

Results: One hundred patients were enrolled in the study. HbA1c was reduced from 9.1% (SD 1) at baseline to 7.3% (SD 0.9)—a change of 1.8% ($p < 0.001$). Additionally, having pharmacists prescribe insulin 1 year earlier than a physician resulted in an incremental cost savings of \$790 (CDN\$) and a gain of 0.048 QALYs per patient. Early pharmacist prescription of insulin by 2 years resulted in an incremental cost savings of \$687 (CDN\$) and a gain of 0.075 QALYs per year. At 3 years earlier, the results were a cost savings of \$105 and a gain of 0.086 QALYs.

Conclusions: Our results showed similar improvements in glycemic control as previous physician-led studies. RxING provides further evidence for the benefit of pharmacist care in diabetes. Having pharmacists initiate insulin sooner in uncontrolled T2DM results in cost-savings and would delay the development of diabetes-related complications resulting in improved quality of life and increased survival rates.

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Real-World Clinical Effectiveness of Liraglutide in Type 2 Diabetes Patients Aged 65 Years and Above

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Clinical trials have shown that liraglutide effectively lowers A1c and helps manage weight in type 2 diabetes (T2D). Currently, no studies have solely evaluated liraglutide's clinical effectiveness in patients aged ≥ 65 years. Using the General Electric Centricity electronic medical records database, we examined the clinical effectiveness of liraglutide in patients aged ≥ 65 years with T2D after 6 and 12 months of therapy initiation (doses of liraglutide were not available). We included patients who initiated liraglutide from January 1, 2010 to January 31, 2013 without using insulin during the 12 months before initiation. Patients were excluded if they were pregnant or had polycystic ovarian syndrome without T2D at any time during the 12 months before starting liraglutide or any time after. Changes in A1c, weight and proportion of patients achieving target A1c $< 7\%$ at 6 and 12 months were examined; 517 patients who had A1c $> 7\%$ at baseline (45 days prior to therapy initiation to 7 days after) were identified. Patients were 70.6 (4.7) years old on average (SD), 52.6% were female and 71.6% were white. Average (SD) baseline A1c and weight was 8.2% (1.0) and 101.0 kg (19.7), respectively. After 6 months, A1c decreased, on average (SD), by 0.76% (1.1), weight decreased by 2.9 (5.4) kg, and A1c $< 7\%$ was achieved by 41.2% of patients. Twelve-month measures were similar: 0.78% (1.2) reduction in A1c, 3.1 (5.7) kg reduction in weight and 41.3% achieved A1c $< 7\%$. In summary, T2D patients aged ≥ 65 years had sustained reductions in A1c and weight over 6 and 12 months after initiating liraglutide.

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Better Glycemic Control and Less Weight Gain with Once Weekly Dulaglutide vs. Once Daily Insulin Glargine, Both Combined with Pre-Meal Insulin Lispro, in Type 2 Diabetes Patients (AWARD-4)

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This phase 3, open-label, 52-week (wk) study compared the once weekly GLP-1 receptor agonist dulaglutide (DU) with glargine, both combined with prandial lispro (\pm metformin), in type 2 diabetes patients (pt) uncontrolled on conventional insulin therapy. Pt ($n=884$; mean baseline [BL] characteristics: age 59.4 years; A1C 8.5%; BMI 32.5 kg/m²; insulin dose 56 U) were randomized (1:1:1) to

DU 1.5 mg, 0.75 mg, or glargine; primary objective was A1C change from BL at 26 wk tested for noninferiority (margin 0.4%) and, if met, then superiority. Glargine and lispro were titrated to target. At 26 and 52 wk, DU doses were statistically superior to glargine for A1C change. At 52 wk, weight decreased with DU 1.5 mg and increased with DU 0.75 mg and glargine; hypoglycemia rate (≤ 3.9 mmol/L and symptoms) was 31.0, 35.0 and 39.9 events/pt/y for DU 1.5 mg, DU 0.75 mg and glargine, respectively; severe hypoglycemia events (n): DU 1.5 mg (11), DU 0.75 mg (15), glargine (22). Nausea and diarrhea were more common with DU 1.5 mg (25.8%, 16.6%) and DU 0.75 mg (17.7%, 15.7%) vs. glargine (3.4%, 6.1%).

DU compared to glargine, both combined with lispro, resulted in better glycemic control, no increased hypoglycemia risk and smaller changes in weight.

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Remission Evaluation of Metabolic Interventions in Type 2 Diabetes (REMIT)—Results of a Randomized Controlled Pilot Trial

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Background: This study was conducted to determine the efficacy of short-term intensive metabolic intervention comprising lifestyle interventions, insulin glargine, metformin and acarbose in inducing normoglycemia on therapy and after glucose-lowering medications are discontinued.

Methods: Eighty-three patients with type 2 diabetes diagnosed within 3 years prior to enrolment and treated with diet or 1–2 oral glucose-lowering medications were randomized to (i) an 8-week intensive metabolic intervention, (ii) a 16-week intensive metabolic intervention or (iii) standard diabetes therapy, and followed for 28 weeks. After the short-term intensive treatment, the glucose-lowering medications in the intervention groups were discontinued and participants followed for hyperglycemia relapse.

Results: The mean (standard deviation) capillary glucose levels during intensive therapy were 5.2 (0.5) mmol/L fasting and 6.2 (0.8) mmol/L 2 hours pc meals at 8 weeks, and 4.9 (0.5) mmol/L fasting and 6.0 (0.7) mmol/L 2 hours pc meals at 16 weeks. Among the 80 participants from all treatment groups who reached 21 weeks of follow up, 35% met diabetes remission cut-points of fasting plasma glucose < 7.0 mmol/L and 2-hour plasma glucose < 11.1 mmol/L off therapy on at least 1 oral glucose tolerance test conducted at 12 or 20 weeks (4–12 weeks after discontinuation of glucose-lowering therapy in the intervention groups). The results analyzed by treatment group after trial completion will be presented.

Conclusions: This study demonstrates that intensive metabolic interventions comprising lifestyle and medical approaches can be successfully implemented and have the potential to induce diabetes remission not requiring glucose-lowering therapies.

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Adjunctive Lixisenatide Treatment Improves Glycemic Control in Patients with Type 2 Diabetes Mellitus Irrespective of β -cell Function

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Background: Lixisenatide (LIXI, GLP-1 receptor agonist) improves glycemic control in type 2 diabetes mellitus (T2DM) patients.