Flash Glucose Monitoring (FGM) Information Sheet (Adult)

There is new technology to measure the sugar (glucose) levels in the fluid around your cells (also known as interstitial fluid)

How does a Flash Glucose Monitor (FGM) work?

- An FGM measures the amount of glucose in the interstitial fluid.
- A reader or cell phone app is "flashed" over top of the sensor to "pull" the results. It must come within 2.5 cm of the sensor, but it does not need to touch it. It can be "flashed" through clothing.
- The interstitial fluid glucose reading may not exactly match the blood glucose reading. This is because a finger stick measures the glucose level in your blood and an FGM measures the glucose level in the interstitial fluid.
- It is important to know when you can trust the results from your FGM and when you should use a finger stick to measure your blood glucose
- The sensor has a transmitter to communicate the glucose reading.
- The sensor is inserted and removed as one piece.

Example of a Flash Glucose Monitor: FreeStyle Libre

Here is what you should know when using your FGM in the hospital:

- It takes time for the blood glucose to reach the interstitial fluid.
- There may be a 4 to 18 minute delay in the glucose reading from your blood to reach the interstitial fluid
- You will not be able to use the result from your FGM to make decisions about your insulin dose if the trend arrow is pointing up (⇧) or down (⇩).
- There may be times when you will be asked to remove your FGM for diagnostic tests (see Diagnostic Imaging Tests List on page 5).
- People who are critically ill, in diabetic ketoacidosis, under 18 years of age, have an altered level of consciousness, generalized swelling, or are on general anesthesia, cannot use an FGM. For use in pregnancy and dialysis, a physician or nurse practitioner will evaluate.

Note: The first 24 hours after inserting the sensor may show glucose readings that are not as accurate.

If your FGM result does not match your symptoms, you should test your blood sugar using a finger stick on the first day after inserting the sensor.

These are some of the possible risks of using your FGM while you are in the hospital. You can:

- have false glucose results from your FGM depending on medications you are taking or your health condition (example: dehydration).
- show high and low blood glucose readings that may not be accurate. There can be up to a 15% difference between your FGM and a finger stick glucose result.
- develop an infection if the sensor is inserted under the skin at the time of another active infection.

The physician or nurse practitioner will need to write an order for you to continue to use your FGM while in hospital

You will need to provide ALL of the supplies for your FGM including:

- FGM sensor and reader
- Battery charging cables and supplies
- Dressings, tape (if applicable)

You will need to change the sensor according to the manufacturer's instructions (depending on the device) or sooner as needed for:

- skin problems
- an infection
- an FGM glucose result that differs by more than 20% from the hospital laboratory result or your home blood glucose meter (for example: when the FGM reads 10.0 mmol/L, the blood glucose result should be between 8.0 and 12.0 mmol/L)

Contact the customer care number listed on the sensor box of your device for possible replacement of the sensor

What do the trend arrows mean on the device?

Trend arrows tell you the direction your blood sugar is heading. This is important information to see the result of your diet, activity and medication. It also allows you to take action to prevent a high blood glucose and treat a low blood glucose before they happen.

The nurse can only use the glucose result if the trend arrow is pointing in a forward direction showing glucose levels are stable.

If the trend arrows are pointing up (⬆) or down (⬇), the nurse will test your blood glucose with a finger poke using a hospital blood glucose meter to confirm the result.

You can use the glucose result when the trend arrow is pointing in a forward direction.

Here is an example of what the trend arrows may look like.

You may be asked to remove your FGM in the hospital if you:

- are not able to take care of your device because you are tired or ill
- have physical limitations that prevent you from using the device properly
- are having a diagnostic test that does not allow for devices to be worn as it may damage the device or metal is not allowed (see list of diagnostic tests on page 5)
- do not have enough supplies to continue use of the device
- see the device is reading a blood sugar that differs by more than 20% from the hospital glucose meter
- receive any of the following types of medication <u>in large amounts</u> (as determined by your healthcare providers). These medications may change your FGM result:
  - Salicylic acid (aspirin): falsely lowers glucose reading
  - Ascorbic acid (vitamin C): falsely raises glucose reading

Why will you be asked to remove the device during a diagnostic test?

- It could be a safety risk to you or the testing equipment
- It could damage the FGM sensor and not read accurate glucose results

You may be asked to remove your FGM device if you are having the tests listed below. Some tests can be done with a lead apron covering the device.

Diagnostic Imaging Tests List

An FGM will be removed for the following tests:

- MRI
- CT scan (including a nuclear medicine spec-CT)
- Whole-body bone density scan

Sensors can remain on during the following tests and procedures that use lower doses of ionizing radiation. A lead shield that completely covers the device must be worn.

- X-ray (including portable X-rays)
- Body fluoroscopy
- Electrophysiology (placement or reprogramming of a pacemaker or automated implantable cardioverter defibrillator (AICD)).
- Bone density lumbar and hips
- Endoscopic procedures

Sensors and transmitters can remain on with no lead shield during:

- Ultrasound
- ECG or EEG
- Laser surgery
- Surgery, procedures, and scopes without ionizing radiation

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