



RESPONSE TO COMMENT ON EVRON ET AL.

Changes in Screening Practices for Prediabetes and Diabetes Since the Recommendation for Hemoglobin A_{1c} Testing. Diabetes Care 2019;42:576–584

Diabetes Care 2019;42:e103 | <https://doi.org/10.2337/dci19-0016>

Joshua M. Evron,¹
William H. Herman,^{1,2} and
Laura N. McEwen¹

Stankevich et al. (1) demonstrate that between 69% and 89% of first HbA_{1c} analyses performed in the southwest region of France are performed as screening tests: only 11% to 31% are performed to monitor patients with known diabetes. Of the screening tests performed, 4.1% were diagnostic of diabetes (HbA_{1c} \geq 6.5%) and 21.3% were diagnostic of prediabetes (HbA_{1c} 5.7–6.4%) (1). The prevalence of treated diabetes in the Aquitaine region has been reported to be 3.9% (2), and the prevalences of diagnosed and undiagnosed diabetes have been reported to be 4.6% and 2.7%, respectively, in French adults 20–79 years of age (3). Their findings (1), like ours (4), suggest that HbA_{1c} testing is being used to target individuals at high risk for prediabetes and previously undiagnosed diabetes.

The data from our study further suggest that HbA_{1c} testing is more likely to be performed in overweight or obese individuals with hypertension

and dyslipidemia and in those with glucose test results that suggest a diagnosis of intermediate hyperglycemia. Impaired fasting glucose (100–126 mg/dL) has been reported to be sensitive (76%) but not specific (59%), and HbA_{1c} of 5.7–6.4% has been reported to be less sensitive (36%) but more specific (81%), for identifying individuals at risk for progression to diabetes (5). Initial screening with fasting glucose will identify as many as 44% with prediabetes but will result in many false positive results, whereas initial screening with HbA_{1c} will identify only 21% with prediabetes and will result in many false negative results (5). Initial screening with fasting or even random glucose levels and subsequent confirmation of the diagnosis of prediabetes based on HbA_{1c} testing should be further explored as a pragmatic and potentially cost-effective approach to diagnosing prediabetes and diabetes in clinical practice.

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

References

1. Stankevich L, Galhaud J-P, Kuvshinov R, et al. Comment on Evron et al. Changes in screening practices for prediabetes and diabetes since the recommendation for hemoglobin A_{1c} testing. Diabetes Care 2019;42:576–584 (Letter). Diabetes Care 2019;42:e102
2. Ricci P, Blotière PO, Weill A, et al. Diabète traité: quelles évolutions entre 2000 et 2009 en France? Bull Epidemiol Hebd 2010;42-43:425–432
3. International Diabetes Federation. IDF Diabetes Atlas, 8th edition, 2017. Available from <http://www.diabetesatlas.org/>. Accessed 15 March 2019
4. Evron JM, Herman WH, McEwen LN. Changes in screening practices for prediabetes and diabetes since the recommendation for hemoglobin A_{1c} testing. Diabetes Care 2019;42:576–584
5. Schmidt MI, Bracco PA, Yudkin JS, et al. Intermediate hyperglycaemia to predict progression to type 2 diabetes (ELSA-Brasil): an occupational cohort study in Brazil. Lancet Diabetes Endocrinol 2019;7:267–277

¹Department of Internal Medicine, University of Michigan, Ann Arbor, MI

²Department of Epidemiology, University of Michigan, Ann Arbor, MI

Corresponding author: Laura N. McEwen, lmattai@umich.edu

© 2019 by the American Diabetes Association. Readers may use this article as long as the work is properly cited, the use is educational and not for profit, and the work is not altered. More information is available at <http://www.diabetesjournals.org/content/license>.