



Gestational diabetes mellitus screening and diagnosis criteria before and during the COVID-19 pandemic: a retrospective pre–post study

IN REPLY: We thank Glasziou and Doust¹ for their interest in our evaluation of gestational diabetes mellitus (GDM) screening in Queensland during the COVID-19 pandemic,² which suggested that a fasting venous plasma glucose (FVPG) assessment may be a reasonable first step for GDM screening.

Women with an FVPG value < 4.7 mmol/L do not appear to have an increased risk of pregnancy complications even if they are classified as having GDM based on a full oral glucose tolerance test (OGTT).³ We note that Glasziou and Doust likely meant to describe doubling the within-subject measurement variation, not the coefficient of variation. The issue raised about discrepant results including false positives, and indeed false negatives, applies to virtually every single test in medicine where a patient's result is assessed against a study population to determine whether treatment is warranted (eg, low density lipoprotein cholesterol, glycated haemoglobin, etc). There is always normal biological variation

from day to day as well as laboratory imprecision. Any test that is repeated is likely to give a different result. All test results should be interpreted in the clinical context. The way in which one responds to a repeat FVPG assessment on an OGTT of 5.1 mmol/L after the screening FVPG level was 4.8 mmol/L at 28 weeks' gestation should be entirely different for a young woman in her first pregnancy, with no risk factors for diabetes, compared with a woman in her late 30s, with several risk factors for diabetes and a previous large-for-dates baby. Repeating the test several times to assess whether the mean FVPG value is less than or exceeds 5.1 mmol/L is unnecessary.

As Australia looks to revise the guidelines for the screening and diagnosis of GDM, consideration should be given to the clinical context and personal risk factors present along with borderline test results. This approach acknowledges the variability and imprecision of screening approaches and ensures health care resources that address the burden of treatment are directed to those who will benefit from care.

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Open access: Open access publishing facilitated by The University of Queensland, as part of the Wiley - The University of Queensland agreement via the Council of Australian University Librarians. ■

doi: [10.5694/mja2.52253](https://doi.org/10.5694/mja2.52253)

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- 1 Glasziou PP, Doust JA. Gestational diabetes mellitus screening and diagnosis criteria before and during the COVID-19 pandemic: a retrospective pre–post study [letter]. *Med J Aust* 2023; 220: 187.
- 2 Meloncelli NJ, Barnett AG, Cameron CM, et al. Gestational diabetes mellitus screening and diagnosis criteria before and during the COVID-19 pandemic: a retrospective pre–post study. *Med J Aust* 2023; 219: 467–474. <https://www.mja.com.au/journal/2023/219/10/gestational-diabetes-mellitus-screening-and-diagnosis-criteria-and-during-covid>
- 3 McIntyre HD, Gibbons KS, Ma RCW, et al. Testing for gestational diabetes during the COVID-19 pandemic. An evaluation of proposed protocols for the United Kingdom, Canada and Australia. *Diabetes Res Clin Pract* 2020; 167: 108353. ■