Diabetes and Pregnancy Project

Update for WW Diabetes Network
Wednesday, May 21st, 2014
Key Research Findings for GDM

- GDM is most common medical complication of pregnancy
- GDM affects between 3 to 20% of pregnancies in Canada
- Increasing rates to as high as 8.5% - 13% among Native Canadians and Cree women\textsuperscript{1,2}
- Women from East Asia had a 2 times higher risk of developing GDM than their Canadian-born counterparts (Gestational Diabetes Among Immigrant Women, ICES 2011. www.ices.on.ca)
- Women with GDM have a 20% risk of developing T2DM within 9 years postpartum
- Untreated GDM increases the risk of having a child who will be obese at age 5-7 years
- Women with DM are more than twice as likely to have a diagnosis of pre-eclampsia or hypertension
Outcome Data for WWLHIN (2007-08)

- Review of WWLHIN Outcome Data showed:
  - Women with GDM, Type 1 and Type 2:
    - were more likely to delivery by C-section (42.5%) than women without diabetes (25.2%)
    - were more than three times as likely to have a diagnosis of preeclampsia
    - were more than four times as likely to have hypertension
  - 46% of the babies were born with macrosomia (>3500g)
  - 1.4% of the babies were born with shoulder dystocia
  - % of infants born to women with GDM/without who were delivered prematurely was 11.6% vs. to 6.2% (The POWER study)
- % of women with diabetes visiting specialists (Endocrinologist or Internist) during pregnancy was 63% (ICES)
- % of women with/without diabetes having retinal exam during pregnancy was 31% vs. 12%
Findings from Focus Groups, Inventories of Service, and Stakeholder Interviews

- There was consistency with screening for gestational diabetes but not for management

  - Need to:
    - develop standards for:
      - management of diabetes in pregnancy
        - gestational diabetes
        - Type 1
        - Type 2
    - improve patient flow between primary care, obstetricians, specialists and diabetes programs
    - Improve post-partum follow-up care
    - Proactively plan for new CPGs in 2013 (anticipated tighter diagnostic criteria)
Previous Work of RCC
Diabetes in Pregnancy Advisory Network

Members 2011-12

Debbie Hollahan (Chairperson, DRCC), Regional Director, DRCC
Dr. Nadira Husein (Co-Chair), Endocrinologist, Kitchener/Waterloo, DRCC
Sarah Christilaw (Co-Chair), Coordinator Diabetes Best Practices/System Design, DRCC
Elena Oreschina, Health Information Analyst, DRCC
Wendy Graham, Mentor, DRCC
Katie Abbott, Guelph Midwives
Asil Al-Shaibani, Dietitian, Grand River Hospital
Anka Brozic, Manager, Waterloo Region Community Diabetes Programs
Dr. Peter Clarke, Endocrinologist, Centre, East and North Wellington
JoAnne Costello, NP, Guelph FHT, DRCC
Kim Crawford, NP, Guelph General Hospital
Cara Croll, Dietitian, Louise Marshal/Palmerston Diabetes Education Centre
Jennifer DeGrandis-Graham, Dietitian, Palmerston Diabetes Education Centre

Nadine Duhill-Enns
Sharon Fernandez, Diabetes Nurse Educator, Guelph General Hospital Diabetes Education Centre
Thina Fitter, Dietitian, Groves Memorial Hospital Diabetes Education Centre
Adriana Fontaine, Guelph Midwives
Jill Gail, Grand River Hospital
Kelly Galbraith, Diabetes Nurse Educator, Grand River Hospital
Madlin Hopiavuori, Dietitian, Guelph General Hospital Diabetes Education Centre
Brittany Koster, North Wellington Health Care
Dr. Joanne Liutkus, Diabetes Specialist/Intemal Medicine, Cambridge
Corinne Malette-Wolter, Diabetes Nurse Educator, Groves Memorial Hospital Diabetes Education Centre
Diana McDougall, Diabetes Nurse Educator, Grand River Hospital Diabetes Education Centre
Sadia Mian, Dietitian, Cambridge Memorial Hospital Diabetes Education Centre

Dr. Cam Purdon, Endocrinologist, Guelph
Dr. Rob Norrie, Primary Care Physician, DRCC, Upper Grand FHT, Fergus
Lori Papadopoulos, Dietitian, Cambridge Memorial Hospital Diabetes Education Centre
Dr. Luciana Parlea, Endocrinologist, Kitchener/Waterloo
Dr. Dan Reilly, Obstetrician/Gynecologist, Fergus
Mitra Sadeghipour, Family Midwifery Care of Guelph
Karen Sonnenberg, Diabetes Nurse Educator, Cambridge Memorial Hospital Diabetes Education Centre
Nicole Tarr, Grand River Hospital, Dietitian
Nisha Walibhai, Manager Cambridge Memorial Hospital Diabetes Education Centre
Amy Waugh, Dietitian, Upper Grand FHT, Fergus, Elora
Goals and Objectives

• Goal:
  o To provide a streamlined, multi-disciplinary approach for women with **diabetes and pregnancy** living in Waterloo Wellington Region to achieve healthy outcomes for mother and child.

• Objectives:
  o To develop standards for consistent management
  o To improve maternal and neonatal outcomes
  o To prevent the onset of Type 2 diabetes
What we heard was needed:

- **Components:**
  - Pathway (from preconception to postpartum)
  - Physician/Midwife tools
    - Pocket Cards
    - Physician Orders
  - Diabetes Educator tools
    - Core Content
  - Patient Tools
    - Patient Passport
  - Promotional Pieces
  - Consistent “model” of care
    - Schedule
    - Documentation forms
New Funding from LHIN

• One time funding (December 2013 to March 2014) approved by LHIN
• Complete previous work
• Team:
  o Dr. Liutkus, Dr. Husein
  o Wendy Graham
  o Kelly McCammon
  o Nicole VanGerwen
  o Debbie Hollahan
  o Team from Fergus (Corinne Malette-Wolter, Trina Fitter, Amy Waugh)
  o GRH DEC
  o External reviewers
What we developed:

- Components:
  - Pathway (from preconception to postpartum)
  - Physician/Midwife tools
    - Pocket Cards
    - Physician Orders
  - Diabetes Educator tools
    - Core Content
    - Resources
  - Patient Tools
    - Patient Booklet
  - Promotional Pieces
  - Consistent “model” of care
    - Schedule
    - Documentation forms
Diabetes and Pregnancy Clinic
Model of Care in an Urban Area

Central Intake

Referral to Endo automatically generated from referral to DEC

Initial Diabetes Education

Follow Up Diabetes and Pregnancy Clinic
Patient seen every 2 weeks

Endo RN, CDE
RD, CDE
OBGYN

Telephone communication between visits

Diagnosis

REFERRAL
Diabetes and Pregnancy Clinic
Model of Care in a Rural Area

Diagnosis

Central Intake

Referral to Endo automatically generated from referral to DEC

Initial Diabetes Education

Follow Up Obstetrical Visit
Patient seen every 2 weeks

- Obstetrician
- DEC Team

Telephone communication between visits
Sample Schedule

New #1 refers to a patient’s first visit to the clinic after education. It involves an assessment with the endocrinologist and dietitian. The Nurse is in with the Endocrinologist and available to teach insulin on site. Insulin teaching will be done in another office.

FU #1 refers to a patient returning for a follow-up visit with diabetes team and endocrinologist.

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<th>Office: Endo/RN</th>
<th>Office: RN Insulin</th>
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<td>Nurse available for Insulin start</td>
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Dissemination/Roll-Out

- DES meeting May 28th
- Mail-out to all physicians/midwives and specialists
- Have shared with Brantford and Central West
- Submitted abstract to CDA national conference
Evaluation

• Survey to all Diabetes Educators, Primary Care, OBS and midwives at 6 month and 1 year
• Patient evaluation of booklet in clinics
• Rely on hospitals for chart audits of success of orders
• Rely on LHIN for system data eg. BORN, Intellihealth etc.