

INSULIN/ GLUCOSE for HYPERKALAEMIA only

Presentation

Soluble insulin (Actrapid®) 100 units in 1 ml
Glucose 10%, glucose 20% or glucose 50% 500 ml bag

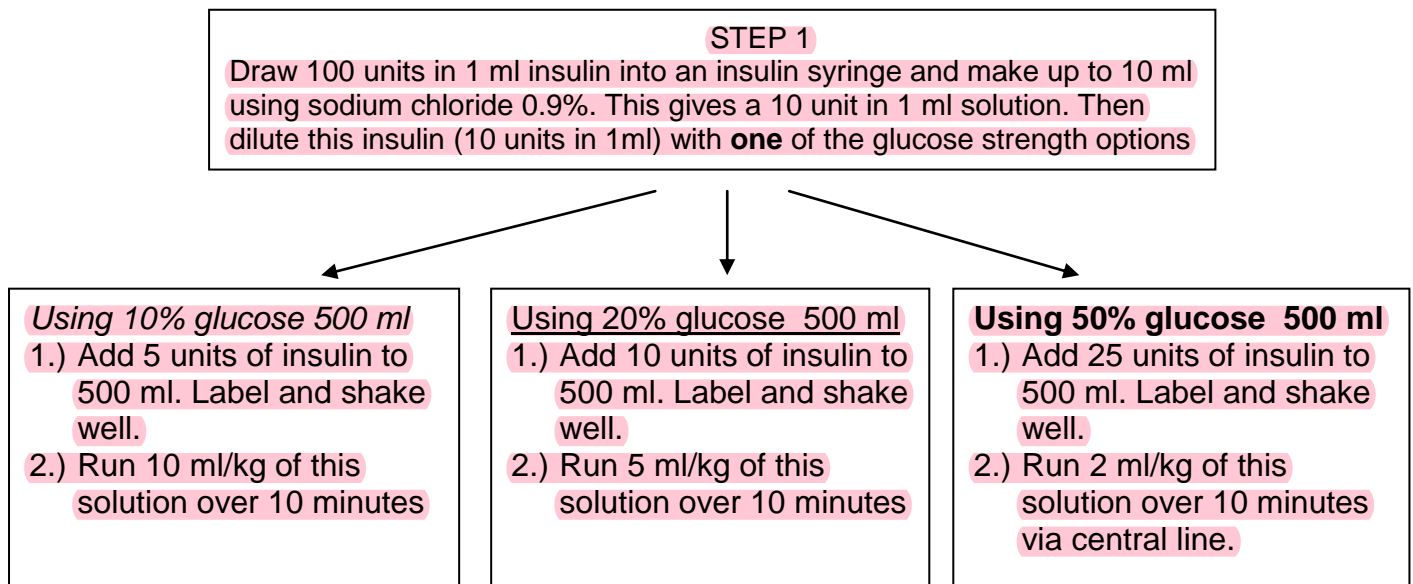
Prescribing

First administer of 0.5 ml/kg of calcium gluconate 10% (to max 20 ml).
Dose of insulin is 0.1unit/kg with 1 g/kg of glucose simultaneously over 10 minutes.
Prescribe on the infusion section of the drug chart.

Storage

Insulin stored in fridge
Glucose infusion bags stored at room temperature

Preparation/ Dilution



If volume to be given is less than 50 ml, transfer the insulin/glucose solution to a syringe and give via syringe pump.

Route of Administration

Insulin/glucose 10% peripherally
Insulin/glucose 20% and 50% centrally.
If there is only peripheral access, insulin/glucose 20% may be given peripherally due to the urgency of treatment.

Rate of Administration

Over 10 minutes

Stability

Use immediately.

Flushes

Sodium chloride 0.9%

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Common compatibilities at terminal Y-site

IV maintenance solution containing glucose/sodium chloride.

Monitoring/ Other comments

Blood sugars must be monitored before, during and after infusion. Check the blood sugar level 5 mins after completing the infusion, then every 15 mins for the first hour, then hourly for a further 3 hours if stable. Watch for late hypoglycaemia.

ECG monitoring will be set up in advance, continue this monitoring during and for 4 hours after infusion.

Potassium levels should be re-checked immediately post infusion and at regular intervals for four to six hours.

Ensure all potassium containing products are withheld, until full medical review.

Extravasation risk

Glucose	Hyperosmolar	Extreme of pH	Vasoactive	Vesicant
10%	No	pH 3-5	No	No
20%	Yes			
50%	Yes			

Links to other protocols/ guidelines

Treatment of hyperkalaemia (need intranet link here)

Calculation example

6 kg infant with potassium of 6.7 mmol/L with ECG changes.

0.5 ml/kg of calcium gluconate 10% stat given, needs insulin 0.6 units with 6 g glucose over 10 minutes.

Prescribe as follows on the infusion part of the drug chart.

DATE/ START TIME	INFUSION FLUID		CENTRAL / PERIPHERAL	MEDICINE ADDED		INFUSION RATE OR DURATION	PRI SI
	TYPE / STRENGTH	VOLUME		APPROVED NAME	DOSE		
	GLUCOSE 10%	500ml	P	INSULIN	5 units	60 ml over 10 mins	
Batch No.				*Dr to initial if continuous			

Administer as follows:

Transfer 100 units in 1ml insulin from insulin syringe into 10 ml syringe and make up to 10 ml using sodium chloride 0.9%.

Add 0.5 ml of the diluted insulin solution to a 500 ml bag of glucose 10%.

Label as per Trust policy. Set pump to run at 360 ml/ hour for 10 minutes only. Ensure blood sugar and potassium level is re-checked within 5 minutes of completing infusion.