



## Overuse of glycemic self-monitoring

*Editors*  
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An analysis of glucose self-monitoring in non-insulin treated patients with type 2 diabetes mellitus (T2DM) has failed to show a significant benefit. These results, just published in JAMA Internal Medicine (1), were debated at the 77<sup>th</sup> Meeting of the American Diabetes Association (ADA), recently held in San Diego. The study, coordinated by the University of North Carolina, randomized 450 patients with T2DM for several years into three groups:

- Group 1: No monitoring
- Group 2: Daily monitoring
- Group 3: Daily monitoring with automatic test result feed-back.

While analysis at 6 months showed a better HbA1c in the patients randomized to monitoring, this difference was no longer significant at 12 months (p value for the difference between the three groups = 0.74).

The mean Hb1Ac was 0.05% lower in group 2 compared to group 1 (95% CI -0.27%, -0.17%) and 0.09% lower in group 3 compared with group 1 (CI 95% -0.31%, -0.14%).

No significant difference was detected in relation to adverse events (hypoglycemia, need for health care assistance, need for insulin) nor to health-related quality of life.

While the current study did not address cost, it is widely recognized that expenditure for glycemic strips may reach several hundred dollars a year for patient, a figure justifiable only if associated with health gains.

### Comment

The study involved patients with long-standing T2DM treated with oral hypoglycemic agents who were used to measuring their blood glucose level. The results should not be extrapolated to other populations, where glucose self-monitoring may be more useful. A question unanswered is whether monitoring, while not affecting glycemic control, may provide a psychological benefit and promote healthier life-style in relation to diet and exercise, changes notoriously difficult to maintain in the long term.

### Reference

1. Young LA, et al. Glucose Self-monitoring in non-insulin-treated patients with type 2 diabetes in primary care settings. A randomized trial. JAMA Intern Med [2017](https://doi.org/10.1001/jamainternmed.2017.1233), doi:10.1001/jamainternmed.2017.1233.