Personalized letter improves pregnancy weight for women with gestational diabetes

April 18 2018

Women with gestational diabetes who received a tailored letter with personalized weight-gain recommendations were significantly more likely to meet national weight-gain guidelines, according to a new Kaiser Permanente study published today in *Diabetes Care*, a journal of the American Diabetes Association.

Gestational diabetes, the most common pregnancy complication, puts women at high risk for developing type 2 diabetes later in life; this risk is heightened for women who gain too much weight during pregnancy.

The study, "A Tailored Letter Based on Electronic Health Record Data Improves Gestational Weight Gain Among Women with Gestational Diabetes: The Gestational Diabetes' Effects on Moms (GEM) Cluster-Randomized Controlled Trial," involved more than 2,000 pregnant women receiving care at Kaiser Permanente facilities in Northern California. Researchers aimed to identify health-system-based approaches to helping women with gestational diabetes manage weight during a critical stage of their lives.

"The tailored letter was a simple, scalable intervention," said co-lead author Susan D. Brown, PhD, research scientist at the Kaiser Permanente Division of Research. "This low-intensity approach—which efficiently leveraged clinical data to send personalized advice directly to patients on behalf of the health care system—could have beneficial effects at the population-level."
"We now have data that this pregnancy intervention works well in a large, integrated health care system. With the widespread availability of electronic health record systems, the intervention could be replicated in other health care settings," said co-lead author Monique M. Hedderson, PhD, research scientist at the Division of Research.

In the study, pregnant women with gestational diabetes across 44 Kaiser Permanente medical facilities were randomized at the facility level into usual care or a multi-component lifestyle intervention. The intervention was delivered during pregnancy, with the tailored letter; and after pregnancy, with 13 telephone sessions led by a lifestyle coach.

The letters were automatically generated based on information in the patient's electronic health record and mailed on behalf of Kaiser Permanente's Perinatal Service Center. Letters were tailored based on the woman's pre-pregnancy weight and her trajectory of weight gain up until her diagnosis with gestational diabetes. They included personalized pregnancy weight targets based on the national Institute of Medicine guidelines, as well as tips for healthy eating and activity during pregnancy.

Women who received the tailored letter were significantly more likely to meet the national weight-gain guidelines (72.6 percent) than women receiving usual care (67.1 percent). Women who received the letter were also less likely to have a large-for-gestational-age baby (9.7 percent vs. 12.8 percent). In addition, the improvement in gestational weight gain contributed to women being more likely to lose weight in the year after delivery.

"Our study provides strong evidence that managing weight during pregnancy can have lasting benefits for mom's weight after the baby is born," said senior author Assiamira Ferrara, MD, PhD, associate director of women's and children's health at the Division of Research.
"Most women gain more weight than recommended in pregnancy. Clinicians want counseling tips and actions that can help their patients meet the weight-gain guidelines—especially high-risk patients, such as those with gestational diabetes," said Tracy Flanagan, MD, director of women's health for The Permanente Medical Group of Kaiser Permanente Northern California. "Effective communication, with reminders, tips and coaching, supports patients in achieving that goal."

Provided by Kaiser Permanente


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