



Continuous Glucose Monitors:

Hybrid Closed Loop Systems (HCL)

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Lead Author:	Christopher Smith Consultant, Diabetes and Endocrinology
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Important Note:

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Scope

This document provides information on the responsibilities of Specialist Diabetes teams, primary care teams and patients in the context of Hybrid Closed Loop Systems (HCL) used with FreeStyle Libre 2® Plus and FreeStyle Libre® 3.

NB these are not interchangeable – the exact sensor type must be provided

For advice for patients on multiple daily injections (MDI) of insulin please [click here](#).

Background

Hybrid closed loop (HCL) systems link continuous glucose monitoring (CGM) with insulin pump technology to monitor blood glucose and automatically adjust the amount of insulin given through a pump. Some closed loop systems (e.g. Medtronic 780g) will use CGM directly supplied and organised via specialist teams.

N.B. All patients using continuous glucose monitoring sensors will require to test capillary blood glucose using finger prick testing on occasion, for example to check the accuracy of their CGM device or as a back-up (e.g. if blood glucose levels are changing quickly or if the device stops working).

People using insulin pumps will still require insulin pens and sundries in the event of a pump failure.

When Freestyle Libre sensors are used in an hybrid closed loop system (HCL), the Freestyle LinkApp and the Freestyle Libre reader are NOT used.

Responsibilities of Specialist Diabetes Teams

- Discuss with people with diabetes the commitment required for trial and on-going supply of CGM
- Diabetes Specialist teams are responsible for providing patient training and support for the use of;
 - FreeStyle Libre® 2 Plus as part of a hybrid closed loop system (HCL) such as Omnipod® 5 or
 - FreeStyle Libre® 3 as part of a hybrid closed loop systems (HCL).
- Provide a “request to prescribe Freestyle Libre 3” letter to Primary Care for appropriate patients.
- Provide the person with first sensor if needed

- Provide the patient's General Practitioner with advice on issuing prescriptions for sensors and blood glucose test strips and blood ketone test strips (unless supplied by Specialist Diabetes team).

Responsibilities of Primary Care Teams

- Prescribe ongoing Freestyle Libre® 2 Plus sensor or FreeStyle Libre® 3 as per Specialist Diabetes team advice and prescribing recommendations below.
- Prescribe blood glucose test strips and blood ketone test strips, as recommended by the specialist diabetes teams which will still be required, such as when a person is unwell (scanned readings are at the extremes of glycaemia) or to meet the requirements of the Driver and Vehicle Licensing Agency in assessing fitness to drive.

Responsibilities of Patients/Carers

- Attend follow up appointments
- Use testing strips and sensors as recommended
- Request from manufacturer a replacement for damaged/faulty sensors, or if sensors fall off early
- Highlight to specialist team if they require additional sensors on a regular basis
- Share glucose monitoring data with their specialist team
- Engage with specialist team to optimise issues with glycaemic control

FreeStyle Libre 2® Plus

The Omnipod® 5 insulin pump links with the Freestyle Libre® 2 Plus sensor as part of a hybrid closed loop system (HCL). The FreeStyle Libre® 2 Plus glucose measurements are displayed through Bluetooth technology on the Omnipod® 5 Personal Diabetes Manager Device (PDM) which in turn adjusts the insulin delivery by the Omnipod® 5 pump.

FreeStyle Libre® 2 Plus Sensor Prescribing Recommendations

- A maximum of 25 sensors should be prescribed per patient per year.
- The FreeStyle Libre® 2 Plus can be worn for up to **15 days**, which differs to the 14-day sensor wear time of the previous FreeStyle Libre® 2.
- Specialists and GPs cannot issue prescriptions to replace defective sensors or those that have fallen off. If sensors are defective or fall off, patients should contact the manufacturer on the same day to obtain a replacement by calling the Abbott Customer Careline on 0800 170 1177 or Online request portal at [Sensor Support Form | United Kingdom | FreeStyle Libre | Abbott](#).

FreeStyle Libre® 3

FreeStyle Libre® 3 sensors are **restricted** within NHS GGC for use **ONLY** with a compatible hybrid closed loop system (HCL). The mylife Loop hybrid closed loop system (HCL) uses a Ypsomed® insulin pump, linked to a compatible Smartphone with CAMAPS FX App and a CGM sensor such as FreeStyle Libre® 3 ®. The FreeStyle Libre® 3 glucose measurements are displayed within the CAMAPS FX phone App and can be shared with carers.

Freestyle Libre® 3 sensor can be worn for up to 14 days and a maximum of 26 sensors will be prescribed per patient per year.

FreeStyle Libre® 3 Sensor Prescribing Recommendations

Freestyle Libre 3 was added to the Scottish Drug Tariff (Part 3) in January 2024.

Only patients identified by Specialist Diabetes teams should be provided Freestyle Libre® 3 sensors. Freestyle Libre® 3 sensors are more expensive than FreeStyle Libre® 2 and offer no additional benefit used with a hybrid in a closed loop system.

- Specialist Diabetes teams will provide a “request to prescribe Freestyle Libre® 3” letter for appropriate patients.
- Freestyle Libre® 3 is available on prescribing systems as single sensor kits. Each kit contains one sensor that will last for 14 days.
- No more than 2-4 sensors should be prescribed at a time.
- No more than 26 sensors should be provided per year.
- Specialists and GPs cannot issue prescriptions to replace defective sensors or those that have fallen off. If sensors are defective or fall off, patients should contact the manufacturer on the same day to obtain a replacement by calling the Abbott Customer Careline on 0800 170 1177 or Online request portal at [Sensor Support Form | United Kingdom | FreeStyle Libre | Abbott](#).