NHS
Cheshire and Merseyside

Decision aid for primary care prescribed glucose monitoring in people with Type 1 diabetes

SCOPE

This document supports the decision-making process for adults and children with Type 1 diabetes and other small cohorts of eligible patients to ensure they receive an appropriate device. Primary care prescribed real-time continuous glucose monitoring (rtCGM) and intermittently scanned (commonly known as Flash) continuous glucose monitoring (isCGM) is Amber Recommended for children and Green for adults in Cheshire and Merseyside following the use of this decision aid in a primary care specialist setting (or secondary care specialist setting if appropriate).

For the purposes of this document, we should assume the NICE real time recommendations apply to secondary care provided CGM.

NICE

NICE NG17 was updated in August 2022. It states that adults with type 1 diabetes should be offered a choice of rtCGM or isCGM, based on their individual preferences, needs, characteristics, and the functionality of the devices available.

Shared decision making should be used to identify the person's needs and preferences, so they can be offered an appropriate device. If multiple devices meet their needs and preferences, offer the device with the lowest cost.

NICE NG18 was also updated in March 2022 and then May 2023. It states the following: Offer rtCGM to all children and young people with type 1 diabetes, alongside education to support children and young people and their families and carers to use it.

Offer isCGM, to children and young people (aged 4 years and over) with type 1 diabetes who are unable to use rtCGM or who express a clear preference for isCGM.

If a child or young person is unable to or does not wish to use any real-time CGM or intermittently scanned CGM device, offer capillary blood glucose monitoring.

Additional information

Secondary care provided CGM (e.g. Dexcom G6 or G7, Medtronic or FreeStyle Libre 3) or primary care provided glucose monitoring (e.g. FreeStyle Libre 2 Plus, DexcomONE+ or Gluco Rx Aidex) should only be recommended by healthcare professionals who are trained to use these devices and patients need to be reviewed regularly by a service with access to the blood glucose data provided via the manufacturers' data portals. All healthcare professionals recommending and managing continuous glucose monitoring systems (CGMS) should have additional training in order to utilise these systems.

Devices such as Dexcom G6 or G7, Medtronic or FreeStyle Libre 3 cannot be prescribed in primary care. Patients must be referred to the specialist diabetes service to access these devices.

Advise people with type 1 diabetes who are using CGM that they will still need to take capillary blood glucose measurements (although they should do this less frequently than they did previously with capillary blood glucose measurements alone). Explain that is because they will need to use capillary blood glucose measurements to check the accuracy of their CGM device and for use as a back-up (for example when their blood glucose levels are changing quickly or if the device stops working). Provide them with enough test strips to take capillary blood glucose measurements as needed.

Please see the formulary for a full list of current devices available.

Other eligible patients

The following small cohorts of patients should also be considered using the criteria in this document:

Patients who have had a pancreatectomy or who have pancreatic endocrine insufficiency and are using multiple dose insulin or an insulin pump.

Patients with cystic fibrosis-related diabetes (CFRD), as identified by the Advanced Nurse Practitioner for CFRD / CF specialist team at Liverpool Heart and Chest Hospital or the CFRD MDT (Endocrinologist, Diabetes nurse specialist, Dietician) based at Alder Hey Children's Hospital for children and young people, who are treated with insulin.

All patients with type 1 diabetes and other eligible patients as described above should be offered CGM (secondary care provided or primary care prescribed)

- Particularly use secondary care provided CGM in patients with type 1 diabetes
    - Who use insulin pump therapy;
    - Those who have frequent hypoglycaemic episodes;
    - Those without or who have impaired hypoglycaemic warning signs;
    - Those who need to increase their time in range despite using primary care provided CGM;
    - HbA1c > 65mmol/mol

Factors to consider when choosing a continuous glucose monitoring device

- Accuracy of the device
- Whether the device provides predictive alerts or alarms and if these need to be shared with anyone else (for example, a carer)
- Whether using the device requires access to particular technologies (such as a smartphone and up-to-date phone software)
- How easy the device is to use and take readings from, including for people with limited dexterity
- Fear, frequency, awareness and severity of hypoglycaemia

- Psychosocial factors
- The person's insulin regimen or type of insulin pump, if relevant (taking into account whether a particular device integrates with their pump as part of a hybrid closed loop or insulin suspend function)
- Whether, how often, and how the device needs to be calibrated, and how easy it is for the person to do this themselves
- How data can be collected, compatibility of the device with other technology, and whether data can be shared with the person's healthcare provider to help inform treatment
- Whether the device will affect the person's ability to do their job
- How unpredictable the person's activity and blood glucose levels are and whether erratic blood glucose is affecting their quality of life
- Whether the person has situations when symptoms of hypoglycaemia cannot be communicated or can be confused (for example, during exercise)
- Clinical factors that may make devices easier or harder to use
- Frequency of sensor replacement
- Sensitivities to the device, for example local skin reactions
- Body image concerns

References

1. NICE NG17 Type 1 diabetes in adults: diagnosis and management Published 26 August 2015 and updated 17 August 2022
2. NICE NG18 Diabetes (type 1 and type 2) in children and young people: diagnosis and management Published 01 August 2015 and last updated 11 May 2023