

Memorandum

TO: Diabetes Care and Education Dietetic Practice Group (DCE DPG) members

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DCE Chair 2009-2010
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TOPIC: Reproduction of the education handout *Continuous Glucose Monitoring*

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Continuous Glucose Monitoring

A tool for living well with diabetes

Continuous glucose monitoring (CGM) systems measure glucose levels around the clock. People with diabetes can view their glucose trends and use that information to make informed treatment decisions.

How does CGM work?

A CGM user inserts a tiny sensor under the skin to check glucose levels in tissue (interstitial) fluid. The sensor works for several days and may last up to a week before it must be removed and replaced. A transmitter is connected to the sensor. It sends glucose readings from the sensor to a wireless monitor. The CGM user checks blood glucose levels with a standard meter and then enters those values to calibrate the monitor, which varies from less than one to two times per day, depending on the monitor.

A CGM user can usually download the CGM device to show sensor glucose readings and create reports to share with

his or her diabetes care team. Some providers will download the software for CGM users at their appointment. Many will have the CGM user download the information at home and bring the reports to his or her appointment. These reports provide information that you and your diabetes care team can use to adjust your diabetes treatment plan and, if needed, correct any problems.

Who is a candidate for CGM?

CGM can be a valuable tool for those who want to improve their diabetes management. CGM devices are best for those who are willing to dedicate time and effort to learn how to use the device. CGM can improve your

understanding of factors that affect your blood glucose trends, such as diet, exercise, medications and stress. CGM can also decrease anxiety about high and low glucose levels. However, CGM isn't for everyone. Some people feel that CGM provides them with more glucose information than they are prepared to use. Others may feel uncomfortable using the technology. Working with a diabetes care team experienced in CGM can help you overcome these potential obstacles.



Considerations for CGM

Advantages	Disadvantages
<ul style="list-style-type: none">• Provides updated information every few minutes.• Helps identify trends and patterns in glucose, with the goal of preventing high and low glucose levels or catching them early.• Alerts you to a low glucose before it is extremely low. The alarm feature can also alert you to a high glucose that may be due to a missed insulin dose or a problem with insulin delivery (expired insulin or insulin pump issue) so that you can correct it sooner.• Helps evaluate the effect of food and activity on glucose. It may also help you determine the amount and timing of your pre-meal insulin doses if you have been instructed to adjust your own insulin.	<ul style="list-style-type: none">• Requires traditional fingerstick blood glucose monitoring to calibrate the device and to confirm a low or high blood glucose reading.• Requires time and patience to understand the technical functions of the device.• Involves a “lag time” that averages 15 minutes because the blood glucose reading is taken from interstitial fluid and does not reflect actual blood glucose concentration that is found in standard fingerstick (capillary) blood samples.• Features alarms that may initially be disruptive. It will take time to find the right alarm settings. Alarm settings need to be adjusted based on the glucose level at which you wish to take action.

Will my health insurance cover a personal CGM?

Insurance coverage for CGM technology is steadily increasing, particularly for individuals with type 1 diabetes on insulin pump therapy. However, patients with gestational and type 2 diabetes are also obtaining reimbursement.

Each company’s policy is different, and coverage varies for individual situations. Some factors that your insurance company may consider before deciding if you are eligible for CGM coverage include:

- Type of diabetes (type 1, 2 or gestational)
- Diabetes treatment (insulin injections/insulin pump therapy)
- Pregnancy
- Current level of diabetes control
- Frequency of hypoglycemia
- Hypoglycemia unawareness

What steps should I take if I am interested in using a CGM device?

Discuss CGM with your health care provider to determine whether it is appropriate for you. If you are found to be a good candidate, ask your health care provider for assistance with insurance coverage.

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