## Contact details for more information

#### Monday to Friday 9am-5pm

- Diabetes doctors can be reached via the paediatric secretaries on **01952 641222**, ext. **5980** or **5981**
- Diabetes nurses on 01743 450855 option 2 text via ChatHealth 07312 263102 or email Shropcom.pdsn@nhs.net
- Diabetes Dietician on 01952 641222 extension 4874

#### In an emergency/out of hours

In an emergency during working hours when you cannot reach one of the team above or for out of hours support i.e. after 5pm or at weekends.

All patients requiring advice should contact the Princess Royal Hospital switchboard on **01952 641222** and ask to speak to the paediatric registrar for diabetes advice.

# Managing Type 1 Diabetes

What is HbA1c?



#### **References:**

NICE (2015) Diabetes (type 1 and type 2) in children and young people. NICE guideline NG18 www.nice.org.uk/guidance/ng18

The Diabetes Control and Complications Trial Research Group. (1993). <u>The</u> <u>effect of intensive treatment of diabetes on the development and progres</u><u>sion of long-term complications in insulin-dependent diabetes mellitus</u>. N Engl J Med.329 (14): 977–86.

Shropshire Community Health



Last Review Date: Sept 2023 Next Review Date: Sept 2026

#### What is an HbA1c test?

This is the name given to the finger prick blood test that you do each time you come to clinic.

The **HbA1c blood test** is a marker of glucose control. National guidance recommends that the **nearer the HbA1c is to 48mmol/mol** without lots of hypoglycaemia, the better to minimise short and long term complications of diabetes.

It is a measure of the number of red cells in the blood, which have glucose stuck to them. As red cells last about 3 months before they are replaced by the body, it reflects the blood glucose levels over the last 3 months.

If your blood glucose levels are mostly high, your HbA1c will be high. The link between average blood glucose levels and your HbA1c number is shown here:



# Risks to health significantly increase when HbA1c is 70mmol/mol or above.

There can be many reasons why your HbA1c may rise to 70mmol/mol and above, but the key reason will be that you are not getting enough insulin.

If this should happen, the Paediatric Diabetes Team will discuss this with you in clinic and make plans to give you whatever extra support and education is needed, with the aim of reducing the level back down to as close to 48mmols/mol as possible.

Having a high HbA1c (70mmol/mol or above) significantly increases the risk of developing complications of diabetes, such as eye disease, kidney disease, heart disease, stroke or impotence.

### TIME IN TARGET RANGE

You may hear the team referring to time in range. This is the percentage time your glucose level is between 4-10mmol/l. The higher the percentage, the more your glucose levels are in the optimum range. This will be reflected in your HbA1c level. The higher your percentage time in range, the lower your HbA1c will be.

HbA1c and Blood glucose levels