**Continuous glucose monitors (CGMs): fast facts for PCPs**

**By Avantika Waring, MD, Program Chief, Diabetes Care**

**Clinical questions**

Which patients with diabetes may benefit from and qualify for continuous glucose monitoring? What are the main types of CGM devices, and what should primary care providers know about them?

**Why did we choose this topic?**

The KPWA Diabetes Team has seen a strong uptick in requests for consults regarding various CGM devices, which can lead to delays in scheduling appointments for our patients. Numerous KPWA members are asking their primary care providers about Freestyle Libre—the intermittently scanned CGM (isCGM) device currently available in the United States—largely in response to aggressive direct-to-consumer advertising. We want you to be armed with a strategy to address these questions and direct your patients to the appropriate resources.

**Recommendations**

Patients who may benefit from/qualify for continuous glucose monitoring are those who:

- Are on multiple daily insulin injections (combination of long- and short-acting),
- Test their blood glucose 4 or more times per day,
- Are engaged with their diabetes care provider, and
- Continue to have hypoglycemia or excessive variability of their blood glucose.

Continuous glucose monitoring is one of the major advances in diabetes care from the past decade. There are two types of monitors: **real time (rtCGM)** and **intermittently scanned (isCGM).** [1] For insulin-treated patients with diabetes, these devices can provide safety from hypoglycemia as well as additional blood glucose information that helps guide therapy. Blood glucose testing may be required for occasional calibration or to confirm readings, depending on the type of device being used.

Choosing the "right" CGM device requires an understanding of what the devices can do. Each device type has pros and cons, and there are significant differences in cost.

<table>
<thead>
<tr>
<th></th>
<th>rtCGM (Dexcom, Medtronic)</th>
<th>isCGM (Freestyle)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data viewing</td>
<td>Continuous data appears on a smartphone or handheld device.</td>
<td>User &quot;scans&quot; device intermittently to view data on handheld device.</td>
</tr>
<tr>
<td>Alarms</td>
<td>Yes: for low and high blood glucose</td>
<td>No</td>
</tr>
<tr>
<td>Real-time data sharing</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Compatible with insulin pump</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Cost</td>
<td>High</td>
<td>Moderate</td>
</tr>
</tbody>
</table>
rtCGM (Dexcom, Medtronic) | isCGM (Freestyle)
---|---
**Bottom line**
Consider for patients who:
- Have type 1 diabetes.
- Need safety features (alarms and data sharing).
- Have hypoglycemia unawareness.
- Use an insulin pump.
Consider for patients who:
- Would like to review their blood glucose trends to guide behavior modifications or medication adjustments (primarily patients with type 2 diabetes).
- Are at lower risk for hypoglycemia but want to track their glucose trends. (Remember that this device has no alarms.)

**Next steps**
For Kaiser Permanente members, consider referral or consultation with the KPWA Diabetes Team.
The KPWA Diabetes Team has resources to help Kaiser Permanente members who may be interested in accessing these devices.

**Coverage notes**
For questions about coverage for CGMs, patients can contact Member Services. Many patients are choosing to pay out of pocket for the isCGM device if it is not otherwise covered.

**How could this change my practice?**
Understanding the basic differences between commercially available devices will enable you to direct your patients to the appropriate resources. It will also help you identify patients who would benefit from these technologies, but who may not be aware of them.

**Resources**
KPWA Diabetes Team: 206-326-3308
KPWA Type 1 Diabetes Guideline
KPWA Type 2 Diabetes Guideline

**References**

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