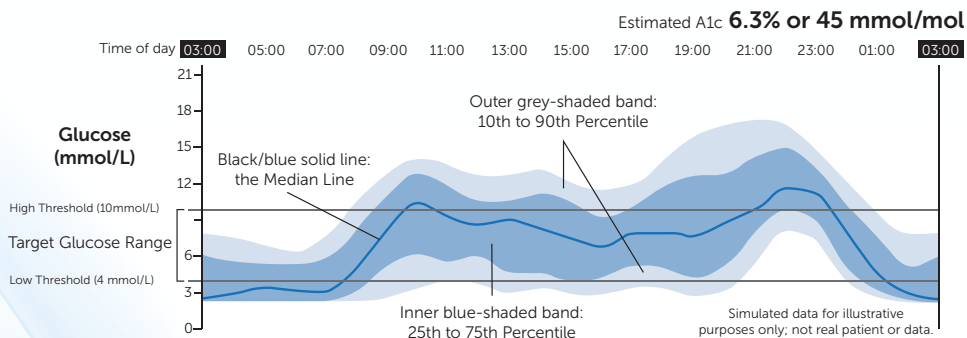


The Ambulatory Glucose Profile (AGP) in 4-steps



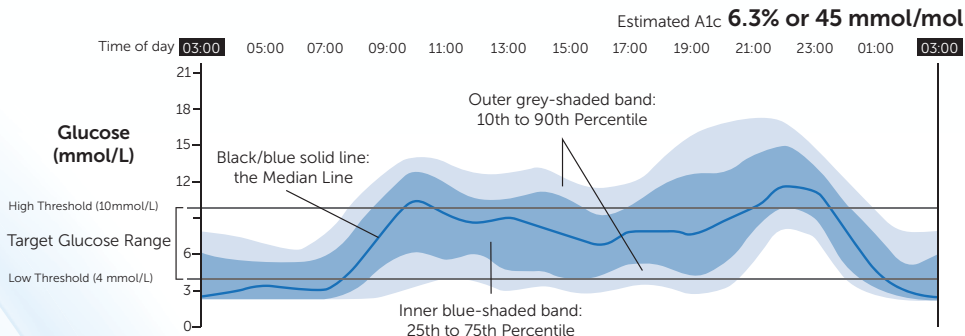
AGP at a glance

- Black/Blue Solid line (Median Line)** – The average (middle) point of all glucose levels. Is it in the target glucose range and does it swing up and down a lot each day?
- Inner Blue-Shaded Band (25th to 75th Percentile)** – most common glucose levels and how they vary from day-to-day.
- Outer Grey-Shaded band (10th to 90th Percentile)** – less common glucose levels and how they vary from day-to-day.
- Two parallel lines** – Target Glucose Range, where we want to be as much as possible.

4-Step guide to managing an AGP review

Step	What to focus on
1. Positive	No matter what the AGP reveals, start by focusing on a 'good news' part of the story.
2. Low	Hypos: Is any of the inner-blue band in the hypo zone? A narrow blue band indicates a consistent trend and a need to consider adjusting daily treatment at these times, e.g.dose and timing of basal or mealtime insulin. A wider band suggests lifestyle and behaviour management.
3. High	Hyperglycaemia: Look for trends towards high glucose, especially if persistent, with a high solid average glucose line with a narrow inner-blue band. If you see 'white space' between the lower target glucose line and lower edge of the outer grey band, it suggests there may be scope to adjust insulin doses or the insulin:carbohydrate ratio to bring glucose down.
4. Wide	Variability: Wide, billowing inner-blue and outer-grey bands mean significant glucose fluctuations from one day to the next and suggest a need for better management of factors that happen on some days but not others.

Case Study - Let's look at this AGP using the 4-step process



Step	What to focus on
1. Positive	This person is keen to achieve a low HbA1c pre-pregnancy and they have achieved this!
2. Low	There is a consistent blue trend in the hypo zone overnight when basal insulin is acting, indicating a need to consider reducing the dose of basal insulin. The degree of low glucose on this AGP may mean impaired awareness of hypoglycaemia, which the HCP has indicated should be addressed during the consultation.
3. High	Average glucose is consistently high from 20:00-23:00. This peak may be reduced if the dose of rapid-acting insulin is given 15-20 mins before the evening meal. However, the priority to address in this consultation is the hypoglycaemia identified in Step 2.
4. Wide	The blue and grey bands are billowing through much of the day and evening, indicating a lot of day-to-day glucose variability. Once the nocturnal hypoglycaemia is addressed, the variability identified in Step 4 can become a focus for control.

Top tips that make the most of an AGP review

- *Consider medication, lifestyle & behaviour:* Narrow inner-blue bands indicate a consistent daily trend, so you may want to consider medication and mealtimes. Wider outer-grey bands indicates glucose variation on different days, so you may want to consider behaviour & lifestyle.
- *Use patient friendly language:* patients are not necessarily seasoned HCPs. In an AGP review, use analogies for what you are discussing that will be understood and are appropriate for the person.

Further reading: For more information on the AGP see Bergenstal RM et al. *Diabetes Technol Ther* 2013, 15: 198-211