How has the COVID-19 pandemic affected diabetes monitoring?

Background
The COVID-19 pandemic has disrupted routine healthcare visits and may have interfered with a crucial component of diabetes management: regular HbA1c monitoring.

Study Design
Changes in HbA1c testing volumes during the pandemic were evaluated by comparing against data from the previous 60 weeks.

Results

Lower HbA1c testing volumes during the pandemic indicate that patients were missing monitoring tests, which can lead to higher blood glucose and increased risk of complications from diabetes.
Article Title: Consequences of the COVID-19 Pandemic: Reduced Hemoglobin A1c Diabetes Monitoring

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Background

- The American Diabetes Association recommends monitoring glycated hemoglobin (HbA1c) levels 2 to 4 times per year for the management of diabetes.1
- With recent stay-at-home orders issued in response to the COVID-19 pandemic, patients may miss or delay testing, which can disrupt monitoring and impair diabetes management.
- **Objective:** In this study, investigators examined whether HbA1c test volumes had changed during the stay-at-home period in the United States.

Methods

- Using testing data from Quest Diagnostics laboratories, weekly HbA1c test volumes during the 8-week stay-at-home period (March 1, 2020–April 19, 2020) were compared to baseline levels.
- Baseline levels were defined as the mean weekly HbA1c test volume from January 6, 2019 through February 29, 2020; the study population during this period consisted of 1.9 million patients who had ≥2 HbA1c tests in 2018.
- Changes in weekly HbA1c testing volumes during the stay-at-home period were also analyzed by sex and age group.

Results

- Weekly HbA1c test volumes decreased each of the first 5 weeks of the study period; week 5 (March 29, 2020) had the lowest volumes, which were 66% lower than baseline.
  - The decrease was larger for women than for men (69% vs 62%; P<0.001).
  - The decrease was largest for patients ≥80 years (75%) compared to other age groups ≥30 years.
- Weekly HbA1c test volumes then rebounded 31% from week 5 to week 8 of the study period (from 34% of baseline to 45% of baseline).
  - The rebound from week 5 to week 8 was larger for women than for men (37% vs 27%; P<0.001).
  - The rebound was largest for patients ≥80 years (56%) compared to all individual age groups, and smallest for patients 30 to 39 years (5%) compared to all individual age groups.

Conclusions

- Based on data from a large national laboratory, HbA1c test volumes markedly decreased after stay-at-home orders were issued in response to the COVID-19 pandemic.
- Continued impairment of diabetes monitoring may contribute to poorer health outcomes and increased medical costs among US patients with diabetes.2,3

References