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GLYCEMIC AND METABOLIC OUTCOMES OF GLP-1 RECEPTOR AGONISTS IN TYPE 2 DIABETES: A SINGLE-CENTRE CLINICAL AUDIT

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INTRODUCTION
Glucagon-like peptide-1 receptor agonists (GLP-1 RAs) improve glycemic control, promote weight loss, reduce insulin requirements, and confer cardiometabolic benefits in type 2 diabetes mellitus (T2DM). This audit evaluated glycemic and metabolic outcomes of GLP-1 RAs in T2DM patients at a single-centre diabetes clinic.

METHODOLOGY
This audit included T2DM patients who initiated GLP-1 RAs between January 2022 and March 2025 at Hospital Sultan Abdul Halim. Primary outcomes were changes in hemoglobin A1c (HbA1c), body weight, and body mass index (BMI) at 3 and 12 months. Secondary outcomes included percentage weight loss, changes in systolic blood pressure (SBP), insulin total daily dose (TDD), low-density lipoprotein (LDL) cholesterol, gastrointestinal adverse effects, and treatment discontinuation.

RESULTS
Sixteen patients were included; median age was 58.5 years (interquartile range [IQR] 47.5–65), and 56.3% were female. Median diabetes duration was 15 years (IQR 11.5–20.3). Median HbA1c decreased from 9.7% (IQR 8.6–10.4) at baseline to 8.8% (IQR 7.7–9.1) at 3 months and 7.8% (IQR 7.0–8.5) at 12 months. Body weight decreased from 88.1 kg (IQR 79.5–122.1) at baseline to 85.0 kg (IQR 75.9–113.7) at 3 months and 82.0 kg (IQR 74.8–117.3) at 12 months. BMI decreased from 37.8 kg/m² (IQR 31.7–47.1) to 37.3 kg/m² (IQR 30.7–45.5) at 3 months and 36.0 kg/m² (IQR 30.1–45.6) at 12 months.

At 12 months, weight loss was 5.8% (IQR 3.0–8.0), with 56.5% achieving >5% weight reduction. In all, 93.8% achieved >1% HbA1c reduction. Mean SBP decreased by 10 ± 20 mmHg, LDL cholesterol 0.29 mmol/L (IQR -0.77 to 0.07), and insulin TDD 8 units/day (IQR -13 to 10). No gastrointestinal adverse effects reported. Three patients (18.8%) discontinued treatment due to excessive weight loss, treatment plateau, and limited drug availability.

CONCLUSION
From our single-centre experience, the observed improvements in glycemic and metabolic outcomes support the benefits of GLP-1 RAs in managing T2DM.

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A CLINICAL AUDIT OF DIABETIC RETINOPATHY SCREENING AMONG TYPE 2 DIABETES MELLITUS PATIENTS ATTENDING PUSAT PERUBATAN ANGKATAN TENTERA, SG BESI

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INTRODUCTION
Diabetic retinopathy (DRP) is the most common microvascular complication of diabetes, affecting approximately 30% of patients with type 2 diabetes and over half of those with type 1 diabetes. It remains a leading cause of preventable blindness among adults worldwide. Early stages are frequently asymptomatic, making regular diabetic eye screening essential to detect sight-threatening changes before irreversible vision loss occurs. In Malaysia, where diabetes prevalence has reached 15.6% among adults (NHMS 2023), the effective implementation of annual retinal screening is crucial. Malaysian National Clinical Practice Guidelines recommend an annual retinal screening among type 2 diabetes mellitus (T2DM) patients. This clinical audit evaluated adherence to DRP screening.

METHODOLOGY
A retrospective clinical audit was conducted at Pusat Perubatan Angkatan Tentera (PPAT), Kem Sungai Besi, to evaluate compliance with national DR screening standards among adults with T2DM. Thirty eligible patient records were reviewed. Three key indicators were assessed: (1) documentation of visual acuity at diagnosis, (2) annual fundoscopy, and (3) referral for fundus photography within the preceding 12 months. Performance was benchmarked against the 80% standard. Data were analyzed descriptively.

RESULTS
The median age group was 55–59 years, with equal gender distribution. Screening adherence was substantially below target: visual acuity assessment at diagnosis, 23.3%; annual fundoscopy, 26.7%; and fundus imaging referral, 36.7%. All screening indicators were below the recommended standard.

CONCLUSION
This audit reveals a significant implementation gap between national guidelines and routine practice. Structured workflow integration and documentation reinforcement strategies need to be emphasized. Additional measures