draw up 49.5 mL of sodium chloride 0.9 %
- > Add 0.5 mL of short-acting insulin (e.g. Actrapid) (50 units) to make up a total of 50 mL
- > This results in one unit of insulin per mL


Management of infusion

- > Set up an infusion of 5 % dextrose and infuse at the rate of 100 mL per hour
- > Set insulin infusion pump at the rate of 2 Units per hour (2 mL per hour). This will gradually bring blood glucose within the physiological range
- > Connect pump to infusion line close to the point of entry into the vein
- > Check blood glucose hourly or two hourly as ordered
- > Blood glucose to be taken on opposite arm of the infusion
- > Units of insulin per hour may need to be changed (between 1 U and 3 U) according to the blood glucose

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Insulin infusion regimen	
BSL mmol/L	Infusion rate (units per hour)
15+	Discuss with physician / endocrinologist
10 - 14.9	2
8 - 9.9	1
5.5 - 7.9	0.5
<5.5	0
SA Perinatal Practice Guidelines Last reviewed 04 Oct 2011	 Government of South Australia Department of Health

Abbreviations

e.g.	For example
L	Litre
mL	Millilitre(s)
mmol	Millimol(s)
U	Units

Version control and change history

PDS reference: OCE use only

Version	Date from	Date to	Amendment
1.0	23 May 04	04 Dec 06	Original version
2.0	04 Dec 06	18 Oct 07	Review
3.0	18 Oct 07	04 Oct 11	Review
4.0	04 Oct 11	Current	