Implementation of Point of Care Lipid Screening in Pediatric Type I and Type II Diabetes

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Introduction

The purpose of this quality improvement project was to improve lipid screening in pediatric patients with type I diabetes (T1D) and type II diabetes (T2D) by obtaining in-office point-of-care (POC) testing during clinic visits. The U.S. News and World Report recommends lipid screening annually for diabetes patients over age 11 years with repeat testing every 3 years if normal in T1D or annually in T2D. Our goal was to increase lipid screening to at least 80%.

Methods

Data was pulled monthly from the electronic medical record to check provider frequency of ordering POC lipid tests (**Table 1**). The diabetes dashboard in Epic was checked annually for percentage of T1D and T2D patients with lipid in last 3 years and 1 year, respectively. Progress was tracked with an annotated run chart.

Table 1. POC Lipid Screening Ordered

Order Description	6/2025	10/2025	11/2025	12/2025	1/2026	2/2026	3/2026	4/2026	5/2026	6/2026	7/2026	Grand Total
Lipid in Office	2	11	9	7	12	10	12	9	9	12	10	103
Lipid Panel in Office		2	1	1	1	1						6
Lipid Panel POC		6	8	6	2	4	4	3	2	7	4	46
Grand Total	**2**	**19**	**18**	**14**	**15**	**15**	**16**	**12**	**11**	**19**	**14**	**155**

Results

After 9 months of tracking, we have seen an increase in the total amount of T1D patients meeting the recommended lipid screening. For T1D patients, the median before implementing POC lipid screening was 83.7%, increasing to 87.5% after (Figure 1). Lipid screening data is not available for T2D patients prior to implementing POC lipid screening. At this time, only 53% of T2D patients met criteria for completed annual lipid panels (Table 2).

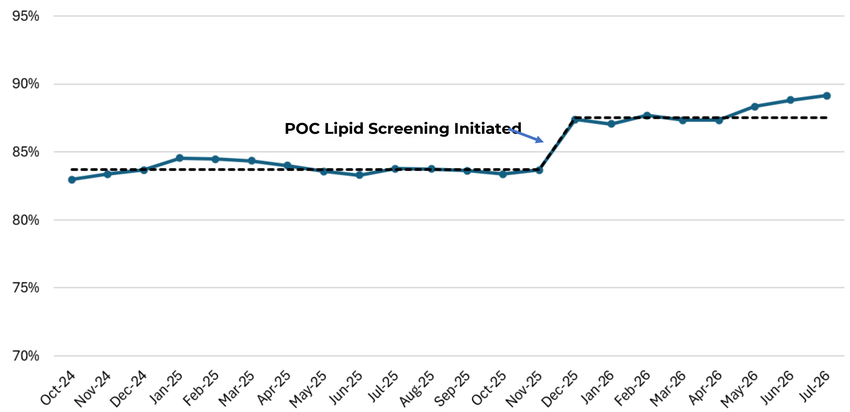


Figure 1. Patients with T1D Aged 11 Years and Older with Lipid Panel in the Last 3 Years

Discussion

The purpose of this project was to improve lipids screening for pediatric patients with T1D and T2D by utilizing in office POC lipid screening. This proved to be beneficial because it helped patients who may not have access to a laboratory or may not have been able to get labs done for other reasons. Offering in-office screening improved lipid screening criteria for T1D patients; screening criteria did not improve for T2D patients. Some limitations for this study included inconsistent in-office supplies to run the POC lipid testing, trained staff that day to run the tests, and lower visit rate for T2D patients; therefore, we were unable to offer them POC lipid screening.

Table 2. Percentage of Patients Meeting Lipid Panel Screening Criteria

	12/2025	1/2026	2/2026	3/2026	4/2026	5/2026	6/2026	7/2026	Average
Type II	55.76%	53.31%	53.90%	55.56%	56.57%	54.47%	55.04%	53.04%	54.07%
Type I	87.39%	87.06%	87.70%	87.33%	87.33%	88.35%	88.83%	89.15%	87.5%

Conclusions

Providing POC lipid screening has increased the number of T1D patients meeting criteria for lipid screening. Future efforts will focus on improvement strategies to increase screening frequency in T2D.