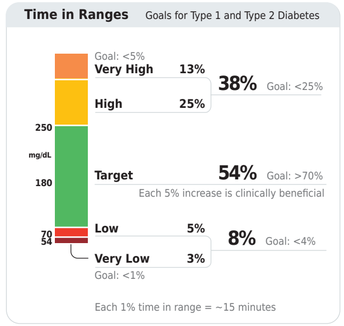
Clinician CGM Guided Management: For Patients on Basal and Bolus Insulin

A. Stop sulfonylurea if present
(to minimize risk of hypoglycemia)

B. Find the % time in range (target range) and % time below range (low and very low) from the AGP Report (see example to right).

- Is time in range (TIR) [70-180 mg/dL] >70%?
  Example to right shows 54%
- Is time below range (TBR) [< 70 mg/dL] <3%?
  Example to right shows 8%

C. Find TIR/TBR category in table below and consider therapy adjustment as outlined

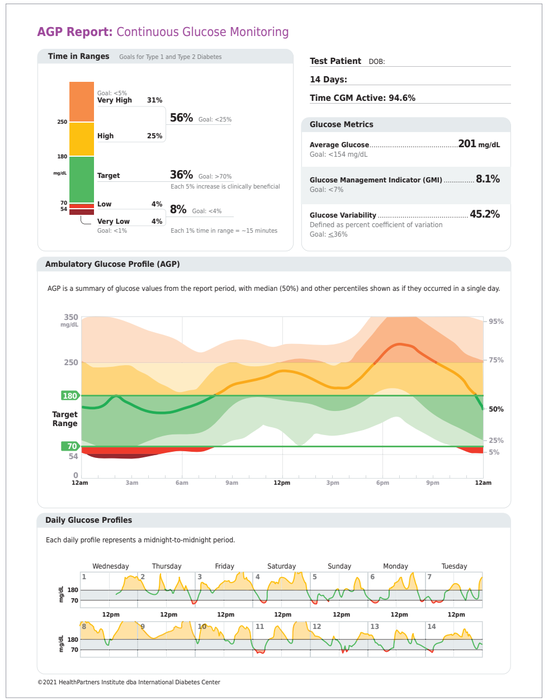


Example

	TIR/TBR Category	Action	Medication Adjustment Considerations
1	Time in range >70% and Time below range <3%	Continue regimen	Continue to optimize current therapy and reinforce lifestyle changes and taking medications as prescribed **Follow-up: 3-4 months**
2	Time in range >70% and Time below range ≥3%	Address hypoglycemia	If low* overnight decrease basal insulin** If low* at one specific time during the day decrease mealtime bolus dose** prior to the low If low* glucose occurs throughout the day and night decrease total daily insulin dose (TDD)** **Follow-up: 2-4 weeks**
3	Time in range ≤70% and Time below range <3%	Address hyperglycemia	Start or increase dose of GLP-1 RA or GIP/GLP-1 RA **AND** if TIR is 50-70% decrease total daily insulin dose (TDD) by 10% If GLP-1 RA or GIP/GLP-1 RA not started or increased, then adjust insulin doses according to current TIR: • If TIR <50% increase TDD by 10% and redistribute insulin 50:50 between basal and bolus insulin • If TIR 50-70% review AGP curve and adjust bolus and basal insulins based on **median glucose line** following Steps 1-3: —**Step 1,** address post-meal hyperglycemia: If there is a post-meal rise of >50 mg/dL after any meal, increase the bolus insulin before that meal by 10% —**Step 2,** address basal insulin: If there is a drop of >50 mg/dL between bedtime and morning meal, decrease basal insulin dose by 10% —**Step 3,** if there is no change in insulin dose based on Steps 1 or 2: Increase basal insulin dose by 10% **Follow-up: 2-4 weeks**
4	Time in range ≤70% and Time below range ≥3%	Address hypoglycemia today; also refer to diabetes educator	Reduce **all** basal and mealtime bolus doses** **Refer to diabetes educator** to treat hyperglycemia while avoiding hypoglycemia; diabetes educator may recommend adding or adjusting GLP-1 RA or GIP/GLP-1 RA. If one of these is not started or increased, then insulin may be redistributed 50:50 between basal and bolus insulin and/or individual insulin doses titrated

* Low glucose defined as 5% line dropping below 70 mg/dL on AGP curve AND not due to just a single day after review of daily profiles
** Insulin dose reduction guidance: If TBR <10% reduce insulin dose(s) by 10%; if TBR ≥10% reduce insulin dose(s) by 20%

Example of Ambulatory Glucose Profile (AGP) Report for CGM



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Clinician CGM Guided Management (CCGM) of Patients with T2D on Insulin

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Medication optimization PRIOR to using the CCGM Tables

Step 1:
Does patient have established ASCVD, CHF, or CKD (Indications for GLP-1 RA or SGLT2i therapy)?

If **YES**, in addition to management focused on glucose lowering:

If **NO**, Move to Step 2.

Step 2:
Is patient on sulfonylurea therapy in addition to insulin therapy?

If **NO**, Move to Step 3.

If on basal-bolus insulin, RECOMMEND stopping sulfonylurea to reduce risk of hypoglycemia.

If on basal insulin, RECOMMEND stopping sulfonylurea if TBR ≥3% and CONSIDER stopping sulfonylurea if TBR <3% to reduce risk of hypoglycemia.

Move to Step 3.

Step 3:
Was there a change in therapy based on Step 1 or Step 2?

If **NO**, Move to Clinician CGM Guided Management basal insulin or basal bolus insulin table for therapy adjustment.

If **YES**, wait 2-4 weeks for the impact of therapy change, then Move to Clinician CGM Guided Management basal insulin or basal bolus insulin table.

If ASCVD (or high risk for ASCVD) suggest (start or intensify) GLP-1 RA or SGLT2i therapy.
Then Move to Step 2
When adding or intensifying GLP-1 RA or SGLT2i therapy decrease total daily dose (TDD) of insulin by 10% if TIR is 50% or more; maintain insulin dose if TIR <50%. See note on starting an SGLT2i.

OR

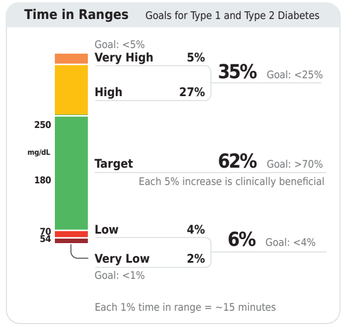
If CHF or CKD suggest SGLT2 inhibitor therapy (see note on starting an SGLT2i).
Then Move to Step 2
When Starting an SGLT2i in a patient using basal-bolus insulin therapy, suggest referral to Diabetes Educator or Endocrinology to educate on steps to minimize risk of euglycemic DKA (they may consider ketone monitoring in patients likely to be insulin-deficient, such as those who are non-obese, or have a long-duration of diabetes).

Clinician CGM Guided Management: For Patients on Basal Insulin

A. Find the % time in range (target range) and % time below range (low and very low) from the AGP Report (see example to right).

- Is time in range (TIR) [70-180 mg/dL] >70%? Example to right shows 62%
- Is time below range (TBR) [< 70 mg/dL] <3%? Example to right shows 6%

B. Find TIR/TBR category in table below and consider therapy adjustment as outlined



Example

	TIR/TBR Category	Action	Medication Adjustment Considerations
1	Time in range >70% and Time below range <3%	Continue regimen	Continue to optimize current therapy; reinforce lifestyle changes and taking medications as prescribed **Follow-up: 3-4 months**
2	Time in range >70% and Time below range ≥3%	Address hypoglycemia	Stop sulfonylurea if present; if TBR is >10% also decrease basal insulin total dose by 10% If not on sulfonylurea, decrease basal insulin by 10% if TBR ≤10% and by 20% if TBR>10% **Follow-up: 2-4 weeks**
3	Time in range ≤70% and Time below range <3%	Address hyperglycemia	Start or increase dose of GLP-1 RA or GIP/GLP-1 RA or add SGLT2i **AND** if TIR is 50-70% either stop sulfonylurea (if present), or decrease basal insulin dose by 10% If GLP-1 RA, GIP/GLP-1RA or SGLT2i not started, or on max tolerated dose, increase basal insulin by 10% • If overnight hypoglycemia is a concern after looking at AGP curve, maintain current basal insulin dose and refer to diabetes educator for regimen assessment and adjustment **Follow-up: 2-4 weeks**
4	Time in range ≤70% and Time below range ≥3%	Address hypoglycemia today; also refer to diabetes educator	To minimize hypoglycemia today: • Stop sulfonylurea if present AND if TBR is >10% also decrease basal insulin dose by 10% • If not on sulfonylurea, decrease basal insulin by 10% if TBR is ≤10% and by 20% if TBR >10% Refer to diabetes educator for options to treat hyperglycemia including: • Start or increase GLP-1 RA or GIP/GLP-1 RA ***(preferred)*** or add mealtime insulin before one or all meals; consider premixed insulin twice per day if cost or concern over insulin regimen complexity **Follow-up: 2-4 weeks**

Tips for Effective CGM-Based Insulin Titration

1. **Change therapy based on patterns of hypoglycemia or hyperglycemia,** rather than isolated outlying values caused by more-than-usual physical activity, eating out/special occasions, possible sensor issues, etc.

2. **If consistent rise in post-meal glucose,** explore if this is due to consumption of sugar-sweetened beverages, fruit juice or other high carbohydrate containing foods

3. **Consider potential issues with insulin regimen:**
   - Missed or rationed insulin or noninsulin therapies
   - Timing of insulin dosing:
     - Not taking mealtime or premixed insulin before eating (15 min for rapid-acting and 30 min for regular)
     - Timing of background insulin (e.g. consider moving from evening to morning for better daytime glucose management and reduced nocturnal hypoglycemia)
     - Skipping meals when using premixed insulin may lead to hypoglycemia
   - "Insulin stacking" causing low glucose: Taking extra insulin for ↑BG within 3 hrs of prior mealtime insulin dose
   - Covering snacks with a small amount of insulin is often helpful
     - Be wary of insulin stacking when covering snacks
   - Consider possible need for mealtime insulin or GLP-1 RA if excessive post-meal hyperglycemia
   - Lipohypertrophy (caused by repeated insulin injections in the same location) can cause erratic absorption
   - Injecting incorrect insulin type (e.g. taking 50 units of rapid acting insulin instead of 50 units basal insulin)

4. **If sudden increase in time above range, consider acute reasons** including expired/degraded insulin, improperly stored insulin (high or low temp), acute infection/illness, initiation of steroid therapy, rationed insulin, vacation

5. **Ask if excessive alcohol intake** could be the cause of hypoglycemia

6. **Consider undiagnosed T1D** if dramatic post-meal hyperglycemia on basal insulin only (assess for lower BMI, FH of T1D, history of other autoimmune diseases, poor response to non-insulin therapies, autoantibodies)