ACOG two-step approach for screening and diagnosis of gestational diabetes mellitus

Step one
1. Give 50 gram oral glucose solution without regard to time of day.
2. Measure venous plasma or serum glucose concentration at one hour after administration.
3. Glucose ≥135 mg/dL (7.5 mmol/L) or ≥140 mg/dL (7.8 mmol/L) is elevated and requires administration of a 100 gram oral glucose tolerance test.* The lower threshold provides greater sensitivity, but would result in more false positives and would require administering the full glucose tolerance test to more patients than the 140 mg/dL threshold. The lower threshold should be considered in populations with higher prevalence of gestational diabetes.
Step two
1. Measure fasting venous plasma or serum glucose concentration.
2. Give 100 gram oral glucose solution.
3. Measure venous plasma or serum glucose concentration at one, two, and three hours after administration.
4. A positive test is generally defined by elevated glucose concentrations at two or more time points (either Carpenter and Coustan thresholds or National Diabetes Data Group thresholds can be used).

ACOG: American College of Obstetricians and Gynecologists; GDM: gestational diabetes mellitus.

* Some experts use a threshold of 130 mg/dL (7.2 mmol/L).

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