

## Recommendations for Blood Glucose Monitoring

### Type 1 diabetes

All people with Type 1 diabetes need to be able to self-monitor blood glucose – the extent to which they do this will reflect how useful they find the information. Driving legislation states that Type 1 diabetics should always test before driving and every 2 hours during long car journeys.

Secondary care may recommend flash glucose monitoring e.g. Freestyle Libre for some Type 1 diabetics but they must still have the capability to do capillary blood glucose monitoring if required.

### Type 2 diabetes

People on insulin or sulphonylurea medication are at risk of hypoglycaemia and should be able to monitor blood glucose to identify this. The driving rules, as stated above, also apply to patients with type 2 diabetes who use insulin.

Patients who combine nocturnal insulin with oral hypoglycaemic agents will need to test fasting blood glucose in order to dose-titrate.

In people at no risk of hypoglycaemia who would not gain any benefit from self blood-glucose monitoring, regular HbA1c checks is an acceptable way of assessing glycaemic control.

Some patients who manage their diabetes with diet or who are on oral antidiabetic drugs other than sulphonylureas and are therefore not at risk of hypoglycaemia, will nonetheless find it helpful to be able to test their blood glucose periodically e.g. to confirm a stable level of glycaemic control or during a period of ill-health. Those who periodically are treated with steroids may find it useful to be able to test at these times – some patients use sulphonylureas or even insulin during a course of prednisolone, reverting to diet alone afterwards.

If there is a suspicion that a patient with Type 2 diabetes is likely to become insulin-requiring it is prudent to ensure they are able to blood glucose monitor.

### Target blood glucose levels

#### **Target blood glucose levels should be individualised.**

Textbook values would be 5-7mmols fasting and less than 9mmols post-prandially (2 hours). However, whilst we recognise an HbA1c <58mmol/mol (avg. CBG 9.6mmol) greatly reduces the risk of microvascular complications, it increases the risk of hypoglycaemia. Those with a short life expectancy, impaired awareness of hypoglycaemia, mobility or visual problems may benefit from a higher target blood glucose range (HbA1C 58-65mmol/mol). Furthermore introduction of very tight glycaemic control may increase morbidity and mortality in those at risk of ischemic heart disease. In some cases HbA1C should be disregarded and symptomatic management alone is appropriate.

HbA1C target for pre-conception is 48mmol/mol. Any women with diabetes wishing to become pregnant should be referred to secondary care for support and pre-pregnant counselling.