

# Perioperative Management of Diabetes Audit (POMODA)

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## BACKGROUND

- Suboptimal perioperative management of diabetes is associated with postoperative morbidity and mortality
- Australian Diabetes Society Perioperative Diabetes Management Guidelines** should primarily guide Australian healthcare providers in caring for the perioperative diabetic patient when local or state guidelines do not exist

## METHODS

- Retrospective, single-centre, quality improvement audit
- Inclusion criteria:** Diabetic patients aged  $\geq 18$  undergoing surgical procedures at Townsville University Hospital, over 12 weeks
- Perioperative outcomes were analysed to establish compliance with the guidelines**

## RESULTS

- 202 patients were reviewed
- 26% had preoperative BGLs hourly** (53 patients) (Blood Glucose Levels), **7% had intraoperative BGLs hourly** of the patients requiring intraoperative BGLs, and 71% did not have any intraoperative BGL, **11% had postoperative BGLs hourly** (23 patients)
- HbA1c was NOT measured in 45% of patients**, with average preoperative HbA1c 7.5%, above target (Haemoglobin A1c)
- 38% on metformin having major surgery had it restated appropriately** (16/42)
- 71% on SGLT2 inhibitors did NOT have a perioperative ketone level measured** (29/41) (Sodium-Glucose Cotransporter-2)
- Indigenous** patients were more likely to be **younger** than non-Indigenous patients, 59 compared to 68 ( $p < 0.001$ ), and have a **higher preoperative BGL**, 9.0 mmol/L (162 mg/dL) compared to 8.2 mmol/L (148 mg/dL) ( $p = 0.19$ )

Timing of Pre-Anaesthetic Clinic and relation to preoperative BGLs.

	Total with a PAC	PAC DOS	PAC prior to DOS	p	PAC within 3 days	PAC prior to 3 days	p	PAC within 1 week	PAC prior to 1 week	p	PAC within 2 week	PAC prior to 2 weeks	p
n of PAC patients	183 (100%)	38 (21%)	145 (79%)		62 (34%)	121 (66%)		85 (46%)	98 (54%)		98 (54%)	85 (46%)	
Mean preop BGL*	8.4 (3.1)	9.1 (3.8)	8.2 (2.9)	0.23	8.8 (3.5)	8.3 (3.0)	0.31	8.6 (3.2)	8.2 (3.1)	0.42	8.5 (3.2)	8.3 (3.2)	0.67

## CONCLUSIONS

- POMODA has displayed **multiple areas for improvement** in the perioperative management of diabetes
- The authors recommend that **Pre-Anaesthetic Clinics for diabetic patients requiring surgery, particularly Indigenous Australians, be held at least two weeks prior to surgery** to allow for optimisation of glycaemic control and clear perioperative instructions, and anticipate this being an important first step in improving guideline compliance

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