The Queensland Lifespan Metabolic Medicine Service (QLMMS) has begun using a continuous glucose monitor (CGM) for patients in their home environment, capturing actual trends in glycaemic control, accessible in real time, for those on modified diets.

**Advantages:**

- Allowed our service to align with best practice guidelines for GSD management
- Created a family and child centred approach
- It is a cost effective way to evaluate glycaemic control and reduces hospital admissions for dietary modifications
- The device chosen is minimally invasive and allows the child to continue to participate in their normal routine and activities, giving our service a more accurate picture of glycaemic control in everyday life

**Choice of Monitor:**

- Easy application – Insertion can be in clinic or at home by the child or carer, no calibration required
- Suitable for families living in rural settings. Device can be sent with instructions which increases cost efficiency and reduces the burden of travel from remote communities
- The CGM can stay in-situ for up to two weeks, allows the child to participate in all sporting and recreational activities
- An app is downloaded on the child or carer’s mobile device which records data as the sensor is scanned
- Scanning (downloading of data) occurs at least every eight hours at a minimum
- More frequent measurements provide additional data points for accuracy
The following two case studies are a daily snapshot of the captured glycaemic trends pre and post dietary changes

**Patient 1**

- Early morning hypoglycaemia (2.3mmol/L) identified
- Diet diary showed an incomplete administration of overnight feed
- Recipe adjusted as well as a change of feeding device
- Adjustments assessed the following night

**Patient 2**

- Early morning hypoglycaemia – 2.2mmol/L identified
- 2-step adjustment: ‘Supper’ feed introduced prior to commencing overnight continuous feed; Poly-Joule added to overnight continuous feed – 1 change made at a time
- Sensor remained in-situ for 2 weeks

**Conclusion**

- Feedback from families was positive
- Monitoring did not increase the burden of care for families
- Device is minimally invasive for the patient who would not routinely check blood glucose levels
- No requirement to purchase expensive monitors
- CGM data is uploaded in real time to a cloud-based platform accessible by metabolic MDT