



Supporting Information

Supplementary figures

These appendices were part of the submitted manuscript and have been peer reviewed. They are posted as supplied by the authors.

Supporting information for: Lin R, Brown F, Ekinici EI. The ambulatory glucose profile and its interpretation. *Med J Aust* 2022; doi: 10.5694/mja2.51666.

Appendix 1

The ambulatory glucose profile (AGP) report is an internationally standardised report of continuous glucose monitoring information. The AGP report is organised into five major components:

1. Data completeness
2. Glucose level statistics, including time in range, hypoglycaemia and hyperglycaemia
3. Summary glucose profile, also known as the AGP
4. Glucose management indicator, previously known as the estimated HbA1c
5. Daily glucose profiles.

Figures A and B are AGP reports from Dexcom and Abbott Libre, respectively.

Despite differences in formatting, all the AGP reports contain the five major components.

A

AGP

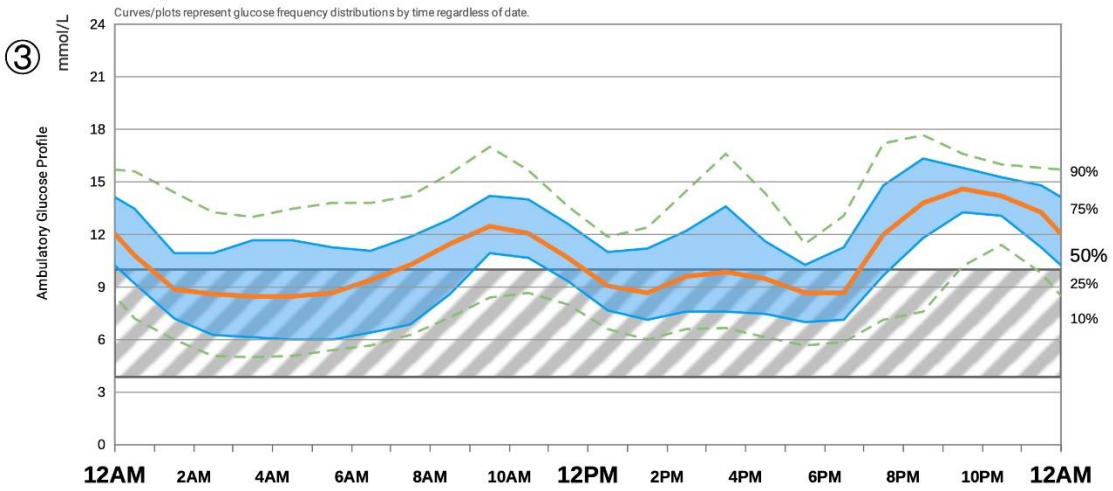
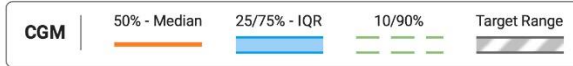
14 days | Thu 2 Sep 2021 - Wed 15 Sep 2021



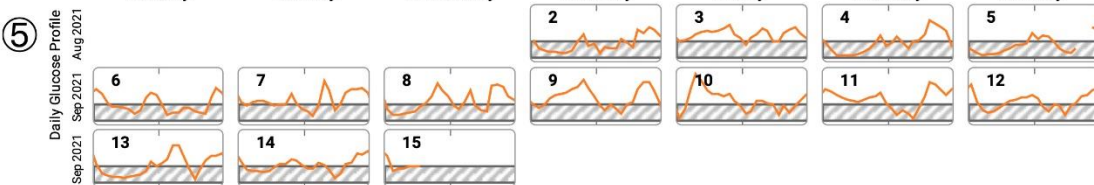
Dexcom | **capturAGP®** ②

Thu 2 Sep 2021 - Wed 15 Sep 2021 (13.3 days)

④ Glucose Statistics	Avg Glucose mmol/L	Estimated HbA1c	Very Low < 3.0 mmol/L	Low < 3.9 mmol/L	In Target Range 3.9 - 10.0 mmol/L	High > 10.0 mmol/L	Very High > 13.9 mmol/L	Coefficient of Variation	SD mmol/L	① % Time CGM Active
	10.7	8.3%	0.0%	0.1%	46.7%	53.2%	20.1%	32.8%	3.5	
	Glucose Exposure		Glucose Ranges					Glucose Variability		Data Sufficiency



The Y axis and target range are the same as on the Ambulatory Glucose Profile graph above.



U.S. Patent No. Des. 773,478, patents pending - HealthPartners Institute dba International Diabetes Center - All Rights Reserved. CapturAGP v. 3.2

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B

MRN: _____
 DEVICE: FreeStyle Libre

PAGE: 1 / 1
 GENERATED: 07/06/2021

AGP Report

25 May 2021 - 7 June 2021 (14 Days)

LibreView

GLUCOSE STATISTICS AND TARGETS

25 May 2021 - 7 June 2021 **14 Days**
 ① **% Time Sensor is Active** **82%**

Ranges And Targets For		Type 1 or Type 2 Diabetes
Glucose Ranges		Targets % of Readings (Time/Day)
Target Range 3.9-10.0 mmol/L		Greater than 70% (16h 48min)
Below 3.9 mmol/L		Less than 4% (58min)
Below 3.0 mmol/L		Less than 1% (14min)
Above 10.0 mmol/L		Less than 25% (6h)
Above 13.9 mmol/L		Less than 5% (1h 12min)

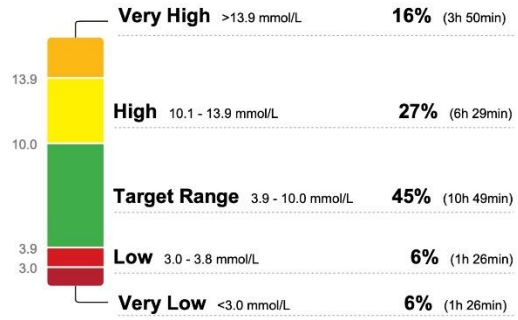
Each 5% increase in time in range (3.9-10.0 mmol/L) is clinically beneficial.

Average Glucose **9.6 mmol/L**

④ **Glucose Management Indicator (GMI)** **7.4% or 58 mmol/mol**

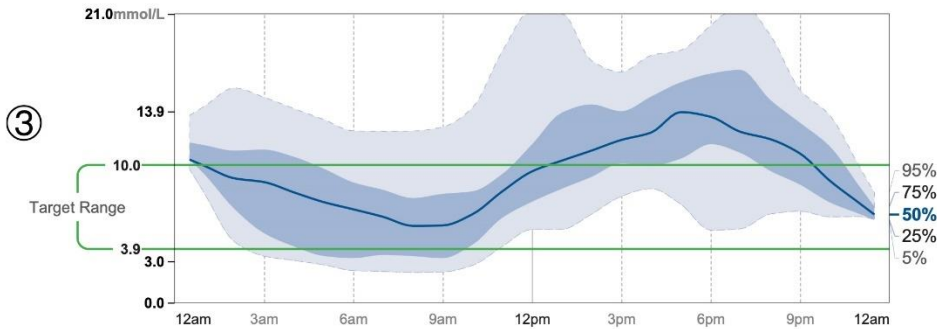
Glucose Variability **46.6%**
 Defined as percent coefficient of variation (%CV); target ≤36%

TIME IN RANGES



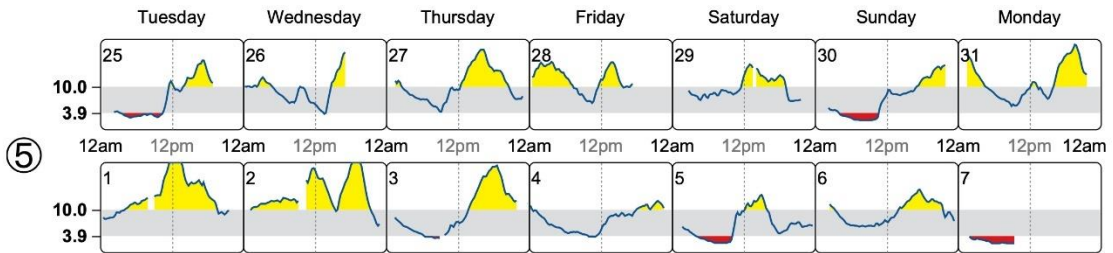
AMBULATORY GLUCOSE PROFILE (AGP)

AGP is a summary of glucose values from the report period, with median (50%) and other percentiles shown as if occurring in a single day.



DAILY GLUCOSE PROFILES

Each daily profile represents a midnight to midnight period with the date displayed in the upper left corner.



Source: Battelino, Tadej, et al. "Clinical Targets for Continuous Glucose Monitoring Data Interpretation: Recommendations From the International Consensus on Time in Range." Diabetes Care, American Diabetes Association, 7 June 2019. <https://doi.org/10.2337/dci19-0028>.

Appendix 2

Glucose management indicator (GMI) and glucose variability can be used to supplement each other in treatment decision making.

Figures A and B are Dexcom ambulatory glucose profile (AGP) reports in individuals that have the same GMI (labelled as “estimated HbA1c”) of 8.3%. Figure A depicts a much smaller coefficient of variation of 32.8%, compared to the coefficient of variation of 46.6% in Figure B. The AGP in Figure B also reflects marked variation in glycaemia, with nocturnal hypoglycaemia at 2am approximately 10% of the time. Increasing treatment based on HbA1c or GMI alone may result in increased time in hypoglycaemia in individuals with a high glucose variability.

A

AGP

14 days | Thu 2 Sep 2021 - Wed 15 Sep 2021

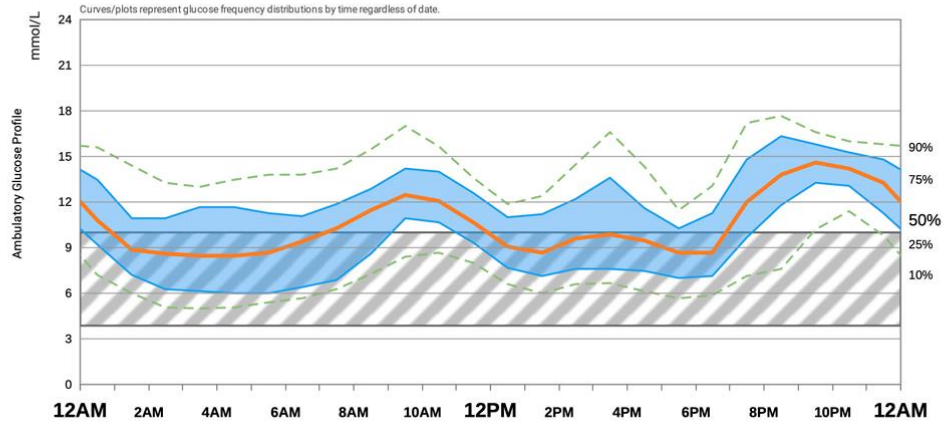
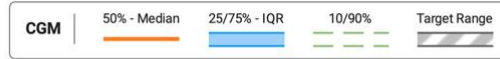


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Thu 2 Sep 2021 - Wed 15 Sep 2021 (13.3 days)

Glucose Statistics		Very Low	Low	In Target Range	High	Very High	Coefficient of Variation	SD	% Time CGM Active
Avg Glucose mmol/L	Estimated HbA1c	< 3.0 mmol/L	< 3.9 mmol/L	3.9 - 10.0 mmol/L	> 10.0 mmol/L	> 13.9 mmol/L		mmol/L	
10.7	8.3%	0.0%	0.1%	46.7%	53.2%	20.1%	32.8%	3.5	99.2%
Glucose Exposure		Glucose Ranges					Glucose Variability		Data Sufficiency



The Y axis and target range are the same as on the Ambulatory Glucose Profile graph above.

B

AGP

14 days | Thu 1 Jul 2021 - Wed 14 Jul 2021

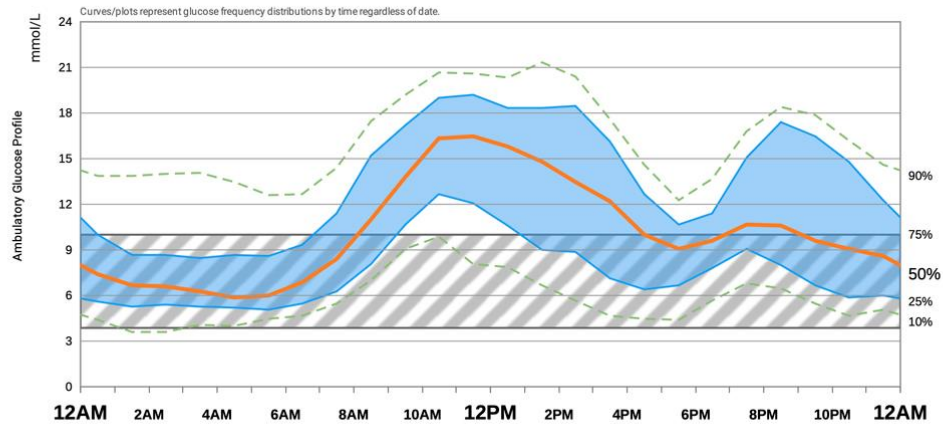
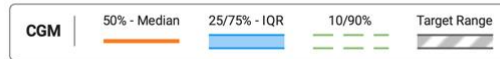


Dexcom

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Thu 1 Jul 2021 - Wed 14 Jul 2021 (13.3 days)

Glucose Statistics		Very Low	Low	In Target Range	High	Very High	Coefficient of Variation	SD	% Time CGM Active
Avg Glucose mmol/L	Estimated HbA1c	< 3.0 mmol/L	< 3.9 mmol/L	3.9 - 10.0 mmol/L	> 10.0 mmol/L	> 13.9 mmol/L		mmol/L	
10.6	8.3%	0.7%	3.9%	48.9%	47.2%	27.6%	46.6%	4.9	98.4%
Glucose Exposure		Glucose Ranges					Glucose Variability		Data Sufficiency



The Y axis and target range are the same as on the Ambulatory Glucose Profile graph above.

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