

Morningside Graduate School of Biomedical Sciences

Masters in Clinical Investigation Program

Announces the MSCI Thesis Defense of

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Trends in Screening for Diabetes in Early Pregnancy in the United States

Thursday, December 23, 2021 at 9 a.m. Via Zoom Meeting

Objective: To characterize current diabetes screening practices in the first trimester of pregnancy in the United States, evaluate patient characteristics and risk factors associated with early diabetes screening, and compare perinatal outcomes by early diabetes screening.

Methods: This was a retrospective cohort study of US medical claims data from patients diagnosed with an intrauterine pregnancy that received screening for diabetes in the first trimester of pregnancy defined as less than 12 weeks of gestation from the IBM MarketScan® database for the period of January 1, 2016, to December 31, 2018. Univariate and multivariate analyses were used to evaluate clinical factors and perinatal outcomes.

Results: There were 400,588 pregnancies identified as eligible for inclusion, with 18.0% of women receiving early screening for diabetes. The most ordered screening tests were hemoglobin A1c (53.1%) and fasting glucose (30.0%). Oral glucose tolerance tests were ordered the least frequently (16.9%). Women with early diabetes screening were more likely to be older, obese, have a history of gestational diabetes, chronic hypertension, polycystic ovarian syndrome, hyperlipidemia, and a family history of diabetes. Early diabetes screening irrespective of the screening result was also associated with adverse perinatal outcomes including a higher rate of Cesarean delivery, preterm delivery, gestational hypertension, pre-eclampsia, and gestational diabetes. In adjusted logistic regression, obesity (aOR 2.35, 95% CI 2.30-2.40) was the strongest predictor of early diabetes screening.

Conclusion: There is significant variation in the current trends of early diabetes screening in pregnancy, and further research into optimal screening in the first trimester is needed.

Mentor

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