

METHODOLOGY

A cross-sectional audit was conducted among healthcare staff in a district hospital. A structured, modified questionnaire based on the Malaysian MEMS Inpatient Glycemic Guidelines was used. The 10-item questionnaire assessed definition, initial and subsequent management, reassessment, escalation, and documentation, yielding scores from 0 to 10. Descriptive statistics were used for analysis.

RESULTS

A total of 100 healthcare staff participated, comprising 6% doctors, 73% nurses, 14% MAs, and 7% pharmacists. Of these, 46% were from medical departments and 54% from non-medical departments; 71% were inpatient staff and 29% outpatient staff. Participants had a median working experience of 14 years. Overall knowledge levels were high, with pharmacists achieving the highest median score of 10 (interquartile range [IQR] 1), followed by doctors, nurses, and MAs, all scoring a median of 9 (IQR 0–1). Knowledge scores were similar between diabetic-trained and non-diabetic-trained staff, both recording a median score of 9 (IQR 1). The lowest performance was observed in key domains related to reassessment of blood glucose (41% wrong), drug-related considerations (17%), and subsequent management (15%). Median scores were comparable between inpatient and outpatient staff (9 [IQR 2] vs 9 [IQR 1]), and across staff with varying years of working experience. Staff from medical departments achieved slightly higher scores than those from non-medical departments (10 [IQR 1] vs 9 [IQR 1]).

CONCLUSION

Despite high overall knowledge, critical gaps remain in reassessment, drug-related risks, and stepwise management, warranting targeted education, protocol reinforcement, and re-audit to enhance patient safety.

EP_A050

AUDIT ON HbA1c TEST UTILIZATION AT HOSPITAL TELUK INTAN IN 2025

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INTRODUCTION

Hemoglobin A1c (HbA1c) is fundamental in the diagnosis and longitudinal monitoring of diabetes mellitus. Appropriate utilization is essential to ensure optimal glycemic control, cost-effectiveness, and laboratory efficiency. Regular audits are crucial for assessing adherence to testing intervals and for identifying gaps in diabetes management. The aim was to evaluate the utilization pattern and glycemic outcomes of HbA1c testing at Hospital Teluk Intan in 2025.

METHODOLOGY

A retrospective descriptive audit was conducted using Laboratory Information System data from 1 January to 31 December 2025. All HbA1c tests performed during the study period were included. Rejected samples and duplicate tests within 3 months for the same patient were excluded. Data were analyzed for test volume, inpatient versus outpatient distribution, age group, and glycemic control categories.

RESULTS

A total of 10,208 HbA1c tests were performed, with 987 (9.7%) rejected samples. Among valid requests, 3,561 (34.9%) were inpatient and 5,660 (55.4%) were outpatient. Adults accounted for 9,196 tests (90.1%), while paediatric requests were minimal ($n = 25$).

Regarding glycemic status, 4,502 (44.1%) had HbA1c <6.5%, and 828 (8.1%) were between 6.5 and 7.0%. Suboptimal control (7.0–10.0%) was observed in 2,443 patients (23.9%), while 1,448 (14.2%) demonstrated poor control (>10.0%). Overall, 38.1% of patients had HbA1c ≥7.0%, indicating inadequate glycemic control.

CONCLUSION

HbA1c testing at Hospital Teluk Intan is predominantly utilized in adult and outpatient settings. Despite substantial testing volume, over one-third of patients demonstrated suboptimal or poor glycemic control, underscoring persistent therapeutic gaps. These findings highlight the need for strengthened diabetes management strategies and targeted quality improvement initiatives to enhance glycemic outcomes and optimize resource utilization.

EP_A051

GLOBAL DIAGNOSTIC CRITERIA FOR GESTATIONAL DIABETES MELLITUS: A SCOPING REVIEW PROTOCOL TO INFORM POLICY IN MALAYSIA

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INTRODUCTION

Gestational diabetes mellitus (GDM) is a common pregnancy complication associated with adverse maternal and neonatal outcomes, including hypertensive disorders, caesarean delivery, macrosomia, and increased lifetime risk of type 2 diabetes. Despite its clinical importance, considerable international variation exists in GDM screening and diagnostic criteria. Multiple frameworks

are currently used, including those from the World Health Organization (WHO), International Association of Diabetes and Pregnancy Study Groups, Carpenter and Coustan, and the National Diabetes Data Group. Differences in glucose thresholds, testing protocols (one-step versus two-step), and universal versus risk-based screening contribute to heterogeneity in reported prevalence and healthcare burden. In multi-ethnic, middle-income settings such as Malaysia, identifying an evidence-informed and context-appropriate diagnostic approach is critical.

METHODOLOGY

This scoping review follows the Joanna Briggs Institute methodology and will be reported in accordance with the PRISMA Extension for Scoping Reviews (PRISMA-ScR). PubMed, Scopus, and ScienceDirect will be searched for English-language studies, reviews, guidelines, and consensus statements reporting GDM diagnostic criteria. Two reviewers will independently screen and select studies.

RESULTS

Data will be charted on country, study type, diagnostic criteria, gestational age at screening, and reported challenges. Findings will be synthesized descriptively and presented in tables and figures. No formal risk-of-bias assessment will be conducted.

CONCLUSION

This review will provide a comprehensive overview of global diagnostic practices, highlight variations and gaps, and support evidence-based selection of a suitable GDM screening and diagnostic strategy for Malaysia.

EP_A052

SURVEY OF AWARENESS OF ARTIFICIAL INTELLIGENCE IN DIABETES CARE AMONG ENDOCRINOLOGISTS IN MALAYSIA

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INTRODUCTION

Artificial intelligence (AI) and digital health technologies are increasingly integrated into diabetes care. However, data on awareness and adoption among endocrinologists in Malaysia remain limited.

METHODOLOGY

A cross-sectional survey was conducted among endocrinologists in Malaysia using a structured online questionnaire. Items assessed awareness of AI-based diabetes technologies, attitudes toward AI in clinical care, perceived barriers, and willingness to adopt AI tools. Multiple responses were permitted for selected items.

RESULTS

The cohort ($N = 65$) comprised 60% junior endocrinologists and 40% senior endocrinologists (72% government-based). Recognition was higher for monitoring and screening technologies, particularly continuous glucose monitoring (CGM) data analytics (66.2%) and automated retinopathy screening (33.8%) versus therapeutic AI tools, such as lifestyle coaching applications (43.1%) and insulin titration algorithms (30.8%). While approximately 60% endocrinologists reported familiarity with AI in diabetes care, 15.4% of them had no prior recognition of AI tools.

Attitudes toward AI were largely positive; 76% agreed that AI improves diabetes outcomes, 60% believed it reduces clinician workload, and 90% agreed that AI would complement diabetes care systems. However, approximately 50% remained neutral regarding its reliability and expressed concerns about ethics and data security.

In practice, only 40% endocrinologists reported using AI tools, most commonly CGM analytics with automated insights (46.4%), with generally low frequency of use. The main barriers to adoption were lack of formal training (78.5%) and high implementation costs (60%). Despite this, 90% expressed willingness to adopt AI in future practice.

CONCLUSION

Awareness of AI technologies in diabetes care among Malaysian endocrinologists is variable, with stronger recognition of tools already embedded in routine practice. While attitudes toward AI are favorable, significant educational and structural barriers must be addressed to facilitate broader implementation.

EP_A053

DIABETIC KETOACIDOSIS IN PREGNANCY: CLINICAL TRIGGERS, OUTCOMES, AND MISSED OPPORTUNITIES—A CASE SERIES

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INTRODUCTION

Diabetic ketoacidosis (DKA) in pregnancy is an uncommon yet life-threatening emergency, with disproportionate risks to both mother and fetus. Pregnancy-specific physiological changes predispose patients to rapid metabolic