

## Primary Care Best Practice Guidance - self-monitoring of blood glucose (SMBG) for adult patients living with type 2 diabetes.

This primary care guidance is intended to assist healthcare professionals (HCP) with prescribing the appropriate quantities of blood glucose (BG) test strips for adult patients with type 2 diabetes (T2DM) to self-monitor (*where appropriate*) their blood glucose levels. The need for a meter for people diagnosed with T2DM should be assessed by HCP and where required, a suitable formulary meter should be selected.

[Bedfordshire and Luton Joint Formulary \(bedsformulary.nhs.uk\)](https://bedsformulary.nhs.uk). [Milton Keynes Formulary \(formularymk.nhs.uk\)](https://formularymk.nhs.uk)

[NICE NG28](#) offers these recommendations for self-monitoring of capillary blood glucose (CBG) in adults with type 2 diabetes:

1. The [Driver and Vehicle Licensing Agency \(DVLA\)'s Assessing fitness to drive: a guide for medical professionals](#) should be considered when offering self-monitoring of capillary blood glucose levels for adults with type 2 diabetes.
2. Self-monitoring of capillary blood glucose levels for adults with type 2 diabetes should not be routinely offered unless:
  - the person is on insulin.
  - there is evidence of hypoglycaemic episodes.
  - the person is on oral medication that may increase their risk of hypoglycaemia while driving or operating machinery.
  - the person is pregnant or is planning to become pregnant. For more information see NICE Guideline for diabetes in pregnancy [NICE NG3](#).
3. Short-term self-monitoring to review treatment can be considered necessary: when starting treatment with oral or intravenous corticosteroids or to confirm suspected hypoglycaemia.
4. Be aware that adults with type 2 diabetes who have acute intercurrent illness are at risk of worsening hyperglycaemia.

If adults with type 2 diabetes are self-monitoring their capillary blood glucose levels (CBG), structured assessment should be completed at least annually. The assessment should include:

- the person's self-monitoring skills
- the quality and frequency of testing
- checking that the person knows how to interpret the blood glucose results and what action to take.
- the impact on the person's quality of life
- the continued benefit to the person
- the equipment used.

### Continuous Glucose Monitoring

NICE has widened eligibility criteria for continuous glucose monitoring (CGM) in people with diabetes - refer to [BLMK Standalone CGM guidance](#). For those using CGM, capillary blood glucose measurements are still needed although at a very reduced frequency. This is because:

- they will need to use capillary blood glucose measurements to check the accuracy of their CGM device
- they will need capillary blood glucose monitoring as a back-up (for example when their blood glucose levels are changing quickly or if the device stops working).

The recommended quantity of test strips should be provided to take capillary blood glucose (CBG) measurements as needed.

**Table of suggested blood glucose test strips requirements and quantities**

Patient Type	Frequency of monitoring	Prescribing recommendations
<b>Patient on CGM</b>	As needed	CBG monitoring still required but less often – <b>50 test strips</b> per month is ideal.
<b>Patients on insulin* with or without other oral agents</b> ( <i>and not eligible for CGM or cannot use CGM or does not want CGM</i> )  <b>*Basal insulin or multiple daily insulin (MDI) injections</b>	<b>1 - 8 x daily</b>	May require between <b>50-200 test strips</b> per month depending on insulin regimen and level of control required. Consider <a href="#">Driver and Vehicle Licensing Agency Guidance</a>  Strips should be available as repeat medication but review quantities at annual review.
<b>Patients using sulphonylureas or glinides</b> (oral medications which may increase their risk of hypoglycaemia while driving or operating machinery or undertaking a high-risk activity)	<b>Up to 2 x daily</b> or as appropriate	A supply of <b>50 -100 test strips</b> per month may be sufficient for conventional monitoring.  This would be dependent on treatment goals, illness, hypos and driving. Where routine testing is considered necessary, strips can be available as repeat medication but review quantities and need at annual review.  Additional strips may be required for periods of intensive monitoring or to meet <a href="#">Driver and Vehicle Licensing Agency Guidance</a> requirements.
<b>Type 2 diabetes; pregnant or planning pregnancy or GDM.</b> <ul style="list-style-type: none"> <li>• Diet alone</li> <li>• Oral therapy</li> <li>• Single -dose intermediate-acting or long-acting insulin</li> </ul>	<b>Up to 8 x daily</b> fasting levels and a mixture of pre-meal and post-meal levels	A supply of <b>150 -200 test strips</b> per month may be sufficient and prescribed as acute medication only.  Review quantities after delivery if not on insulin.
<b>Short-term self-monitoring of blood glucose levels (and review treatment as necessary):</b> <ul style="list-style-type: none"> <li>• when starting treatment with oral or IV corticosteroids, OR</li> <li>• to confirm suspected hypoglycaemia OR</li> <li>• when assessing the effectiveness of treatment OR</li> <li>• In patients presenting with symptomatic hyperglycaemia</li> </ul>	<b>Up to 2 -3 x daily</b>	A supply of <b>50-100 test strips</b> a month for a short-term (extras for illness etc) and strips should be available as acute medication only.  Monitoring needs is individual to the patient – e.g., treatment goals, illness, hyperglycaemia.
<b>Patients using Metformin, DPP4, SGLT2, GLP-1, Pioglitazone.</b>	Not routinely required - periodic testing to meet needs at that time	A short-term supply of <b>50 test strips every 3 months</b> may be sufficient for monitoring if considered necessary. Strips should be available as acute medication only.
<b>Patients using diet and lifestyle measures alone</b>		Additional strips may be required for periods of intensive monitoring.

**Safe Disposal of Sharps:** Healthcare professional to advice on the correct disposal of sharps i.e. lancets. Each local council will have different collection and disposal service for sharps bins. This should be clearly communicated to each person who is asked to monitor their blood glucose.