

Health Economic Impact of Hypoglycemia Among 7,289 Insulin-Treated Patients With Diabetes: Results From an International Survey in 9 Countries

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Background and aims:

Hypoglycemia is a key consideration in the individualization of treatment in patients with diabetes.

Materials and methods:

The International Operations (IO) Hypoglycemia Assessment Tool (HAT) study is a non-interventional, real-world, observational study of self-reported (using self-assessment questionnaires) hypoglycemic events in Bangladesh, Colombia, Egypt, Indonesia, the Philippines, Singapore, South Africa, Turkey and the UAE among 7,289 patients with insulin-treated type 1 (T1D) and type 2 diabetes (T2D).

Results:

Rates of any hypoglycemia (per patient, per month) were 4.8 and 6.9 in patients with T1D and 1.6 and 2.4 in those with T2D during the retro- and prospective periods, respectively. For both patients with T1D or T2D, reporting of any and severe hypoglycemic events were significantly higher ($p < 0.001$) in the prospective period, whereas that of nocturnal hypoglycemic events was significantly higher ($p < 0.001$) in the retrospective period. The most common direct impact of hypoglycemia was increased blood glucose monitoring which occurred in 43.8% (T1D) and 20.0% (T2D) of patients in the 4-week prospective period. Other impacts included telephone contacts with a health care team member (6.4 and 5.9%, respectively), additional clinic appointments (5.8 and 4.3%) and post-hypoglycemic event hospital admissions (3.0 and 1.7%) in patients with T1D and T2D, respectively.

Indirect impacts of hypoglycemia included reduced work/study punctuality (arriving late or leaving early) in patients with T1D (11.5 and 9.4%) and T2D (3.5 and 3.7%).

Conclusion:

Hypoglycemia is a major concern in diabetes treatment and is not just a barrier to reaching appropriate glycemic targets, but also increases HE costs.