

## American Association of Clinical Endocrinology (AACE) Clinical Practice Guidelines: The Use of Advanced Technology in Management of Persons with Diabetes 2021\*

G. Grunberger, J. Sherr, M. Allende et al. <https://doi.org/10.1016/j.eprac.2021.04.008>  
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The American Association of Clinical Endocrinology (AACE) conducted literature searches for relevant articles published from 2012 to 2021. A task force of medical experts developed evidence-based guideline recommendations based on a review of clinical evidence, expertise, and informal consensus, according to established AACE protocol for guideline development.<sup>1</sup>

### Who benefits from routine use of Continuous Glucose Monitoring (CGM)?



CGM is strongly recommended for all persons with diabetes treated with intensive insulin therapy, defined as 3 or more injections of insulin per day or the use of an insulin pump. *Grade A; High Strength of Evidence; BEL 1<sup>†</sup>*



CGM may be recommended for individuals with type 2 diabetes (T2D) who are treated with less intensive insulin therapy. *Grade B; Intermediate Strength of Evidence; BEL 1<sup>†</sup>*

### When is one method of CGM preferred over the other?



Real time CGM (RT-CGM) is recommended for persons  $\geq 65$  years old with insulin-requiring diabetes to achieve improved glycemic control, reduce episodes of severe hypoglycemia, and improve quality of life (QoL).

*Grade A; Intermediate Strength of Evidence BEL 1<sup>†</sup>*



RT-CGM should be recommended over Intermittently scanned (IS-CGM) to persons with diabetes with problematic hypoglycemia (frequent/severe hypoglycemia, nocturnal hypoglycemia, hypoglycemia unawareness) who require predictive alarms/alerts; however, the lifestyle of the person with diabetes and other factors should also be considered.

*Grade B; Low Strength of Evidence BEL 1<sup>†</sup>*



#### Reviews have suggested that RT-CGM may be preferred:

- For persons with diabetes who are physically active or have busy lifestyles that would inhibit frequent scanning of an IS-CGM sensor
- Require uninterrupted monitoring by parents/caregivers
- Choose to use advanced insulin delivery technologies (sensor augmented pump or automated insulin delivery system)
- Cannot achieve desired glycemic targets with IS-CGM.<sup>2,3</sup>

## When is one method of CGM preferred over the other? (cont.)



**IS-CGM should be considered for persons with diabetes who meet 1 or more of the following criteria:**

- Newly diagnosed with T2D
- Treated with nonhypoglycemic therapies
- Motivated to scan device several times per day
- At low risk for hypoglycemia, although desire more data than SMBG provides.

*Grade D; Low Strength of Evidence/Expert Opinion of Task Force; BEL 4†*

## When should professional CGM be considered?



**Professional CGM should be used in the management of persons with diabetes who meet 1 or more of the following criteria;**

- Newly diagnosed with diabetes
- Not using CGM
- May have problematic hypoglycemia, but no access to personal CGM
- Persons with T2D treated with non-insulin therapies who would benefit from episodic use of CGM as an educational tool
- Persons who would like to learn more about CGM before committing to daily use.

*Grade B; Intermediate Strength of Evidence; BEL 1†*

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\*This clinical summary of the published article is interpreted by Dexcom.

† Recommendation grade, strength of evidence grade, best evidence level (BEL)

1. American Association of Clinical Endocrinology Clinical Practice Guideline: The Use of Advanced Technology in the Management of Persons With Diabetes Mellitus Grunberger, George et al. Endocrine Practice, Volume 27, Issue 6, 505 - 537

2. Clinical implications of real-time and intermittently scanned continuous glucose monitoring; S.V. Edelman, N.B. Argento, J. Pettus and I.B. Hirsch; Diabetes Care, 41 (11) (2018), pp. 2265-2274 [EL 4; NE]

3. Selecting the appropriate continuous glucose monitoring system - a practical approach. P. Adolfsson, C.G. Parkin, A. Thomas and L.G. Krinelke; Eur Endocrinol, 14 (1) (2018), pp. 24-29 [EL 4; NE]

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