

NHS Greater Glasgow and Clyde Adult Blood Glucose Meter and Test Strip Formulary 2016-17

Primary Care and Acute Joint Formulary

Blood Glucose Meter formulary developed by the Diabetes MCN Blood Glucose Meter Formulary Review Group.

Review date: March 2017

Foreword

The NHS Greater Glasgow & Clyde Blood Glucose Meter and Test Strip Formulary has been developed to provide practitioners with a selection of preferred blood glucose meters and test strips for adult patient self monitoring of blood glucose.

Self monitoring of blood glucose (SMBG) is necessary for patients treated with insulin or other medication with a high risk of hypoglycaemia. The NHS GGC Guideline for Self Monitoring of Blood Glucose, updated November 2015 is available on staffnet (via www.ggcprescribing.org.uk).

Self monitoring of blood glucose involves the use of blood glucose meters and test strips. Blood glucose meters are not available on the NHS while the testing strips or discs are. Historically, meters were supplied either by the diabetes team, practice nurse or purchased online or through community pharmacies by the patient or family members.

The Diabetes MCN established a review group to recommend one or two preferred meters and strips to be included in the NHS GGC Formulary for use by the majority of patients. The review group included patient representatives, specialists from primary and secondary care, community pharmacy, biochemistry and the prescribing team.

Implementing the Formulary provides assurance that the products being used in practice have been assessed as suitable for use, effective both clinically and in terms of cost, and acceptable to patients and clinicians.

All blood glucose meters and test strips meet the international manufacturing quality standard for blood glucose meters and test strips ISO 15197 (2013).

Taking a formulary approach to blood glucose monitoring systems will provide benefits in terms of aiding continuity and increase familiarity with a select range of meters amongst healthcare professionals. Rationalising the range of products in use assures that only clinically proven and cost effective products are used. However it is recognised that variation in product choice may occur in specialist areas.

Practitioners should aim to prescribe a product included in the Formulary and only use a non-formulary product when there is a good clinical reason for doing so. Test strips out with the formulary may only be prescribed on GP10 if there is a clear clinical need for a non-formulary choice to be made.

Supplies of the preferred meters and starter packs can be obtained by contacting the local representatives as listed in the reference table. Patients should be dissuaded from purchasing a meter themselves without prior discussion with their healthcare professional as strips and lancets will not automatically be supplied.

The Blood Glucose Meter Formulary follows the same structure as the NHSGGC Formulary with choices being subdivided into two categories: Preferred List (P) – these represent the first line choices for use by the majority of patients with type 1 and type 2 diabetes requiring a blood glucose meter, Total Formulary List (TF) – contains a specialist meters for use with insulin pumps and in ketone testing plus a second line option for general use.

NHS GG&C Blood Glucose Meters & Strip Formulary

Specific meter & test strip information can be found in the attached Reference Table

Preferred List Blood Glucose Meters & Strips

Preferred blood glucose meters for adult patients with type 1 and type 2 diabetes not on an insulin pump

- **GlucRx Nexus system meters including Nexus, Mini & Voice.**

This includes three device options: the Voice provides an audible option for the visually impaired, the Mini a small discrete meter and the standard Nexus easy to read device.

- **Glucomen Areo**

The Areo is a single easy to read & use device. It uses blue tooth technology that allows easy electronic transfer of results.

Total Formulary Blood Glucose Meters & Strips

Second line blood glucose meter for adult patients with type 1 and type 2 diabetes who are not on an insulin pump:

- **One Touch Select Plus**

Currently the One Touch offers a different visual display but requires a larger blood volume size and uses small strips that patients with dexterity problems may find hard to use.

For use with Insulin Pump

- Contour Next Link is used in conjunction with Medtronic insulin pump and will be supplied from the diabetes clinic.

Ketone monitoring in patients with type 1 diabetes

- Glucomen LX Plus & Freestyle Optium Neo are identified for ketone monitoring requirements





The Formulary recommendations apply across primary and secondary care.

Supplies of the preferred meters and starter packs can be obtained by contacting the local representatives as listed in the reference table.

Glucomen Areo : Martha MacKenzie 07833682116

GlucRx Nexus system meters including Nexus, Mini & Voice: Linda Brown 07741262097

Patients should be dissuaded from purchasing a meter themselves without prior discussion with their healthcare professional as strips and lancets will not automatically be supplied.

	Preferred List Formulary Meter	Preferred List Formulary Meter	Preferred List Formulary Meter	Preferred List Formulary Meter	Second Line Formulary Meter	For use with Medtronics Insulin Pump
Meter	GlucoRx Nexus System	GlucoRx Nexus Mini	GlucoRx Nexus Voice	Glucomen Areo	One Touch Select Plus	Contour Next Link
						
Features	Large LCD screen with backlight. Strip ejection avoids blood contact.	Small & compact	Audio feedback for visually impaired patients. Strip ejection avoids blood contact.	Large glow in the dark display. Strip ejection avoids blood contact.	3 colour range indicator	Supports second-chance testing if 1 st blood sample not enough
Memory capacity	1000	1000	450	730	500	1000
Strips	GlucoRx Nexus	GlucoRx Nexus	GlucoRx Nexus	Glucomen Areo	One Touch Select Plus	Contour Next
Drug Tariff price (pence)	995	995	995	995	992	1504
Test Strips	2 vials of 25 strips or 1 vial of 50 strips	2 vials of 25 strips or 1 vial of 50 strips	2 vials of 25 strips or 1 vial of 50 strips	One vial of 50 strips	One vial of 50 strips	One vial of 50 strips
Strip expiry date	6 months from opening vial	6 months from opening vial	6 months from opening vial	9 months from opening	6 months after first opening	24 month shelf life. Once open date as on vial
Sample size	0.5 µL	0.5 µL	0.5 µL	0.5 µL	1 µL	0.6 µL
Time for results	5 sec	5 sec	5 sec	5 sec	5 sec	5 sec
Range	1.1-33.3 mmol/L	1.1-33.3 mmol/L	1.1-33.3 mmol/L	1.1-33.3 mmol/L	1.1-33.3 mmol/L	1.1-33.3 mmol/L
Test Strip Coding Required	Not required	Not required	Not required	Not required	Not required	Not required
Alternative Site Testing Supported	Yes – fingertip, forearm, upper arm, hand, thigh and calf	Yes –fingertip, forearm, upper arm, hand, thigh and calf	Yes – fingertip, forearm, upper arm, hand, thigh and calf	Yes – fingertip, palm and forearm	No – fingertip testing only	Yes – fingertip and palm
Haematocrit	30- 60%	30- 60%	30- 60%	10-70%	20-60%	0-70%
Enzyme	GDH – FAD	GDH – FAD	GDH – FAD	Glucose Oxidase	Glucose Oxidase	GDH – FAD
Replacement batteries	Two 1.5V AAA size alkaline batteries Contact Customer Service – supplied by courier	One 3V CR2032 Lithium Battery Contact Customer Service – supplied by courier	Two 1.5V AAA size alkaline batteries Contact Customer Service – supplied by courier	Two 3V CR2032 Lithium Battery Contact Customer Service – supplied by courier	Two 3VCR2032 lithium batteries	Meter is rechargeable by plugging into a USB port. USB wall charger plugs available free of charge
Website	www.glucorx.co.uk include videos - FAQ & ordering	www.glucorx.co.uk include videos - FAQ & ordering	www.glucorx.co.uk includedVideos - FAQ & ordering	www.glucomen.co.uk includesvideos	www.lifescan.co.uk Yes. - with videos.	www.diabetes.bayer.co.uk

	Preferred List Formulary Meter	Preferred List Formulary Meter	Preferred List Formulary Meter	Preferred List Formulary Meter	Second Line Formulary Meter	For use with Medtronics Insulin Pump
Meter	GlucoRx Nexus System	GlucoRx Nexus Mini	GlucoRx Nexus Voice	Glucomen Areo	One Touch Select Plus	Contour Next Link
Other languages	Downloads available plus operatives also trained in Hindi, Gujarati, Nepali, Punjabi & Romanian languages	Downloads available plus operatives also trained in Hindi, Gujarati, Nepali, Punjabi & Romanian languages	Operatives also trained in Hindi, Gujarati, Nepali, Punjabi & Romanian languages	Yes - available in most European languages. ALL Languages are available within 3- to 4 weeks at specific request from our customers.		No
Connectivity to Diasend	yes	yes	yes	yes	yes	yes
Company Downloads	Access to GlucoRX Software for download Free cable from customer service	Access to GlucoRX Software for download	Access to GlucoRX Software for download	Download with cable or blue tooth to PC, near Field Test, smartphone or blue tooth device. App	Download to LifeScan DMS USB - cable	Download to Bayer's Glucofacts software & Medtronic's CareLink software
Warranty	Lifetime	Lifetime	Lifetime	Lifetime	3 years	Lifetime
Meal Flagging	Yes	Yes	Yes	Yes	Yes	Yes
	Hi/Lo display	Hi/Lo display	Hi /Lo display	Hi/Lo display	Hi/Lo display	Hi/Lo display
Control Solution	Requires marking	Requires marking	Requires marking	Requires marking	Requires marking	Auto detection
Company details	Gluco Rx	Gluco Rx	Gluco Rx	Menarini	Lifescan	Bayer
Customer Service	01483 755133	01483 755133	01483 755133	0800 243 667	0800 121 200	0345 600 6030
Working hours	9-5 Monday to Friday	9-5 Monday to Friday	9-5 Monday to Friday	Mon- Fri - 8.30-5.30	08:30-18:00 Mon to Fri 9am- 1pm Saturdays	9-5 Monday to Friday
Local representative	Linda Brown 07741262097	Linda Brown 07741262097	Linda Brown 07741262097	Martha MacKenzie 07833682116	Sharon Scott: 07989562141	Claire Hopkinson 07717888542
Lancing device compatible with formulary lancets	Yes	Yes	Yes	Yes	No	Yes

Additional Information

Training

Most meters have the same basic functions and the process to obtain a blood glucose reading is similar. However it is important that all patients are trained on how to use their meter and know:

- the purpose of testing
- how to interpret the blood glucose results and what action to take
- how often and when to test
- how to use the meter and the lancing device to achieve an accurate result
- when to seek advice from their healthcare professional

NICE recommend that patients with type 1 & type 2 diabetes who are self-monitoring their blood glucose levels, have a structured assessment at least annually to include self monitoring skills. In addition to this the assessment should take account on the impact on the person's quality of life & the continued benefit of monitoring.

Good Practice in Self Testing & Safe Storage of Blood Glucose Testing Strips - Information for Patients

Specific information is included in product leaflets for meters & strips.

SELF TESTING

- Ensure hands are washed with soap and thoroughly dried (with a clean towel) prior to testing. Contaminants on the skin or excess moisture can affect the accuracy of the reading.
- Ensure sufficient blood sample size is applied to the test strip. Do not add more blood after the first drop has been applied.
- Apply fresh blood drop to test strip immediately after blood drop obtained. Not testing promptly can lead to evaporation of blood drop which can affect accuracy of the reading.
- Do not test with a smeared or spread blood drop as this can introduce contaminants. Also, do not wipe or smear the blood drop onto the test strip, simply touch the test strip and blood drop together without excess pressure.

STORAGE

- Store strips in accordance with manufacturer's instructions. Heat, cold, humidity and moisture can all affect how the strips work which in turn affects the accuracy of the reading.
- Keep strips in their original sealed container only. Ensure container lid is closed properly after each use.
- Check expiry dates of test strips and control solutions. Do not use if out of date. Most strip packaging allows the opening or expiry date once opened to be written on the label
- Store the meter and test strips at room temperature. Keep away from direct sunlight & heat. Do not freeze.
- Do not leave test strips in vehicles for extended periods of time as may be subject to temperature extremes.
- Do not bend, cut or alter test strip in any way.

A Control Solution, available free from meter companies, contains a known amount of glucose and is used to ensure the meter and strips are working correctly. It is advised to routinely use the control solution to test the meter and if there are situations where the blood glucose test results are not as expected.