

RESPONSE TO COMMENT ON MCINTYRE AND MOSES

## The Diagnosis and Management of Gestational Diabetes Mellitus in the Context of the COVID-19 Pandemic. Diabetes Care 2020;43:1433–1434

Diabetes Care 2020;43:e193 | https://doi.org/10.2337/dci20-0043

H. David McIntyre<sup>1</sup> and Robert G. Moses<sup>2</sup>

We thank Issa et al. (1) for their interest in our commentary (2) and for their data regarding the potential consequences of applying the Royal College of Obstetricians and Gynaecologists (RCOG) modified guidelines for gestational diabetes mellitus (GDM) diagnosis during the coronavirus 2019 (COVID-19) pandemic (3). They note that in their clinical environment the RCOG modifications would miss over half of the women previously diagnosed with GDM under U.K. guidelines and question whether their implementation is appropriate. We consider that there is no absolutely correct answer to this question. As we noted, the various proposed guidelines are all entirely empirical, based on the perceived additional risk of COVID-19 exposure during an oral glucose tolerance test (OGTT) visit versus the consequences, as outlined by Issa et al., of "missing" GDM diagnoses and the opportunity to influence pregnancy and later outcomes. Van Gemert et al. (4) have applied the alternative Australian modified guidelines (5) and reported that 29% of GDM diagnoses would be missed in their local cohort with this approach, which abolishes OGTT testing if an initial fasting venous plasma glucose (FVPG)

is ≤4.6 mmol/L. These differing results are not unexpected and likely relate to the differences in both current and modified GDM testing protocols. In the U.K., the FVPG threshold for GDM is set at ≥5.6 mmol/L (high by international comparisons), with a 2-h OGTT threshold of ≥7.8 mmol/L (low by international comparisons), so testing using FVPG alone or in combination with HbA<sub>1c</sub> would be predicted to miss many cases. The reverse is true in Australia, which follows the International Association of the Diabetes and Pregnancy Study Groups diagnostic thresholds (fasting  $\geq 5.1$ ; 1 h  $\geq 10.0$ ; 2 h ≥8.5 mmol/L). Further, ethnicity strongly influences the relative contribution of fasting versus postload glucose results to GDM frequency, and this will vary between centers. As noted in our commentary, we believe that it is important that appropriate data be prospectively collected to document the outcomes associated with suggested modifications of GDM diagnostic pathways and criteria during the COVID-19 pandemic.

**Duality of Interest**. No potential conflicts of interest relevant to this article were reported.

## References

- 1. Issa BG, Becker L, Cheer K, Kelly A-M. Comment on McIntyre and Moses. The diagnosis and management of gestational diabetes mellitus in the context of the COVID-19 pandemic. Diabetes Care 2020;43:1433–1434 (Letter). Diabetes Care 2020;43:e192. DOI: 10.2337/dc20-1652
- 2. McIntyre HD, Moses RG. The diagnosis and management of gestational diabetes mellitus in the context of the COVID-19 pandemic. Diabetes Care 2020;43:1433–1434
- 3. Royal College of Obstetricians & Gynaecologists. Guidance for maternal medicine services in the evolving coronavirus (COVID-19) pandemic. Version 1.1. Accessed 5 April 2020. Available from https://www.rcog.org.uk/globalassets/documents/guidelines/2020-04-03-guidance-for-maternal-medicine.pdf
- 4. van Gemert TE, Moses RG, Pape AV, Morris GJ. Gestational diabetes mellitus testing in the COVID-19 pandemic: the problems with simplifying the diagnostic process. Aust N Z J Obstet Gynaecol. 13 July 2020 [Epub ahead of print]. DOI: 10.1111/ajo.13203
- 5. Australasian Diabetes in Pregnancy Society, Australian Diabetes Society, Australian Diabetes Educators Association, Diabetes Australia. Diagnostic testing for gestational diabetes mellitus (GDM) during the COVID 19 pandemic: antenatal and postnatal testing advice. Accessed 5 April 2020. Available from https://www.adips.org/documents/COVID-19GDMDiagnosis030420ADIPSADSADEADA forWebsite.pdf

<sup>&</sup>lt;sup>1</sup>Mater Research, The University of Queensland, Brisbane, Queensland, Australia

<sup>&</sup>lt;sup>2</sup>Wollongong Hospital, Illawarra and Shoalhaven Local Health District, Wollongong, New South Wales, Australia