

Gestational Diabetes: A New Approach to Care

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- & Discuss Current Screening for Gestational Diabetes (GDM)
- & Discuss the Maternal, Fetal, Newborn Risk Factors
- & GDM Group Care Model

Objectives

Pre-gestational diabetes: Type 1,
Type 2

Gestational Diabetes: “carbohydrate
intolerance that begins or is first
recognized during pregnancy”

Diabetes in Pregnancy

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- ⌘ Increased risk of developing Type 2 DM later in life
- ⌘ Increased risk for Cesarean delivery
- ⌘ Increased risk for GDM in subsequent pregnancy
- ⌘ Increased risk for developing HTN, pre-eclampsia, and chronic HTN

GDM: Maternal Effects

- ⌘ Increased risk of IUFD
- ⌘ Increased risk of macrosomia
- ⌘ Increased risk of neonatal complications:
hypoglycemia and hyperbilirubinemia
- ⌘ Increased risk of childhood and adult
obesity
- ⌘ Increased risk of developing diabetes

GDM: Perinatal Effects

- ⌘ United States Preventive Services Task Force (USPSTF)
- ⌘ American College of Obstetricians and Gynecologists (ACOG)
- ⌘ International Association of Diabetes in Pregnancy Study Group (IADPSG)
- ⌘ American Diabetes Association (ADA)

Screening for GDM

& “All pregnant women should be screened for GDM, whether by patient history, clinical risk factors, or a 50 gram, 1 hour loading test to determine blood glucose levels.”

ACOG

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- ⌘ Age <25 years of age
- ⌘ Not a member of an ethnic group at risk for GDM
- ⌘ BMI <25
- ⌘ No history of abnormal glucose tolerance
- ⌘ No history of adverse obstetric events associated with GDM
- ⌘ No known diabetes in 1st degree relative

ACOG's "Low-Risk Factors"

- ⌘ 1-hour, 50 gram glucola at 24-28 weeks, fasting state not required
- ⌘ If result is >130, 135, or 140, a 3 hour, 100 gram GTT is required
- ⌘ GTT requires the patient to be fasting

ACOG Recommended Screening

- ⌘ Carpenter criteria is most widely used
- ⌘ If 2 of 4 results are abnormal, GDM is diagnosed
- ⌘ Threshold Values
 - ⌘ FBS: 95
 - ⌘ 1-hr: 180
 - ⌘ 2-hr: 155
 - ⌘ 3-hr: 140

3-hour, 100 gram GTT Results

- ⌘ Screen for undiagnosed Type 2 DM at first prenatal visit in those with risk factors
- ⌘ Administer 2-hour, 75 gram GTT at 24-28 weeks

American Diabetes Association

- ⌘ National Institutes of Health
- ⌘ October 2012 Consensus Conference:
Diagnosing Gestational Diabetes Mellitus
- ⌘ Prediction: 2 hour, 75 gram GTT will be
endorsed and established as the standard of
care

Final Decision on GDM Screening

- ⌘ 25,505 patients, 15 centers, 9 countries
- ⌘ 2-hour, 75 gram GTT at 24-32 weeks
- ⌘ Looked at primary and secondary outcomes

Hyperglycemia and Adverse Pregnancy Outcomes (HAPO) Study

⌘ Primary Outcomes

- ⌘ birth weight
- ⌘ Cord blood levels of C – peptide levels

⌘ Secondary Outcomes

- ⌘ Preterm delivery
- ⌘ Shoulder dystocia/birth injury
- ⌘ NICU admission
- ⌘ Hyperbilirubinemia
- ⌘ pre-eclampsia

HAPO Outcomes

- ⌘ FBS: greater or equal to 92
- ⌘ 1-hour: greater or equal to 180
- ⌘ 2-hour: greater or equal to 153

Threshold Values for 2-hour, 75-gram GTT

⌘ “Satisfaction with care, generally considered to be a measure of a patient’s perception of the care experience, is regarded as both an outcome of care as well as a measure of its quality”

Why Group Care

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Handler, A., Rosenberg, D., Raube, K., Lyons, S. (2003). Prenatal characteristics and African American women’s satisfaction with care in a managed care organization. *Women’s Health Issues*. 13, pg. 93-103.

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- ⌘ Development of a patient satisfaction survey specific to current prenatal care for GDM patients
- ⌘ Concepts: Access, Continuity, Communication, Resources

Quality Improvement

- ⌘ Based on the CenteringPregnancy® model for Group Prenatal Care
- ⌘ Curriculum developed for 6 session, one of which is the postpartum visit
- ⌘ Benchmarks: satisfaction of care, maternal & neonatal outcomes

Pilot Study

& Assessment

& Education

& Support

& Facilitative Leadership Style

GDM Group Prenatal Care

& Change **Dietary** Habits

& Increase **Exercise**

& Decrease **Stress**

Lifestyle Modification

Patient Centered Care

Blood glucose Monitoring

Physical activity

Healthy Eating

Medication taking

Problem solving

Risk reduction

Coping

Self Management of Care

- ⌘ GDM is consider to be a **pre-diabetes** state
- ⌘ **Empower** women to **Lifestyle Modification** for themselves and their families for a lifetime
- ⌘ Follow of 6 week **PP testing**
- ⌘ Encourage **Health Promotion & Prevention**
- ⌘ **Primary Care** follow up

Opportunities



Together We Can Make a Difference in
Diabetes Care!