Once upon a time it was thought that in many, diabetes was diagnosed several years after its true onset, so that years of untreated hyperglycaemia exposure had already caused considerable damage in some individuals. Indeed, at the point of diagnosis in the UKPDS study, one in five participants already had retinopathy, and rates of other complications were also high (UKPDS Research Group, 1990). Thankfully, in many high-income countries the gap between actual diabetes onset and clinical diagnosis appears to have decreased. In this regard, the paper by Thomsen et al (summarised alongside) takes us a little further by demonstrating that pre-drug treatment HbA1c levels in people with incident type 2 diabetes have decreased substantially in Northern Denmark: from 74 mmol/mol (8.9%) in 2000–2003 to 53 mmol/mol (7.0%) in 2010–2012. Thomsen et al also demonstrated that more patients in 2010–2012 achieved good glycaemia levels (<6.5% [48 mmol/mol]) upon treatment within the first 3–6 months post diagnosis than in 2000–2003 (53% vs 37% respectively), and that this was due, in part, to many more receiving metformin in recent years (90% in 2011–2012 vs 32% in 2000–2003).

The results of this large population-based database fit with emerging data in other high-income countries (Hoerger et al, 2008). Collectively, such data concur with the more widespread glycaemia testing in recent years, something that the recent adoption of HbA1c as a diagnostic tool may further aid, due to its ability to be measured anytime of the day. Further indirect but powerful evidence for contemporary earlier diagnosis comes from recent Scottish data demonstrating far lower rates of retinopathy in recent years (Looker et al, 2012). This is all good news since, as we all know, unchecked hyperglycaemia rapidly begets microvascular disease and has a “slower burn” effect on macrovascular risk.

Two other advantages of earlier diagnosis also merit discussion. The first is that patients may be somewhat more receptive (“plastic”) to lifestyle changes or more responsive to treatments if the disease is picked up early and before much damage has accrued. Second, earlier diagnosis means earlier use of cardio-protective therapies, such as statins and anti-hypertensive medications, which lead to lower cardiovascular risks since, as discussed (Sattar, 2013), cholesterol and blood pressure reductions more rapidly lessen cardiovascular risk in diabetes than intensive glucose control. But the battle is not yet won, and there is much to do. Many patients, especially younger ones who tend to be more obese, have glucose levels that are difficult to control early on and much more work is needed in this rising population. We must also remember the challenges of early diabetes control and treatment that are particularly pertinent to many low- and middle-income countries where continuing westernisation is leading to explosions in diabetes rates, which is often diagnosed late in the disease progression. Solving these latter issues will not be easy, but they are of global importance and there is much work to be done.


26-week results can be sustained.

Positive results from the initial safety issues.

With no significant adverse events or that the treatments were well tolerated, the trial products. It was concluded the trial investigators to be related to individuals who achieved an HbA1c of liraglutide group.

But significantly higher than the lower that the insulin degludec group, of hypoglycaemia were significantly stable for the IDegLira group and rates the body weight change had remained other treatment groups. At 52 weeks, 53 mmol/mol (<7%) compared to the liraglutide group.

The study’s aim was to improve the assessment of heart failure (HF) risk in people with T2D. To do this a systematic review and meta-analysis were carried out, which included articles published from 1946 to 2014.

Twenty-one studies comprising 1 111 569 people in total were included, 507 637 of whom had T2D. The studies’ follow-up period ranged from 1 to 12 years.

Five factors were found to be associated with increased risk of HF among people with T2D: insulin use (hazard ratio [HR], 2.48), HbA1c 7.0–8.0% (HR 2.41), 5 years increase in age (HR, 1.47), fasting glucose (HR, 1.28) and HbA1c (HR 1.18 for each 1% increase).

The extended data of the DUAL I trial continued to participate for an additional 26 weeks.

After 52 weeks, HbA1c was reduced from baseline by 20.2 mmol/mol (1.84%) in the IDegLira group, 15.3 mmol/mol (1.40%) for the insulin degludec group and 13.2 mmol/mol (1.21%) for the liraglutide group.

The IDegLira group had the highest proportion of individuals who achieved an HbA1c of 53 mmol/mol (<7%) compared to the other treatment groups. At 52 weeks, the body weight change had remained stable for the IDegLira group and rates of hypoglycaemia were significantly lower than the insulin degludec group, but significantly higher than the liraglutide group.

The majority of adverse events were mild and did not appear to the trial investigators to be related to the trial products. It was concluded that the treatments were well tolerated, with no significant adverse events or safety issues.

The extended data of the DUAL I trial confirm that the positive results from the initial 26-week results can be sustained.