SAFETY AND EFFECTIVENESS OF SWITCHING TO ONCE-DAILY INSULIN DETEMIR IN PATIENTS WITH TYPE 2 DIABETES INADEQUATELY CONTROLLED WITH ONCE- OR TWICE-DAILY INSULIN GLARGINE OR NPH

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Achieve was a 24-week, observational study conducted in 28 countries that evaluated the safety and effectiveness of insulin analogues in 66,726 people with type 2 diabetes (T2D). This sub-analysis investigated outcomes associated with starting once-daily insulin detemir in patients inadequately controlled with either once-daily (OD group, n=1405) or twice-daily (BID group, n=261) insulin glargine or neutral protamine Hagedorn (NPH). After 24 weeks, change in HbA1c was –1.2±1.6 and –1.5±1.8 % (baseline: 9.0±1.7 and 9.1±1.9 %) in the OD and BID groups, respectively (p<0.001). Insulin detemir treatment was also associated with significant improvements in fasting and postprandial glucose control (p<0.001). Change in body weight was –0.5±3.6 kg (OD group) and –0.6±3.4 kg (BID group) at end of study (p<0.001). There was a significant improvement in quality of life measured by the EQ-5D questionnaire: +8.4±18.4 (OD group) and +9.4±18.2 (BID group); both p<0.001. One serious adverse drug reaction (hyperglycaemia) was reported in the OD group. No deaths were reported. At end of study, the incidences (events/patient-year) of major and nocturnal hypoglycaemia were significantly reduced to 0.01 (from 0.47 at baseline) and 0.66 (from 2.38), respectively, in the OD group, and 0.0 (from 2.84) and 0.42 (from 5.18) in the BID group (all p<0.001). After 24 weeks, 86.2 and 79.7% of patients in the OD and BID groups were still receiving OD insulin detemir (final doses: 0.40 and 0.45 U/kg/day). These findings suggest that starting OD insulin detemir in patients with T2D inadequately controlled with insulin glargine or NPH is safe and effective.