Self-Reported Hypoglycaemia in Insulin-Treated Patients with Diabetes: Results from an International Survey of 7289 Patients from 9 Countries

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Background and aims:

The non-interventional International Operations Hypoglycaemia Assessment Tool (IO HAT) study assessed the incidence of hypoglycaemia in patients with insulin-treated diabetes in Bangladesh, Colombia, Egypt, Indonesia, the Philippines, Singapore, South Africa, Turkey and the UAE.

Materials and methods:

The incidence of hypoglycaemia was reported in self-assessment questionnaires completed at baseline and after the 28-day prospective period, and in patient diaries.

Results:

Of 7289 patients (type 1 diabetes [T1D] n=1016, type 2 diabetes [T2D] n=6273), approximately 90% completed their diaries in the prospective period (28 days from baseline). At least 1 case of confirmed hypoglycaemia (capillary glucose <3.1 mmol/l) was recorded in patient diaries by 48.0% of patients with T1D and 12.6% of those with T2D.

Based on patient recall, severe hypoglycaemia was reported for the prior 6 months, and any hypoglycaemia the 4 weeks before baseline (Fig.1). Any hypoglycaemia was retrospectively reported by patients (TID 72.7%, T2D 48.1%). Nearly all patients reported events during the prospective period (T1D 97.4%, T2D 95.3%). Rates of 'any' and 'severe' hypoglycaemia were higher in the prospective period (p<0.001) compared to those in the retrospective period for T1D and T2D. In contrast, lower rates of nocturnal hypoglycaemia were reported prospectively vs. retrospectively (p<0.001). Conclusion:

These results are the first patient-reported dataset on hypoglycaemia in the participating countries and indicate that hypoglycaemia is under-reported and thus underestimated.