University Hospitals Birmingham NHS
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CONTROLLED DOCUMENT

Management of Diabetes in Renal Patients

SOP

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Quick guide on the management of diabetes in renal patients undergoing minor procedures with short starvation period

- Patient with insulin treated diabetes, where possible, should be **first** on the procedure list
- If on oral hypoglycemics[1] or non-insulin injectables[2] **omit** on the day of the procedure
- If on insulin follow the flowchart below

Quick acting	**Mixed Insulin**	**Long acting**
Novorapid	Novomix30	Glargine
Humalog	Humalin M3	Detemir
Apidra	Humalog Mix 25	Insulatard
Insuman Rapid	Humalog Mix 50	Humulin I
	Insuman comb 25	Insuman basal
	Insuman comb 50	Degludec
↓	↓	↓
Omit when NBM	Reduce morning dose by **50%**	Reduce by **30%** on procedure day

- **Hourly** glucose monitoring whilst NBM
- For patients on insulin or oral hypoglycaemics, if blood glucose levels drop to **<6mmol/L**, start on **10% dextrose at 40mls/hr**
- If blood glucose **>12-14 mmol/L** on **2 occasions**, consider **variable rate intravenous insulin infusion (VRIII)** based on clinical judgement

Before starting VRIII, consider if SC insulin can be used instead?

- If the patient needs VRIII, **obtain senior input** regarding fluid management:
  - Recommended choice of fluids is **Dextrose Saline at 40mls/hr if concerns of fluid overload**
  - Avoid starting IV potassium supplementation if **K>3.5mmol/L**
  - Reassess fluid status and re-check electrolytes
- Consider a reduced VRIII rate (Scale 1) as these patients are at risk of hypoglycaemia (See full guidance: http://uhbhome/Microsites/Policies_Procedures/assets/VariableRateIvInsulin.pdf **)**

1. Metformin, Sulphonyurea (Gliclazide, Glipizide, Glibenclamide), Pioglitazone, DPP IV inhibitor (Sitagliptin, Vildagliptin, Saxagliptin, Linagliptin), SGLT2 inibitors (Dapagliflozin, canagliflozin, Empagliflozin)
2. GLP-1 analogue (Exenatide, Liraglutide, Lixisenatide, Bydureon)