COMMENTS AND RESPONSES

An Evaluation of Methods of Assessing Impaired Awareness of Hypoglycemia in Type 1 Diabetes

Response to Geddes et al.

The report by Geddes et al. (1) deals with an important—and controversial—clinical issue: classification of hypoglycemia awareness.

Three methods were compared: the Edinburgh method (2), the Clarke method (3), and our method (4). Geddes et al. (1) conclude that our method is too simplified and overestimates the prevalence of impaired awareness and recommend the use of the Edinburgh and/or the Clarke methods.

However, the authors use a preliminary dichotomous version of our method in their analysis instead of the correct current version, which is based on the answers to the question, "Do you have symptoms when you have a hypo?" The answer "always" implies normal awareness, "usually" impaired awareness, and "occasionally" or "never" severely impaired awareness (unawareness). This classification with three categories was developed to encompass a wider spectrum of disturbed awareness, and its validity was confirmed in a large prospective study (5). The classification consistently identifies 40–45% of subjects with type 1 diabetes with normal awareness and a negligible risk of severe hypoglycemia, another 40–50% with impaired awareness and a clinically relevant 5- to 6-fold increased rate of severe hypoglycemia compared with those with normal awareness, and 10–15% with unawareness and a 10- to 20-fold increased rate of severe hypoglycemia. Subjects with impaired awareness or unawareness according to our classification consistently have longer duration of diabetes, have lower self-reported blood glucose threshold for perception of warning symptoms, and rely on neuroglycopenic symptoms (5,6).

Geddes et al. justify their approach by reference to one single study (4), ignoring our methodological study (5)—which is familiar to them—and other studies describing and using the current method (6). They thereby create confusion about our classification, which *1*) offers a more nuanced classification of awareness and *2*) identifies a proportion of high-risk patients that is comparable with or slightly smaller than that identified by the other methods.

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DOI: 10.2337/dc07-1181

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