Glucose Monitoring (CGM) has been demonstrated to enhance glycemic control compared to conventional self-monitoring of blood glucose (SMBG). This audit aims to assess glycemic control and metabolic profiles among patients with T1DM at the Endocrine Institute, Putrajaya Hospital, comparing those using CGM with those relying on SMBG to determine whether CGM leads to improved metabolic outcomes.

METHODOLOGY

A retrospective cross-sectional study was conducted at the Endocrine Institute, Putrajaya Hospital. Electronic medical records of patients who attended the TIDM clinic between April 1, 2024, and March 31, 2025, were reviewed. Descriptive and statistical analyses of glycaemic control and metabolic profiles between CGM users and those using SMBG were performed using SPSS version 25.

RESULT

A total of 150 patients were included in the study. Overall, the population exhibited poor glycemic control and metabolic profiles, with a mean HbA1c of 9.0%. Additionally, 55% of the patients were overweight or obese. Seventy-one percent had elevated LDL-c levels (>2.6 mmol/L), with a mean LDL-c of 3.2 mmol/L. Of the patients, 24.7% used CGM for glycemic monitoring and had a significantly lower HbA1c (-1.2%) than the SMBG group. The study also demonstrated a significant reduction in HbA1c (-0.8%) after switching to CGM for monitoring. However, no significant differences were observed in BMI or LDL-c levels between the CGM and SMBG groups.

CONCLUSION

This study showed that the use of CGM contributed to better glycemic control in patients with T1DM. However, achieving optimal glycemic control alone is insufficient for effective weight management and improving lipid profiles. Therefore, lifestyle interventions, weight management strategies, and pharmacological treatments for lipid reduction are also necessary.

EP_A204

EFFECTIVENESS AND PERSISTENCE OF GLP-1 RECEPTOR AGONIST TREATMENT AMONG PEOPLE WITH TYPE 2 DIABETES

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INTRODUCTION

People with diabetes (PwD) have increased morbidity, mortality, and healthcare costs. Glucagon-like Peptide-1 Receptor Agonists (GLP-1RA) have revolutionized diabetes management by optimizing weight and glycemic control while providing cardiorenal protection. This study is designed to evaluate the effectiveness of GLP-1RA and identify predictors of treatment persistence among PwD.

METHODOLOGY

This retrospective cohort study at the Universiti Malaya Medical Centre included adult PwD prescribed with GLP-1RA between 2018-2023, excluding those with malignancy or post-bariatric surgery. Data on demographics, anthropometrics, comorbidities, biochemistry, and adverse events were extracted from electronic health records from the initiation of GLP-1RA until the last visit before December 31, 2023. A prescription refill gap of <90 days was classified as the persistent group (PG), while the remainder were categorised as the non-persistent Group (NPG). Generalised Linear Model (GLM) was used to determine factors associated with treatment persistence.

RESULT

Among 470 PwD analysed, the mean age was 59.1 ± 13.0 years, and 54.3% were female with a baseline BMI of 32.3 ± 6.6 kg/m^2. 91% remained persistent with GLP-1RA. The majority were prescribed injectable semaglutide (55.7%), followed by injectable dulaglutide (27.4%), and oral semaglutide (13.2%). The PG had significantly greater reductions in both weight [-1.9 kg, 95%CI: -5.1,0.1; p = 0.03], and BMI [-0.78 kg/m^2, 95%CI:-1.94,0.04; p = 0.02] compared to the NPG. No significant differences were observed in HbA1c or blood lipid levels. Gastrointestinal side effects were more common among the NPG (37.2% vs 15%). Concomitant usage of SGLT2 inhibitors was the strongest predictor of treatment persistence (+16.2 weeks), with lower baseline HbA1c and urine albumin-creatinine ratio also linked to treatment persistence.

CONCLUSION

Our findings imply that PwD already on SGLT2 inhibitors, those with better glycaemic control and milder proteinuria at baseline are more likely to persist with their GLP-1 RA therapy. Further research incorporating mixed-model analyses and patient perspectives is needed to elucidate the underlying reasons for these associations.

EP_A205

REASSESSING CARBIMAZOLE DOSING STRATEGIES: ASSOCIATION BETWEEN INITIAL DOSE AND SIX-WEEK THYROID FUNCTION

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INTRODUCTION

Carbimazole is a commonly used antithyroid medication for the treatment of hyperthyroidism. Dosage recommendations typically vary based on the severity of biochemical hyperthyroidism, particularly free thyroxine (FT4) levels. However, real-world dosing practices may deviate from guideline-based recommendations, potentially leading to suboptimal outcomes such as persistent hyperthyroidism or iatrogenic hypothyroidism. This study evaluates whether adherence to recommended dosing based on initial FT4 levels is associated with appropriate thyroid function outcomes at six weeks.

METHODOLOGY

We conducted a retrospective observational study involving 125 patients with confirmed hyperthyroidism. Patients were categorized based on whether their initial carbimazole dose was lower than, consistent with, or higher than the recommendations outlined in the American Thyroid Association guidelines, as determined by their initial FT4 levels. Thyroid function outcomes at 6 weeks were classified as euthyroid, hypothyroid, or persistent hyperthyroid based on repeat thyroid function tests. A chi-square test was performed to evaluate the association between dosing appropriateness and thyroid outcome.

RESULT

The mean age of participants was 48.9 years (SD = 15.0). Based on initial FT4 values, 23.2% were within 1–1.5× upper normal limit (UNL), 23.2% were 1.5–2× UNL, and 53.6% were >2× UNL. Among the 63 patients who received a correct dose, 58.6% became hypothyroid, and 35.0% became euthyroid. In contrast, 52.5% of those given a lower dose achieved euthyroidism, while only 17.2% became hypothyroid. Higher-than-recommended doses resulted in 24.1% hypothyroid outcomes. The chi-square test demonstrated a statistically significant association between dose category and thyroid outcome ($p = 0.003$).

CONCLUSION

Initial carbimazole dosing based on FT4 levels is significantly associated with short-term thyroid outcomes. Interestingly, lower-than-recommended doses were more likely to achieve euthyroidism without excessive hypothyroidism. These findings suggest the need to re-evaluate dosing strategies to optimize early treatment outcomes and reduce the risk of overtreatment in hyperthyroid patients.

EP_A206

A DESCRIPTIVE COST ANALYSIS OF HOSPITALISATIONS AT A DISTRICT HOSPITAL FOLLOWING INSULIN DISCONTINUATION

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INTRODUCTION

A nationwide shortage of human insulin in Ministry of Health (MOH) facilities has forced primary care clinicians