
This guidance aims to support people with diabetes and health care professionals involved in their care, to achieve optimal glycaemic control through the effective use of self-monitoring of blood glucose and HbA1c testing.

The following groups should be prescribed Gloucestershire Formulary recommended blood glucose testing strips on the NHS and provided with meters:

- Patients on insulin therapy or being considered for insulin therapy
- Commercial lorry or bus drivers (DVLA Group 2 drivers)
- Car and motorcycle drivers (DVLA Group 1 drivers) on medication which carries a risk of hypoglycaemia (eg. sulphonylureas and glinides)
- Women with diabetes who are either pregnant or considering pregnancy
- Patients advised to test for other specific reasons by diabetes specialists

Blood glucose monitoring should also be considered temporarily where there may be periods of unstable glucose levels e.g. patients on weight loss programmes, especially those on sulphonylureas; during periods of illness or changes in therapy or during a course of steroid treatment.

In these cases patients should be informed at the outset that the monitoring is indicated for a limited period of time only. Testing strips should not be placed on repeat prescription for patients for whom blood glucose testing is only indicated on a temporary basis.

In all other groups there is limited evidence that either random or routine blood glucose monitoring is of clinical benefit.

Patients who wish to monitor their blood glucose more frequently than is clinically indicated will need to purchase their own strips.

Twice yearly HbA1c testing is recommended as a minimum by NICE.

Use of Blood Glucose Level Testing
Advice for patients using Hypoglycaemic Medications

In 2011 the PCT/CCG, in conjunction with the Medicines Management team, looked at the efficient usage of Blood Glucose Level (BGL) testing strips. It was decided that the majority of patients who use a BGL meter should use either Glucolab or Wavesense as they were associated with lower cost strips. The resultant savings of more than £250,000 per year have been reinvested in the growing costs of diabetes care.
It is now appropriate that we revise our guidance on who should have these strips and when they should be used.

The use of BGL testing is helpful for getting an instant guide of a person's fasting glucose level. Since the advent of using HbA1c, the use of BGL has become less common but does have a role for certain situations. The majority of diabetics do not need BGL monitoring meters and are adequately maintained by use of HbA1c results. There are however certain circumstances in which it would be recommended that patients have access to BGL meters:

**People using Insulin**
This is the commonest requirement BGL monitoring, it gives the patient an immediate record of fasting glucose and hence an indication of the insulin dosage they should they should be giving themselves. The strips should be readily accessible for both T1DM/T2DM on insulin and any other insulin using patient.

**People using Sulphonylureas (SUs) who are car drivers**
Since the DVLA have changed their recommendations regarding Class 2 licensing to recorded twice daily monitoring for the HGV driver population, it has been suggested that Class 1 drivers should also have the ability to test (1). Although this is not a legal requirement it is recommended. Therefore despite the evidence for the clinical benefit offered from this approach being limited, BGL meters should be provided to this cohort to give them the option to test before driving.

**People using Sulphonylureas (SUs) who are not car drivers**
As SUs can potentially cause hypoglycaemia, all patients on SUs should be considered for test strips with advice on appropriate frequency of use.

**Changes in medication and the direct effect on BGL**
This cohort of patients should be advised to use BGL for short times only, after changes in medication have occurred without waiting 2-3 months for an HbA1c. This empowers the patient and gives them confidence in the treatment plans.

**People who have frequent or unexpected hypoglycaemic events**
It is imperative that this group are given access to BGL meter strips. Hypoglycaemia events are potentially an avoidable situation that has physical and psychological consequences for people. Monitoring may allow reduction in the frequency of events but also potentially avoidable use of paramedics or hospital admissions.
Sick day rules
All people who have diabetes, whatever the underlying pathophysiology will become systemically unwell at some point in their journey. Those that have tendency to do this frequently may need to monitor their BGL closely. There is standardised guidance with regard to sick day rules, but the base line assessments are using BGL meters to advise further treatment.

People who have been advised by a diabetes specialist to test
This cohort of people may have ongoing issues with their diabetic control that needs monitoring closely by their Diabetes Specialist, or a range of other specific conditions necessitating testing e.g. renal patients, pancreatic transplant patients.

In summary, the use of BGL meters is variable throughout the county. We recommend that meters should only be given if there is good reason to do so. The results of BGL should be seen as a snapshot of the control but not as the long term trends that we should be using to help plan treatment regimes.

DVLA blood glucose monitoring requirements

- **Commercial lorry or bus drivers (DVLA Group 2)** on insulin or sulfonylureas (e.g. glibenclamide, glicazide) or **glinides** (e.g. nateglinide, repaglinide) should regularly monitor blood glucose at least twice daily and at times relevant to driving.
- **DVLA Group 2 drivers on insulin** should use a meter with a memory function capable of storing 3 months of readings.
- **DVLA requirements for car & motorcycle drivers (DVLA Group 1)** diabetics managed by tablets which carry a risk of inducing hypoglycaemia (e.g. sulphonylureas and glinides):
  - It may be appropriate to monitor blood glucose regularly and at times relevant to driving to enable the detection of hypoglycaemia.
  - For Group 1 entitlement the person must not have had more than one episode of hypoglycaemia requiring the assistance of another person within the preceding 12 months.
  - For DVLA Group 1 drivers who are not on oral medication at risk of hypoglycaemia or on insulin the need for blood glucose monitoring and frequency should be decided on an individual patient basis.

(1) Ref: [www.gov.uk/current-medical-guidelines-dvla-guidance-for-professionals-conditions-d-to-f](https://www.gov.uk/current-medical-guidelines-dvla-guidance-for-professionals-conditions-d-to-f)

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This Guidance has been agreed by the Gloucestershire Diabetes Clinical Programme Group