Knowledge of American Diabetes Association Glycemic Targets Among People with Diabetes and Their Caregivers



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BACKGROUND

- Understanding glycemic targets is an important component to diabetes self-management.
- 90% of diabetes care is self-care, so patients should be aware of what glycemic goals they should aim for to achieve optimal outcomes[1]

AIMS

- This study evaluated the knowledge of ADA-recommended CGM-derived goals and definitions among adults with T1D, children with T1D, and caregivers for PWD.

METHODS

- Surveys were completed by people with T1D (ages 12+ yo) and their caregivers
- Knowledge of ADA-recommended CGM targets, included:
  - time in range (TIR)
  - time below range (TBR)
  - time very low
  - average sensor glucose
  - glycemic variability
  - A1c

RESULTS

Group	N	Percent score, mean
Adult PWD	743	42.0
Adult Caregiver	224	46.2
Pediatric PWD	43	42.6
Overall	1010	43.0

Knowledge of ADA Glycemic Targets by Group

Survey Question	Adult PWD (N=743)	Adult Caregiver (N=224)	Pediatric (N=43)	P-value
What is the ADA recommended A1c goal?	430 (57.9%)	137 (61.2%)	26 (60.5%)	0.668
What is the ADA recommended goal for average glucose?	174 (23.4%)	34 (15.2%)	6 (14%)	0.015
What is the ADA recommended goal for coefficient of variation (CV)?	104 (14%)	16 (7.1%)	4 (9.3%)	0.018
What blood sugars are considered 'low' (<70 mg/dL)?	526 (70.8%)	185 (82.6%)	32 (74.4%)	0.002
What is the ADA recommended goal for Time Below Range (%)?	144 (19.4%)	48 (21.4%)	6 (14%)	0.537
What range of blood sugars are considered to be 'in range' (mg/dL)?	353 (47.5%)	124 (55.4%)	20 (46.5%)	0.114
What is the ADA recommended goal for Time in Range (%)?	359 (48.3%)	137 (61.2%)	26 (60.5%)	0.002
What blood sugar is considered 'very low' (<54 mg/dL)?	256 (34.5%)	87 (38.8%)	16 (37.2%)	0.462
What is the ADA recommended goal for time spent <54 mg/dL (%)?	464 (62.4%)	164 (73.2%)	29 (67.4%)	0.011

Values are presented as number of participants with a correct response, followed by the percentage within each group. Correct responses were defined as survey entries coded as 99. P-values were calculated using Fisher's exact test across the three groups.

Demographics

- 65% female, average age 41 (±16 years), 91% non-Hispanic, 76% privately insured, 62% A1c ≤ 7, 53% diabetes duration >20 years

CONCLUSIONS

- Knowledge of ADA-recommended CGM-derived targets among adults with T1D remains low despite widespread usage.
- Continued education on glycemic goals must be done as part of routine care.
- More complex glycemic targets, such as average glucose and CV, should be discussed with patients, in addition to more commonly known goals, like A1c goals and what blood sugars are considered low.

References

Powers, M. (2019, July 10). *Every person with diabetes needs ongoing self-management education and support - blog - Niddk*. National Institute of Diabetes and Digestive and Kidney Diseases. https://www.niddk.nih.gov/health-information/professionals/diabetes-discoveries-practice/diabetes-self-management-education-support