Alberta Health Services

Glucose Sensors: Suggested Practices

Continuous glucose monitoring (CGM), including flash glucose monitoring, is an exciting tool that may provide both benefits and challenges. This handout will help you speak with your diabetes educator about how to get the most out of CGM.

Blood Glucose (fingerstick) Checks

- CGM measures interstitial glucose (glucose that has left the blood and moved into the tissues). Sensor readings could be "older" than blood glucose readings depending on how fast glucose levels are changing.
- Some people continue to regularly check their blood glucose. This is especially important when using CGM systems not indicated for use in pregnancy, dialysis or hospitals.
- Check your blood glucose:
    - When your sensor readings do not match how you feel.
    - When your sensor reading is showing low glucose. Sensors may not be as accurate in lower glucose ranges.
    - When you have type 1 diabetes and sensor reading is over 14 mmol/L with ketones.
    - More often during the first 1-2 days as sensor may not be as accurate.
    - More often if A1c is not what you might expect given sensor readings.

Calibration (not all systems)

- Some CGM systems require calibration. If you miss the calibration, the sensor could stop working or become less accurate. If you calibrate incorrectly, this could lead to inaccurate sensor readings and unsafe management decisions.
- Calibrate when blood glucose is more stable. Avoid calibrations immediately after eating or exercising.
- Wash your hands before checking blood glucose.
- Use the same glucose meter for all of your calibrations. Ensure glucose meter has been checked at lab for accuracy.

Alerts and Alarms (not all systems)

- Set your low limit above your low target (e.g. low limit 4.5 mmol/L). This gives you time to take action before your glucose goes low.
- Consider leaving your high limit turned off when first using CGM to avoid 'alarm fatigue'. OR, set your high limit higher to start and slowly decrease to your after meal target as you become more used to CGM.

Trend Arrows

- Trend arrows have different meanings depending on the CGM system. Read your user manual to see what the arrows mean for you.
- With up arrows (glucose rising), <u>watch and wait</u> about 15-30 minutes to see what happens. Remember, meal bolus and correction insulin takes time to work.
- Make a plan with your educator for when you have down arrows (glucose dropping) and glucose 5.5 mmol/L or lower. Some people take 15-30 g fast acting carbohydrate to help prevent a low blood glucose.

Tracking Trends and Patterns

- Upload your device to an online program to help you make sense of your glucose data. Contact the product 1-800# if you need help uploading.
- Online programs can show you patterns, time in target, glucose variability and provide many other helpful tools.
- Use an 'event marker' feature on your device to track events such as carbohydrates, insulin doses and exercise.
- Plan to view your data on a routine basis.

Skin Care

- You may have challenges with sensor tape not sticking well to your skin or reacting to the tape. There are many products available to help the sensor stick longer and to protect your skin. Ask your pharmacist or diabetes educator for help in deciding which product is right for you.

Other Tips

- Take a picture of the serial number on the sensor's box or write it down. You may need it to troubleshoot problems with the help line.
- Flash glucose monitoring requires you scan the sensor to obtain a sensor reading. The minimum is one scan every 8 hours to avoid missing data, however more scans means more immediate feedback. Speak with your diabetes educator about the optimal number of scans/day for you.
- Each CGM system has substances that can interfere with sensor accuracy. Check your user manual (or call product 1-800#) to see if acetaminophen, ASA or Vitamin C affect the accuracy of your sensor.
- Check your user manual for airport travel recommendations. Most companies advise you avoid putting your system through x-ray or body scanner machines.
- If you receive frequent 'lost signal' alerts or missing data, talk to your diabetes educator about sensor placement and/or call the product 1-800# to help troubleshoot.