Diabetes – Pre-Existing Diabetes and Pregnancy

Key Highlights

• Women with diabetes planning pregnancy should aim for a hemoglobin A1C of < 7.0% and should all be screened for nephropathy and have ophthalmologic assessments prior to conception.

• Women taking oral hypoglycemics, ACE inhibitors, or ARB’s should have their treatments adjusted prior to conception.

• During pregnancy, women should do pre- and post-prandial self-monitoring of blood glucose (may be >4 times a day) and have insulin therapy adjusted to achieve glycemic targets, including intensive insulin therapy.

Scope

This guideline is intended for physicians who care for patients with diabetes or who are at risk for developing diabetes. Recommendations include both type 1 and type 2 diabetes unless only one is specified.

Excellent/Good Evidence to Recommend

• Women with type 1 diabetes who are planning a pregnancy should
  o aim for a preconception glycosolated hemoglobin (A1C) of < 7.0% to reduce the progression of retinopathy and other complications (see below under “Fair Evidence”).
  o have ophthalmologic assessments prior to conception, during the first trimester, as needed during the rest of the pregnancy, and in the first year postpartum.

• Screen all women with diabetes preconception for nephropathy.

• Women with type 1 diabetes should receive intensive insulin therapy during pregnancy using multiple daily injections or insulin pump therapy.

• Women with type 2 diabetes should have their insulin regimens adjusted to achieve glycemic targets, including intensive insulin therapy considered when needed.

Fair Evidence to Recommend

• Women with diabetes should plan their pregnancy, preferably in consultation with an interdisciplinary pregnancy team. This should include preconception nutrition counseling from the registered dietitian member of the diabetes health care team.
- A preconception hemoglobin A1C of ≤ 7.0% for women with type 1 diabetes decreases the risk of spontaneous abortion, congenital malformations and pre-eclampsia.

- Pregnant women with diabetes should do pre- and post-prandial self-monitoring of blood glucose in order to make insulin adjustments; this may often be > 4 times a day.

- Avoid ketosis in pregnancy.

**Consensus**

- Women with type 2 diabetes who are planning a pregnancy should
  - aim for a preconception glycosolated hemoglobin (A1C) of ≤ 7.0% to reduce the risk of congenital abnormalities,
  - discontinue oral hypoglycemics prior to conception and use insulin, if needed, to achieve glycemic targets
  - have ophthalmologic assessments prior to conception, during the first trimester, as needed during the rest of the pregnancy, and in the first year postpartum.

- Prior to pregnancy
  - Women taking ACE Inhibitors or ARBs should change to antihypertensives that are safe in pregnancy
  - If microalbuminuria or nephropathy is found, glycemic and blood pressure control should be optimized.

- During pregnancy
  - Women should aim to achieve glycemic targets and avoid significant hypoglycemia
  - Recommendations for weight gain should be based on pre-pregnancy body mass index
  - Patients should receive nutrition counselling reassessment as needed

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The above recommendations were derived from the following GAC endorsed guideline:

Rating (out of 4): 🍎🍎🍎🍎

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