

Perioperative Glycaemic control Blood Glucose log sheet and Guideline

Afternoon List



Enter Patient's Details or Affix Sticker Here

Name: _____

I.D. No: _____

Date	Time	Blood Glucose (mmol/l)	Ketones	Insulin Rate	Notes	Initials

This is a clinical practice guideline and does not in any way replace or supersede the clinical discretion necessary in its implementation



Advisory, not mandatory

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Flowchart B: PREOPERATIVE adult diabetic inpatients scheduled for AFTERNOON lists (operations usually start at 13.00)

Breakfast at 06:00hrs

DM on diet only

DM on pills

DM on insulin

Blood Glucose (BG) values are measured in mmol/l (previously referred to as HGT).
 Long-acting insulin analogues: Glargine (Lantus); Levemir (Detemir)
 OHA: Oral Hypoglycaemic Agents
NB: If in doubt or glycaemic control on suggested regimes problematic: contact Diabetes Services

Take OHA pills with breakfast BUT **Omit Metformin[†]**

DM on insulin only

DM on insulin and OHA pills

Omit morning OHA pills[†]

Give 1/2 dose AM insulin, 1/2 dose of lantus/detemir.
 If pt has already taken OHA or full dose insulin; contact anaesthetist

09:00 hrs

BG 09:00hrs

BG 3Hrs after pills. Omit NOON pills

BG 3Hrs after AM Insulin. Omit NOON pills

Major surgery: Start IVSGP at noon unless already on IV insulin

IVSGP Regimen* (Appendix A)

Yes **BG >12***

No

Repeat BG every 2Hrs

Yes **BG 4-12**

No

Yes **BG < 4**

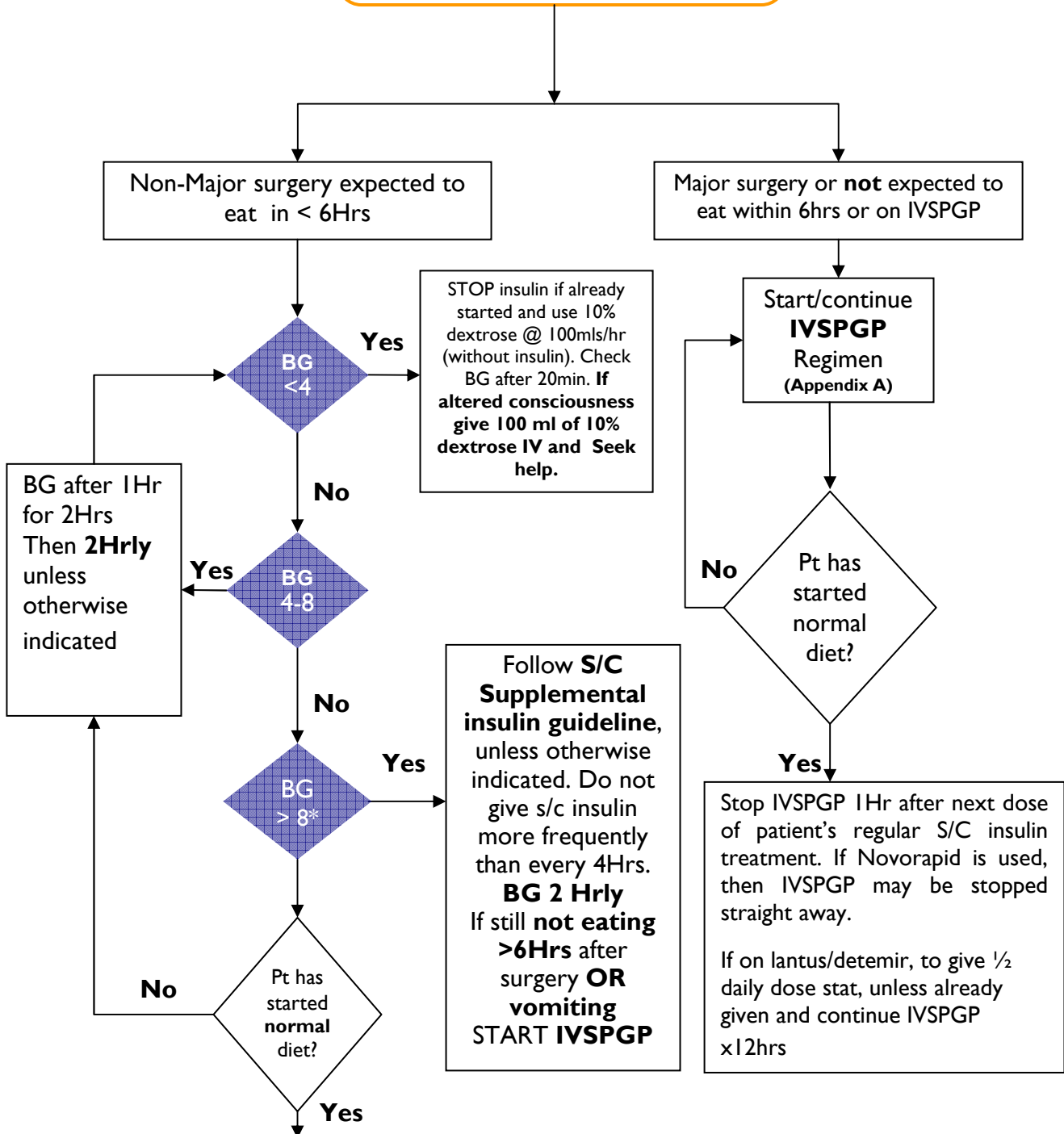
STOP insulin if already started and use 10% dextrose @ 100mls/hr (without insulin). Check BG after 20min. **If altered consciousness give 100 ml of 10% dextrose IV and Seek help.**

***NB:** If patient has an **BG >15**, then check for urine ketones. If **2+**, Call MO and take ABGs

[†]See separate Metformin guideline

Flowchart E: POSTOPERATIVE diabetes care for adult diabetic INPATIENTS

BG ON ADMISSION TO WARD.
Continue **IVSPGP** if on it and follow regimen (**Appendix A**)



***NB:** If patient has an **BG >15**, then check for urine ketones. If **2+**, Call MO and take ABGs.

May revert to patient's regular Diabetic Rx † unless otherwise indicated. If morning lantus/detemir missed, then give 1/2 dose stat.
† preop Rx ± adjustments.

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Long-acting insulin analogues: Glargine (Lantus); Levemir (Detemir)
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† See separate Metformin guideline

Appendix A

IVSPGP (Insulin Via Syringe Pump with Glucose/Potassium Infusion via Volumetric Pump) for Adult Diabetic Patients.

1

Volumetric pump

- 1) Use a **500-mL** bag of **5% Glucose in 0.45% saline** and connect to **anti-syphon** valve of **Y-Connector**
- 2) **Potassium:** ADD 13.5 mmol **KCL (5 mL of 20% KCL solution)** to each bag
 - a. Check U&E's creat (eGFR). Repeat on admission if preop result > **1 week** old or abnormal.
 - b. **Omit KCL** if potassium >**5 mmol/L**.
 - c. **Omit potassium** if renal impairment (**eGFR < 30**) and contact the medical HST on call, or if already under the care of a medical team contact the latter.
- 3) Repeat serum potassium **daily**. Adjust potassium supplementation accordingly.
- 4) Program the volumetric pump at **100 mL/hr**. This covers maintenance but **not** extra fluid losses (need to be prescribed separately). Contact the medical HST on call, or if already under the care of a medical team contact the latter for further advice regarding flow rate if patient is
 - a. on renal replacement therapy, or
 - b. cardiac failure, or
 - c. has raised intracranial pressure

+

2

Syringe pump

- 1) **Set up 50 units of Actrapid in 50 mL 0.9% saline.** See Table I below for rates.

Check BG 1-2 Hrly

BG mmol/L	Units of Insulin/Hr
< 4.0	STOP insulin if already started and use 10% dextrose @ 100 mL/hr (without insulin). Check BG after 20min. If altered consciousness give 100 mL of 10% dextrose IV and seek help.
4.0 - 6.9	1 unit
7.0 - 12.9	2 units
13.0 - 17.0	4 units (If BG not improving > 2Hrs: Call MO)
> 17	6 units Change glucose to 0.9% saline. (Add KCL as point 2 above) Check urine ketones Inform doctor



- **Aim** for a target blood glucose of **6-10 mmol/L**
- Optimal glycaemic control will aid recovery.
- Regime may have to be altered by Medical team if target BG is not achieved.
- **Post op:** Once patient is established on normal diet, overlap IVSPGP by 1Hr after regular diabetes treatment is administered. Refer to post-op flowchart.

NB: If in doubt or glycaemic control on suggested regimes problematic: contact Diabetes Services.