

VRIII for women with diabetes receiving antenatal steroids for fetal reasons

Most patients will start on Algorithm 1, some will start on Algorithm 2.

The below table outlines the VRIII which should be used for women receiving antenatal steroids for fetal reasons. Start the VRIII and IV fluids with the first dose of steroids and continue for up to 24hrs after the last dose of steroids.

	ALGORITHM 1 (for most women)	ALGORITHM 2 (for women with CBG not controlled on algorithm 1 or on >80units insulin/day)	ALGORITHM 3 (for women with CBG not controlled on algorithm 2 after consultation with oncall staff)
CBG level (mmol/l)	Insulin rate (units/hr = ml/hr)	Insulin rate (units/hr = ml/hr)	Insulin rate (units/hr = ml/hr)
<4	Stop insulin	Stop insulin	Stop insulin
4.0 – 5.5	0.2	0.5	1.0
5.6 – 7.0	0.5	1.0	2.0
7.1 – 8.5	1.0	1.5	3.0
8.6 – 11.0	1.5	2.0	4.0
11.1 – 14.0	2.0	2.5	5.0
14.1 – 17.0	2.5	3.0	6.0
17.1 – 20.0	3.0	4.0	7.0
> 20.1	4.0	6.0	8.0

Algorithm guide:

- Check CBG hourly while on VRIII the management of steroid hyperglycaemia during pregnancy
- Target CBG 4-7.8mmol/l
- If CBG <4, stop insulin for 20 minutes, treat hypoglycaemia, then re-check CBG in 10 minutes
- If CBG is <4mmol/l or falling too quickly, move to the lower step of algorithm
- If CBG is above target and not falling towards target range, move to the higher step of algorithm
- If CBG targets are not being achieved on the above algorithms, contact the diabetes team for advice
- Alongside the VRIII, run a substrate IV fluid of 500 mls NaCl 0.9% + 5% glucose + 0.3% KCL(20mmol) in a pre-mixed bag. This should generally run at a rate of 50 mls / hour.

The insulin infusion should be delivered via a syringe driver and prepared as follows:

- In a 50ml syringe prepare 50 units soluble insulin (Actrapid® or Novorapid) in 49.5ml normal saline (1 unit = 1ml). **Use an insulin syringe to measure out the insulin dose.**
- Prime the giving set with 5ml of infusion fluid (containing insulin) prior to commencing the infusion

Adapted from Joint British Diabetes Societies for Inpatient Care- Management of glycaemic control in pregnancy women with diabetes on obstetric wards and delivery units guideline (2017).