

## DIABETES

**Self-titration of an insulin analog premix reduces HbA<sub>1c</sub> levels in patients with type 2 diabetes mellitus**

The ability of individuals with type 2 diabetes mellitus to self-monitor blood glucose levels and administer insulin appropriately would be mutually beneficial to patients and health-care practitioners. Oyer and colleagues now present evidence that patients with type 2 diabetes mellitus achieve decreased levels of HbA<sub>1c</sub> by self-titration of an insulin analog premix (a subcutaneous injection of biphasic insulin aspart 70/30) twice daily, with or without dietary counseling. “[These results] attest to the relative ease by which patients can initiate insulin therapy with a biphasic insulin analog using a simple titration algorithm with relatively minor dietary guidance,” write the authors.

The researchers recruited 4,875 participants with type 2 diabetes mellitus who were unresponsive to oral hypoglycemic agents and asked them to



self-titrate with the insulin analog premix. “The initial dose was self-adjusted [by the patient] using a titration algorithm based on the average self-measured blood glucose value of the [preceding] 3 days,” write the authors. The investigators randomly assigned the patients to attend

none, one or three subsequent dietary counseling sessions in addition to primary care visits. The mean baseline HbA<sub>1c</sub> level decreased similarly in patients from all three groups. However, patients who attended three dietary counseling sessions had significantly lower rates of hypoglycemia than individuals who received no counseling.

Notably, the American Diabetes Association glycemic target (HbA<sub>1c</sub> <7.0%) was achieved by ~41% of individuals in each group, whereas ~28% of patients met the American Association of Clinical Endocrinologists target of HbA<sub>1c</sub> ≤6.5% —an improvement on previous studies.

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**Original article** Oyer, D. S. *et al.* A<sub>1c</sub> control in a primary care setting: self-titrating an insulin analog pre-mix (INITIATEplus trial). *Am. J. Med.* **122**, 1043–1049 (2009)