Continuous Glucose Monitoring Attrition Among Youth with Type 1 Diabetes

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**Background**

Use of continuous glucose monitors (CGM) is associated with improved glycemic control in children with Type 1 diabetes (T1D), yet there are patients who discontinue use of these devices. Despite widespread acceptance among professional organizations and increased insurance coverage, technology use among children with T1D is lower in some racial and ethnic groups.

**Aims**

The aims of this project are (1) to identify when patients discontinue use of CGM by reviewing data from diabetes visits after CGM initiation, and (2) to identify and report the four most common reasons why patients with T1D discontinue use of CGM.

**Methods**

A retrospective chart review was conducted utilizing electronic medical record data at the Children's Hospital of Philadelphia. Patients with T1D who had at least one office visit between November 1, 2021 and November 1, 2022 were included for review. Information regarding CGM wear time was gathered using start date from chart review and data from cloud-based software. Reasons for discontinuation were gathered from documentation in the chart.

**Results**

• 315 CGM non-wearers had a mean age of 15.1 (4.0) years, 59.3% were male, and 29% were Black. Non-wearers were predominantly privately insured (67%).

• Most patients who discontinued did so within the first 45 days of wear (52 patients)

**Conclusions**

To prevent CGM attrition, intervention and support should happen within 45 days of starting. Initial educational programs on CGM should address most common reasons for discontinuation and ensure path to obtaining consistent supplies. Future studies should incorporate findings into educational programming.

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