OBJECTIVES: Achieving optimal blood glucose control while avoiding hypoglycaemia forms the foundation of diabetes management. The objective of this study was to undertake a systematic review and meta-analysis to estimate the impact of HbA1c reduction and quality-adjusted life expectancy (QALE) scenario analysis (SA) comparing rates of NSHE ranging from 25 to 250 events per 100 patient years with no HbA1c effect (i) and comparing increasing difference in HbA1c change with no effect on NSHE (ii) were conducted. The model was run over a lifetime and benefits were discounted at 3.0%. Sensitivity analysis was conducted on the disutility of symptomatic hypoglycaemia episodes T2DM patients HRQoL particularly when episodes of hypoglycaemia had a greater significant impact of diabetes on QoL].

RESULTS: Fear of hypoglycaemia negatively influences T2DM patients HRQoL particularly when episodes of hypoglycaemia had been taken place during the previous six months.

OBJECTIVES: The QALE gain associated with avoiding 1 NSHE per patient was 0.06, incremental QALE per event avoided changed in sensitivity analyses to 0.035, 0.124 and 0.212 quality adjusted life years for assumed disutilities of -0.0029, -0.0107 and -0.0184, respectively. The impact of HbA1c reduction on QALE ranged from 0.0112 to 0.0117 for changes between 0.1% and 1.0% points respectively. The HbA1c reduction required to achieve equivalent QALE benefit as achieved by avoiding events of NSHE are common amongst insulin-treated diabetes patients in ‘real-world’ settings. This study investigated rates of self-reported non-severe hypoglycaemic events (NSHE) and reporting of hypoglycaemia to general practitioners (GPs) or specialists. METHODS: Patients with type 1 (T1) and type 2 (T2) diabetes, aged 18 years or older, with at least one hypoglycaemia event in the previous seven days who were recruited, mainly via online panels, to complete four questionnaires at seven-day intervals. Results: A total of 11,790 patient-week records were collected from 3958 patients (57% completed all four questionnaires). Mean insulin treatment duration was 19.5, 9 and 7 years for T1, T2BTB and T2B, respectively. Mean HbA1c was 7.7% (T1) and 7.6% (T2). Mean self-reported NSHE/patient-week was 1.7 in T1 (Austria: 1.6, Denmark: 1.9, Finland: 1.3, Norway: 1.8, the Netherlands: 2.0, Sweden: 2.0, Switzerland: 1.4), 0.4 in T2BTB (Austria: 0.3, Denmark: 0.4, Finland: 0.2, Norway: 0.4, the Netherlands: 0.5, Sweden: 0.4, Switzerland: 0.4) and 0.7 in T2B (Austria: 0.5, Denmark: 0.7, Finland: 0.5, Norway: 1.0, the Netherlands: 0.7, Sweden: 0.9, Switzerland: 0.6). Night-time NSHE was 22% (T1), 25% (T2BTB) and 17% (T2B) of NSHES. Overall 60% of patients stated that they rarely or never reported NSHES to their GP/specialist. Similarly, 22% (overall) were not routinely asked by their GP/specialist. Similarly, 22% (overall) were not routinely asked by their GP/specialist.

CONCLUSIONS: The QALE gain associated with avoiding events of NSHE are common amongst insulin-treated diabetes patients in ‘real-world’ settings. This study investigated rates of self-reported non-severe hypoglycaemic events (NSHE) and reporting of hypoglycaemia to general practitioners (GPs) or specialists. METHODS: Patients with type 1 (T1) and type 2 (T2) diabetes, aged 18 years or older, with at least one hypoglycaemia event in the previous seven days who were recruited, mainly via online panels, to complete four questionnaires at seven-day intervals. Results: A total of 11,790 patient-week records were collected from 3958 patients (57% completed all four questionnaires). Mean insulin treatment duration was 19.5, 9 and 7 years for T1, T2BTB and T2B, respectively. Mean HbA1c was 7.7% (T1) and 7.6% (T2). Mean self-reported NSHE/patient-week was 1.7 in T1 (Austria: 1.6, Denmark: 1.9, Finland: 1.3, Norway: 1.8, the Netherlands: 2.0, Sweden: 2.0, Switzerland: 1.4), 0.4 in T2BTB (Austria: 0.3, Denmark: 0.4, Finland: 0.2, Norway: 0.4, the Netherlands: 0.5, Sweden: 0.4, Switzerland: 0.4) and 0.7 in T2B (Austria: 0.5, Denmark: 0.7, Finland: 0.5, Norway: 1.0, the Netherlands: 0.7, Sweden: 0.9, Switzerland: 0.6). Night-time NSHE was 22% (T1), 25% (T2BTB) and 17% (T2B) of NSHES. Overall 60% of patients stated that they rarely or never reported NSHES to their GP/specialist. Similarly, 22% (overall) were not routinely asked by their GP/specialist. Similarly, 22% (overall) were not routinely asked by their GP/specialist. The real burden of hypoglycaemia may therefore be underestimated.