

APEC Guidelines
Pregestational Diabetes Mellitus

Obstetric management

In addition to routine prenatal labs and care, the following is recommended for the monitoring of, and intervention for, fetal and obstetric complications of diabetes.

Initial OB visit:

- Nutrition counseling and diabetic education.
- Hgb A1c.
- Renal function assessment- serum creatinine and urine protein/creatinine ratio or 24-hour urine for protein.
- Eye exam by an ophthalmologist, if not completed in the last 6 months.
- EKG—for those with diabetes >5 yrs or co-morbid conditions.
- Prescribe insulin therapy.
- Prescribe pattern blood sugars.
- Type 1 DM: TSH and free T4.

Quality Indicators/Benchmarks

- Hgb A1c at initial visit
- Targeted ultrasound and fetal echocardiogram referral
- Antepartum fetal testing by 34 weeks
- Diabetic education before 20 weeks

Subsequent OB visits:

- Visits every 2 weeks in the first and second trimester to evaluate blood sugars. More frequent evaluation may be necessary in those with poor control or requiring multiple insulin adjustments.
- Weekly visits after 28-30 weeks.
- Targeted ultrasound at 18-20 weeks.
- Fetal echocardiogram at 22-24 weeks.
- Ultrasound for fluid and growth approximately every 4 weeks starting at 24-28 wk.
- Hgb A1c each trimester.
- Antenatal fetal testing q week beginning at 32 weeks with NST, BPP, modified BPP or CST. Patients with IUGR, hypertension, diabetic vasculopathy or history of IUFD may warrant earlier and more frequent testing.

Delivery:

- Schedule for delivery between 39-40 weeks with reassuring testing
- Ultrasound for fetal growth within 3 weeks of delivery
- Recommend elective cesarean for estimated fetal weight $\geq 4200-4500$ grams
- Assess glycemic control. If there is evidence of poor glucose control, maternal vasculopathy or nephropathy (White's $\geq D$), consider delivery between 38-38⁶ weeks. If evidence of fetal growth restriction, HTN, or other complications develops, earlier delivery should be considered.

Starting Total Insulin Dose:
1st trimester: 0.6-0.8U/kg
2nd trimester: 1.0 U/kg
3rd trimester: 1.2 U/kg

1/2
Long-Acting

1/2
Short-Acting

Preferred
Insulin Glargine or detemir: Administer entire dose at the same time daily
Alternative
Insulin NPH:
Administer 2/3 of total dose in AM and 1/3 at bedtime

Preferred
Insulin Lispro/Aspart: Administer 1/3 of total dose prior to each meal: breakfast, lunch, dinner
Alternative
Regular insulin

Self-monitored Capillary Blood Glucose Goals

Specimen	Level (mg/dl)
Fasting	≤ 95
Premeal	≤ 100
1-hr postprandial	≤ 140
2-hr postprandial	≤ 120
0200-0600	≥ 60
Mean (average)	100
Hb A1c	≤ 6%