Paediatric Diabetes Education and Empowerment Quality Improvement Project

NHS
Basildon and Thurrock University Hospitals
NHS Foundation Trust

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Aim:

To empower our patients/parents to self manage and improve their diabetes by providing them with required knowledge and skills.

Method:

We identified 10 motivated, newly diagnosed T1DM families.

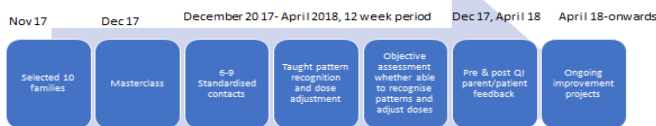
We contacted them weekly for 6 weeks and fortnightly for another 6 weeks (phone/email).

We trained them how to identify patterns in their blood sugars by looking at their DIASEND downloads and to make adjustments in their doses.

We assessed their competence objectively during this period.

We also conducted questionnaires at the beginning and at the end of project to take qualitative feedback from families about effectiveness of this project.

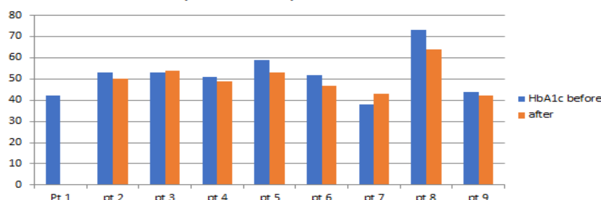
Our improvement journey- the steps we took



HbA1c before and after, Improved in (6/8) 75%

Mean HbA1c before 52.8, after 50.2 (5% improvement)

Pt 8: HbA1c improved by13%



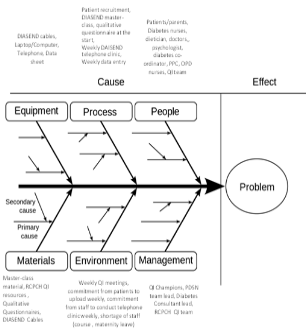
PDSA and Fishbone diagram

1. Make changes to project if needed
2. Consider repeat master-class if needed at 6 weeks
3. Post-project questionnaire
4. Future suggestions: Patients /families to see their DIASEND data prior to clinic appointment
5. Better use of Diabetes nurses in clinics, admin staff or Out-patient nurses to help downloading DIASEND before clinics

1. Recruit minimum 10 patients (newly diagnosed, motivated)
2. DIASEND Master-class for patients and families
3. Qualitative questionnaire at the start and at the end of project

1. Weekly review and analysis of data
2. Analysis of pre-project questionnaire
3. Upload documents on RCPCH QI portal
4. Monthly RCPCH webinar and review of project
5. At 6 weeks review of project with Anna

1. Patients to upload DIASEND weekly
2. Weekly DIASEND telephone clinic
3. Empower patients/families to self manage
4. Populate data for each patient weekly about:
   Download sent weekly/fortnightly?
   What was average Blood sugar?
   Was download reviewed by family prior to discussion with PDSN?
   Was family able to pick up trends in blood sugars?
   Was family able to recognise changes needed in Insulin dose?
   Was family able to make changes in Insulin dose?



Further Actions

Ongoing projects

- Pattern recognition and blood sugar downloads to be part of new diagnosis education and management
- Downloads to be shown to all patients at clinic appointments
- Register as many patients with DIASNED as possible

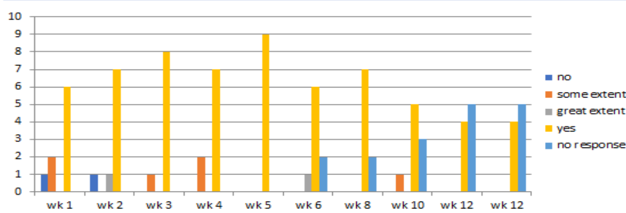
Future plans

- More Master-classes
- Develop Standardised education material for patients/families
- Continue to use QI processes process mapping, PDSA cycles
- Quarterly review of NPDA data

Results

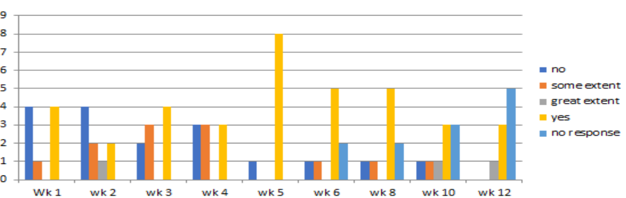
Are families able to identify trends in blood sugars?

100% able to identify patterns in blood sugar by week 5

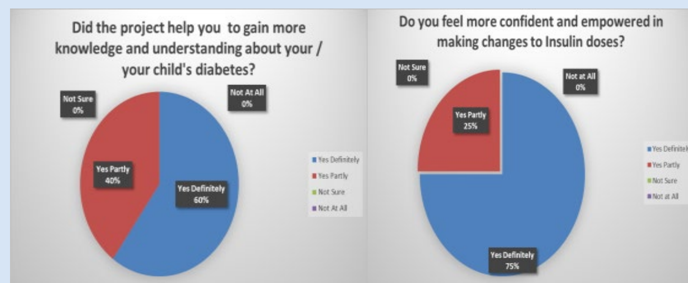


Did family make any changes in Insulin doses (self management)?

89% able to make changes in Insulin doses by week 5



Qualitative questionnaire feedback



75% of the families reported that they would continue to review blood sugars at the end of the project.

45% of the families felt that they would do this by using DIASEND as opposed to 0% in the beginning of project.

Feedback comments:

“The project helped us to understand the readings more thoroughly and act upon them sooner”.

“I was able to identify patterns, I could see that during school holidays and weekends, patterns changed”.