CGM Metrics guide

This quick reference guide lists the CGM metrics internationally recommended for the clinical management of diabetes.[1]

In 2019 an ATTD international expert panel recommended **streamlined, standardised CGM metrics** to simplify the clinical use of CGM data.[1]

Ten core CGM metrics were found most useful and practical for clinicians and people with diabetes. It is recommended these are analysed for all those using CGM.[1–3]

The standardised 'Top 10' CGM metrics[1,2]	
1	Number of days a CGM is worn (14 days recommended)
2	Percentage of time a CGM is worn (70% of data from 14 days recommended)
3	Mean glucose
4	Glucose management indicator (GMI)
5	Glycaemic variability (%GV) target ≤36%*
6	Time Above Range (TAR): % of readings and time spent at >250mg/dL (>13.9 mmol/L) (level 2 hyperglycaemia)
7	TAR: % of readings and time spent at 181-250mg/dL (10.1–13.9 mmol/L) (level 1 hyperglycaemia)
8	Time in Range (TIR): % of readings and time spent at 70–180mg/dL (3.9–10.0 mmol/L) (in range)
9	Time Below Range (TBR): % of readings and time spent at 54–69mg/dL (3.0–3.8mmol/L) (level 1 hypoglycaemia)
10	Time Below Range (TBR): % of readings and time spent at <54mg/dL (<3.0mmol/L) (level 2 hypoglycaemia)

Note: Adequate CGM data are required for meaningful interpretation. CGM data over the most recent 14 days correlates with 3 months' mean glucose, Times in Ranges and Hypoglycaemia data.[1,2] *Some studies suggest that lower % GV targets (<33%) provide additional protection against hypoglycaemia for those receiving insulin or sulphonylureas.[2]

> The ambulatory glucose profile (AGP) report, a standardised visual summary of these CGM metrics, makes them actionable to enable real-time improvement of glucose management.[1]

> *"ADA 2023 Standards advise that CGM should be offered for management of all adults with diabetes receiving basal insulin, and youths with type 1 and 2 diabetes receiving insulin via multiple daily injections or continuous subcutaneous infusion."[2]*

ADA, American Diabetes Association; ATTD, Advanced Technologies and Treatment for Diabetes; CGM, continuous glucose monitoring; GV, glycaemic variability.

References:
1. Battelino T, Danne T, Bergenstal RM, *et al.* Clinical Targets for Continuous Glucose Monitoring Data Interpretation: Recommendations From the International Consensus on Time in Range. *Diabetes Care.* 2019; 42:1593–1603. **2.** American Diabetes Association Standards of Medical Care in Diabetes 2023. *Diabetes Care.* 2023; 46 (Supplement 1): S1–S292. **3.** Czupryniak L, Dzida G, Fichna P, *et al.* Ambulatory Glucose Profile (AGP) Report in Daily Care of Patients with Diabetes: Practical Tips and Recommendations. *Diabetes Ther.* 2022; 4: 811-821.