



A pan-London implementation document for continuous glucose sensors for children and young people (CYP) with type 1 diabetes: device list

Version 1.0

Circulated date: January 2024

Date agreed at LCEG: December 2024

Review Date: July 2024

This document will be reviewed and re-released to reflect new and emerging evidence as appropriate. Please email england.cyptransformationldn@nhs.net to request the most recent version.

This London guide is designed to complement and not replace local guidance and professional judgement. It will be updated to align with other national and regional guidance once published.



A pan-London implementation of continuous glucose sensors for children and young people with type 1 diabetes

Device List

Please note the following when using this document:

This document is intended to accompany the document 'A pan-London implementation of continuous glucose sensors for children and young people with type 1 diabetes'. It is not a standalone document.

Devices are listed/grouped according to common features. This does not imply clinical suitability and does not remove the need for shared decision making about a continuous glucose monitoring (CGM) device that will suit an individual's needs and preferences.

Devices are included in this list based on the following criteria⁽¹⁾

- either the sensors met the FDA iCGM minimum standards or
- Data available on use in paediatric population was used in evidence presented for CE mark, reference methods used for assessing devices met the standards defined in the Diabetes Laboratory Analysis Guidelines and the devices were assessed on the first day, last day and middle of use.

For children under the age of 2 years clinical decisions about off license use of rtCGM will be made.

Please also note that these lists do not constitute a complete list of features for every device.

The list will only be updated twice yearly – therefore the list of devices may not be exhaustive at the time of use, and device features may change. We are satisfied the list of available devices and stated features is accurate and complete as of June 2023. Patients on devices not listed below can continue to use these devices if they are achieving acceptable clinical outcomes. New starts should be with the devices listed below.

Annual cost estimates have not been included for devices that are only available via NHS Supply Chain.

Annual costs are **estimates only** and are based on the following sources and assumptions:

1. National Drug Tariff June 2023 [NHS Electronic Drug Tariff \(nhsbsa.nhs.uk\)](https://www.nhs.uk/medicines/national-drug-tariff/)
2. Use of number of sensors per annum (p.a.) as per NICE NG18 costing template assumptions derived from the current data within the National Paediatric Diabetes Audit 2021-2022



Everyone with type 1 diabetes (T1DM) will require ongoing community FP10 prescriptions for capillary blood glucose testing (lancets and strips). This is to ensure a safe mechanism of glucose testing should the CGM device or reader fail/be damaged/lost and to facilitate glucose testing when use of the CGM is not appropriate. Ongoing capillary blood glucose testing has been incorporated into the cost assumptions for CGM FP10 prescriptions.

Some CGM devices also require additional adjunctive blood glucose testing or testing for calibration, or to confirm hypoglycaemia. These devices are clearly labelled as requiring capillary blood glucose testing in the lists below.

In addition, for individuals with T1DM that drive group 1 vehicles (motorbikes, cars and light vehicles), DVLA rules state that those with interstitial glucose monitoring systems (rtCGM or isCGM) may need to carry out capillary blood glucose testing in certain circumstances². Individuals with T1DM who drive group 2 vehicles cannot rely on interstitial glucose testing before or whilst driving and will therefore require ongoing regular FP10 prescriptions for capillary blood glucose testing (lancets and strips).

Given the above, **we have therefore assumed that everyone with T1DM using a CGM device may also require an FP10 prescription of 50 test strips and lancets per month for capillary blood glucose testing.** Some patients may require more than this, particularly if their device requires adjunctive capillary blood glucose testing for calibration or confirmation or to confirm hypoglycaemia. Some patients may require less. Therefore, prescriptions for test strips and lancets should be based on individual needs.

We have assumed the minimum annual cost of capillary blood glucose monitoring is £156 p.a – this is based on using 50 test strips and 50 lancets per month, with one test strip and one lancet at a unit cost of £0.26 per day. These are the cost assumptions used by NICE.

LIST 1:

- **Specialist rtCGM**
- **Not available on FP10 – NHS supply chain only.**
- **Speciality features appropriate for specific clinical conditions or compatibility with certain CSII devices**
- **No costings supplied for this list as supply chain costs will vary locally**

Device Name:	Key features of device:	CSII/Closed loop compatibility:	CBG testing required?
Abbott Freestyle Libre 3 Licensed from age 4 years	14-day sensor. Optional low and high glucose alerts. Data sharing with HCP's (healthcare professionals), relatives/carers via LibreLinkUp. Smartphone access only – no alternative data reader.	Yes, CamAPS FX with Ypsopump	Recommended when symptoms do not match sensor readings. Minimum 50 strips/lancets per month - £156 p.a.
DEXCOM G6 Licensed from age 2 years	10-day sensor and 3-month transmitter. Fixed urgent low glucose alert. Predictive low glucose alert (optional). Data sharing with HCP's and relatives/carers. Optional reader device if no smartphone access.	Yes, compatible with Tandem t- slim X2 and CamAPS FX systems Omnipod 5	Recommended when symptoms do not match sensor readings. Minimum 50 strips/lancets per month - £156 p.a.
DEXCOM G7 Licensed from age 2 years	10-day sensor, integrated transmitter – no expiry. Urgent low glucose alert and predictive low glucose alert (both optional). Data sharing with HCP's and relatives/carers. Optional reader device if no smartphone access.	Yes, compatible with Tandem t- slim X2	Recommended when symptoms do not match sensor readings. Minimum 50 strips/lancets per month - £156 p.a.
Medtronic Guardian 4 Licensed from age 7 years	7-day sensor, 12-month transmitter. Fixed urgent low glucose alert and optional predictive low glucose alert. Data sharing with HCP's, and with relatives/carers via CareLink connect	Compatible with Medtronic 780G	Recommended when symptoms do not match sensor readings and to start a sensor session.



	smartphone app. Compatible with Inpen system for MDI users		Minimum 50 strips/lancets per month - £156 p.a.
--	--	--	--

LIST 2:

- **FP10 rtCGM**
- **Available on FP10**
- **Device has optional low and high glucose alerts**
- **No compatibility with CSII devices**
- **Device has sharing capability for HCP's but does not offer sharing with relatives/carers**

Device Name:	Key features of device:	Additional CBG testing required?	Estimated annual cost per individual¹:
<p>DEXCOM ONE</p> <p>Licensed from age 2 years</p>	<p>10-day sensor, 90-day transmitter</p> <p>Optional reader device if no smartphone access</p> <p>Customisable High and Low Alerts with Dexcom One App</p> <p>Data sharing with HCP's only (via DEXCOM Clarity software).</p>	<p>Not required for calibration but recommended when symptoms do not match sensor reading or no sensor reading/trend arrow.</p>	<p>£900 (sensors and transmitters)²</p> <p>CBG testing: Minimum 50 strips/lancets per month - £156 p.a.</p>
<p>Freestyle Libre 2 with Libre Link app</p> <p>Licensed from age 4 years</p>	<p>Optional low and high glucose alerts</p> <p>Data sharing with healthcare team and, friends/relatives/carers via LibreLinkUp</p>	<p>Not required for calibration but recommended when symptoms do not match sensor readings</p>	<p>£910³ (sensors)</p> <p>CBG testing: Minimum 50 strips/lancets per month - £156 p.a.</p>

¹ Costs are correct as per National Drug Tariff August 2022 [NHS Electronic Drug Tariff \(nhsbsa.nhs.uk\)](https://nhs.uk/electronic-drug-tariff/)

² £23 per 10-day sensor (36 sensors per annum); £18 per 3-month transmitter (4 transmitters per annum)

³ 35.00 per 14-day sensor – 26 sensors per annum. No transmitter.



LIST 3:

- **isCGM**
- **Available on FP10**
- **No compatibility with CSII devices**

Device Name:	Key features of device:	Additional CBG testing required?	Estimated annual cost per individual⁴:
Freestyle Libre 2 with reader Licensed from age 4 years	Optional low and high glucose alerts HCP data sharing only.	Not required for calibration but recommended when symptoms do not match sensor readings	£910 ⁵ (sensors) CBG testing: Minimum 50 strips/lancets per month - £156 p.a.

References

1. Pemberton JS, Wilmot EG, Barnard-Kelly K, et al. CGM accuracy: Contrasting CE marking with the governmental controls of the USA (FDA) and Australia (TGA): A narrative review. *Diabetes Obes Metab.* 2023;1-24. doi:10.1111/dom.14962
2. DVLA. Assessing fitness to drive: a guide for medical professionals. May 2022. [Assessing fitness to drive: a guide for medical professionals - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/107222/assessing_fitness_to_drive_a_guide_for_medical_professionals.pdf)

⁴ Costs are correct as per National Drug Tariff August 2022 [NHS Electronic Drug Tariff \(nhsbsa.nhs.uk\)](https://www.nhs.uk/medicines/national-drug-tariff/)

⁵ 35.00 per 14-day sensor – 26 sensors per annum. No transmitter.