Drivers of and barriers to optimal basal insulin (BI) titration: results of a quantitative survey

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INTRODUCTION

Basal insulin (BI) therapy is an integral component of the management strategy for patients with type 2 diabetes (T2DM) uncontrolled on oral therapies, and its implementation and therapy intensification are required to ensure optimal treatment outcomes.1–4 However, a recent study has demonstrated that such a significant delay in treatment intensification in people with T2DM with poor glycaemic control and/or diabetes education was conducted from both a patient and physician perspective, including fear of hypoglycaemia and fear of weight gain.1,6

As poor glycaemic control is strongly associated with long-term diabetes-related complications,5 it is important to understand the barriers to and facilitators of insulin intensification in patients with T2DM.

OBJECTIVE

A survey of people with T2DM and healthcare professionals (HCPs) for BI initiation and titration, and/or diabetes education was conducted in the USA, France, and Germany. The aim was to evaluate the drivers of and barriers to optimal BI titration from an HCP and patient perspective, with a view to better understand decisions regarding BI titration and better define the potential links to poor glycaemic control.

METHODS

Survey Design: Online survey of HCPs and patients with T2DM.

Participants: Participants were recruited by email from existing databases of patients with T2DM, who use insulin do not achieve the recommended HbA1c target (HbA1c <7.0 %), and dose titration and treatment initiation are recommended by these guidelines (Table 2). When HCPs were asked if they had reached their HbA1c target (possible answers: yes, no [based on patient recall]), 41–56% of patients answered no; similarly, when asked if they had reached their pre-breakfast SMPG target, 30–41% answered no (based on patient recall).

- Patient dose: The mean start and current dose in current HCP patients enrolled in the survey are reported in Figure 1.

- Of the current HCPs who reported not reaching their HbA1c target (93%), 85 (37%) had a BI dose increase of >10 U since BI initiation.

- Potential barriers to attainment of HbA1c targets: HCPs perceived the main barriers to target attainment in self-titrating patients to be fear of hypoglycaemia (26%), patient’s hesitancy to increase the dose in the absence of symptoms (66%), and low patient motivation/intention (63%) (Figure 3A).

Current HCPs highlighted a number of reasons that, in their opinion, contributed to not reaching their HbA1c target, including concerns over weight gain (52%), perception that dose increase meant worse of disease (38%), and fear of hypoglycaemia (6%) (Figure 3B).

Frustration over time to reach goal was a common factor identified by patients that contributed to not reaching their HbA1c target (43%). However, the majority of HCPs (88%) preferred that patients reached their goal safely, even if it was a slower process.

Conclusions

In this online survey of HCPs and patients with T2DM on BI:

- HCPs largely preferred a slow approach to titration to ensure patients reached their goals safely, as evidenced by certain HCPs preferring higher starting SMG targets than recommended by guidelines.

- A substantial percentage of patients had not reached their HbA1c target, however the majority of these patients had a dose increase of >10 U since BI initiation.

- Just over half of self-titrating patients expressed a preference for self-titration, whereas only a minority of patients on HCP-managed titration indicated that they would prefer to self-titrate.

- Less than half of HCPs expressed a preference towards self-titration, but only 38% of the current HCPs preferred patients to self-titrate.

- In France, a higher percentage of patients were self-titrating, and a higher percentage of HCPs preferred patients to self-titrate, compared with Germany and the USA. This could partly be driven by the high proportion of endocrinologists/diabetologists within the HCP category in France.

- There was a disconnect between patient-perceived barriers (most commonly concern about weight gain and frustration about time to reach goal) and HCP preferences for titration (Figure 3B).

- HCPs generally preferred a gradual and safe approach to titration, even if it takes longer for patients to achieve their glycaemic target. However, patients not at target were frustrated about the time taken to reach target and were less concerned about hypoglycaemia.

- Just over half of self-titrating patients expressed a preference towards self-titration, but only 38% of HCPs were confident that they would prefer patients to self-titrate.

- Encouraging patients to self-titrate, providing education on self-titration process, and providing support to increase patient confidence (particularly for patients on HCP-managed titration who would prefer to self-titrate) may help in optimizing the process of dose titration and intensification, from both the HCP and patient perspective.

REFERENCE