**Title: Looking back to move forward: Retrospective audit of inpatient hypoglycaemia.**

**Background/Aim**

Hypoglycaemia is a serious hospital-acquired complication linked to increased morbidity and costs. This audit aimed to examine inpatient hypoglycaemia events to identify contributing factors and inform prevention strategies to reduce recurrence and improve patient safety and clinical management.

**Methods**

A retrospective audit was conducted on inpatient hypoglycaemia events recorded between December 2023 and December 2024. A total of 156 events from 147 patients were extracted from the Quality Improvement Data Set. Electronic medical records were reviewed to collect data on patient demographics, diabetes medications, endocrinology involvement, and Yellow Zone Review (YZR) activation. De-identified data were analysed for trends and patterns.

**Results**

The mean age of patients was 73 years (SD 17.2), with 51% female and 66% born outside Australia. Aged Care (21%) and Cardiology (13%) were the most frequently involved treating teams reflecting both service size and patient complexity.

Diabetes was present in 86% of patients (T2DM 70%, T1DM 6%, LADA/Other 6%), while 14% had no known diabetes. Most were treated with insulin (67%), while 21% were on a sulfonylurea. About half (47%) experienced multiple hypoglycaemic episodes, either during a single admission or across multiple encounters. Sulfonylurea and insulin use were higher in those with multiple hypoglycaemic events (P<0.05). YZR was activated in 81% of cases, with one event lacking documentation.

Endocrinology input occurred in 47% of cases, though rates varied widely across specialties and often occurred after the event. Over half of patients had moderate to severe chronic kidney disease, with 23% having an eGFR<30 and 30% between 30–59.

**Discussion/Conclusion**

Hypoglycaemia remains a frequent and preventable complication, especially in older patients with renal impairment and those on insulin or sulfonylurea. These findings support the need for safer prescribing, consistent escalation, and earlier endocrinology involvement. Targeted education to specific admitting teams may be worthwhile.