

## **PE1619/B**

Scottish Government Letter of 20<sup>th</sup> January 2017

*Calling on the Scottish Parliament to urge the Scottish Government to make continuous glucose monitoring sensors, such as Freestyle Libre, available under prescription to all patients with type 1 diabetes.*

I refer to your letter of 25 November 2016 to Carole Finnigan - Committee Liaison Officer seeking a written response to address the issues raised in the above petition. The Scottish Government's response is set out below.

The Scottish Government, with the Scottish Diabetes Group (SDG), has developed a national approach to the use of Continuous Glucose Monitor (CGM) devices based on the National Institute for Health and Care Excellence (NICE) (Guideline NG17), the Scottish Intercollegiate Guidelines Network (SIGN) (Guideline 116), and the clinical evidence available.

These guidelines advise that CGM devices may be useful for a small number of people with type 1 diabetes as an aid to improve glycaemic control, but do not recommend the use of CGM devices for all patients with type 1 diabetes.

Clinical guidelines recommend continuous real-time glucose monitoring devices, which can alert patients if the sensor detects blood glucose values that exceed or will exceed the target zone set for their glucose levels, helping them to optimise glycaemic control. Flash Glucose devices such as Freestyle Libre do not provide continuous glucose monitoring - they provide intermittent measurements which are accessed after the event. As a result, the national approach does not include Flash Glucose devices.

The First Minister announced on 7 December 2016 that the Scottish Government will invest £10 million over the course of this Parliament to increase NHS Scotland's provision of insulin pumps and CGM technology for those with the greatest clinical need.

Annex 1 sets out additional information on the two kinds of device.

### **Conclusion**

Clinical Guidelines advise that CGM devices may be useful for a small number of, but not all, people with type 1 diabetes. The national approach for CGM devices will help those who despite intensive insulin therapy to reduce their HbA1c levels, are struggling with glycaemic control and rate and severity of hypoglycaemic events.

## **ANNEX 1**

### **Continuous Glucose Monitoring (CGM) devices**

A CGM has three parts: Sensor – this senses how much glucose there is in the interstitial fluid and is inserted into the skin. This is connected to the Transmitter which is worn on the skin and communicates with the Receiver (usually wirelessly) recording results and displays them on a pager sized device often worn on a belt or carried in a handbag.

Systems that display immediate results are often called 'real-time'. This allows patients to see their blood glucose levels 24 hours a day and will alert patients through an alarm/vibration if the sensor detects blood glucose values that exceed or will exceed the target zone set for their glucose levels, helping them to optimise glycaemic control.

### **Flash Glucose devices such as FreeStyle Libre**

Flash glucose sensing devices such as the 'Abbott FreeStyle Libre' require the user to wear a sensor the size of a £2 coin that sits on the back of the arm with a probe just under the skin. By scanning or flashing the sensor with a scanning device, users will see blood glucose levels, a graph of blood glucose level for the last eight hours and a direction arrow showing if levels are going up or down. The Freestyle Libre does not provide continuous real-time data but rather intermittent measurements which are accessed after the event.

There is no possibility of linking the information with an insulin pump thus no opportunity to capitalise upon the new autonomous technologies such as Low Glucose Suspend and Predictive Low Glucose Management. Because the data are not real-time there can be no alarms - warnings of excursions from pre-set glucose parameters.

The annual cost of a Flash Glucose device, including on-costs, is approximately £1,500.