Capillary blood glucose monitoring

Self-monitoring of capillary blood glucose (finger prick testing) is essential for people with diabetes on insulin therapy and can be beneficial for some people on other hypoglycaemic agents. However, if capillary blood glucose monitoring is not serving a specific purpose, it may have a negative impact on the person's quality of life and lead to unnecessary use of resources. This briefing focuses on capillary blood glucose monitoring, PrescQIPP bulletin 333. CGM and insulin pump formulary and commissioning guidance has more information on continuous glucose monitoring (CGM).

Key recommendations

- If an adult, child or young person cannot use or does not want CGM where it is indicated, offer capillary blood glucose monitoring.[1-3]
- Ensure the prescribing of blood glucose testing strips (BGTS) is in line with NICE guideline [NG17] for adults with type 1 diabetes using capillary blood glucose monitoring (and not using CGM):
  - Routine monitoring of capillary blood glucose at least four times a day including before meals and before bed.
  - Support more frequent monitoring in appropriate individuals.
  - Teach self-monitoring skills and assess these at least annually.
  - Ensure people can interpret the results from capillary blood glucose monitoring and know what action to take.[1]
- People who are using CGM will still need to take capillary blood glucose measurements, although they can do this less often.[1-3] The quantity of BGTS prescribed should generally not exceed 1 box of 50 strips per quarter, although there may be exceptions to this (e.g. due to Driver and Vehicle Licensing Agency (DVLA) requirements).
- Do not routinely offer capillary blood glucose monitoring for adults with type 2 diabetes in line with NICE guideline [NG28] unless:
  - The person is prescribed insulin **or**
  - There is evidence of hypoglycaemic episodes **or**
  - The person is prescribed an oral medication that may increase their risk of hypoglycaemia while driving or operating machinery **or**
  - The person is pregnant or is planning to become pregnant.[2]
- Teach women with gestational diabetes how to self-monitor their blood glucose. Use the same capillary plasma glucose target levels for women with gestational diabetes as for women with pre-existing diabetes.[4]
- Take the DVLA's Assessing fitness to drive: a guide for medical professionals into account when offering self-monitoring of capillary blood glucose levels for adults with type 2 diabetes.[2,5] Use SNOMED code 236320001 - vehicle driver (occupation) to identify bus, coach, train and HGV drivers.
- For adults with type 2 diabetes, review current prescribing of BGTS in partnership with the person and evaluate the need for self-monitoring on an individual basis; where there is no need for capillary blood glucose monitoring, deprescribe.
- Determine appropriate frequency for testing and make necessary adjustments to quantity of test strips prescribed.
- Remove BGTS from repeat prescriptions for people who only need to test intermittently, as these should be prescribed on an acute prescription or variable use repeat when required.
- Commence new people requiring BGTS on a preferred meter and test strip in-line with NHS England commissioning recommendations.[6] Tailor test strip choice to individual needs.
- Health Boards in Wales, Scotland and Northern Ireland should consider the NHS England commissioning recommendations[6] to help produce a preferred list of BGTS and meters to be used locally.

Costs (NHSBSA and Public Health Scotland Oct-Dec 2024)

In England, Wales, Northern Ireland, Isle of Man and Scotland, £98.8 million is spent annually on the prescribing of blood glucose and blood ketone testing strips, of which £46.7 million is for products not included in the NHS England commissioning recommendations.

A 10% reduction in the prescribing of BGTS by reducing inappropriate prescribing could lead to an annual saving of £8.4 million, which equates to £11,232 per 100,000 patients. See datapack for further savings.

References

1. NICE. Type 1 diabetes in adults: diagnosis and management. NICE guideline [NG17]. August 2015, last updated August 2022. https://www.nice.org.uk/guidance/ng17
2. NICE. Type 2 diabetes in adults: management. NICE guideline [NG28]. Published December 2015, last updated June 2022. https://www.nice.org.uk/guidance/ng28
3. NICE. Diabetes (type 1 and type 2) in children and young people: diagnosis and management. NICE guideline [NG18]. Published August 2015, last updated May 2023. https://www.nice.org.uk/guidance/ng18
4. NICE. Diabetes in pregnancy: management from preconception to the postnatal period. NICE guideline [NG3]. Published February 2015, last updated December 2020. https://www.nice.org.uk/guidance/ng3
5. Driver and Vehicle Licensing Agency. Assessing fitness to drive - a guide for medical professionals. August 2024. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/965900/MIS828_interactive_020321_Final.pdf
6. NHS England. Commissioning recommendations following the national assessment of blood glucose and ketone meters, testing strips and lancets. Version 3, November 2024. https://www.england.nhs.uk/publication/commissioning-recommendations-blood-glucose-and-ketone-meters-testing-strips-and-lancets/

Additional PrescQIPP resources, including implementation tools and data:	https://www.prescqipp.info/our-resources/bulletins/bulletin-298-capillary-blood-glucose-monitoring/

Support with any queries or comments related to the content of this document is available through the PrescQIPP help centre https://www.prescqipp.info/help/
This document represents the view of PrescQIPP CIC at the time of publication, which was arrived at after careful consideration of the referenced evidence, and in accordance with PrescQIPP's quality assurance framework.
The use and application of this guidance does not override the individual responsibility of health and social care professionals to make decisions appropriate to local need and the circumstances of individual patients (in consultation with the patient and/or guardian or carer). Terms and conditions

PrescQIPP
Funded by the NHS for the NHS