Long-Acting Insulin Analogues' Benefit Questioned

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The long-acting insulin analogues glargine and detemir offer only minor, if any, clinical benefit, according to Dr. K. Horvath and associates in the Cochrane Library's collaborative review group on metabolic and endocrine disorders.

Given this negligible benefit and the current lack of long-term safety and efficacy data, "we suggest a cautious approach to treatment with [glargine or detemir]," they said in an online issue of the Cochrane Database of Systematic Reviews.

The researchers conducted a meta-analysis of eight studies that compared the new, long-acting analogues with NPH insulin, which they termed the current standard of treatment. The studies involved 2,293 patients with type 2 diabetes who were assessed for 24-52 weeks. They noted that the methodologic quality of all of the studies was rated low, allowing for only "a cautious interpretation" of the results.

Glargine (Lantus) showed no superiority to standard insulin therapy in achieving metabolic control, and detemir (Levemir) showed only "clinically unimportant" superiority, the researchers said (Cochrane Database Syst. Rev. 2007 April 18;DOI: 10.1002/14651858.CD005613.pub3).

Nocturnal hypoglycemic events were less frequent in patients treated with either of the two long-acting analogues than in those on standard insulin therapy, but no statistically significant advantage was noted.

None of the trials investigated possible long-term effects of treatment with the new insulin analogues, and the maximum observation period was 12 months. The meta-analysis therefore "cannot provide any further guidance on potential adverse properties, such as mitogenic effects or progression of microvascular complications." ■