



RESPONSE TO COMMENT ON HOFER ET AL.

International Comparison of Smoking and Metabolic Control in Patients With Type 1 Diabetes. *Diabetes Care* 2016;39:e177–e178

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We thank the editors for the opportunity to respond to the comment made by Balkau et al. (1) on our recent article (2).

Balkau et al. (1) were interested in detailed information about HbA_{1c} in the overall group stratified by registry. As stated in the text, HbA_{1c} was similar between the two registries. In the T1D Exchange Registry (T1DX), HbA_{1c} was 8.6% (SE 0.06) in current smokers, 8.0% (0.05) in former smokers, and 7.9% (0.05) in never-smokers ($P < 0.001$). In the Prospective Diabetes Follow-up Registry (DPV), HbA_{1c} was 8.5% (0.07) in current smokers, 8.2% (0.08) in former smokers, and 7.8% (0.06) in never-smokers ($P < 0.001$). The findings by Soulimane et al. (3) in a population without diabetes are of interest to the field as we try to better understand the best markers of glycemia. However, HbA_{1c} is currently the best standardized and internationally comparable measurement of metabolic control in patients with diabetes. Our data describe significant

differences in mean HbA_{1c} between current smokers and never-smokers (8.5% and 7.9%, respectively, or a difference of 0.6%) in patients with type 1 diabetes versus a 0.1% difference in subjects who were not treated with glucose-lowering agents, as reported in the meta-analysis by Soulimane et al. (3). Further studies are required to investigate mechanistic explanations of whether this difference is due to nicotine, red blood cell turnover, or other physiological factors or to smoking-associated behavioral influences on metabolic control. The observation of significantly higher HbA_{1c} levels in smokers is itself of concern. Data from a T1DX study investigating whether a racial difference exists in the relationship between continuous glucose monitoring glucose over 3 months and HbA_{1c} were presented at the 2016 American Diabetes Association Scientific Sessions (4).

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