# Using Continuous Glucose Monitoring and the Ambulatory Glucose Profile for Clinical Decision-Making in Primary Care
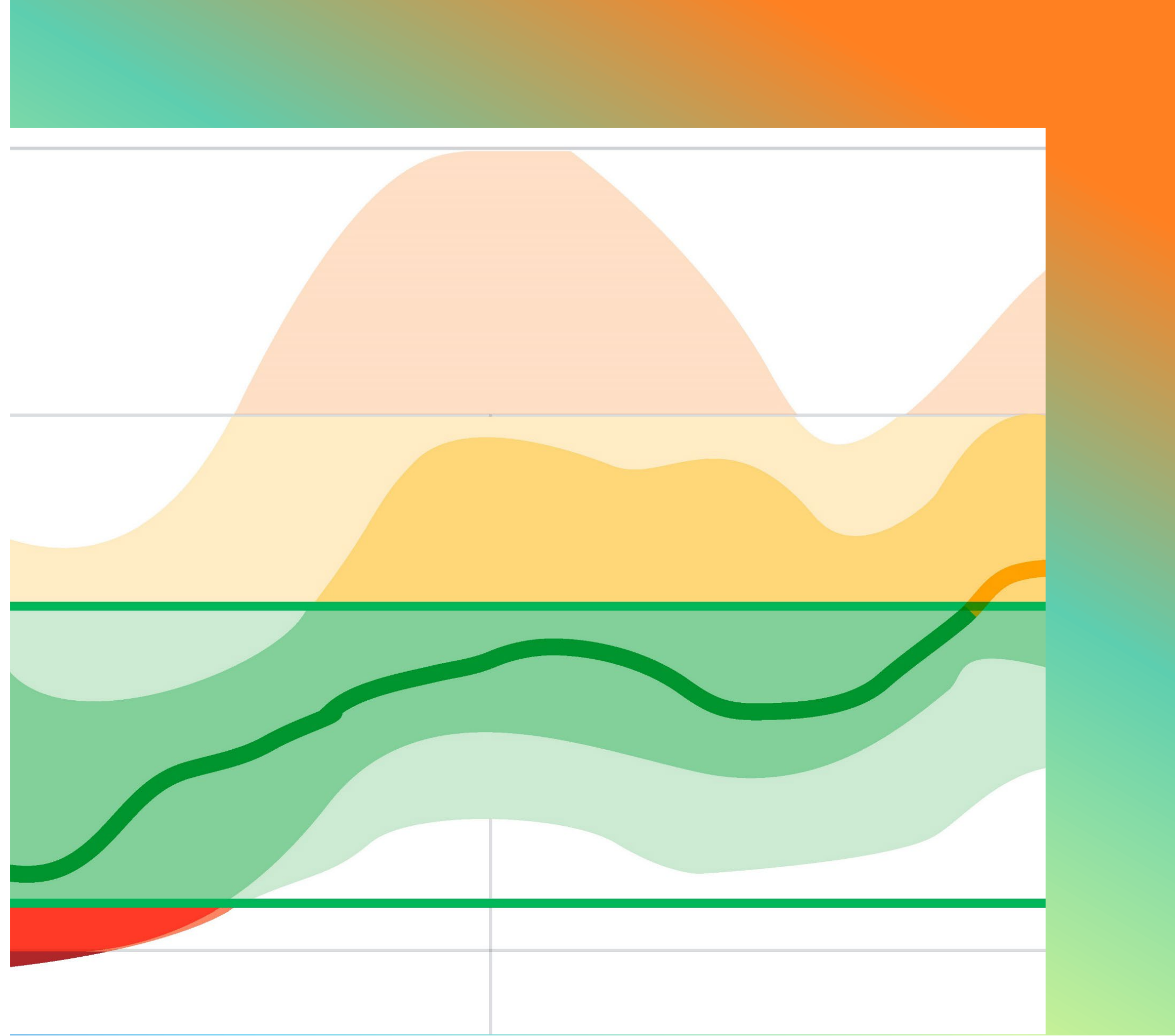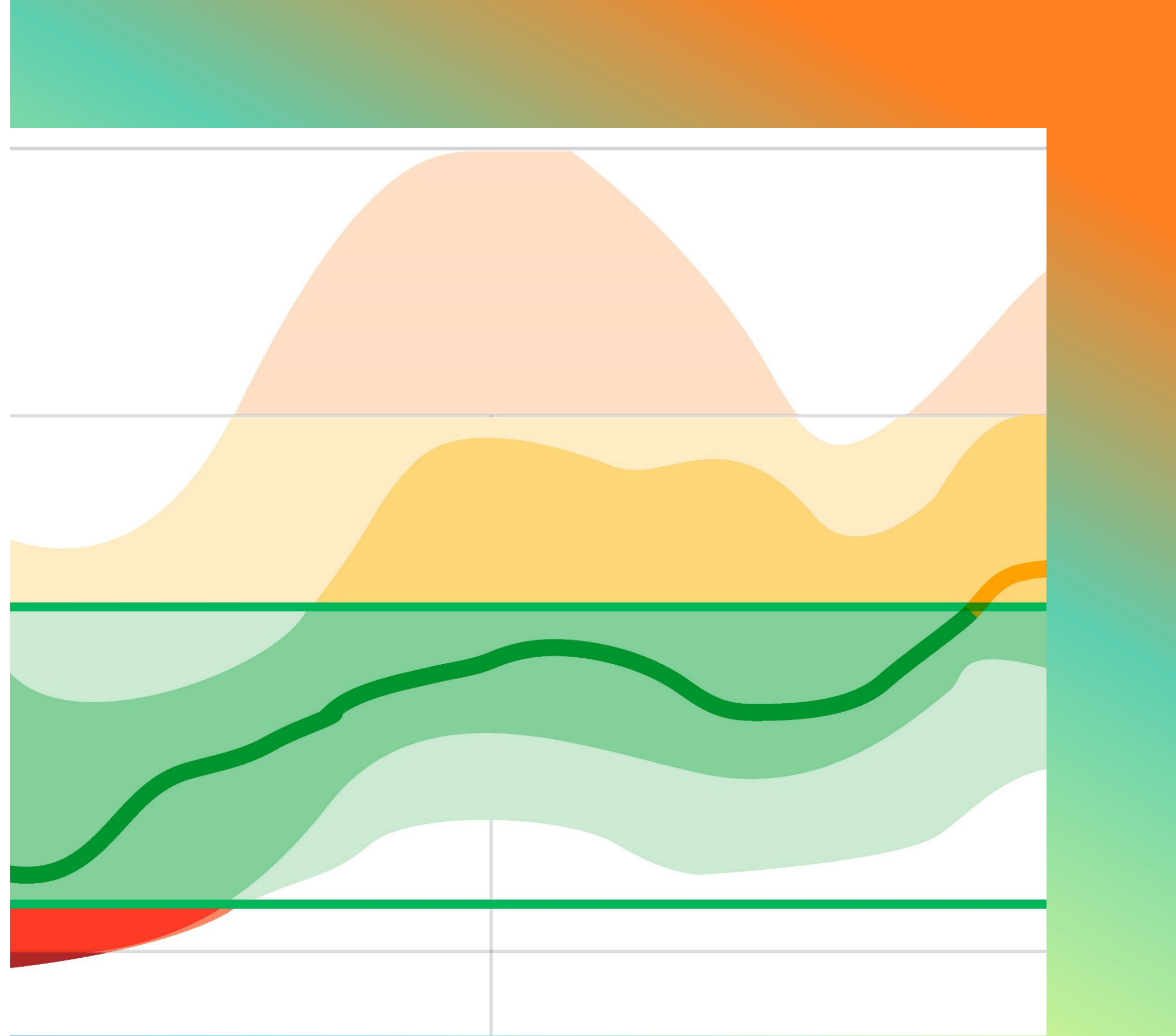
# Using Continuous Glucose Monitoring and the Ambulatory Glucose Profile for Clinical Decision-Making in Primary Care

**Introduction**

# Shouldn't every patient with diabetes have a CGM?

+ Every person with diabetes could benefit from the information offered by real time CGM as well as the data provided by the compiled Ambulatory Glucose Profile (AGP) report, but there are some patients who benefit MORE, and who are likely to have insurance coverage.

  ❖ Patients on insulin, particularly multiple daily injections, or those using an insulin pump

  ❖ Patients with "problematic" hypoglycemia   *(On October 6, 2022, The Centers for Medicaid and Medicare Services (CMS) published a proposed local coverage determination (LCD) that modifies the coverage criteria for continuous glucose monitors (CGM) to include people with diabetes who have a history of problematic hypoglycemia. )* ICD-10-CM Diagnosis Code E16.2

  ❖ Patients with co-morbid conditions, who struggle with glycemic control

**Every year, coverage is expanding as CGM becomes more and more the standard of care for patients with diabetes.**

# More of your patients qualify under Medicare

+ As of April 16, patients with diabetes qualify for Medicare coverage if…insulin treated or with a history of problematic hypoglycemia with documentation of either

•Recurrent (more than one) level 2 hypoglycemic events (glucose <54mg/dL (3.0mmol/L)) that persist despite multiple (more than one) attempts to adjust medication(s) and/or modify the diabetes treatment plan; or,

•A history of one level 3 hypoglycemic event (glucose <54mg/dL (3.0mmol/L)) characterized by altered mental and/or physical state requiring third-party assistance for treatment of hypoglycemia

# FDA-Approved Personal CGM Devices

| | Abbott FreeStyle Libre 14-day/2/3 | Dexcom G6 G7 approved by FDA 12/8 | Medtronic Guardian Sensor 3 (pump integrated) and Guardian Connect (stand-alone) | Senseonics Eversense |
|---|---|---|---|---|
| **Approved labeling** | Replaces fingersticks for treatment decisions; no fingerstick calibration required | Replaces fingersticks for treatment decisions; no fingerstick calibration required | Requires ≥2 fingerstick calibrations/d | Replaces fingersticks for treatment decisions; requires ≥2 fingerstick calibrations/d |
| **Age** | ≥18 y/≥2 y/≥2 y | ≥2 y | ≥14y | ≥18 y |
| **Medicare coverage** | Yes/Yes/Not Yet | Yes | Sensor 3: Yes; Connect: No | Yes |
| **Wear length** | 14 d/2 & 3 up to 15 ds | 10 d/10 d + 12 hr | 7 d | 90/180 d |
| **Warm-up** | 1 hr | 2 hr/up to 30 min | 2 hr | 24 hours after implementation |
| **Alarms** | No/Yes/Yes | Yes | Yes | Yes |
| **Data Display/ Integration** | Reader; Android and iPhone apps; 2 & 3 approved for integration with automatic insulin delivery systems. | Reader; Android and iPhone apps; smartwatches; Tandem t:slim X2 pump, Omnipod 5. | Reader; Android and iPhone apps; 630G, 670G or 770G pump; Guardian Connect | Android and iPhone apps |
| **Form** | Disposable transmitter integrated with sensor patch | G6: Transmitter (3-month use) separate from sensor/G7 integrated | Transmitter (rechargeable) separate from sensor | Transmitter (rechargeable) separate from sensor |
| **Accuracy* (lower numbers are more accurate)** | 11.4%/9.3%/7.9%[1] | 9%/8.2%[1] | 9.6%/9-11%[1] | 8.5%-9.5%[1] |
| **Expense[2]** | Least expensive | 2nd most expense | 2nd least expensive | Most expensive |

*Accuracy measured by MARD (mean absolute relative difference) relative to **VENOUS** glucose. Lower numbers indicate a more accurate device.

[1]Accuracy figures provided by manufacturers.

[2]What is a CGM and how do I choose one? Healthline Diabetes Mine. Updated December 14, 2021. Accessed February 12, 2023. https://www.healthline.com/diabetesmine/ what-is-continuous-glucose-monitor-and-choosing-one

# Which CGM is best for the person?

## Professional CGM

+ Device owned by the healthcare professional and loaned to the patient

+ Approved for multiple use when cleaned and used according to labeling (disposable systems also available)

+ Collects real time glucose data (data can be displayed to patient in unblinded mode)

+ Worn for varying lengths depending on model, then data can be downloaded for retrospective review

## Personal CGM

+ Patient-owned device that can be used on a daily basis

+ Can be stand-alone or linked to other compatible devices

+ Glucose values are visible and actionable

+ Sensor worn for 7, 10, 14 days or 180 days for implanted device

# Professional CGM[1]

| | Abbott FreeStyle Libre PRO | Dexcom G6 Pro (expected G7 in 2023) | Medtronic iPro 2* |
|---|---|---|---|
| Blinded or unblinded | Blinded | Either | Blinded |
| Wear Time | 14 days | 10 days | 6 days |
| Calibration? | 0 | 0 | 3-4 times daily |
| Care between use | Disposable sensor/transmitter | Disposable sensor/transmitter | Sensor must be cleaned and disinfected |
| Insertion | Single-step process with auto-inserter | Two-step process which includes inserting sensor and attaching transmitter | Multi-step process which includes inserting and taping both the sensor and transmitter. |
| Site | Upper Arm | Abdomen | Abdomen |
| Downloading/ Data Reports | LibreView (download in office) | Blinded: Clarity (download in office) Unblinded: reader/apps | Carelink (download in office) |

May be covered by insurance intermittently, multiple times per year, even when personal CGM is not covered.

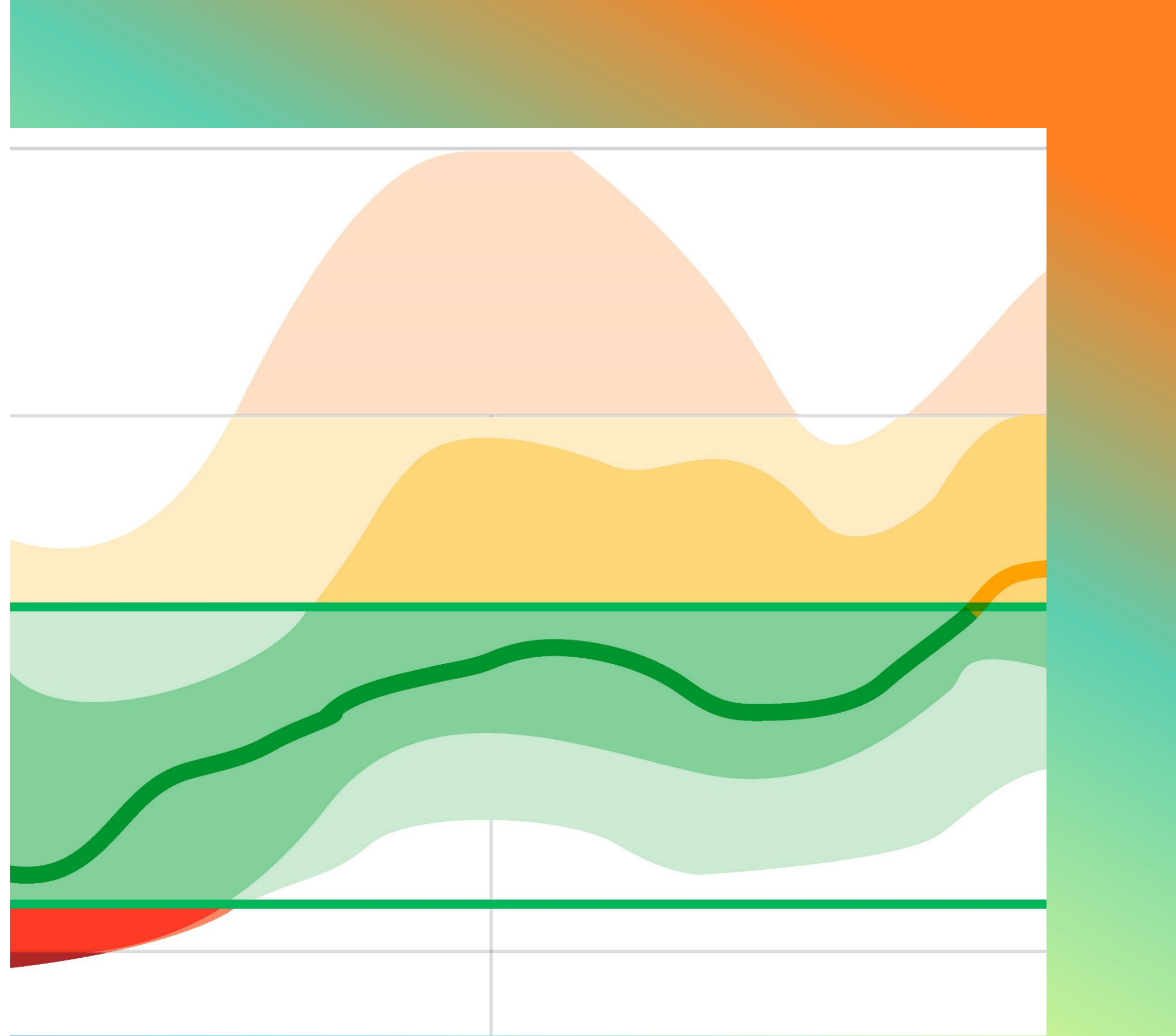With professional CGM, there is no need or very limited need for insurance authorization.[2]

 While information on the Medtronic system is still available online, it does not appear to be available for acquisition at this time.

[1]Professional Glucose Monitoring Implementation Handbook. Association of Diabetes Care & Education Specialists and the American Association of Nurse Practitioners (https://www.diabeteseducator.org/practice/practice-tools/app-resources/professional-cgm-play.
[2]CGM. AAFP website. https://www.aafp.org/family-physician/patient-care/care-resources/continuous-glucose-monitoring.html. Accessed 11/30/2022.

# Using Continuous Glucose Monitoring and the Ambulatory Glucose Profile for Clinical Decision-Making in Primary Care

## Accessing and Reviewing CGM Data

# The Ambulatory Glucose Profile (AGP)

**1 Metrics, Values, Goals**
Summary of values to help assess the overall quality of glucose management

**2 AGP Profile**
Shows all values as if collected over a single 24-hour period. Shows variability in the mean glucose and patterned areas of highs and lows.
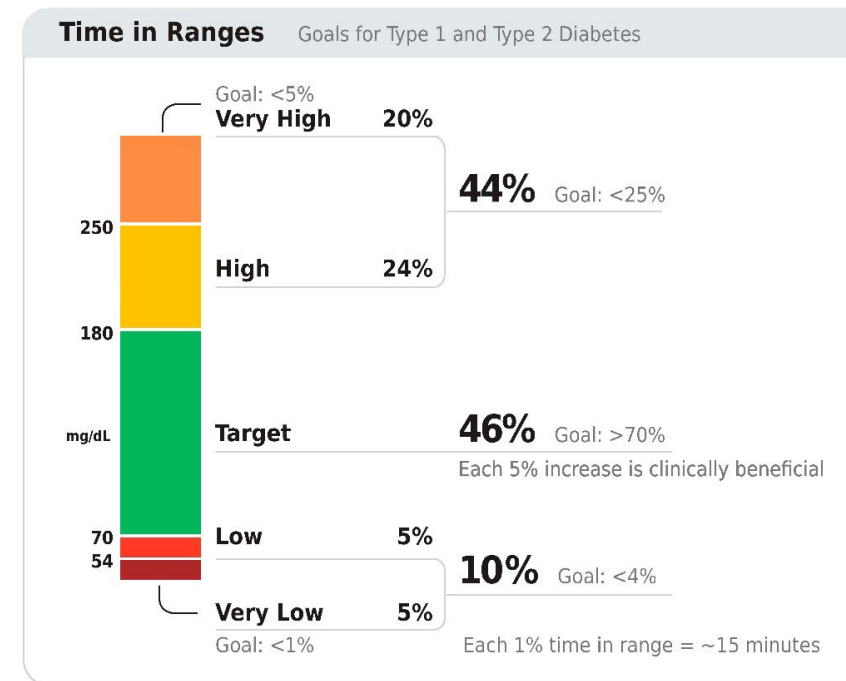
**3 Daily Views**
Shows daily values – helpful in determining causes of patterns or exceptions to usual patterns.

Standards of Medical Care in Diabetes – 2023 Abridged for Primary Care Providers. American Diabetes Association website. Figure 6.1, page 9. Reprinted with permission of the American Diabetes Association, Inc. Copyright 2022.



**Time in Ranges**  Goals for Type 1 and Type 2 Diabetes

**Test Patient**  DOB: Jan 1, 1970
**14 Days: August 8–August 21, 2021**
**Time CGM Active: 100%**

Goal: <5%
Very High  20%
44%  Goal: <25%
250
High  24%
180
mg/dL
Target  46%  Goal: >70%
Each 5% increase is clinically beneficial
70
54
Low  5%
10%  Goal: <4%
Very Low  5%
Goal: <1%  Each 1% time in range = ~15 minutes

**Glucose Metrics**

Average Glucose...........................................**175** mg/dL
Goal: <154 mg/dL

Glucose Management Indicator (GMI) ...............**7.5%**
Goal: <7%

Glucose Variability .............................................**45.5%**
Defined as percent coefficient of variation
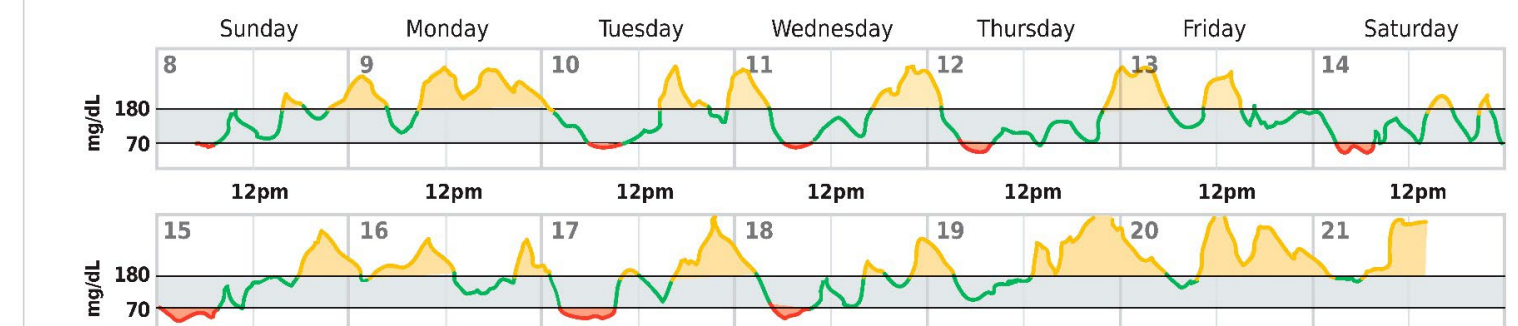Goal: <36%

**Ambulatory Glucose Profile (AGP)**

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

350 mg/dL
250
180
Target Range
70
54
0
12am  3am  6am  9am  12pm  3pm  6pm  9pm  12am
95%  75%  50%  25%  5%

**Daily Glucose Profiles**

Each daily profile represents a midnight-to-midnight period.

Sunday  Monday  Tuesday  Wednesday  Thursday  Friday  Saturday
8  9  10  11  12  13  14
mg/dL 180  70
12pm  12pm  12pm  12pm  12pm  12pm  12pm
15  16  17  18  19  20  21
mg/dL 180  70

# GMI vs A1c

Glucose Management Indicator (GMI) ............. **7.5%**
Goal: <7%

+ The A1c measures the glycated form of hemoglobin to obtain the three-month average of blood sugar.

+ The GMI indicates what your patient's A1c IS LIKELY TO BE IF your patient continues the behavior demonstrated in the AGP for a period of 90 days.

# Freestyle Libre 14-day/2/3

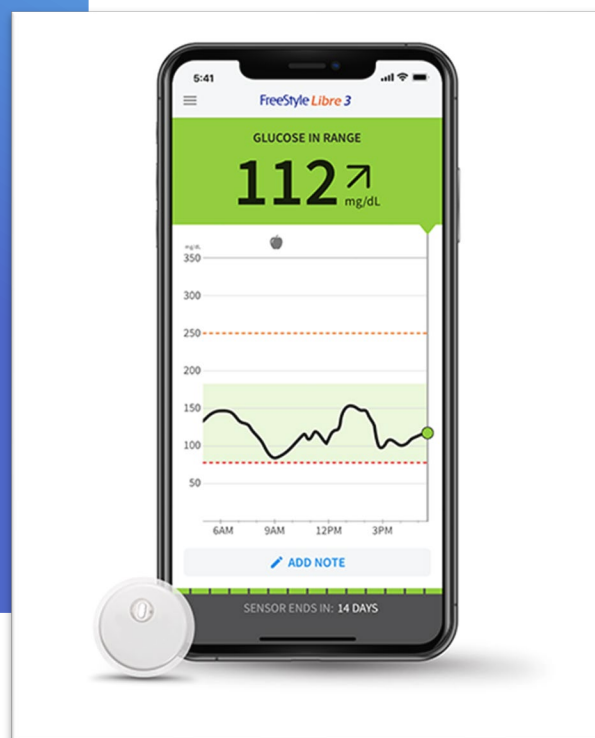+ Libre 14 days (LibreLink) and Libre 2/3 sensor phone-based apps IOS/Android

+ *Linkup* for family/friends

+ *Libre View* for download reports Libre 14 day and Libre 2/3

Libre Link    Libre LinkUp

The latest Libre View offers the GLUCOSE PATTERN INSIGHTS REPORT (GPI), designed to help you identify and treat trouble spots in the AGP.
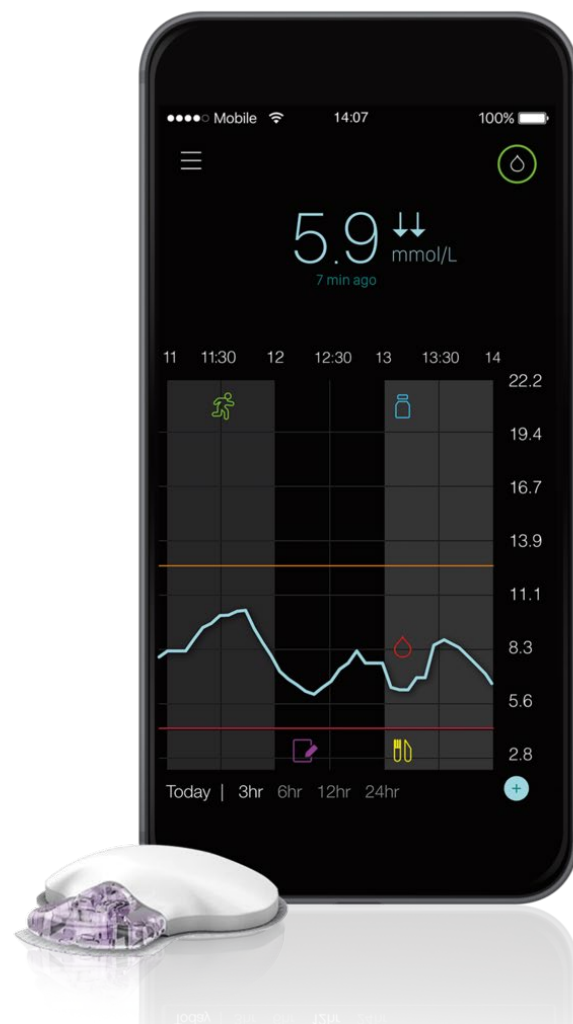
# Dexcom G6/G7

+ Dexcom iOS and Android apps for data
+ *Share* for family/friends
+ Clarity for download reports
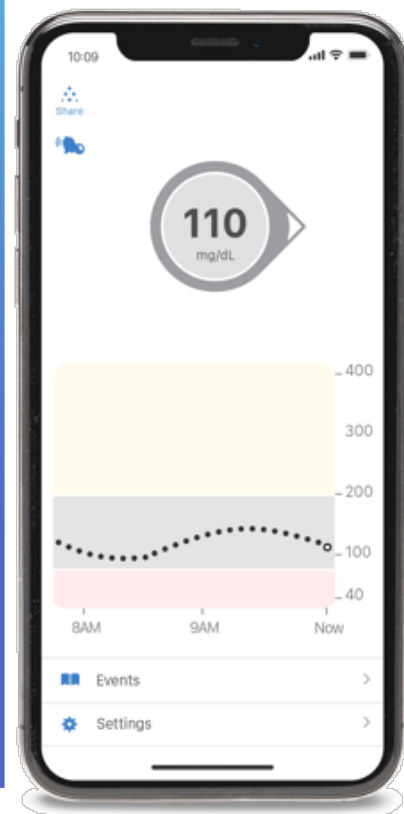
# Medtronic Guardian

+ Phone based data apps

+ Guardian System with *Connect* for family/friends and Carelink software for downloading reports

## Upload to Carelink™ Software

# Senseonics Eversense

+ Eversense Mobile App iOS and Android
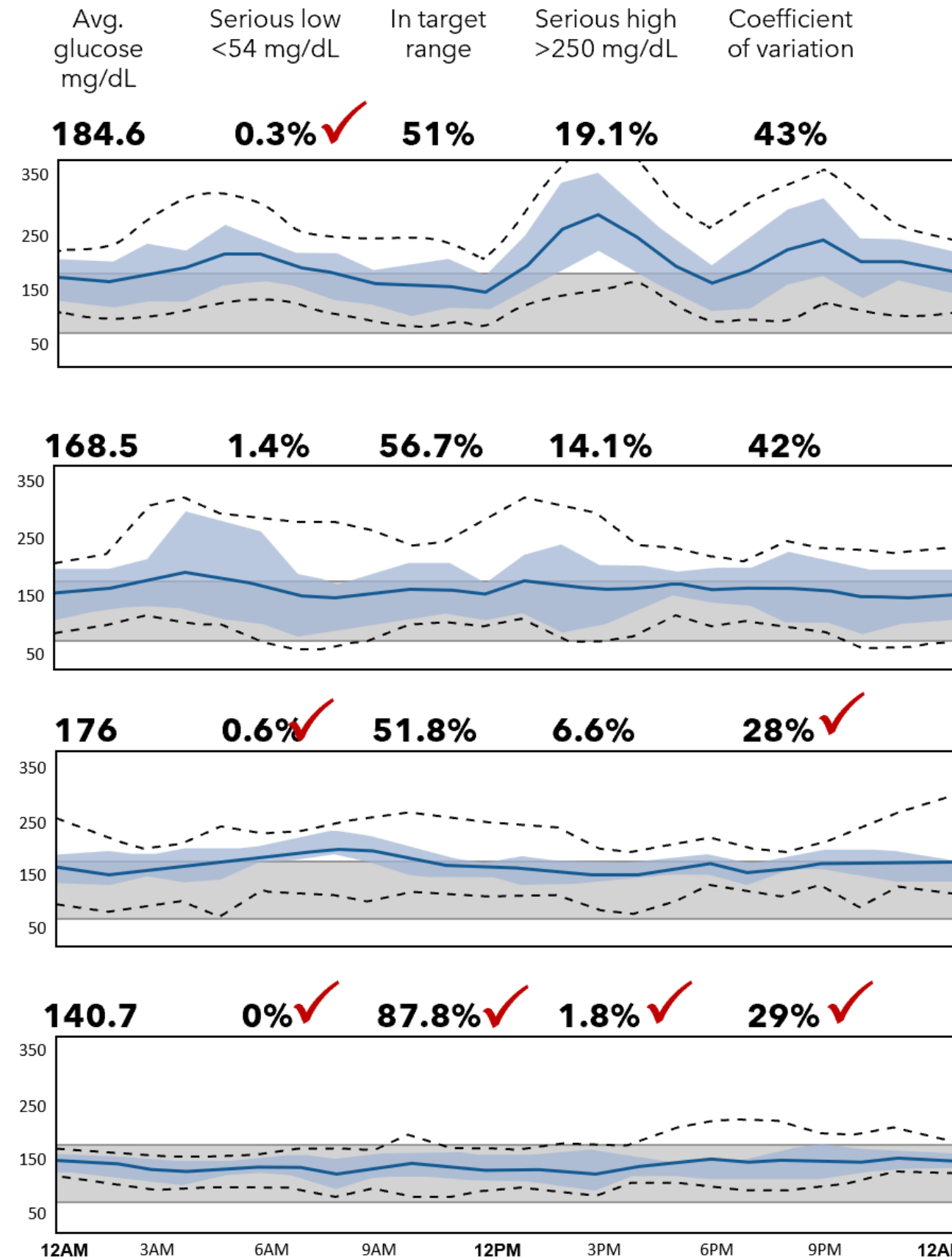
+ Download user data at https://pro.eversensedms.com

# The Ideal Ambulatory Glucose Profile

## Desired Targets*[1]

+ Time in range (TIR) (70-180 mg/dL): >70%

+ Time below range (TBR):
  <70 mg/dL: <4%
  <54 mg/dL: <1%

+ Time above range (TAR):
  >180 mg/dL: <25%
  >250 mg/dL: <5%

+ Coefficient of variation (glucose variability): <36%

*For most adults with T1DM or T2DM and age 25-65 y

| Avg. glucose mg/dL | Serious low <54 mg/dL | In target range | Serious high >250 mg/dL | Coefficient of variation |
|---|---|---|---|---|
| 184.6 | 0.3% ✓ | 51% | 19.1% | 43% |

**Not flat, not narrow, not in range**

| 168.5 | 1.4% | 56.7% | 14.1% | 42% |

**Flat, not narrow, not in range**

| 176 | 0.6% ✓ | 51.8% | 6.6% | 28% ✓ |

**Flat, narrow, not in range**

| 140.7 | 0% ✓ | 87.8% ✓ | 1.8% ✓ | 29% ✓ |

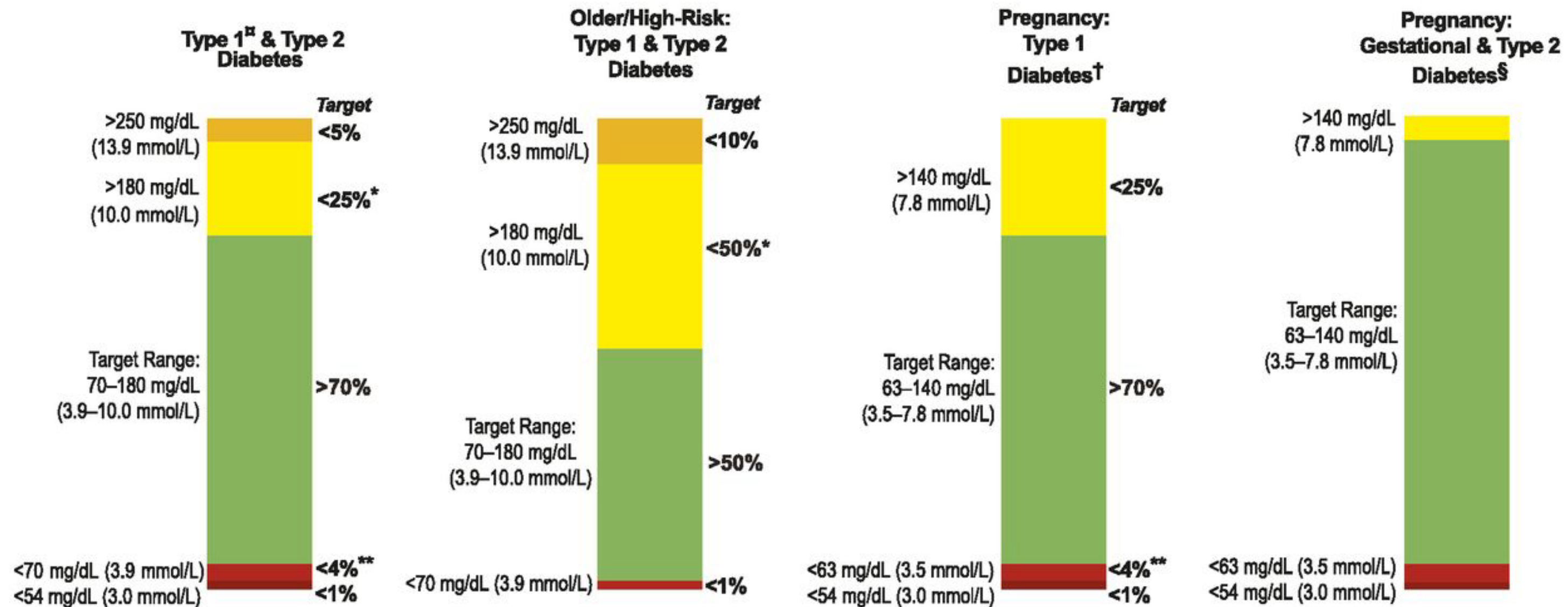**Flat, narrow, and in range!**

1. Battelino T, et al. *Diabetes Care*. 2019;42:1593-1603.
2. With permission of Richard Bergenstal, MD, International Diabetes Center

# Not all patients have the same TIR goals
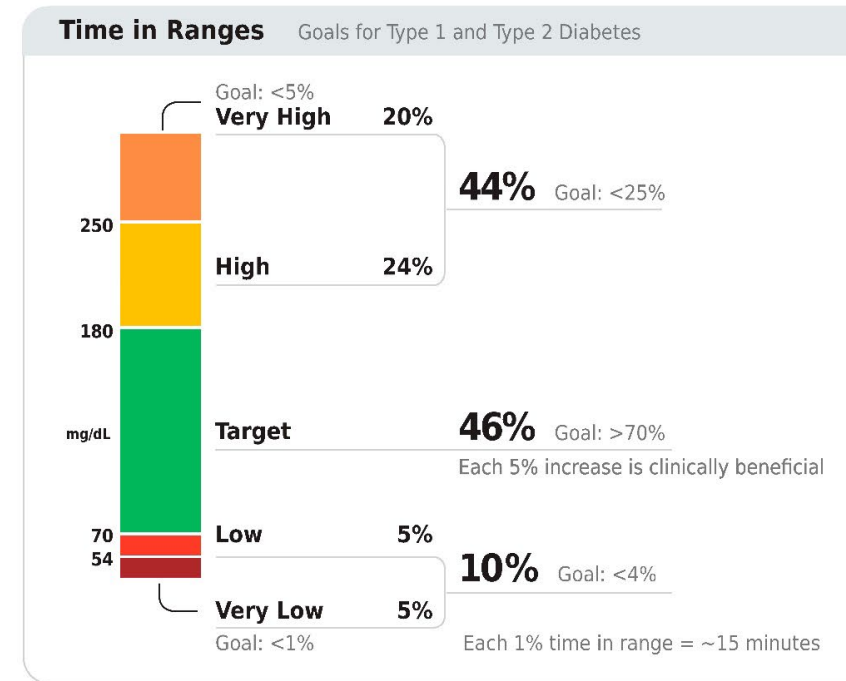
Battelino T, et al. *Diabetes Care*. 2019;42:1593-1603.

# Steps to Interpret the AGP

1. • Check for adequate data.
2. • Mark up the AGP, noting factors affecting management.
3. • Ask the patient "What do you see?" Listen.
4. • Look for patterns of low blood glucose levels.
5. • Look for patterns of high blood glucose levels.
6. • Look for areas of wide glucose variability.
7. • Compare to past AGP and reinforce successful strategies.
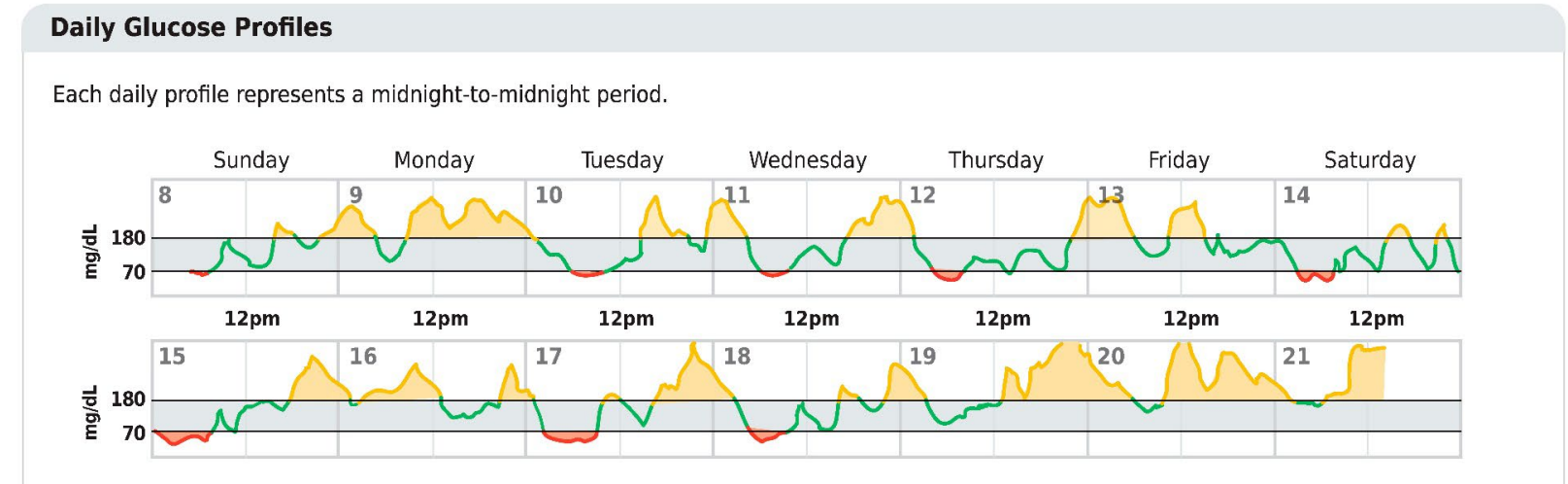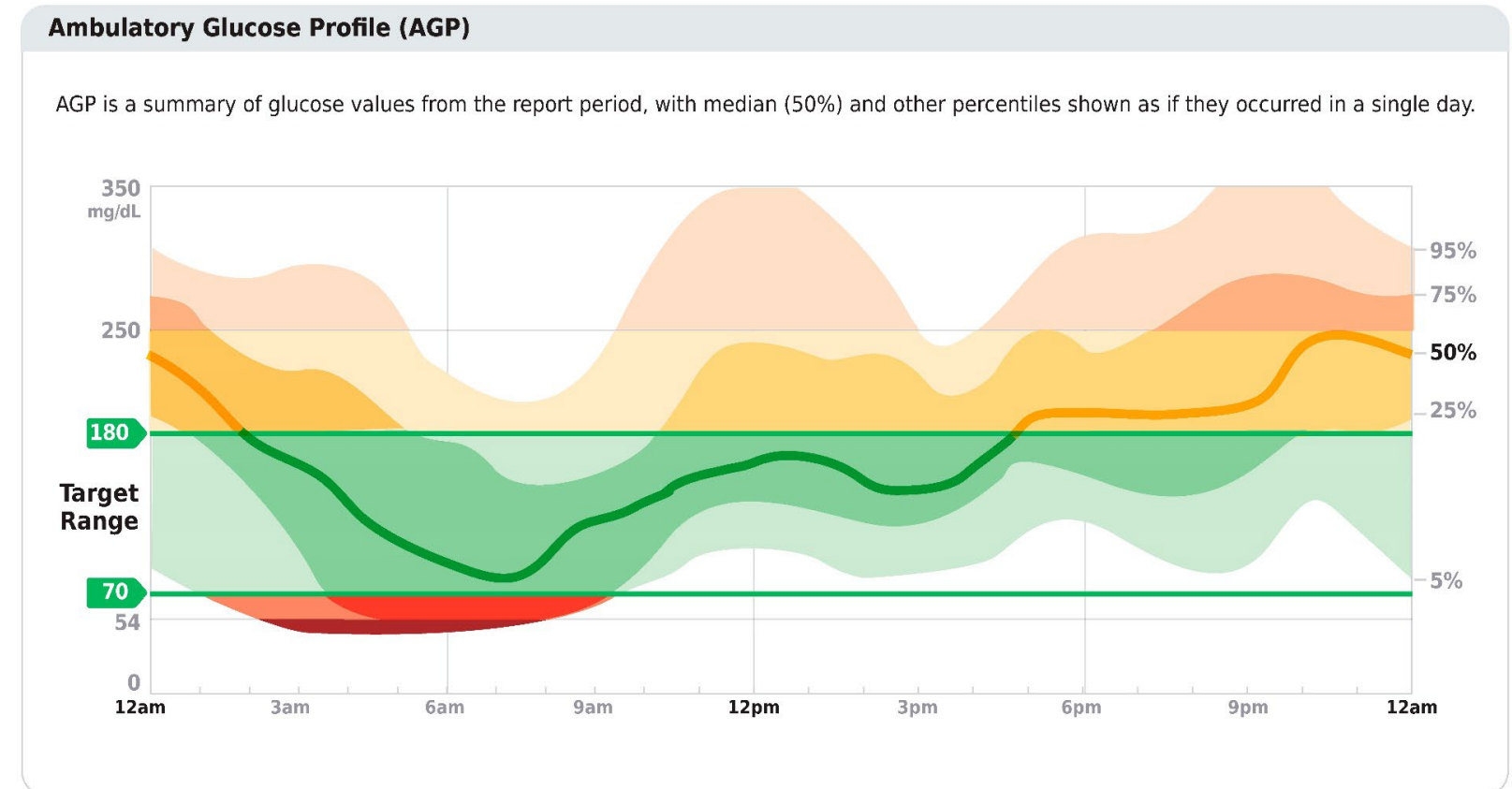8. • Agree on an action plan with the patient.

# The Ambulatory Glucose Profile (AGP)

| | |
|---|---|
| **1** | • Check for adequate data. |
| **2** | • Mark up the AGP, noting factors affecting management. |
| **3** | • Ask the patient "What do you see?" Listen. |
| **4** | • Look for patterns of low blood glucose levels. |
| **5** | • Look for patterns of high blood glucose levels. |
| **6** | • Look for areas of wide glucose variability. |
| **7** | • Compare to past AGP and reinforce successful strategies. |
| **8** | • Agree on an action plan with the patient. |

Used with permission of Richard Bergenstal, MD, International Diabetes Center

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## Time in Ranges    Goals for Type 1 and Type 2 Diabetes

Goal: <5%
**Very High**    **20%**

**44%**    Goal: <25%

250

**High**    **24%**

180

mg/dL

**Target**    **46%**    Goal: >70%
Each 5% increase is clinically beneficial

70
54
**Low**    **5%**

**10%**    Goal: <4%

**Very Low**    **5%**
Goal: <1%    Each 1% time in range = ~15 minutes

**Test Patient**    DOB: Jan 1, 1970

**14 Days: August 8–August 21, 2021**

**Time CGM Active: 100%**

### Glucose Metrics

**Average Glucose**............................................**175** mg/dL
Goal: <154 mg/dL

**Glucose Management Indicator (GMI)** ...............**7.5%**
Goal: <7%

**Glucose Variability** ...........................................**45.5%**
Defined as percent coefficient of variation
Goal: <36%

## Ambulatory Glucose Profile (AGP)

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

## Daily Glucose Profiles

Each daily profile represents a midnight-to-midnight period.

# Using Continuous Glucose Monitoring and the Ambulatory Glucose Profile for Clinical Decision-Making in Primary Care

## The AGP in Clinical Decision-Making
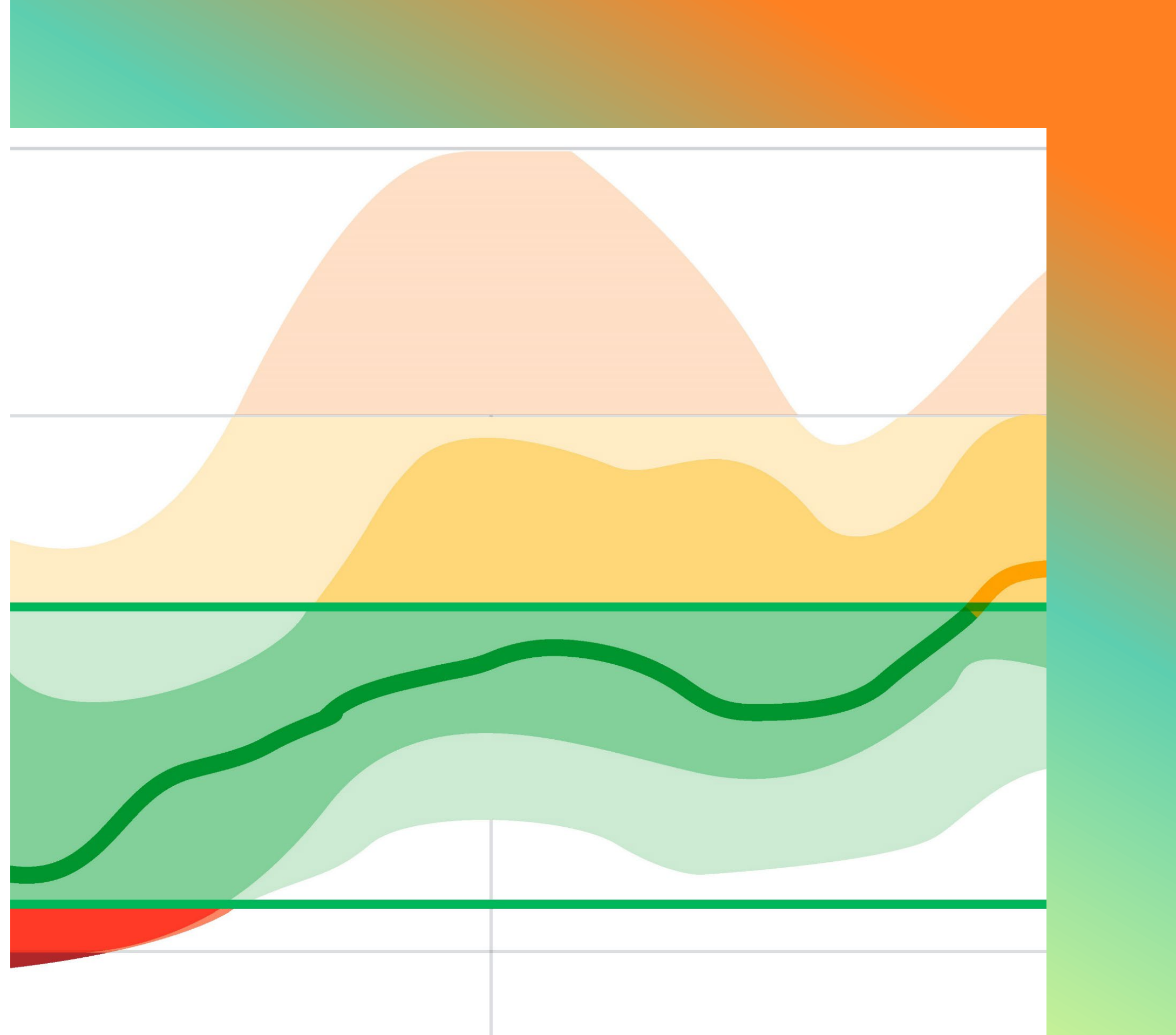
# Case Study One

## Patient Current Medical History

+ No insurance coverage for CGM

+ 62 year old white woman

+ Type 2 diabetes 22 years

+ Hypertension, Elevated lipids, CKD

+ Fingerstick Data: Reports FBS 140-160 range, Bed Bg 180 range, no data brought to clinic, no meter to upload, not sure what is happening before meals to guide insulin

+ Hypoglycemia: denies

+ A1c: 8.4 %

## Current Medications (with comments)

+ Basal Insulin 42 units 9 PM

+ Meal time insulin: Prescribed based on BG and Carbohydrate intake, (unsure if being taken)

+ SGLT-2 inhibitor

+ Metformin XR 1000 M daily

+ Does not tolerate GLP1 RA

# Case Study One
**(cont)**

- Professional CGM (covered)

## What do we see?


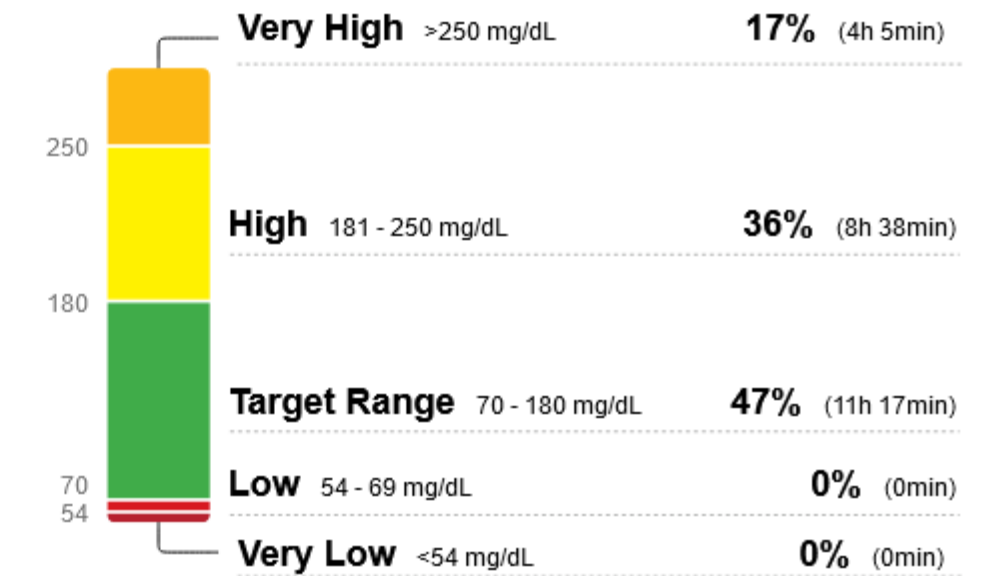
### AGP Report
November 29, 2022 - December 13, 2022 (15 Days)

**GLUCOSE STATISTICS AND TARGETS**

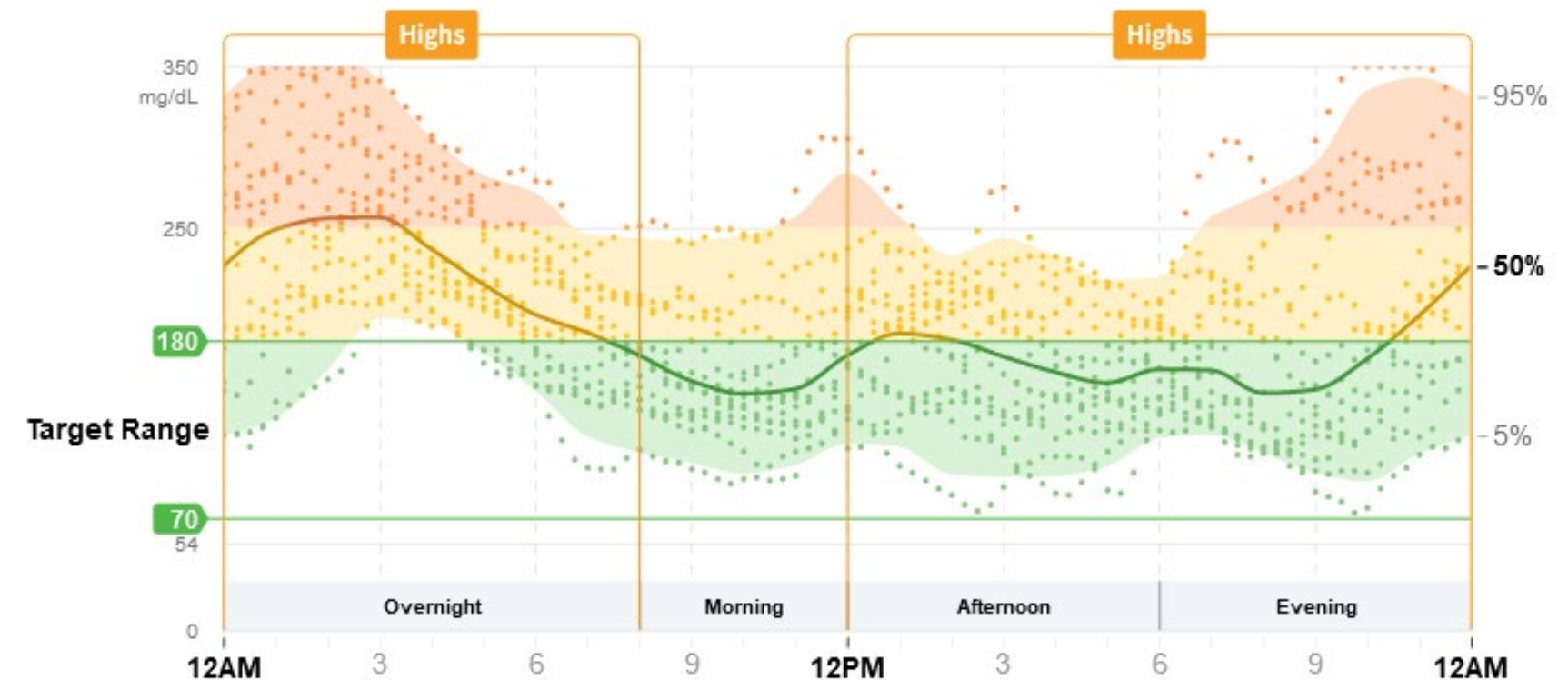| November 29, 2022 - December 13, 2022 | 15 Days |
|---|---|
| % Time CGM is Active | 100% |

| Ranges And Targets For | Type 1 or Type 2 Diabetes |
|---|---|
| Glucose Ranges<br>Target Range 70-180 mg/dL | Targets<br>% of Readings (Time/Day)<br>Greater than 70% (16h 48min) |
| Below 70 mg/dL | Less than 4% (58min) |
| Below 54 mg/dL | Less than 1% (14min) |
| Above 180 mg/dL | Less than 25% (6h) |
| Above 250 mg/dL | Less than 5% (1h 12min) |
| Each 5% increase in time in range (70-180 mg/dL) is clinically beneficial. | |

| | |
|---|---|
| Average Glucose | 191 mg/dL |
| Glucose Management Indicator (GMI) | 7.9% |
| Glucose Variability | 31.8% |

Defined as percent coefficient of variation (%CV)

**TIME IN RANGES**

| | | |
|---|---|---|
| Very High | >250 mg/dL | 17% (4h 5min) |
| High | 181 - 250 mg/dL | 36% (8h 38min) |
| Target Range | 70 - 180 mg/dL | 47% (11h 17min) |
| Low | 54 - 69 mg/dL | 0% (0min) |
| Very Low | <54 mg/dL | 0% (0min) |

### Glucose Patterns (15 Days)

# Case Study One (cont)

**The Plan**

+ Encourage patient to take all insulin as prescribed

+ Increase basal insulin to 46 units, consider a longer acting basal insulin

+ Mealtime insulin: Patient not doing BG before meals and typically omitting insulin. Provide a set dose of insulin for each meal

+ Continue: SGLT2 inhibitor, Metformin XR 1000 M daily

+ Discuss GLP-1 and consider again with more education and nutrition counseling

# Case Study Two

## Patient Current Medical History

+ 56-year-old black male

+ Type 2 diabetes 14 years

+ History of hypertension, elevated lipids - both well controlled

+ Returns for 3 month follow up

+ Weight: BMI 29

+ A1c 7.6 % (goal <7% with >70% TIR and <5% low BG)

## Present Medications

+ Daily GLP-1 at max dose tolerated

+ Metformin 1000mg daily (max tolerated)

+ SGLT-2 Inhibitor

# Case Study Two
(cont)

## What do we see and what do we try to fix first?

# Case Study Two (cont)

**The Plan**

+ A1c goal <7% with >70% TIR and <5% low BG

+ Switch to a once weekly GLP-1

+ Refer for Medical Nutritional Therapy and Diabetes Education

+ Continue 1000mg Metformin

+ Continue SGLT-2 inhibitor

+ Advise patient that while we are connected in the cloud I will not look at CGM data unless asked

+ Patient asks me to look at data 2-4 weeks after change in GLP1

+ May need basal insulin, decide after once weekly GLP-1 titrated

+ Return 3 months

# Case Study Three

## Patient Current Medical History

+ 60-year-old female

+ Breast Cancer

+ Hypertension

+ Hyperlipidemia

+ BMI 40.3, 265# 68"

+ A1c 10.7%

+ Insulin Degludec 45 units in AM

+ Dapagliflozin 10 mg QD

+ Metformin 1000 mg BID

+ Patient works nights at care home and has some stress at work

## In Office…

+ Applied continuous glucose monitor

+ Patient was to be mindful of the effects of food on glucose and make notes of these times

+ Advised patient to titrate insulin initially to AM glucose of less than 200 mg/dl

+ Addition of .75 Dulaglutide sub Q weekly

+ She will return in 2 weeks for first review of AGP (Ambulatory Glucose Profile)

# Case Study Three (cont.)

## 1st AGP Report (2 wk. follow-up)

+ First FU appt after CGM application

+ Patient reports learning the effects of food on glucose levels

+ She has been slowly increasing the insulin one unit ever 3 days and is up to 49 units

+ Her AM glucose is still above target range

+ She has noticed her glucoses falling much more now after meals

## AGP Report

### GLUCOSE STATISTICS AND TARGETS

| | 14 Days |
| --- | --- |
| % Time CGM is Active | 80% |

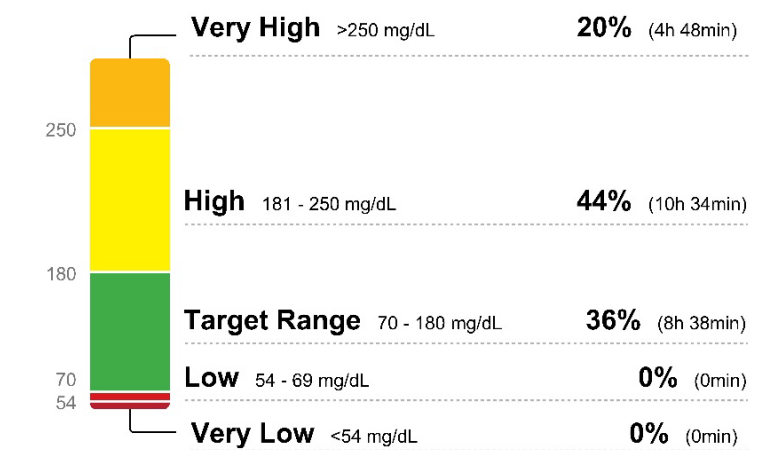| Ranges And Targets For | Type 1 or Type 2 Diabetes |
| --- | --- |
| **Glucose Ranges** | **Targets** % of Readings (Time/Day) |
| Target Range 70-180 mg/dL | Greater than 70% (16h 48min) |
| Below 70 mg/dL | Less than 4% (58min) |
| Below 54 mg/dL | Less than 1% (14min) |
| Above 180 mg/dL | Less than 25% (6h) |
| Above 250 mg/dL | Less than 5% (1h 12min) |
| Each 5% increase in time in range (70-180 mg/dL) is clinically beneficial. | |

| | |
| --- | --- |
| **Average Glucose** | 207 mg/dL |
| **Glucose Management Indicator (GMI)** | 8.3% |
| **Glucose Variability** | 25.6% |

Defined as percent coefficient of variation (%CV); target ≤36%

### TIME IN RANGES

| | | |
| --- | --- | --- |
| **Very High** >250 mg/dL | **20%** | (4h 48min) |
| **High** 181 - 250 mg/dL | **44%** | (10h 34min) |
| **Target Range** 70 - 180 mg/dL | **36%** | (8h 38min) |
| **Low** 54 - 69 mg/dL | **0%** | (0min) |
| **Very Low** <54 mg/dL | **0%** | (0min) |

### 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.
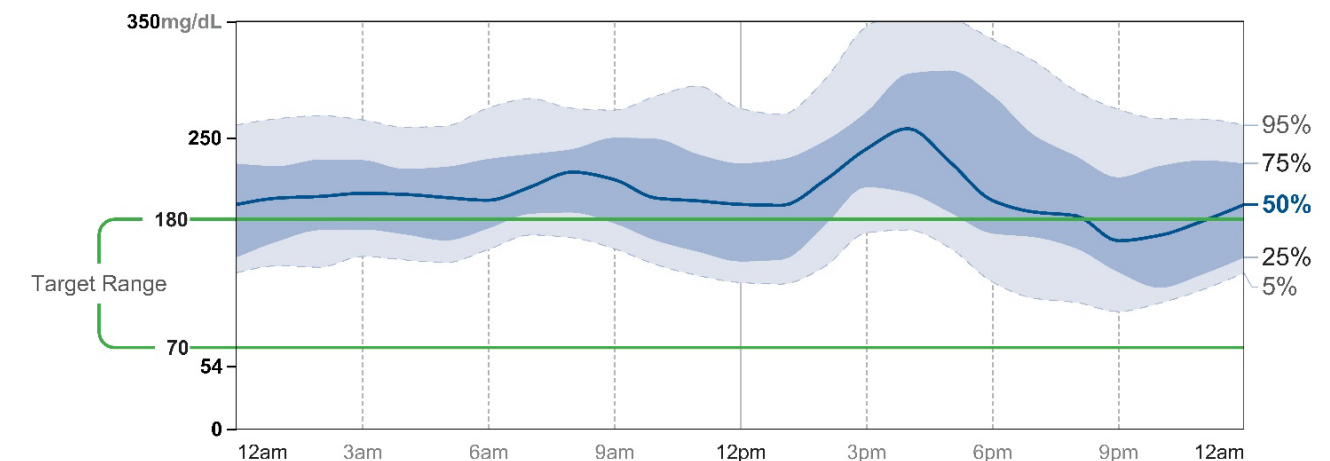
### DAILY GLUCOSE PROFILES

Each daily profile represents a midnight to midnight period with the date displayed in the upper left corner.
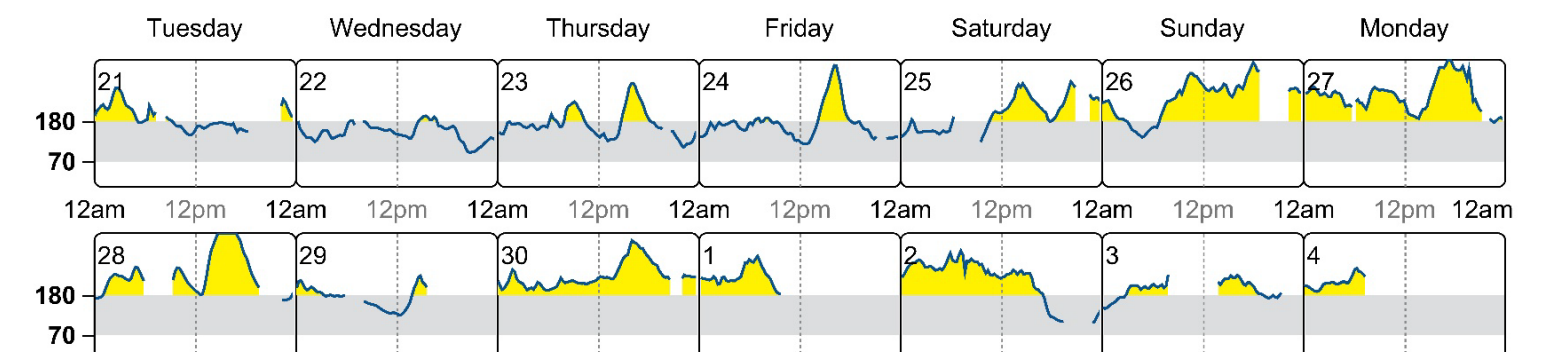
# Case Study Three (cont.)
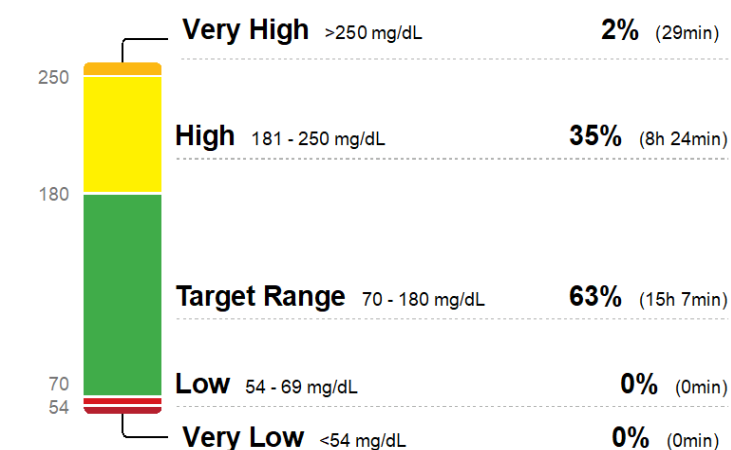
## 2nd AGP Report (3 mo. follow-up)

+ Insulin Degludec up to 52 units
+ Weight loss 10 #
+ BMI 38.6
+ A1c is 7.6%
+ Tolerating 1.5 Dulaglutide weekly
+ Learning foods effect on glucose
+ Note GMI 7.4%
+ Some dawn phenomenon
+ AM scan around 150 mg/dl
+ Still some data gaps and scanning needed.
+ She indicates this sometimes can be hard when at work
+ Advised to further increase Dulaglutide to 3mg weekly
+ Continue target long acting try for less then 140 or near 120
+ FU appt in 3 mos

**AGP Report**
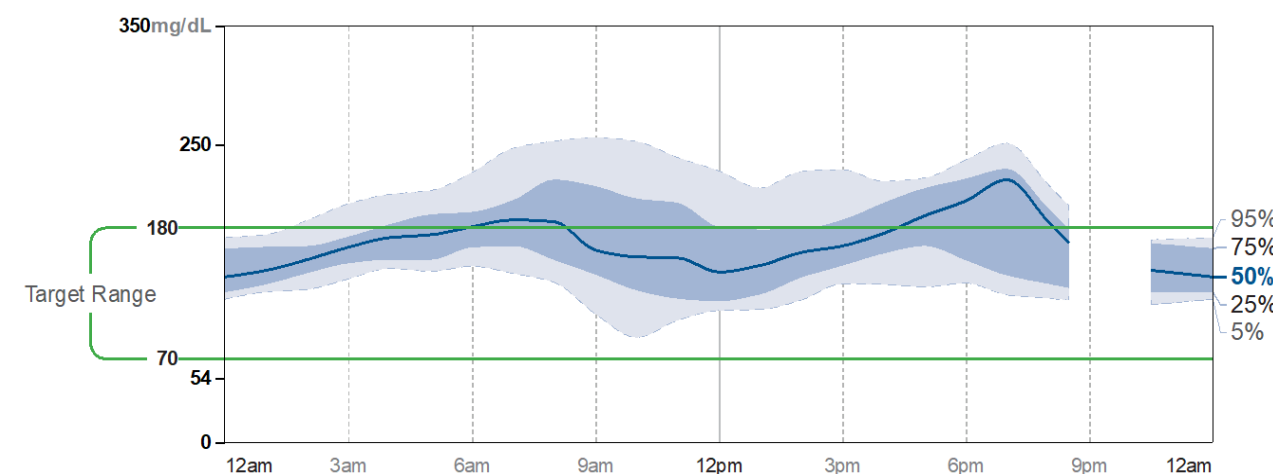
### GLUCOSE STATISTICS AND TARGETS

|  | 14 Days |
|---|---|
| % Time CGM is Active | 54% |

| Ranges And Targets For | Type 1 or Type 2 Diabetes |
|---|---|
| Glucose Ranges | Targets % of Readings (Time/Day) |
| Target Range 70-180 mg/dL | Greater than 70% (16h 48min) |
| Below 70 mg/dL | Less than 4% (58min) |
| Below 54 mg/dL | Less than 1% (14min) |
| Above 180 mg/dL | Less than 25% (6h) |
| Above 250 mg/dL | Less than 5% (1h 12min) |
| Each 5% increase in time in range (70-180 mg/dL) is clinically beneficial. | |

| Average Glucose | 170 mg/dL |
|---|---|
| Glucose Management Indicator (GMI) | 7.4% |
| Glucose Variability | 22.0% |

Defined as percent coefficient of variation (%CV)

### TIME IN RANGES

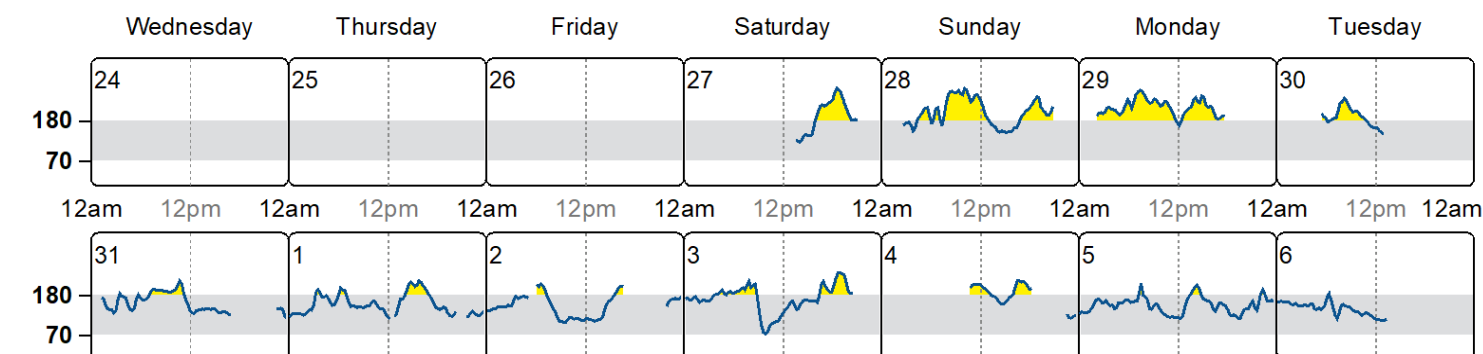| Very High | >250 mg/dL | 2% | (29min) |
|---|---|---|---|
| High | 181 - 250 mg/dL | 35% | (8h 24min) |
| Target Range | 70 - 180 mg/dL | 63% | (15h 7min) |
| Low | 54 - 69 mg/dL | 0% | (0min) |
| Very Low | <54 mg/dL | 0% | (0min) |

### 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.*

| Wednesday | Thursday | Friday | Saturday | Sunday | Monday | Tuesday |
|---|---|---|---|---|---|---|
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 1 | 2 | 3 | 4 | 5 | 6 |

# Case Study Three (cont.)

## 3rd AGP Report (5 mo. follow-up)

+ Current a1c 6.9% GMI is 7.0%
+ Insulin Degludec at 52 units
+ Dulaglutide increase prior to follow up is now at 4.5mg weekly as she called and noticed post meal glucoses over 200
+ BMI 37.2
+ Additional 4# weight loss
+ Total weight loss 14#
+ Watching her food and trying to lose additional weight
+ Additional engagement and scanning needed
+ Discussion switching to another device by the same manufacturer for streaming capability
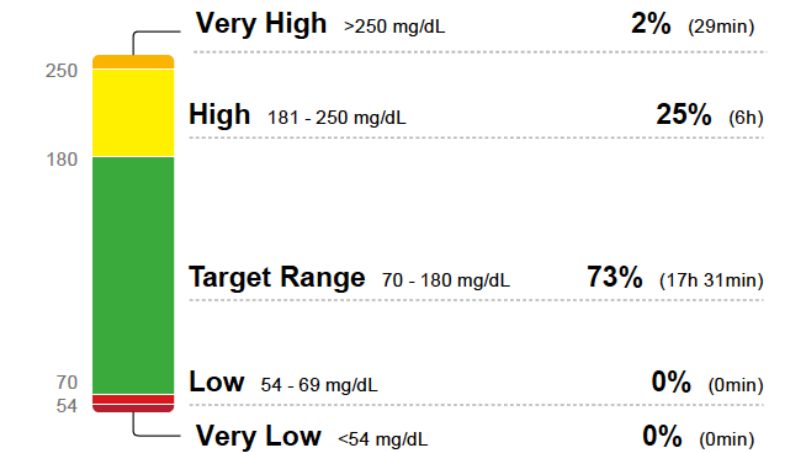


### AGP Report

**GLUCOSE STATISTICS AND TARGETS**

| | 14 Days |
|---|---|
| % Time CGM is Active | 69% |

| Ranges And Targets For | Type 1 or Type 2 Diabetes |
|---|---|
| **Glucose Ranges** | **Targets** % of Readings (Time/Day) |
| Target Range 70-180 mg/dL | Greater than 70% (16h 48min) |
| Below 70 mg/dL | Less than 4% (58min) |
| Below 54 mg/dL | Less than 1% (14min) |
| Above 180 mg/dL | Less than 25% (6h) |
| Above 250 mg/dL | Less than 5% (1h 12min) |
| Each 5% increase in time in range (70-180 mg/dL) is clinically beneficial. | |

| | |
|---|---|
| Average Glucose | 155 mg/dL |
| Glucose Management Indicator (GMI) | 7.0% |
| Glucose Variability | 27.6% |
| Defined as percent coefficient of variation (%CV) | |

**TIME IN RANGES**

| | | |
|---|---|---|
| Very High >250 mg/dL | 2% | (29min) |
| High 181 - 250 mg/dL | 25% | (6h) |
| Target Range 70 - 180 mg/dL | 73% | (17h 31min) |
| Low 54 - 69 mg/dL | 0% | (0min) |
| Very Low <54 mg/dL | 0% | (0min) |

**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.
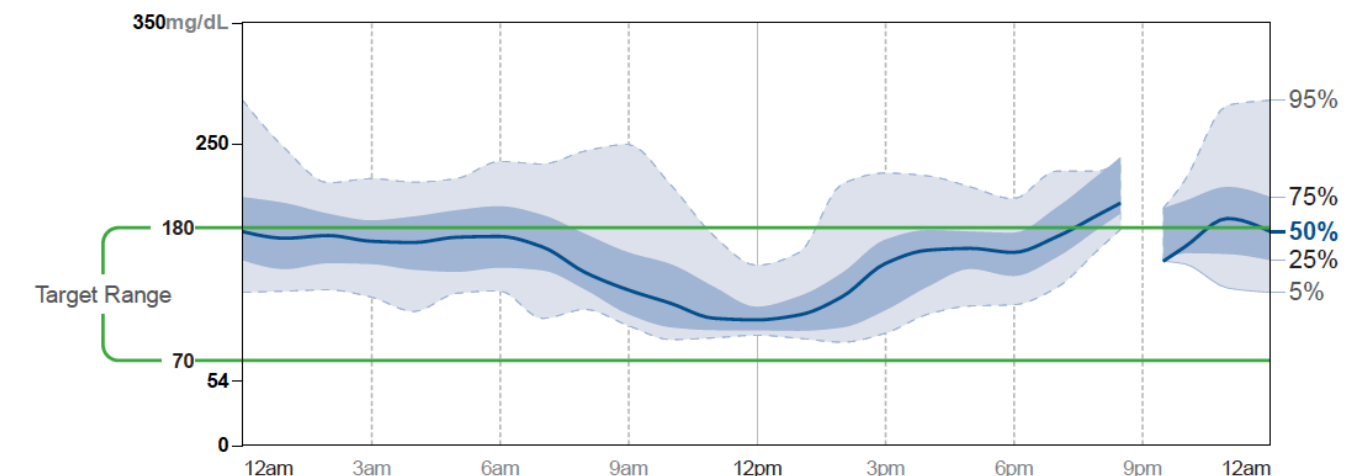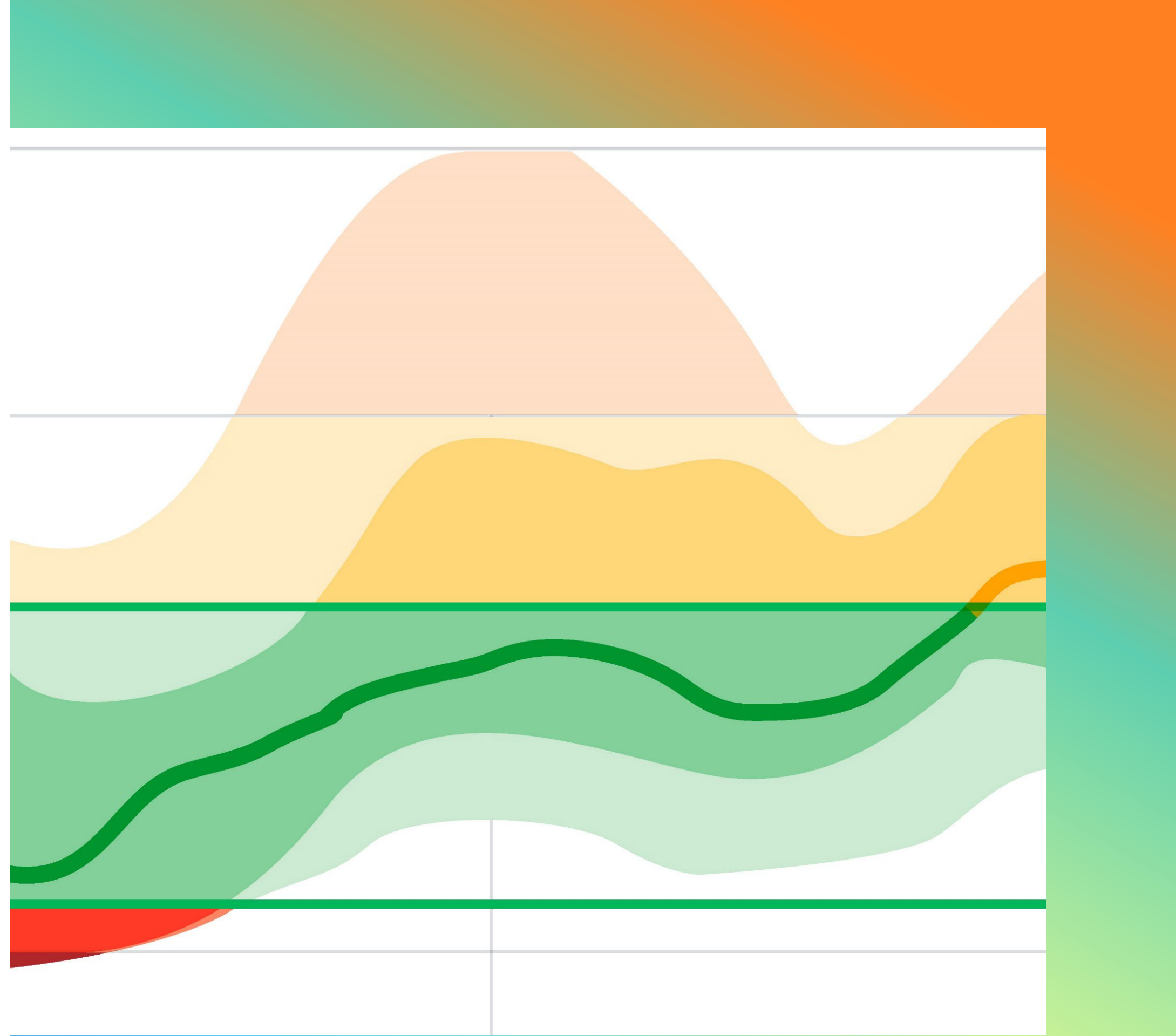
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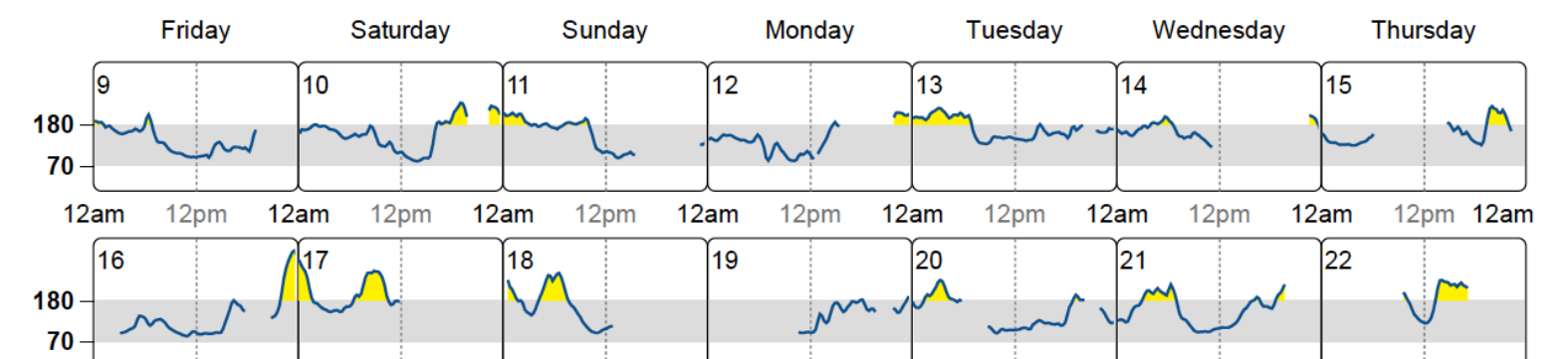
# Using Continuous Glucose Monitoring and the Ambulatory Glucose Profile for Clinical Decision-Making in Primary Care

## Practical Implementation at the Practice

# How do you get your practice ready?

Make a clinic decision for CGM utilization

Create Team Diabetes-CGM

Identify a Diabetes Champion

Determine which systems to integrate

Gain additional initiation support through online resources or representatives

Create a workflow that works for you and your staff

# Preparing your colleagues/staff

## The Front Office

➢ Reminder calls with encouragement to collect additional data (food/exercise/stress/meds)

➢ Collect devices

➢ Get staff started on data access (can be before appointment or when patient shows up with devices)

## The Back Office

➢ Familiar with all CGM systems used

➢ Have set up a clinic log-in profile

➢ Able to access the AGP for all systems

➢ Download data and upload to chart at or prior to appointment

# Prepare for billing

## Who owns the equipment?

Patient or Provider: Unique codes for each

Service occurs > 1 day

Minimum of 72 hours of wear

Download of receiver occurs in office, cloud based printed out, or electronic transfer

Service can be charged at the day of download or time of analysis

## Interpretation of data

Minimum of 72 hours of wear time

Face to face is not required, CPT stand alone or with E&M Code

Limitations of who can bill: Physician, NP, PA (those who can prescribe)

## CODES & DESCRIPTIONS

### 95249:

Personal CGM – Startup/Training: Ambulatory continuous glucose monitoring of interstitial tissue fluid via a subcutaneous sensor for a minimum of 72 hours; patient-provided equipment, sensor placement, hook-up, calibration of monitor, patient training and printout of recording. (Do not report more than once while patient owns device.)

### 95250:

Professional CGM - Ambulatory continuous glucose monitoring of interstitial fluid via a subcutaneous sensor for a minimum of 72 hours; clinician-provided equipment, sensor placement, hook-up, calibration of monitor, patient training, removal of sensor, and printout of recording. (Do not report more than once per month.)

### 95251:

Ambulatory continuous glucose monitoring of interstitial tissue fluid via a subcutaneous sensor for a minimum of 72 hours; interpretation and report. (Do not report more than once per month.)

### Evaluation and Management (E/M) Codes 99212-99215
Established Patient Visit or G0463 (Medicare Outpatient Clinic Visits)

### Eversense Only Codes:

0446T (creation of subcutaneous pocket with insertion of implantable sensor, including system activation and patient education), 0447T (removal of implantable sensor from subcutaneous pocket via incision), 0448T (removal of sensor with creation of new pocket for new sensor at a different location, including system activation).
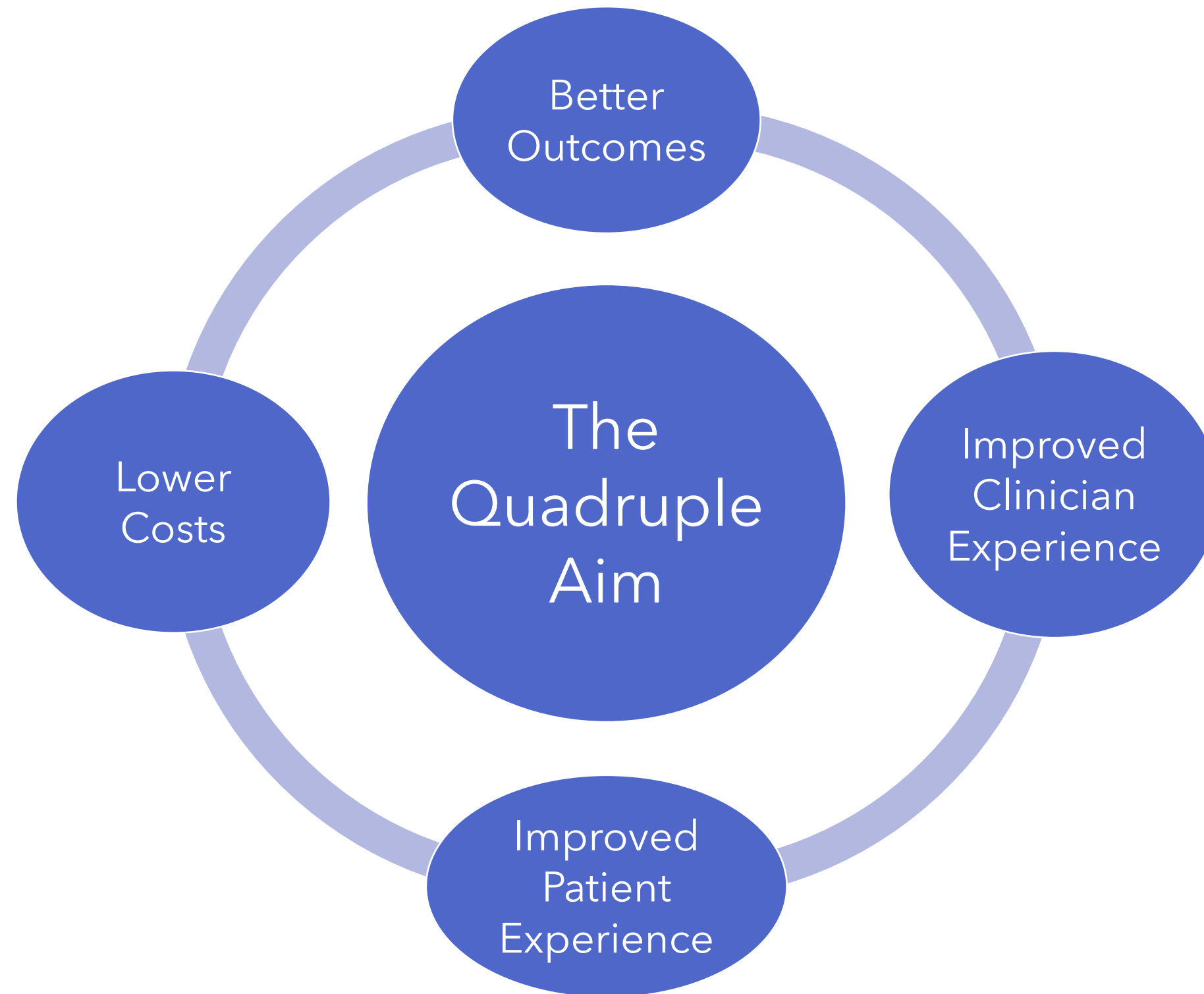
# RESOURCE TOOLKIT

## https://www.pcmg-us.org/toolkit/cgm

Links to pages devoted to the individual devices, both professional and personal, including insertion videos

Links to references used in this presentation

Links to download the deck and review the presentation (share with colleagues who can also earn additional CME credit)

Extensive cost and use data

A list of helpful resources from the ADA, diaTribe, AAFP, the Association of Diabetes Care & Education Specialists, and more

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**END**