

Public release date: 15-Jun-2008

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[The Endocrine Society](#)

Some patients may not need insulin for long-term control of type 2 diabetes

Some patients with type 2 diabetes can control their disease for years yet avoid insulin injections by using multiple classes of oral diabetic medications, a new study found. The results were presented Sunday, June 15, at The Endocrine Society's 90th Annual Meeting in San Francisco.

Findings from the study contradict common beliefs about non-insulin diabetic medications, said principal investigator Arthur Swislocki, MD, of the Veterans Affairs (VA) Northern California Health Care System in Martinez. Oral diabetes medications help control blood glucose, or sugar, levels in people whose bodies still produce some insulin, as is true for many patients with type 2 diabetes.

"Generally, both patients and physicians believe that long-term use of oral diabetic medications is not possible because these drugs lose their effectiveness over time as the patient's pancreas fails," Swislocki said. "Our data suggest that some patients can remain in good glucose control for years using non-insulin, oral diabetic agents."

The study result is good news for people who need medical therapy for type 2 diabetes, according to Swislocki. "They may be able to delay or avoid the use of insulin," he said.

Some patients prefer pills over insulin injections because they are easier to use or because the patient fears needles or getting low blood sugar, as is possible with insulin treatment, he said.

Swislocki and his coworkers studied the VA medical records of 191 veterans (188 men and 3 women) with type 2 diabetes who received treatment beginning in 1992 and received follow-up for 15 consecutive years. Of these patients, 96 began treatment solely with oral drugs. The researchers found that 55 percent of the patients (53 of 96) who started treatment with oral diabetic agents were able to continue using them 15 years later and achieve good blood sugar

control. A measure of long-term blood sugar control hemoglobin A1c improved from an average of nearly 8 percent to about 7 percent 15 years later in this group.

Of the 96 patients, 45 percent eventually switched to insulin, either alone or in combination with oral drugs. At the beginning of the study, the duration of diabetes was similar between these patients and those who remained on an oral drug regimen. However, the group of patients who stayed on oral medications throughout the study had a lower beginning A1c and were less obese than patients in the other group, the authors reported. They also were more likely to be white. Past studies show minorities have poorer blood sugar control than do whites.

Swislocki said the long-term effectiveness of oral diabetic medications seen in their study may reflect the wider range of oral drugs now available for treating type 2 diabetes, compared with 15 years ago. Therefore, if one class of drugs became less effective, other classes could be added in combination.

The study, however, did not specifically address whether or not oral diabetic drugs lose their effectiveness over a long time, according to Swislocki. Rather, it mainly tracked the prescribing practices of VA primary care providers. "Deductions about drug effectiveness need to be made cautiously," he said.

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