Cgm Initialization

Continuous Glucose Monitoring (CGM) alert settings can be customized to help patients improve their glucose control. There are a number of strategies to consider when initiating CGM and choosing initial alert settings. The recommendations below are based upon the clinical experience of Francine R. Kaufman, M.D., Chief Medical Officer and Vice President, Global Medical, Clinical & Health Affairs, at Medtronic Diabetes. These suggestions EXCLUDE pregnancy, where the urgency of tight control and more aggressive target ranges need to be considered.

Alert Settings

When starting patients on CGM, it’s helpful to ease them into their CGM experience by not turning on alerts initially, or setting the range of low and high limits very wide. This will help minimize frequent alerts. Of course, during this period, patients may still experience high or low glucose levels. However, as they are made aware of CGM patterns, trends and directional arrows, as well as reviewing CareLink™ software reports, they are able to gain an understanding of the effects of food, insulin, exercise, etc., and their glucose control should begin to improve. Once this occurs, alerts can be turned on, and limits tightened, to take full advantage of the capabilities of CGM.

Alert settings recommendations include:

- Always consider each patient’s individual history and needs when selecting initial alert settings.
- Start Low and High Glucose Limit ranges very wide (or even OFF). This allows for the patient to become accustomed to CGM and looking at glucose trends and fluctuations without receiving numerous alerts.
- Starting with tighter limit ranges may lead to more numerous alerts. In this instance, it will be important to forewarn patients of the possibility of frequent alerts to help reduce the tendency to ignore them or respond inappropriately.
- Consider setting different High and Low Glucose Limits for different times of the day (e.g., day versus night).
- CareLink reports, as well as patient feedback, are important references for modifying the initial alert settings.

Glucose Limits

This feature alerts patients when sensor glucose reaches the High or Low Glucose Limit.

- Considerations When Setting High Glucose Limits
  - Setting High Glucose Limits at 250 mg/dL or above to keep patient clinically safe and provide clinically relevant alerts.
  - Setting High Glucose Alerts OFF at initiation and using CareLink reports to determine an appropriate alert setting.

- Managing High Glucose Limits
  - If a patient reports receiving too many alerts, consider increasing the High Limit (coupled with therapy adjustments).
  - As your patient’s glucose control improves and hyperglycemia decreases, consider decreasing the High Limit.
  - Key Point: Setting the High Limits too low will often cause excessive High Alerts that can be a nuisance to the patient. Patients are now being made aware of hyperglycemia that may have been occurring but was undetected before using CGM.

- Considerations When Setting Low Glucose Alerts
  - Setting Low Glucose Limits at 70 mg/dL will help to detect lows, but still limit frequency of alerts.
  - For hypoglycemia unawareness, consider increasing Low Glucose Limits (e.g., 100 mg/dL) to ensure hypoglycemia is avoided.

- Managing Low Glucose Limits
  - If a patient reports too many alerts, consider decreasing the Low Limit (coupled with therapy adjustment).
  - If an alert is not occurring soon enough to prevent hypoglycemia, consider increasing to 80 mg/dL.
  - Key Point: Keep in mind that there can be a ~20% difference between sensor glucose and blood glucose readings. Setting a Low Alert Limit below 70 mg/dL could alert the patient too late to prevent hypoglycemia.