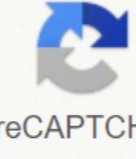
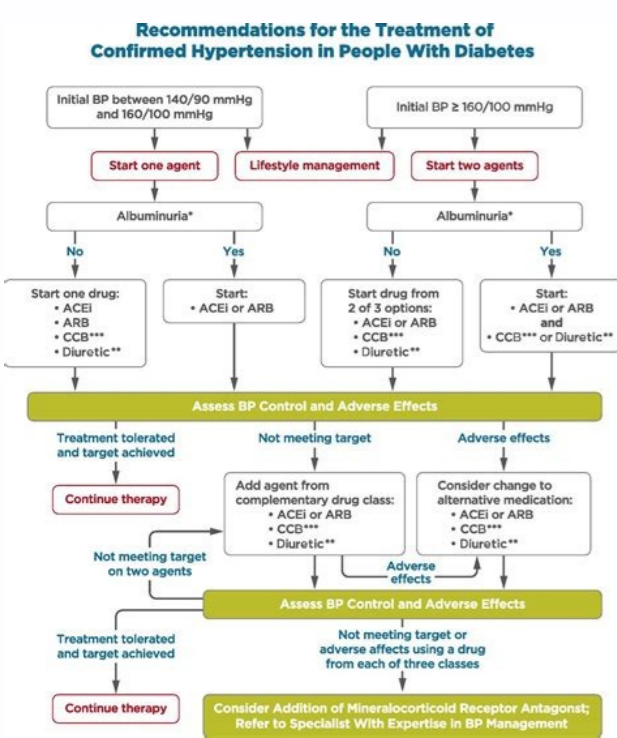


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## DIABETES AND PREGNANCY

### WHAT IS GESTATIONAL DIABETES (GDM)?

Gestational diabetes is the onset of elevated blood sugar levels during pregnancy and falls under the umbrella term hyperglycemia in pregnancy\*

3/4 OF PEOPLE WITH DIABETES WORLDWIDE LIVE IN LOW- AND MIDDLE-INCOME COUNTRIES.

GDM IS ON THE RISE GLOBALLY, AFFECTING 1 IN 7 BIRTHS.

SOME INDIGENOUS WOMEN ARE DISPROPORTIONATELY AFFECTED WITH AT LEAST 2X HIGHER RATES OF GDM.

**GDM IS ASSOCIATED WITH:**

- The leading causes of maternal deaths and disabilities
- Increased health complications for newborns
- Increased perinatal risk for obesity, high blood pressure, and type 2 diabetes for both the woman, the child, and future generations

Pregnant women in low-and middle-income countries are **not consistently screened for GDM**, even though those regions account for **85%** of global deliveries and **88%** of GDM cases.

**TESTING ALL PREGNANT WOMEN FOR ELEVATED BLOOD SUGAR PROVIDES A CHANCE TO:**

- Treat women right away
- Promote prevention efforts like nutrition programs and physical activity
- Improve inter-generational health

\*Hyperglycemia in pregnancy\* is the umbrella term for conditions including gestational diabetes mellitus (GDM), type 1 and type 2 diabetes in pregnancy.

## Letters

### Gestational Diabetes Screening: The International Association of the Diabetes and Pregnancy Study Groups Compared With Carpenter-Coustan Screening

#### And Changing the Diagnostic Criteria for Gestational Diabetes Mellitus?

We would like to reflect on two publications,<sup>1,2</sup> which we read with great interest. The O'Sullivan<sup>3</sup> work aimed to detect patients who would develop diabetes later in life. The goal of The International Association of the Diabetes and Pregnancy Study Groups (IADPSG) guidelines is to focus on perinatal outcomes. Since these guidelines are only 5 years old, long-term follow-up is awaiting. None of the screening criteria have randomized controlled proven effect on short-term outcomes. To prove superiority of the IADPSG criteria for prevention of negative obstetric and long-term maternal and offspring outcomes, a group of patients not diagnosed with gestational diabetes by the Carpenter-Coustan criteria but diabetic according to the IADPSG criteria should be randomized into treated and nontreated groups. Feldman et al<sup>4</sup> compares groups (Carpenter-Coustan criteria compared with IADPSG criteria) that were both

treated, so lack of significant difference in outcomes is not surprising. Ehrbridge et al<sup>5</sup> considered patients who were diabetic according to IADPSG criteria but not Carpenter-Coustan criteria and found more macrosomia in that particular group. Treating these patients might prevent macrosomia and related adverse events. Cheng et al<sup>6</sup> compared the Carpenter-Coustan criteria with the standard screening criteria at that time. They found more macrosomia with standard-screening criteria, as well as more shoulder dystocia and instrumental deliveries. The Carpenter-Coustan criteria were universally accepted, so why not the IADPSG criteria? If we can prevent negative obstetric outcomes and long-term complications due to unrecognized diabetes in patients and even offspring, why not adapt the IADPSG criteria? Even if they are not immediately cost-effective, they might be in the long-term. The aforementioned research proposal would be the ultimate test, but it would take years for results to come out. With increasing rates of obesity, would receiving information on healthy lifestyle and dietary advice be that bad?

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the national diabetes data group thresholds for gestational diabetes mellitus. *Obstet Gynecol* 2009;114:326-32.

**In Reply:**  
 We thank Dr. Dehaene and Dr. Roelens for their interest in our article.<sup>1</sup> As providers of health care, we are charged with the task of improving the health and well-being of our patients while avoiding harming them. To that aim, our study set out to evaluate whether adopting The International Association of the Diabetes and Pregnancy Study Groups (IADPSG) recommended 2-hour glucose tolerance test rather than the Carpenter-Coustan criteria would improve maternal and neonatal outcomes. In clarification, we did not treat all patients. In the before group, only the patients who met the Carpenter-Coustan criteria were treated for gestational diabetes. In the after group, only the patients who met the IADPSG criteria were treated. Because we controlled for any differences between the before and after groups, the comparison was as valid as possible without doing a randomized controlled study.

A number of studies have shown that treating patients who have elevated 1-hour glucose challenge test results and normal 3-hour oral glucose tolerance test results improves outcomes.<sup>2-4</sup> The cited study by Ehrbridge et al<sup>5</sup> can be included in this body of work. Their study compared the traditional two-step screening method with two different cutoff points and found that using the IADPSG recommended cutoff values resulted in a minimal decrease in birth weight but no change in frequency of shoulder dystocia, cesarean delivery, preeclampsia, neonatal intensive care unit admission, or 3rd or 4th degree lacerations. None of their patients did the IADPSG-recommended 2-hour, 75-mg glucose tolerance test. Is the only benefit—having a neonate weighing approximately 130 g less—worth the stress, anxiety, and significant hassle of following a rigid diet and checking fingersticks at least four times per day? Indeed obesity rates are increasing. Providing patients with instruction on a healthy diet and a healthy lifestyle



