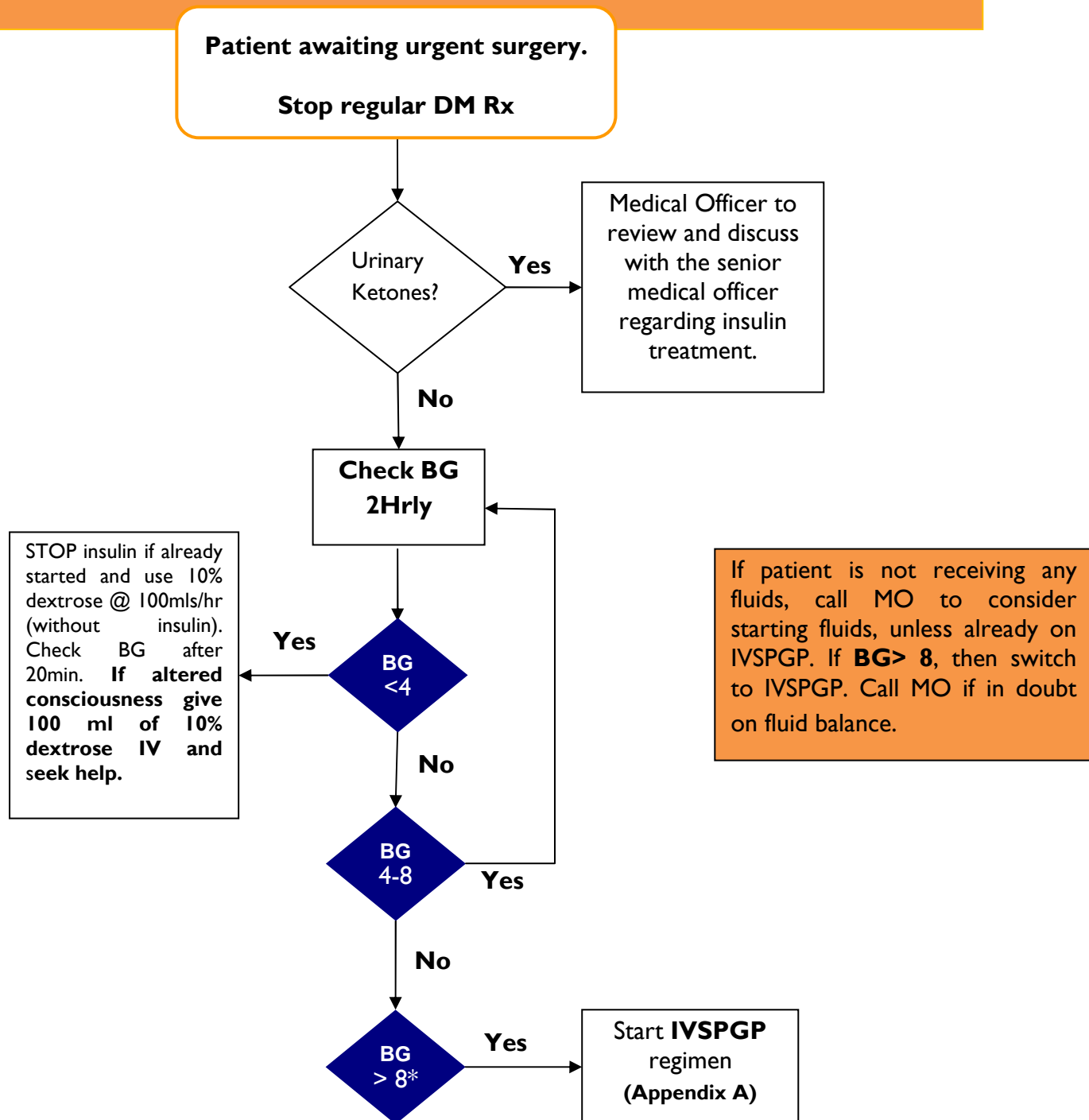


Flowchart D: PREOPERATIVE management of adult diabetic patients awaiting URGENT surgery



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

Blood Glucose (BG) values are measured in mmol/l (previously referred to as HGT).

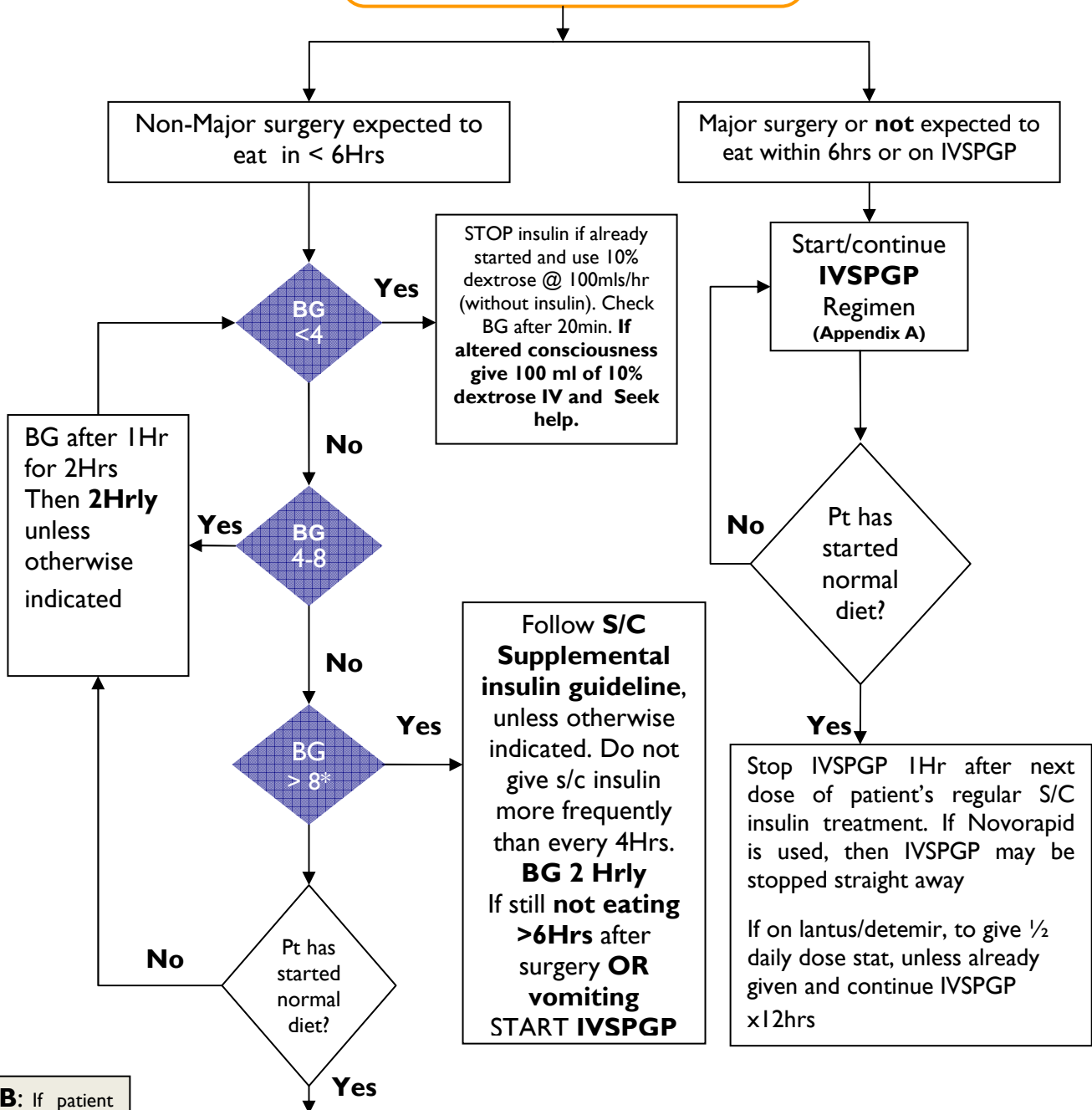
Long-acting insulin analogues: Glargine (Lantus); Levemir (Detemir)

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



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.

Blood Glucose (BG) values are measured in mmol/l (previously referred to as HGT).

Long-acting insulin analogues: Glargine (Lantus); Levemir (Detemir)

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

[†] 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

+

2

Syringe 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

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