



Saad Khalil Memorial Junior Fellow Quality Improvement Challenge

Project Submission Form

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Project Title:		
A Missed Opportunity for Improving Obstetric Outcomes: Poor Compliance With ACOG’s Recommended Early Gestational Diabetes Screening at an NYC Hospital		
1. Please describe the quality problem or issue:		
<p>Treating gestational diabetes (GDM) has been known to improve both maternal and neonatal outcomes, and it is now a recommended universal standard in the US that all pregnant patients are screened for GDM at 24-28weeks gestation. In 2017, ACOG updated their guidance, recommending early screening at the first prenatal visit for patients who are overweight and have an additional diabetic risk factor. To date, there are no studies to evaluate the rates of adherence to ACOG’s updated early screening guidelines.</p>		
2. AIM Statement:		
<p>We aim to investigate the incidence of provider adherence to ACOG’s updated early screening guidelines at Mount Sinai West. Ultimately, we hope to implement an electronic medical record-based intervention to increase the rate of early GDM screening in our at-risk patient population.</p>		
3. Team Members (please include title and role):		
Name	Title	Role
Shobha Jagannatham	MD, PGY-2	
Melissa Lozano	MD	Mentor
Lois Brustman	MD	Mentor

4. Abstract: Please include the following components

a. Background information:

- i. Include relevance of this project, institutional information, baseline data for planning, impact of this project, and/or added value of this project.

b. Methods:

- i. Include rapid change cycles used (PDSA, DMAIC, etc.), team composition, meetings, any innovative or effective methods that are data driven. Include any multidisciplinary aspects of team building or integration of services to achieve desired result(s).

c. Results:

- i. Include appropriate metrics pre and post intervention.

d. Sustainability plans or control of project:

- i. Include efforts or planning for sustainability of the project for institutional and patient benefit.

Background:

It is well documented in the literature that pregnant patients with GDM have a higher risk of maternal and fetal morbidity and mortality. Patients with GDM are at increased risk of cesarean delivery and preeclampsia. Offspring of affected patients have increased rates of macrosomia, neonatal hypoglycemia, hyperbilirubinemia, shoulder dystocia, birth trauma, and stillbirth. In 2017, ACOG endorsed guidelines for early screening of selected patients at an increased risk for pre-gestational diabetes or early GDM in hope of providing an earlier diagnosis and a greater window to engage in dietary and behavior changes, or to start hypoglycemic agents.

Methods:

We performed a retrospective chart review of all vaginal and cesarean deliveries at Mount Sinai West in January 2020. We reviewed the prenatal records and labs to determine the number of patients that met ACOG criteria for early screening and that actually underwent screening. Demographic data and the following ACOG-defined risk factors were collected: body mass index (defined as greater than 23 in Asian Americans or greater than 25 in all others), previous history of gestational diabetes, previous history of macrosomia, hypertension (systolic >140 or diastolic >90), polycystic ovarian syndrome, Hb A1C greater than 5.7, cardiovascular disease, and family history of diabetes.

Results:

We reviewed 468 charts, of which 314 patients had early pregnancy data available. Of these patients, 97 (31%) were eligible for early GCT screening, however, only 12 patients (12%) actually received it. For nearly all eligible patients who were not screened, the early GCT was never ordered. Among the patients that did not receive early screening, the most common risk factors that made patients eligible for early screening were BMI (48%), and high risk ethnic background (29%) and family history of diabetes (10%) (see figure). Out of the 85 patients who met criteria but did not receive early screening, nearly one-fifth (19%) of them were ultimately diagnosed with GDM later in that pregnancy.

Sustainability Plans:

Our investigation suggests that, at our institution, there is a low rate of provider adherence to ACOG's updated early GDM screening guidelines. Our QI review revealed that of the eligible at risk patients only 12% were tested, leaving close to 90% of at risk patients not tested.

We plan to present our findings to our Quality Improvement committee. We will advocate for an implementation of an electronic medical record (EPIC) checklist at a patient's first prenatal visit that would include the identification of the risks factors for early GDM screening. We then plan to investigate whether there is an improvement in rates of early GDM screening after implementing this intervention.

Risk Factors for Gestational Diabetes Among Patients Delivered at MSW in January 2020

