

Weekly Exenatide Equals Daily Glargine Insulin for Glycemic Control

And patients also lose weight with exenatide.

Exenatide (Byetta), an injectable glucagon-like peptide-1 (GLP-1) receptor agonist, is useful in managing patients with type 2 diabetes, because it stimulates glucose-dependent insulin secretion, reduces glucagon secretion, slows gastric emptying, and attenuates food intake. A once-weekly injectable form of exenatide is more effective than the currently FDA-approved twice-daily exenatide formulation for lowering glycosylated hemoglobin (HbA_{1c}) levels and for weight loss ([JW Gen Med Oct 16 2008](#)), but the long-acting formulation has not been compared previously with long-acting insulin.

International investigators enrolled 456 patients with HbA_{1c} levels between 7.1% and 11.0% after metformin therapy (either alone or with a sulfonylurea) for at least 3 months; participants were randomized to subcutaneous fixed-dose exenatide (2 mg once weekly) or glargine insulin (once daily; titrated to a fasting plasma glucose level of 72–99 mg/dL), in addition to their baseline oral medications.

After 26 weeks, mean HbA_{1c} levels were 6.8% and 7.0% in the exenatide and insulin groups, respectively ($P=0.06$). On average, patients who received exenatide lost weight, whereas those who received insulin gained weight (–2.6 kg vs. +1.4 kg after 26 weeks). Nausea and diarrhea were more common in the exenatide group than in the insulin group, but hypoglycemia was more common in insulin patients.

Comment: Weekly fixed-dose exenatide is an attractive (although as yet unapproved in the U.S.) alternative to glargine insulin for patients whose diabetes remains uncontrolled with oral agents alone. This important trial will continue for another 2 years to allow collection of data on exenatide's longer-term safety and efficacy.

— [Bruce Soloway, MD](#)

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Diamant M et al. Once weekly exenatide compared with insulin glargine titrated to target in patients with type 2 diabetes (DURATION-3): An open-label randomised trial. *Lancet* 2010 Jun 26; 375:2234. ([http://dx.doi.org/10.1016/S0140-6736\(10\)60406-0](http://dx.doi.org/10.1016/S0140-6736(10)60406-0))