Barriers to Diabetes Technology in Low-Income Patients

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OBJECTIVE

Identify key barriers to accessing continuous glucose monitors (CGMs) and care options for low-socioeconomic status (SES) patients on public insurance.

BACKGROUND

- Continuous Glucose Monitors (CGMs) are compact medical devices that continuously monitor an individual's blood sugar levels in real time.
- U.S. T1D costs are $14.4 billion annually.
- Low CGM Usage Rates in Low-SES Populations.
- Type 1 diabetes (T1D) is caused by an autoimmune reaction that destroys the beta cells in the pancreas.
- It is estimated that T1D affects around 1.6 million Americans.

METHODOLOGY

- Comparison of CGM coverage under public insurance by states
- Analysis of product coverage, state spending, and device costs
- Review of current literature on type 1 diabetes and barriers of access in Clinicaltrials.gov
- Literature Review
- Keyword Search: Low-income, Low-SES, Minority, Health Literacy, Education, Insurance Type
- Analysis of State Medicaid costs for CGMs and reimbursement rates

RESULTS

- Exclusion Criteria:
  - Not directly studying a SES/behavioral barrier
  - Duplication
  - Relevancy

- Diabetes
  - 15692 studies

- Type 1 Diabetes
  - 2658 studies

- Socioeconomic status
  - 18 studies

- Healthy literacy
  - 4 studies

- Low-income
  - 99 studies

- Minority
  - 4 studies

- Barrier
  - 59 studies

- 3 studies related to low-SES barriers
- 1 study related to low-SES barriers
- 2 study related to low-SES barriers
- 1 study related to low-SES barriers

CONCLUSIONS

- Lack of clinical trials (only 7 relevant results) examining barriers of access for low-SES type 1 diabetic patients
- Barriers include a lack of personal empowerment, access, and cost
- Need for increased efforts to help low-SES populations access these devices
- CGMs have the potential to increase health outcomes for low-SES populations while reducing state Medicaid program costs
- Vast discrepancies amongst states for fee reimbursement rates for CGMs exacerbate health disparities

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