

North Central London prescribing  
guidance

**Diabetes blood glucose and ketone  
meters, testing strips and lancets  
recommendations**



North Central London  
Health and Care  
Integrated Care System

1	<b>SUMMARY</b>	This guidance contains local recommendations for blood glucose and ketone meters, testing strips and lancets.			
2	<b>RESPONSIBLE PERSON:</b>	NCL ICB Assistant Director of Medicines Optimisation			
3	<b>ACCOUNTABLE DIRECTOR:</b>	NCL ICS Chief Pharmacist			
4	<b>APPLIES TO:</b>	NCL ICB primary care practitioners (GPs, practice nurses, practice pharmacists, community nursing, community diabetes teams, community pharmacists) Trusts and Provider Organisations within NCL			
5	<b>GROUPS/ INDIVIDUALS WHO HAVE OVERSEEN THE DEVELOPMENT OF THIS GUIDANCE:</b>	NCL Medicines Optimisation Team NCL Diabetes Network			
6	<b>GROUPS WHICH WERE CONSULTED AND HAVE GIVEN APPROVAL:</b>	NCL ICB Medicines Clinical Reference Group (CRG) NCL Diabetes Network			
7	<b>EQUALITY IMPACT ANALYSIS COMPLETED:</b>	Guidance Screened	Date 28/11/2023	Template completed	Date 29/11/2023
8	<b>RATIFYING COMMITTEE(S) &amp; DATE OF FINAL APPROVAL:</b>	NCL ICB Medicines Clinical Reference Group (CRG) Date: 25 <sup>th</sup> April 2024			
9	<b>VERSION:</b>	V3			
10	<b>AVAILABLE ON:</b>	<a href="#">NCL ICB General Practice Website</a>			
11	<b>RELATED DOCUMENTS:</b>	NCL Prescribing Recommendations (NPR)			
12	<b>DISSEMINATED TO:</b>	To be placed on NCL GP website and distributed via Prescribing Watch newsletter to NCL Prescribers and clinicians.			
13	<b>DATE OF IMPLEMENTATION:</b>	October 2017			
14	<b>DATE OF NEXT FORMAL REVIEW:</b>	May 2027 – or sooner if necessary Review of recommendations will be in advance of the review date only in the event of a major new development in either the NHS England recommendations, or in the products available to self-monitor blood glucose and ketones.			

#### DOCUMENT CONTROL

Date	Version	Action	Amendments
Oct 2017	1.0	n/a	New guideline
Feb 2018	1.1	Guidance updated	Changes to DVLA guidance
Nov 2018	1.2	Guidance updated	Remove Freestyle InsuLinx device and link to NCL/LPP/LDCN guidance for Freestyle Libre
Jul 2021	2.0	Guidance reviewed and updated	New meter choices, reviewed and updated throughout
Feb 2022	2.1	Guidance updated	Alignment with dm+d dictionary; 'Accu-Chek Instant Strips' now 'Instant', 'Accu-Chek FastClix' now 'FastClix'. Updated price for Glucomen Areo Sensor.

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Date	Version	Action	Amendments
Nov 2022	2.2	Guidance updated	Updated lancet recommendation for GlucoFix Tech reflecting a change to the lancet device which comes with the meter; was 'Suggest GlucoRx Lancets (30G)' now 'Glucoject Lancets PLUS (33G)'
April 2024	3	Guidance reviewed and updated <i>Agreed by Medicines Clinical Reference Group 25<sup>th</sup> April 2024</i>	<ul style="list-style-type: none"> <li>• NCL JFC Guideline for glucose &amp; ketone monitoring for adults with diabetes updated by NCL ICB</li> <li>• Updated in line with <a href="#">NHS England Commissioning recommendations following the national assessment of blood glucose and ketone meters, testing strips and lancets</a></li> </ul>

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**V3 – NCL ICS Diabetes blood glucose and ketone meters, testing strips and lancets recommendations**

Approved at: NCL ICB Medicines Clinical Reference Group – 25 April 2024

Review date: May 2027

Page 2 of 18

<b>Table of contents</b>	
	<b>PAGE</b>
<a href="#">Background</a> <a href="#">Target audience and purpose</a> <a href="#">Rationale</a>	<b>5</b>
<a href="#">Self-monitoring of capillary blood glucose</a> <ul style="list-style-type: none"> <li>• <a href="#">Newly diagnosed adults, children and young people</a></li> <li>• <a href="#">Adults, children and young people with type 1 Diabetes Mellitus (T1DM)</a></li> <li>• <a href="#">Adults, children and young people living with type 2 Diabetes Mellitus (T2DM)</a></li> <li>• <a href="#">Blood glucose meters</a></li> <li>• <a href="#">Co-prescribing blood glucose and ketone testing strips for people using continuous glucose monitoring (CGM)</a></li> </ul>	<b>5</b>
<a href="#">Blood ketone testing strips</a>	<b>7</b>
<a href="#">Sick day monitoring</a>	<b>7</b>
<a href="#">Lancets</a> <ul style="list-style-type: none"> <li>• <a href="#">Lancet choices</a></li> <li>• <a href="#">Safety lancets</a></li> </ul>	<b>8</b>
<a href="#">Safety needles</a> <a href="#">Sharps disposal</a> <a href="#">Insulin disposable needles</a>	<b>9</b>
<a href="#">Prescribing insulin by brand</a>	<b>9</b>
<a href="#">Appendix 1: Type 1 and ketosis prone type 2 diabetes NCL preferred meters recommendations</a>	<b>10</b>
<a href="#">Appendix 2: Type 2 diabetes (majority of people living with diabetes) NCL preferred meters</a>	<b>11</b>
<a href="#">Appendix 3: Type 2 diabetes WITH additional functionality required and diabetes in pregnancy NCL preferred meters recommendations</a>	<b>12</b>
<a href="#">Appendix 4: Diabetes - Children and young people (&lt;19 years) NCL preferred meters</a>	<b>13</b>
<a href="#">Appendix 5: Summary of preferred blood glucose and ketone meters, testing strips, and lancets</a>	<b>14</b>
<a href="#">Appendix 6: Guidance regarding frequency of blood glucose testing</a>	<b>15</b>
<a href="#">Appendix 7: Suggested prescribing quantities for test strips, lancets and insulin pen needles</a>	<b>17</b>
<a href="#">References</a>	<b>18</b>

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## Background

North Central London Integrated System (NCL ICS) recommends the supply of blood glucose and ketone meters, and the prescribing of blood glucose and ketone testing strips and lancets in line with NHS England (NHSE) guidance<sup>1</sup>, with some local additional meter choices based on legacy use and specialist request.

Stakeholders from the Diabetes Network (including patient groups) across NCL ICS reviewed the NHSE recommendations and aligned it with the NCL existing choices. The final agreed list is included in this document.

## Target audience and purpose

The target audience is primary and secondary care clinicians managing people living with diabetes. These recommendations apply to adults with type 1, type 2, gestational diabetes, children, and young people (under 19 years) living with diabetes.

For people living with diabetes who fall outside the scope of this guideline, please follow the treatment plan set out by the individual's specialist team.

## Rationale

The intent of the national assessment process (concluded in April 2023 and updated October 2023) was to support the delivery of the NHS Long-Term Plan<sup>2</sup> for diabetes management through the following key objectives:

- Equitable access to the same products for all eligible people living with diabetes, no matter where they live.
- Minimum quality standards established fairly and transparently to better address the needs of all people living with diabetes.
- Prescribing practices aligned across primary and secondary care; and
- Making best use of NHS resources, whilst ensuring that the price paid is commensurate to the quality offered.

## Self-monitoring of capillary blood glucose

### Newly diagnosed adults, children and young people

Any newly diagnosed people with diabetes should be assessed by a healthcare professional and supplied a suitable meter listed in this document if self-monitoring of capillary blood glucose is required (may not be needed long-term), see [Appendix 6](#). Training on the correct use, storage and interpretation of readings should be provided.

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## Adults, children and young people with type 1 Diabetes Mellitus (T1DM)

Self-monitoring of capillary blood glucose is essential for people living with Type 1 diabetes or gestational diabetes, irrespective of whether other monitoring devices are co-prescribed (including 'Flash glucose' monitors and Continuous Glucose monitors).

## Adults, children and young people living with type 2 Diabetes Mellitus (T2DM)

For people living with T2DM assess the need to self-monitor their capillary blood glucose levels in line with NICE guidance<sup>3</sup> ([see appendix 6](#)).

Adults with T2DM should not routinely self-monitor their blood glucose levels unless:

- The person is prescribed insulin.
- There is evidence of hypoglycaemic episodes.
- The person is prescribed an oral medication that may increase their risk of hypoglycaemia while driving or operating machinery.
- The person is pregnant or is planning to become pregnant.

There are some circumstances where short-term self-monitoring of capillary blood glucose may be considered:

- When therapy is changed or intensified e.g. if HbA1c is raised
- If steroids are co-prescribed (midday, before evening meal and 2 hours after)
- Pre-conception
- On percutaneous endoscopic gastrostomy (PEG) feed

Only provide the person with a meter if there is a clear goal and purpose for testing. For those who test intermittently, test strips should only be provided on acute prescriptions to be requested as necessary.

## Blood glucose meters

- Where people living with diabetes are already using blood glucose or ketone meters that are not on the recommended list of products, review if ongoing self-monitoring of capillary blood glucose is required. Where this is required, individuals should be offered an alternative meter ([see appendices 1 - 4](#)) at the earliest opportunity following a discussion with their healthcare professional.
- For those that have stock of non-preferred meters, these should be removed and not supplied to patients, as these will require non-preferred testing strips.
- All suppliers will provide, free of charge, the recommended meters, lancing devices, and ongoing free control solutions to all healthcare settings across England in primary care, secondary care and to service users.
- All recommended suppliers will provide free technical support by a freephone telephone number, support material and meter training for both service users and healthcare professionals.

## Co-prescribing blood glucose and ketone testing strips for people using continuous glucose monitoring (CGM)

- People using CGM still need to have access to blood glucose testing strips. This is to ensure a safe mechanism of glucose testing is available should the CGM device or reader fail/damaged/lost, and to facilitate glucose testing when use of the CGM device is not appropriate.

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Some CGM devices also require additional adjunctive blood glucose testing or testing for calibration, or to confirm hypoglycaemia or in line with driving requirements.

The following should be considered in relation to prescribing testing strips for individuals also prescribed CGM:

- Offer a meter with testing strips of the lowest acquisition cost in line with local recommendations.
- If a person needs to remain on a particular meter that is compatible with high-cost test strips, this should be advised by their diabetes specialist team and rationale provided.
- Overall, the revised NICE guidance on access to CGM may result in a reduction in the need for monitoring of capillary blood glucose, however, ongoing use will be determined by the individual's clinical circumstances.
- The quantity required should be jointly reviewed regularly by the prescriber and the individual with T1DM to ensure an appropriate number of test strips and lancets are prescribed ([See appendix 7](#)) for suggested quantities of testing strips, lancets, and needles to be prescribed based on frequency of testing)
- Please note once opened, most test strips have an expiry date of between 3-6 months dependent on the brand and therefore it is recommended not to prescribe more than 3 months of test strips at any one time.
- Meters recommended and strips prescribed must suit individual needs and circumstances.

## Blood ketone testing strips

- Blood ketone testing is indicated for people living with T1DM and ketosis prone T2DM.
- Where blood ketone strips are appropriate, meters that measure both blood glucose and ketone should be utilised as listed in local recommendations see [appendix 1](#).

The frequency of blood ketone testing should be monitored carefully, more frequent testing is required in the case of frequent diabetic ketoacidosis admissions, acute illness (see “sick day monitoring” below)<sup>4,5</sup> and pregnant women with type 1 diabetes, or as advised by diabetes obstetric team.

- Ketone testing for children & young people can be more frequent in the initial period following diagnosis whilst optimising insulin treatment and glucose control. Changes in the frequency of testing of blood ketones should be communicated to the GP.
- Ensure individuals are prescribed an appropriate supply of ketone test strips. It is recommended that strips are prescribed to allow individuals to maintain a supply of one box (10 strips) in the home. Individuals must take responsibility for ensuring a replacement box is supplied before their current strips expire.
- Test strips should only be provided on acute prescriptions to be requested as necessary.

## Sick day monitoring

People living with diabetes should be provided with the Trend Diabetes leaflets:

- [Type 1 diabetes: What to do when you are ill<sup>4</sup>](#)
- [Type 2 diabetes: What to do when you are ill<sup>5</sup>](#)

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## Lancets

### Lancet choices

- Lancets are designed to only be used once, and then disposed of in a safe way. Using a lancet repeatedly will make it blunter, and therefore more painful to use.
- The least costly lancets that are the correct size for the individual's finger pricking device should be prescribed (<£3/100)
- The quantity of lancets will vary from individual to individual, but it should not exceed the number of strips issued per month ([see appendix 7](#))
- Lancets come in different sizes and thicknesses (or gauges (G)). A higher-gauge lancet is thinner so is normally less painful, but it might not always give enough blood for a test sample. Lower-gauge lancets are required for people who don't produce enough blood for an adequate sample with a higher-gauge product, e.g. patients with extremely thick skin or calloused hands <sup>6</sup>
- Multi-device lancets which contain a preloaded lancet drum should be restricted to those with clinical need, e.g. those with dexterity problems.

An option of universal lancets can be considered if appropriate - these are compatible with most lancing devices<sup>6</sup>. Suggested examples include:

Supplier	Universal Lancet name	Size	Cost/pack size*
HTL-STREFA S.A.	Droplet <sup>®</sup>	0.2mm/33G	£2.19/100
		0.31mm/30G	
		0.36mm/28G	
Cambridge Sensors Ltd	Microdot <sup>®</sup> Plus <sup>®</sup>	0.2mm/33G	£2.19/100
		0.3mm/30G	

\*cost [eDrug tariff](#) April 2024

### Safety lancets

- Safety lancets are single use lancets which are designed, when activated, to fire a needle from the protective shield puncturing the skin before retracting automatically where they cannot be re-used and minimise the risk of needle stick injuries<sup>6</sup>.
- Safety lancets are to avoid needle stick injuries in healthcare workers and should not be routinely prescribed for people self-monitoring capillary blood glucose. It may be appropriate in certain circumstances to provide safety lancets on prescription such as where there is a risk of disease transmission such as HIV or hepatitis or those who are unable to use lancet devices may benefit from safety lancets to maintain independence.
- The gold standard is for all people who care for someone with diabetes to be provided with training on how to do so safely and effectively. Providing safety needles does not replace the provision of education and training.
- Most safety lancets are significantly more costly than non-safety lancets. The NHSE commissioning recommendations have two types of safety lancets included in the recommendations.<sup>1</sup>

Supplier	Lancet name	Size	Cost/pack size*
Neon Diagnostics	Neon Verifine safety <sup>®</sup>	1.8mm/28G	£2.99/100
		1.8mm/30G	
GlucoRx	GlucoRx Safety <sup>®</sup>	2.2mm/23G	£5.50/100
		1.8mm/26G	
		1.8mm/28G	
		1.6mm/30G	

\*cost [eDrug tariff](#) April 2024

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## Safety needles

Please contact the Medicines Optimisation Team if you have a query related to the prescribing of safety needles. Supporting information is being developed.

## Sharps disposal

- There are a variety of ways of disposing of used lancets safely as they can carry infection and cause needle sharps injuries.
- A sharps bin should be used to dispose of used lancets. A sharps bin is a specially designed box with a lid that can be prescribed on an NHS FP10 prescription.
- When the sharps bin is full, the bin may be collected for disposal by the local council. Local councils can charge for this service, but most do not<sup>7</sup>. Individuals should be aware of local arrangements for collection of full sharps bins by checking with their council.

There are several sharps bins in a range of sizes which can be prescribed<sup>9</sup>. These include:

- MySharps<sup>®</sup> pocket container
- Sharpak<sup>®</sup>
- Sharpsafe<sup>®</sup>
- Sharpsguard<sup>®</sup>

Some companies make their sharps bins from recycled plastic. This would support a reduction in the carbon footprint and the NHS to reach the target of net zero carbon emissions by 2040<sup>10</sup>.

Examples of sharps bins made from recycled plastic include:

- Sharpsafe<sup>®</sup> (Vernacare) are manufactured with low carbon recycled materials
- Daniels Sharpsguard<sup>®</sup> (Daniels) Range are made using at least 40% recycled plastic

## Insulin disposable needles

- Advise people using insulin pen devices that the needle must be changed before each administration.
- The least costly disposable needles (<£5/100 needles) that are the correct size for the individual person and which are compatible with their insulin pen devices should be prescribed.
- Needles of 4mm length are the safest pen needle for adults and children regardless of age, gender, and Body Mass Index (BMI).



For those currently using longer pen needle lengths (8mm, 12mm), it is advisable to change to a shorter needle length (6mm or less) but only after discussion with a healthcare professional, to ensure they receive advice on the correct injection technique<sup>11</sup>.

## Prescribing insulin by brand

- Insulins should always be prescribed by brand name, strength, formulation, and device.
- Generic prescribing of insulins should be avoided as this may increase the risk of the individual being supplied with the incorrect insulin product, which could result in loss of glycaemic control with severe consequences for the person.

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## Appendix 1: Type 1 and ketosis prone type 2 diabetes NCL preferred meters recommendations

Type 1 and ketosis prone Type 2 diabetes	GlucoFix Tech GK <sup>®</sup> (NHSE recommendation) 1 <sup>st</sup> line for adults and young people	GlucoRx HCT <sup>®</sup> (NHSE & NCL legacy recommendation)	
			
Compatible strips - glucose Cost per 50 strips (£) *	Glucifix Tech Sensor <sup>®</sup> test strips £5.95 pack/50	GlucoRx HCT <sup>®</sup> test strips £8.95 pack/50	<p>Exceptions: Meters that are compatible with Hybrid closed loop pump systems should not be switched, for e.g.</p> <p>i. Medtronic 780 – Accu-Chek Guide link meter (Non formulary)</p> <p>ii. Omnipod Eros pump – uses Abbott Freestyle lite test strips (Non formulary)</p> <p>Pregnant women AgaMatrix – WaveSense JAZZ wireless (refrain from switching).</p> <p>*cost <a href="#">eDrug tariff</a> April 2024. If multiple meters are considered appropriate for an individual patient, choose the option that uses testing strips with the lowest acquisition cost.</p>
Compatible strips - ketone Cost per 50 strips (£) *	Glucifix Tech B-Ketone Sensors <sup>®</sup> strips £9.95 pack/10	GlucoRx HCT Ketone <sup>®</sup> test strips † £9.95 pack/10	
Compatible lancets Cost of lancets (£) *	Glucoject <sup>®</sup> lancets Plus (33G) £3.77 pack/100	GlucoRx <sup>®</sup> Lancet (30G) £4.50 pack/200	
Kit contents	10 lancets 10 glucose test strips	10 lancets 10 glucose + 1 ketone test strips	
Connectivity	QuickLink NFC, Bluetooth and dedicated USB cable	Smart phone connectivity to 'GlucoRx Voyager.' USB: 'GlucoRx HealthCare Management System' & 'GlucoRx Voyager.' GlucoRx meter and Voyager are integrated with (I) Apple Health app (II) 'Vision'	
Software compatibility	GlucoLog Lite, GlucoLog Web & RapidCalc Bolus Advice App, Glooko <sup>®</sup> /Diasend <sup>®</sup>	Diasend <sup>®</sup> /Glooko <sup>®</sup> and Eclipse Remote Platform ( <a href="https://www.eclipselive.org">https://www.eclipselive.org</a> )	
Company contact	<a href="mailto:customersupport@menarinidiag.co.uk">customersupport@menarinidiag.co.uk</a> 0800 243 667	<a href="mailto:orders@glucorx.co.uk">orders@glucorx.co.uk</a> 01483 755133	
Training video	<a href="https://glucomenday.com/newplatform/en/glucifix-tech-gk-training-and-guides/">https://glucomenday.com/newplatform/en/glucifix-tech-gk-training-and-guides/</a>	<a href="https://www.glucorx.co.uk/hct-instructions/">https://www.glucorx.co.uk/hct-instructions/</a>	
Recommended cohorts from NHSE guidance	<ul style="list-style-type: none"> <li>o Carbohydrate Counting</li> <li>o Cognitive Impairment</li> <li>o Dexterity</li> <li>o Group 2 Driver</li> <li>o Learning Difficulties</li> <li>o No Fixed Abode</li> <li>o Paediatrics</li> <li>o Unable to read English</li> <li>o Visually Impaired</li> </ul>		

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Review date: May 2027

Page 9 of 18

## Appendix 2: Type 2 diabetes (majority of people living with diabetes) NCL preferred meters

Type 2 diabetes (majority of people)	<b>GlucoRx Q<sup>®</sup></b> <b>(NHSE recommendation)</b> <b>1<sup>st</sup> line</b>	<b>On Call Extra Mobile<sup>®</sup></b> <b>(NHSE recommendation)</b>	<b>Palmdoc II<sup>®</sup></b> <b>(NCL legacy)</b> Optional multilanguage talking meter and patient information leaflets	<b>Accu-Chek Instant<sup>®</sup></b> <b>(NCL legacy)</b> Usually for people on basal-bolus who are carb counting (via MySugr <sup>®</sup> app)
				
Compatible strips Cost per 50 strips (£)*	Glucorx Q <sup>®</sup> test strips £5.45 pack/50	On Call Extra <sup>®</sup> test strips £5.20 pack/50	Palmdoc <sup>®</sup> test strips £5.90 pack/50	Instant <sup>®</sup> test strips £5.95 pack/50
Compatible lancets Cost of lancets (£) *	Glucorx <sup>®</sup> Lancets (30G) £4.50 pack/200	Oncall <sup>®</sup> Lancets (30G) £2.75 pack/100	Palmdoc <sup>®</sup> Lancets (30G) £2.85 pack/100	Accu-Chek FastClix <sup>®</sup> £5.90 pack/204
Kit contents	10 lancets 10 test strips	10 lancets 10 test strips	10 lancets 10 test strips	2 Fastclix drums (12 lancets) 10 test strips
Connectivity	Smart phone connectivity to free 'Glucorx Voyager.' USB, 'Glucorx HealthCare Management System' & 'Glucorx Voyager.' Glucorx meter and Voyager are integrated with (I) Apple Health app (II) 'Vision'	Bluetooth	USB only	USB; Bluetooth
Software compatibility	Diasend <sup>®</sup> /Glooko <sup>®</sup> and Eclipse Remote Platform ( <a href="https://www.eclipselive.org">https://www.eclipselive.org</a> )	On Call <sup>®</sup> Diabetes Management Software and Glooko <sup>®</sup> (formerly Diasend <sup>®</sup> )	Palmdoc 2 software – download from website	Diasend <sup>®</sup> /Glooko (Transmitter; Uploader; Mobile App), MySugr, RocheDiabetes Care Platform
Company contact	<a href="mailto:orders@glucorx.co.uk">orders@glucorx.co.uk</a> 01483 755133	<a href="mailto:info@connect2pharma.co.uk">info@connect2pharma.co.uk</a> k, 020 3307 4646	<a href="mailto:hello@palmdoc.co.uk">hello@palmdoc.co.uk</a> 0800 994 9995	<a href="mailto:burgesshill.dcaccountmanagers@roche.com">burgesshill.dcaccountmanagers@roche.com</a> 0800 040 7221, <a href="https://diabetes.roche.com/hcp-gb/order-supplies">https://diabetes.roche.com/hcp-gb/order-supplies</a>
Training video	<a href="https://www.glucorx.co.uk/q-instructions/">https://www.glucorx.co.uk/q-instructions/</a>	<a href="https://www.oncallmeters.co.uk/patient-homepage/on-call-extra-mobile/">https://www.oncallmeters.co.uk/patient-homepage/on-call-extra-mobile/</a>	<a href="https://www.youtube.com/watch?v=1Gu_H14W18ls">https://www.youtube.com/watch?v=1Gu_H14W18ls</a>	<a href="https://www.youtube.com/c/RocheDiabetesCareUKandIreland">https://www.youtube.com/c/RocheDiabetesCareUKandIreland</a>

**Exceptions: Meters that are compatible with Hybrid closed loop pump systems should not be switched, for e.g.**




- i. Medtronic 780 – Accu-Chek Guide link meter (Non formulary)
- ii. Omnipod Eros pump – uses Abbott Freestyle lite test strips (Non formulary)

**Pregnant women AgaMatrix – WaveSense JAZZ wireless (refrain from switching).**

\*cost [eDrug tariff](#) March 2024. If multiple meters are considered appropriate for an individual patient, choose the option that uses BGTS with the lowest acquisition cost.



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## Appendix 3: Type 2 diabetes WITH additional functionality required and diabetes in pregnancy NCL preferred meters recommendations

Type 2 diabetes WITH additional functionality required and diabetes in pregnancy	<b>Type 2 diabetes (non-ketosis prone WITH additional functionality required)</b>		<b>Diabetes in pregnancy (Type 1 and 2)</b>	<p>Exceptions: Meters that are compatible with Hybrid closed loop pump systems should not be switched, for e.g.</p> <p>i. Medtronic 780 – Accu-Chek Guide link meter (Non formulary)</p> <p>ii. Omnipod Eros pump – uses Abbott Freestyle lite test strips (Non formulary)</p> <p>Pregnant women AgaMatrix – WaveSense JAZZ wireless (refrain from switching).</p> <p>*cost <i>eDrug tariff</i> April 2024. If multiple meters are considered appropriate for an individual patient, choose the option that uses testing strips with the lowest acquisition cost.</p>
	<b>WaveSense Jazz® (NHSE &amp; NCL legacy recommendation)</b>	<b>Nexus blue® (NHSE recommendation)</b>	<b>WaveSense Jazz® (NCL legacy for gestational diabetes)</b>	
				
Compatible strips Cost per 50 strips (£) *	WaveSense JAZZ® test strips £8.74 pack/50	GlucoRx Nexus® test strips £8.95 pack/50	WaveSense JAZZ® test strips £8.74 pack/50	
Compatible lancets Cost of lancets (£) *	Agamatrix Ultra-Thin® lancets (28G) £5.43 pack/ 200	GlucoRx® Lancets (30G) † £4.50 pack/200	Agamatrix Ultra-Thin® lancets (28G) £5.43 pack/200	
Kit contents	30 lancets 25 test strips	10 lancets 10 test strips	30 lancets 25 test strips	
Connectivity	Cable	Bluetooth	Cable	
Software compatibility	ALLY Diabetes Patient Management System Diasend®/Glooko®	Diasend®/Glooko® and Eclipse Remote Platform ( <a href="https://www.eclipselive.org">https://www.eclipselive.org</a> )	ALLY Diabetes Patient Management System Diasend®/Glooko®	
Company contact	<a href="mailto:customercare@agamatrix.co.uk">customercare@agamatrix.co.uk</a> 0800 093 1812 / 07825613033	<a href="mailto:orders@glucorx.co.uk">orders@glucorx.co.uk</a> 01483755133	<a href="mailto:customercare@agamatrix.co.uk">customercare@agamatrix.co.uk</a> 0800 093 1812 / 07825613033	
Training video	<a href="https://agamatrix.co.uk/support/videos/">https://agamatrix.co.uk/support/videos/</a>	<a href="https://www.glucorx.co.uk/nexus-instructions/">https://www.glucorx.co.uk/nexus-instructions/</a>	<a href="https://agamatrix.co.uk/support/videos/">https://agamatrix.co.uk/support/videos/</a>	
Recommended cohorts from <a href="#">NHSE</a> guidance	<ul style="list-style-type: none"> <li>o Cognitive impairment</li> <li>o Carbohydrate counting</li> <li>o Dexterity</li> <li>o Group 2 driver</li> <li>o Learning difficulties</li> <li>o No fixed abode</li> <li>o Unable to read English</li> <li>o Visually impaired</li> </ul>	<ul style="list-style-type: none"> <li>o Cognitive impairment</li> <li>o Carbohydrate counting</li> <li>o Dexterity</li> <li>o Group 2 driver</li> <li>o Learning difficulties</li> <li>o No fixed abode</li> <li>o Paediatrics</li> <li>o Unable to read English</li> <li>o Visually impaired</li> </ul>	<ul style="list-style-type: none"> <li>o Cognitive impairment</li> <li>o Carbohydrate counting</li> <li>o Dexterity</li> <li>o Group 2 driver</li> <li>o Learning difficulties</li> <li>o No fixed abode</li> <li>o Unable to read English</li> <li>o Visually impaired</li> </ul>	

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## Appendix 4: Diabetes - Children and young people (<19 years) NCL preferred meters

Children and young people	<b>GlucoFix Tech GK<sup>®</sup></b> <b>(NHSE recommendation)</b>  1 <sup>st</sup> line for adults, children and young people (Type 1 and ketosis prone Type 2 diabetes)	<b>Accu-Chek Instant<sup>®</sup></b> (Local NCL meter option preferred by Paediatric team if appropriate)	Exceptions: Meters that are compatible with Hybrid closed loop pump systems should not be switched, for e.g.  i. Medtronic 780 – Accu-Chek Guide link meter (Non formulary) ii. Omnipod Eros pump – uses Abbott Freestyle lite test strips (Non formulary)  Pregnant women AgaMatrix – WaveSense JAZZ wireless (refrain from switching). *cost <a href="#">eDrug tariff</a> April 2024. If multiple meters are considered appropriate for an individual patient, choose the option that uses testing strips with the lowest acquisition cost.
			
Compatible strips - glucose Cost per 50 strips (£) *	Glucofix Tech Sensor <sup>®</sup> test strips £5.95 pack/50	Instant <sup>®</sup> test strips £5.95 pack/50	
Compatible strips - ketone Cost per 50 strips (£) *	Glucofix Tech B-Ketone Sensors <sup>®</sup> strips £9.95 pack/10	N/A	
Compatible lancets Cost of lancets (£) *	Glucoject <sup>®</sup> lancets Plus (33G) £3.77 pack/100	Accu-Chek FastClix <sup>®</sup> £5.90 pack/204	
Kit contents	10 lancets 10 glucose test strips	2 Fastclix drums (12 lancets) 10 test strips	
Connectivity	QuickLink NFC, Bluetooth and dedicated USB cable	USB; Bluetooth	
Software compatibility	GlucoLog Lite, GlucoLog Web & RapidCalc Bolus Advice App, Glooko <sup>®</sup> /Diasend <sup>®</sup>	Diasend <sup>®</sup> /Glooko <sup>®</sup> (Transmitter; Uploader; Mobile App), MySugr, RocheDiabetes Care Platform	
Company contact	<a href="mailto:customersupport@menarinidiag.co.uk">customersupport@menarinidiag.co.uk</a> 0800 243 667	<a href="mailto:burgesshill.dcaccountmanagers@roche.com">burgesshill.dcaccountmanagers@roche.com</a> 0800 040 7221 <a href="https://diabetes.roche.com/hcp-gb/order-supplies">https://diabetes.roche.com/hcp-gb/order-supplies</a>	
Training video	<a href="https://glucomenday.com/newplatform/en/glucofix-tech-gk-training-and-guides/">https://glucomenday.com/newplatform/en/glucofix-tech-gk-training-and-guides/</a>	<a href="https://www.youtube.com/c/RocheDiabetesCareUKandIreland">https://www.youtube.com/c/RocheDiabetesCareUKandIreland</a>	
Recommended cohorts from <a href="#">NHSE</a> guidance	<ul style="list-style-type: none"> <li>o Carbohydrate counting</li> <li>o Cognitive impairment</li> <li>o Dexterity</li> <li>o Group 2 driver</li> <li>o Learning difficulties</li> <li>o No fixed abode</li> <li>o Paediatrics</li> <li>o Unable to read English</li> <li>o Visually impaired</li> </ul>		

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### V3 – NCL ICS Diabetes blood glucose and ketone meters, testing strips and lancets recommendations

Approved at: NCL ICB Medicines Clinical Reference Group – 25 April 2024

Review date: May 2027

Page 12 of 18



## Appendix 5: Summary of preferred blood glucose and ketone meters, testing strips and lancets

### Adults

T1DM or ketosis prone T2DM					
Meter	BGTS~	BGTS cost/50*	Ketone blood test strips	Lancet	Additional functionality
<a href="#">GlucoFix Tech GK®</a>	Glucofix Tech Sensors® strips	£5.95	GlucoFix Tech® B-Ketone Sensors strips	Glucosject Plus® lancets	ü
<a href="#">GlucoRx HCT®</a>	GlucoRx HCT Glucose® strips	£8.95	GlucoRx HCT® Ketone strips	GlucoRx® lancets	

Type 2 diabetes (non-ketosis prone)- Majority of patients			
Meter	BGTS	BGTS cost/50*	Lancet
<a href="#">GlucoRx Q®</a>	GlucoRx Q® strips	£5.45	GlucoRx® lancets
<a href="#">On Call Extra Mobile®</a>	On Call Extra® strips	£5.20	On call® lancets
<a href="#">Palmdoc II®</a>	Palmdoc® strips	£5.90	Palmdoc® lancets
<a href="#">Accu-Chek Instant®</a>	Instant® strips	£5.95	Accu-Chek FastClix® lancets

Type 2 diabetes (non-ketosis prone WITH additional functionality required)			
Meter	BGTS	BGTS cost/50*	Lancet
<a href="#">WaveSense Jazz®</a>	WaveSense JAZZ® strips	£8.74	Agamatrix Ultra-Thin lancets
<a href="#">Nexus blue®</a>	GlucoRx Nexus® strips	£8.95	GlucoRx® lancets

Diabetes in pregnancy			
Meter	BGTS	BGTS cost/50*	Lancet
<a href="#">WaveSense Jazz®</a>	WaveSense JAZZ® strips	£8.74	Agamatrix® Ultra - Thin lancets

~BGTS- Blood glucose testing strips

### Children and young people

Meter	BGTS	BGTS cost/50*	Ketone blood test strips	Lancet	Additional functionality
<a href="#">GlucoFix Tech GK®</a>	Glucofix Tech® sensors strips	£5.95	GlucoFix Tech® B-Ketone sensors strips	Glucosject Plus® lancets	(Type 1 and ketosis prone Type 2 diabetes)
<a href="#">Accu-Chek Instant®</a>	Instant® strips	£5.95	N/A	Accu-Chek FastClix® lancets	

\*cost [eDrug tariff](#) April 2024

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## Appendix 6: Guidance regarding frequency of blood glucose testing

**Use this as a guide, some individuals may require greater or fewer frequency of testing and to use clinical judgment when necessary**

Diabetes type	Treatment group	Medication	Testing frequency with blood glucose test strips	Rationale
Type 1 diabetes (see NICE <a href="#">NG17 adults</a> , and <a href="#">NG18 for children</a> and young people)	All people with Type 1 diabetes should be offered CGM. Blood glucose testing should be offered as a back-up in case of CGM device failure, to confirm symptoms of hypoglycaemia, to support device calibration, or as an option for patients who decline CGM  Initiation and monitoring pathway for CGM in type 1 diabetes in NCL will soon be available	Insulin injections	<u>Not on CGM:</u> Adults should test $\geq 4$ times a day, incl. before each meal and before bed. Children/young people should test $\geq 5$ times a day	<ul style="list-style-type: none"> <li>Self-monitoring of capillary blood glucose is an integral part of treatment to avoid hypoglycaemia and manage hyperglycaemia</li> <li>Patients should be taught to monitor blood glucose, and these should be reviewed annually</li> <li>Increase frequency during periods of illness; before, during and after sport; if frequency of hypoglycaemia increases; before/during pregnancy/breastfeeding; where glucose levels are changing rapidly on CGM or otherwise needed</li> <li>Follow legal requirements for testing e.g. DVLA<sup>12</sup></li> </ul>
Continuous subcutaneous insulin infusion therapy (CSII)	People with Type 1 diabetes requiring an CSII (or 'insulin pump') in line with NICE <a href="#">TA151</a> , who are not on a closed loop system using CGM.	Insulin via a pump	At least 4–6 times per day.	<ul style="list-style-type: none"> <li>More frequent monitoring required is during establishment of therapy and times of illness.</li> <li>CGM can be used to monitor glucose level prior to driving (except for lorry and bus drivers) unless experiencing symptoms of hypoglycaemia or glucose level is <math>\leq 4.0</math> mmol/l.</li> <li>For people on CGM, finger prick testing is required to confirm hypo symptoms, calibrate the CGM device or as a back-up in case of device failure.</li> </ul> <p>Seek specialist advice if needed</p>
Diabetes in pregnancy	Preconception, pregnant women with pre-existing diabetes, gestational diabetes.  All pregnant people with type 1 diabetes should be offered CGM. Initiation and monitoring pathway for CGM in type 1 diabetes in NCL will soon be available	Metformin, sulfonylurea, insulin, or diet	Metformin/ sulfonylurea, one insulin injection per day or diet: test at least 4 times a day. On 2 or more insulin doses a day: test 7-8 times a day	All pregnant women should test min. 4 times a day to include both fasting and post-prandial readings. Women who are using CGM will not need frequent finger prick testing so will require fewer strips. Review quantities of strips after delivery.

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**Use this as a guide, some individuals may require greater or fewer frequency of testing and to use clinical judgment when necessary**

Diabetes type	Treatment group	Medication	Testing frequency with blood glucose test strips	Rationale
Type 2 diabetes (see <a href="#">NICE NG28</a> )	Diet & exercise alone with/without: Metformin, SGLT-2ia, pioglitazone, DPP4-ib, GLP-1 mimetic (or any combination of these)		Self-monitoring of capillary blood glucose not routinely recommended as part of routine care, refer to <a href="#">NICE guidance</a> .	No hypo risk, monitor glycaemia via HbA1c
	Sulphonylureas or glinides, alone or in conjunction with other therapies		2-4 times per day, when starting/changing dose. Once stable, test 2-4 times per week	Monitoring can help titrate treatment and reveal or refute hypoglycaemia. Review medication. <ul style="list-style-type: none"> <li>• Testing frequency can increase e.g. whilst fasting</li> <li>• Follow legal requirements for testing e.g. DVLA<sup>12</sup></li> </ul>
	Insulin therapy with/without oral hypoglycaemic agents		Up to four times a day including pre-, and 2 hours post meal depending on insulin regimen	Test more often when starting or changing treatment, when unwell or diabetes is unstable. <ul style="list-style-type: none"> <li>• Readings should be taken as per specialist advice for people on intensive regimes</li> <li>• Assess patient understanding and use of results to adjust lifestyle and treatment</li> <li>• Follow legal requirements for testing e.g. DVLA<sup>12</sup></li> </ul>

- a. SGLT-2 inhibitor- Sodium-glucose co-transporter-2 inhibitor
- b. DPP4 inhibitor- Dipeptidyl peptidase-4 inhibitor
- c. GLP-1 mimetic- Glucagon-like peptide

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**V3 – NCL ICS Diabetes blood glucose and ketone meters, testing strips and lancets recommendations**

Approved at: NCL ICB Medicines Clinical Reference Group – 25 April 2024

Review date: May 2027

## Appendix 7: Suggested prescribing quantities for test strips, lancets and insulin pen needles

Test strips requirements			Lancets requirements			Insulin pen needles requirements		
Tests per day	Tests / 28 days	Packs / frequency (50 strips/pack)	Tests per day	Tests / 28 days	Maximum packs / frequency	Injections per day	28 days	Maximum packs / frequency
1	28	8 packs / year	1	28	2 x 200 packs / year	1	28	4 x 100 packs / year
2	56	1 pack / month. 14 packs / year	2	56	4 x 200 packs / year	2	56	8 x 100 packs / year
4	112	2-3 packs / month. 29 packs / year	4	112	8 x 200 packs / year	3	84	11 x 100 packs / year
6	168	3-4 packs / month. 44 packs / year	6	168	11 x 200 packs / year	4	112	15 x 100 packs / year
8	224	4-5 packs / month. 58 packs / year	8	224	15 x 200 packs / year			

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### V3 – NCL ICS Diabetes blood glucose and ketone meters, testing strips and lancets recommendations

Approved at: NCL ICB Medicines Clinical Reference Group – 25 April 2024

Review date: May 2027

Page 16 of 18

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***Review of recommendations will be in advance of the review date only in the event of a major new development in either the NHS England recommendations, or in the products available to self-monitor blood glucose and ketones.***

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Approved at: NCL ICB Medicines Clinical Reference Group – 25 April 2024

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Page 17 of 18