A retrospective analysis of prospectively collected database of blood sugar downloads from SMART metres and near patient A1C tests.

**Strategy for change** Change was implemented through education with MDT approach. Families were supported through the process of changing metres and offered open access to MDT.

**Measurement of improvement** The effect of the planned changes were measured by patient confidence in self-management, glycaemic control, Variability of blood sugars versus A1C levels and need for hospital admissions.

Better understanding amongst the patients of their own control led to the patient empowerment in a friendlier home environment.

Mean A1C for 100 downloads was 61.67 mmol/mol (9.8 mmol/L) that was comparable to a mean blood sugar of 9.6 mmol/L with a mean standard deviation of 4.7. However this correlation changed when the data was stratified based on Standard deviation (SD).

1. SD <2: mean A1C was 45.7 mmol/mol (7.6 mmol/L) compared to average mean blood sugar 5.53 mmol/L.
2. SD 2–4: co-related to mean A1C 53.9 mmol/mol (8.7 mmol/L) to average mean blood sugar 7.9 mmol/L.
3. SD >4: mean A1C 63.4 mmol/mol (10 mmol/L) and average mean blood sugars 9.97 mmol/L were exactly same.
4. SD >6: mean A1C of 73.89 mmol/mol (11.6 mmol/L) compared to average mean blood sugar of 12.4 mmol/L.

Admissions due to DKA and hypoglycaemia decreased by half.

**Effects of changes** Better control closer to home improving patient experience and quality of life at reduced heath care cost.

There was initial hesitation around new metre and tight targets which was overcome by education, close supervision and reflection.

**Lessons learnt** SMART metre download review is a good way of analysing blood sugars targets, variability and control over a period of time.

They are better predictors of glycaemic control

It has its advantages in empowering patients at the comfort of their own homes.

**Message for others** SMART metres have taken paediatric diabetes management closer to home.

Mean blood sugars are a better indicator of glycaemic control and variability when the standard deviation is between 0–4.

**Methods** A template was devised using APLS and CATS documents to identify gold standards. A retrospective audit was carried out, comparing 20 letters pre with 20 post template introduction. 29 key content points were compared. It included a range of trainee doctors filling in the forms and a range of different reasons, from PICU transfers to tertiary acute transfer for ongoing investigation. A telephone survey was then carried out to explore varying practice in 12 London Paediatric units.

**Results** Prior to introduction of template; only 12 of the 29 key information times were present over 75% of the time. With the template introduction; all 29 areas were identified over 75% of forms.

The template has resulted in significant improvement in sharing patient information across a number of areas, from patient demographics to current treatment. Examples include a 20% increase in communicating current medications which is a significant improvement (p < 0.05), and a 50% improvement in recording current working weight. Before the use of a template, 0/20 letters sampled provided information on allergy and immunisation, whereas letters using the template were over 90% compliant in these criteria.

Phone surveys of other London Paediatric units found only one of eight has a transfer template. It was reported transfer documentation was rushed, time-pressured and rarely involved consultant input.

**Conclusion** Using a concise template significantly improves the content of paediatric transfer letters. This simple intervention should in turn improve continuity of care and patient safety. The inclusion of a ‘status at transfer’ prompt improves governance regarding documentation of deteriorations during transit. The path way within which each letter is approved and signed off by an attending consultant has also greatly increased senior input into these important communication documents.

Given the standard practice amongst London Hospitals being no formal template; we propose that a standardised template could be rolled out to all London Hospitals and beyond, to improve the handover of patients between hospitals.

**References**