

# Glucose self-monitoring had no effect on glycemic control in non-insulin-treated type 2 diabetes

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In patients with type 2 diabetes who were not taking insulin, self-monitoring of blood glucose (SMBG) had no effect on glycemic control after one year, a randomized trial found.

At 15 primary care practices in North Carolina, researchers randomized 450 participants with type 2, non-insulin-treated diabetes (mean age, 61) to one of three interventions: no SMBG, once-daily SMBG, or once-daily SMBG with enhanced patient feedback (e.g., automatic tailored messages delivered through the meter).

Primary outcomes were HbA<sub>1c</sub> levels and health-related quality of life (assessed using the physical and mental component scores of the Short Form Health Survey) at 52 weeks. At baseline, about 75% of participants were experienced with SMBG, and patient preference was split, with 40% of patients preferring to self-monitor and 22% preferring no SMBG.

Results were published online on June 10 by *JAMA Internal Medicine*.

Across the three groups, there were no significant differences in HbA<sub>1c</sub> levels ( $P=0.74$ ) or health-related quality of life ( $P=0.48$  for physical score;  $P=0.90$  for mental score). In addition, there were no significant differences between

groups in adverse events, such as insulin initiation and hypoglycemia frequency.

“Based on these findings, patients and clinicians should engage in dialogue regarding SMBG with the current evidence suggesting that SMBG should not be routine for most patients with non-insulin-treated [type 2 diabetes],” the study authors wrote.

They noted limitations to their study, such as how not all patients adhered to their assigned group (although per-protocol analyses were not much different from intent-to-treat analyses). They added that participating primary care practices were affiliated with a single health care system.

Although it would seem to make sense that routine SMBG provides better outcomes for people with diabetes, this “long-held belief” is not supported by the data, according to an accompanying editor's note. “These results suggest that we can safely advise patients to discontinue, as well as not initiate, SMBG,” the authors wrote.