Blood glucose levels set for achieving HbA1c targets

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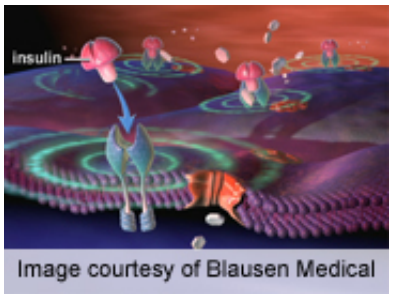

Image courtesy of Blausen Medical

(HealthDay)—The average self-monitored blood glucose (SMBG) concentrations needed at premeal, postmeal, and bedtime have been established to achieve a range of hemoglobin A1c (HbA1c) targets, according to research published in the April issue of *Diabetes Care*.

Nancy Wei, M.D., from Massachusetts General Hospital in Boston, and colleagues used data from the A1c-Derived Average Glucose (ADAG) study to determine the average fasting, postprandial, and bedtime SMBG concentrations associated with specific HbA1c levels. Data were included from 470 ADAG study participants (237 with type 1 diabetes; 147 with type 2 diabetes) for predefined target HbA1c groups of 5.5 to 8.5 percent.

The researchers found that, to achieve predefined HbA1c targets of 5.5 to 6.49, 6.5 to 6.99, 7.0 to 7.49, 7.5 to 7.99, and 8.0 to 8.5 percent, the average fasting blood glucose levels needed were 122, 142, 152, 167, and 178 mg/dL, respectively. To achieve HbA1c targets of 6.5 to 6.99 and 7.0 to 7.49 percent, the postmeal blood glucose levels needed were 139 mg/dL and 152 mg/dL, respectively, while the bedtime blood glucose levels needed were 153 and 177 mg/dL, respectively.

"These results, based on empirical data, will help patients and providers set realistic day-to-day SMBG targets to achieve individualized HbA1c goals," the authors write.

More information: Abstract
Full Text (subscription or payment may be required)

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