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

decompensation, often with atypical presentations. Despite this, local data remain limited. We describe the clinical profile, precipitating factors, and outcomes of DKA in pregnancy in a tertiary centre, with emphasis on potentially preventable triggers.

CASES

Nine pregnant patients with DKA were identified from a retrospective review of all cases admitted for DKA from 2002 to 2025. Mean age was 31.67 ± 5.20 years; all were Malay. The majority had type 2 diabetes mellitus (55.6%), followed by type 1 diabetes (33.3%) and latent autoimmune diabetes in adults (11.1%). The mean period of amenorrhea was 19.67 ± 12.62 weeks.

Infection was the leading precipitant (44.4%), with additional triggers including insulin omission (22.2%), hyperemesis gravidarum, preterm labor, steroid exposure, and perioperative fasting. Most diagnoses were made in the emergency department (55.6%).

Biochemical parameters reflected significant severity (mean bicarbonate 7.89 ± 2.98 mmol/L; anion gap 25.00 ± 5.81), with 88.9% classified as severe DKA. Intensive Care Unit (ICU) care was required in 77.8% of cases. The majority (77.8%) were admitted to the ICU unit, with a median time to resolution of 13.00 ± 12.00 hours (interquartile range [IQR]), and the median hospital length of stay was 7.00 ± 5.00 days (IQR).

Complications during treatment included hypokalemia (33.3%), acute kidney injury (22.2%), and hypoglycemia (11.1%). Rebound DKA occurred in one-third of patients. All patients were discharged clinically stable. Outcome data demonstrated pregnancy loss in three cases and one preterm birth.

CONCLUSION

DKA in pregnancy remains a severe and resource-intensive condition. This series highlights missed opportunities in prevention, with modifiable precipitants such as infection and insulin omission commonly identified. The high severity at presentation suggests delays in recognition. Early detection, optimized metabolic care, and targeted preventive strategies are crucial to improving maternal and fetal outcomes.

EP_A055

THE PRICE OF POOR GLYCEMIC CONTROL BEFORE AND DURING PREGNANCY: GESTATIONAL HYPERTRIGLYCERIDEMIA

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INTRODUCTION

Severe hypertriglyceridemia, though rare in pregnancy, is a clinically significant condition that poses substantial maternal and perinatal risks.

CASE

We present a case of a 42-year-old pregnant female with class I obesity and pre-existing type 2 diabetes mellitus, with a booking hemoglobin A1c 12.1%. Her poorly controlled diabetes was complicated by nephrotic syndrome, with a 24-hour urine protein 4.9 g/day. She also had bilateral diabetic retinopathies requiring multiple sessions of panretinal photocoagulation. Throughout the pregnancy, her triglycerides rose progressively, peaking at 30 mmol/L by 33 weeks. Investigations revealed normal thyroid function, urea 4.8 mmol/L, creatinine 66 umol/L, and albumin 26 g/dL. The patient was hospitalized at 33 weeks of gestation and started on an intravenous insulin infusion along with a very low-fat, low-carbohydrate diet prescribed by a dietitian. Pulmonary embolism was diagnosed during evaluation for maternal tachycardia, and subcutaneous enoxaparin was initiated. One week after admission in 35 weeks of gestation, the baby was delivered via emergency Caesarean section due to fetal distress. The baby was small for gestational age, with a birth weight of 1.9 kg, below the 10th percentile for gestational age, and required admission to the neonatal intensive care unit with oxygen support for pneumonia-related respiratory distress. Post-delivery, intravenous insulin infusion and dietary control were continued, reducing her triglyceride level to the lowest level of 8.3 mmol/L. Both mother and baby were discharged well. Lipid-lowering agents such as rosuvastatin and fenofibrate were started after breastfeeding stopped, aiming to normalize her triglyceride levels.

CONCLUSION

Hypertriglyceridemia in this patient was the result of uncontrolled diabetes mellitus with nephrotic-range proteinuria. Severe hypertriglyceridemia can cause acute pancreatitis and/or hyperviscosity syndrome, both of which are life-threatening to the mother and baby. Thus, rapid reduction of triglyceride levels is crucial. This case highlights the importance of achieving good diabetes control prior to pregnancy, with strict adherence to treatment and enhanced patient education.