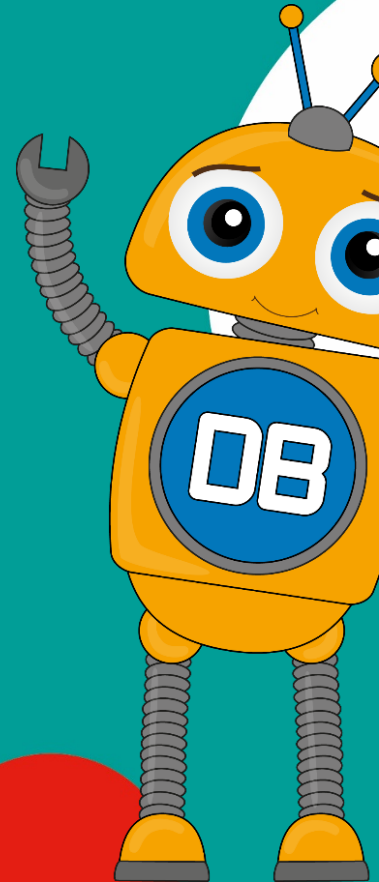


Managing HCL in our youngest patients: Dinky-Betes and Teddy Bear Clinics

Tracey Stephenson, Megan Harpham and
The Dinky-Betes Team

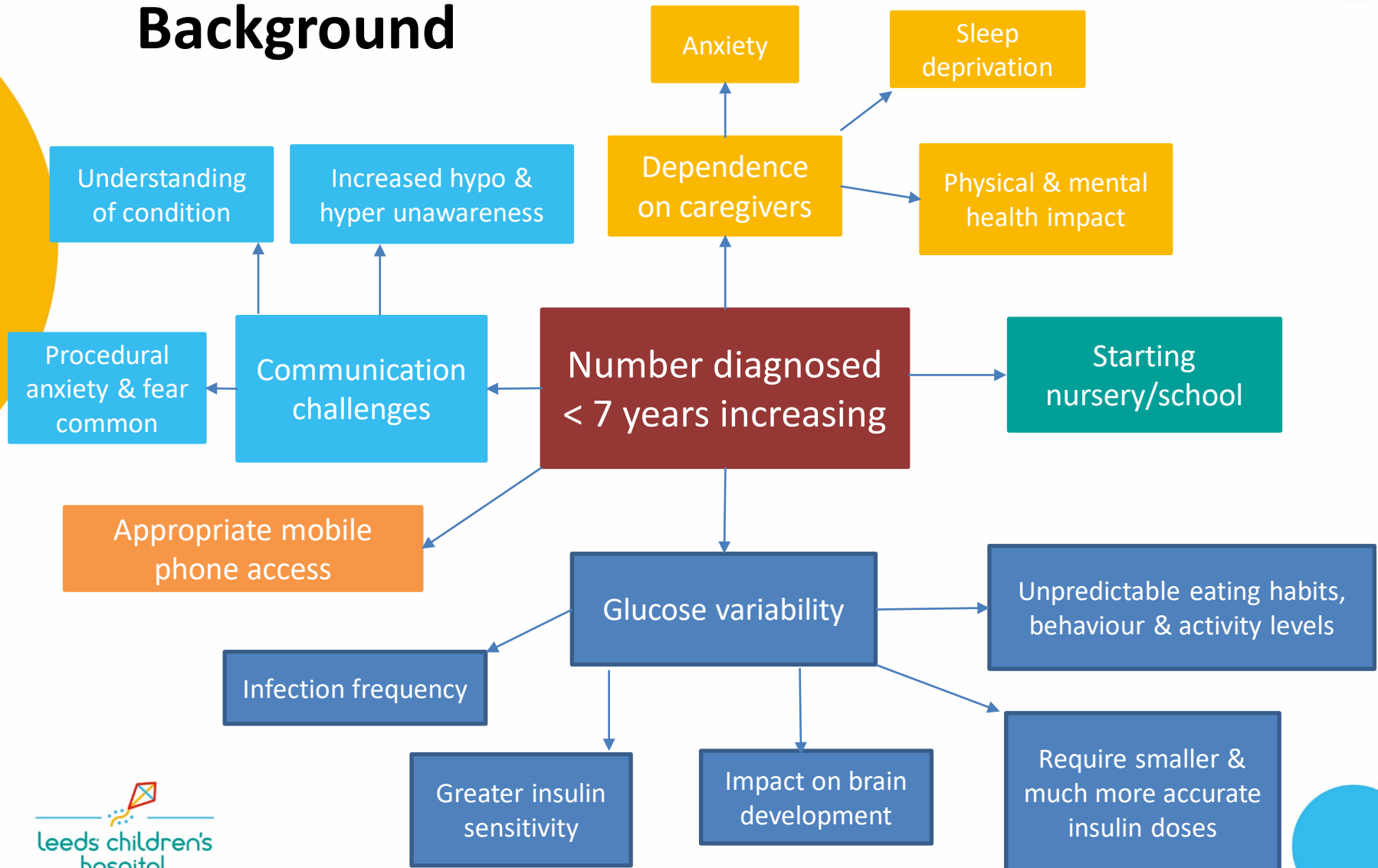


Outline

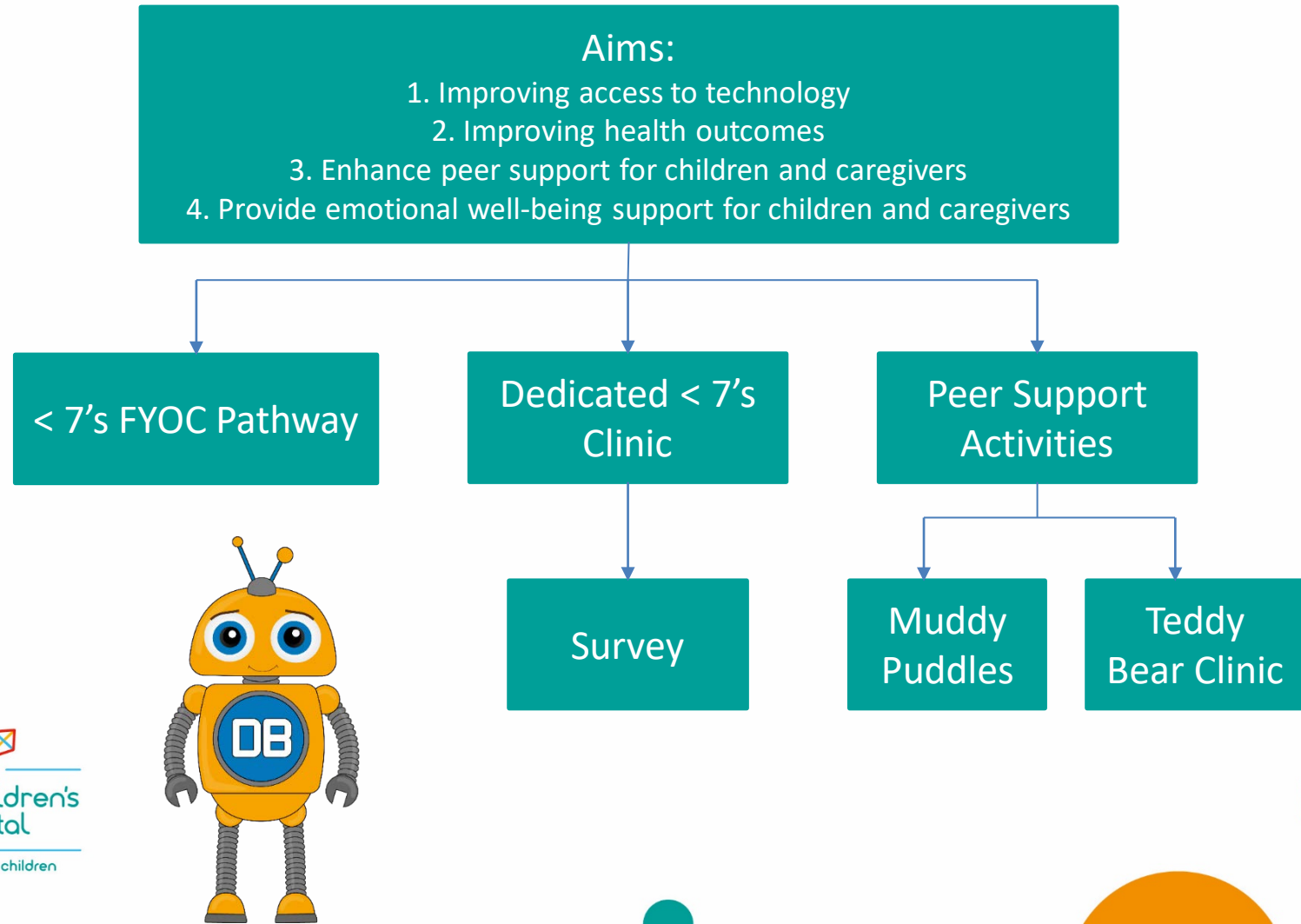
- Background & challenges
- QI group aims & plans
- Demographics
- Dinky-Betes Clinic
- Teddy Bear Clinic



Background



Leeds CYP < 7's QI Group



Our Service: Spring 2023

- 45 patients under 7 in April 2023
- Patients seen in designated < 12 years clinics across the week
- Early consideration of technology due to age
 - Medtronic
 - Dana & CamAPS FX
- Support of play specialist & psychologist as required
- Dedicated bloods clinic supported by play specialist
- 13 newly diagnosed patients since April 2023



Leeds Children and Young People's Diabetes Team Under 7's Pathway

At Diagnosis:

- Communicating what diabetes is, to the family and child using age appropriate resources
- Patient centred education sessions as per FYOC timeline. Be aware these sessions may take longer in this age group
- Inpatient stay likely to be longer than other age groups

Whilst on the ward:

- Ensure involvement from the diabetes play team as inpatient
- Introduce sensor and if appropriate start this whilst an inpatient
- Named nurse to be allocated and aim to meet child and family on ward

2-4 Weeks

- Regular contact from named nurse, dietitian & play specialist
- Consider education and training of additional family members
- F2F nursery or school training (advise nursery on extra funding)
- Support on further sensor changes
- Regular data review
- Home visit

2nd Month OPA (HbA1c)

- Follow FYOC pathway
- Aim for play specialist and named nurse presence

3-6 Months

- Monthly or more frequent data review as required
- Offer further support from play specialist +/- psychology as required

9 month OPA (HbA1c)

- HbA1c > 58mmol/mol – refer to FYOC pathway
- Introduce annual review- support from play +/- psychology as required

Inpatient Stay: Child and Family

Outpatient Care: Regular contact (at least weekly) with named nurse until family feel confident

Prior to Discharge (Diabetes Team)

- Patient glucose predominantly in single figures (70%+)
- Family provided with copy of Living With Diabetes resource and a Rufus
- Check biographical details/contact details & DMS update
- Ensure family tree/significant others documented
- Complete Looking After Diabetes in First 2 Weeks & Education Checklist
- Set up Digibete app
- Signpost emotional resources
- Add to Action Log
- Admin to book 3 x 1 month MDT F2F appointments (Dinky Betes clinic)
- To order patients own sensor & ensure skincare considered
- Prescription picked up from GP

First 2 Weeks At Home

- Frequent contact by named nurse - may be daily initially
- Sensor change/start with nurse
- Day 10-14:** Joint CDNS/Dietitian review
- Electronic or written data review
- Introduction to data review & support
- School care plan & education checklist completion

1st Month OPA (HbA1c)

- Follow FYOC pathway
- Aim for presence of play specialist & named nurse
- Invite to teddy bear clinic
- Discuss diabetes technology

8-12 weeks

- Commence on insulin delivery system once pump pathway completed
- Involve nursery/school in this transition

6-12 Months

- Regular check in and support as required from named or wider MDT

6 month OPA (HbA1c)

- HbA1c > 58mmol/mol – refer to FYOC pathway

12 Month OPA (HbA1c)

- HbA1c > 58mmol/mol – refer to FYOC pathway
- Annual review
- Psychology screen
- School/nursery training update

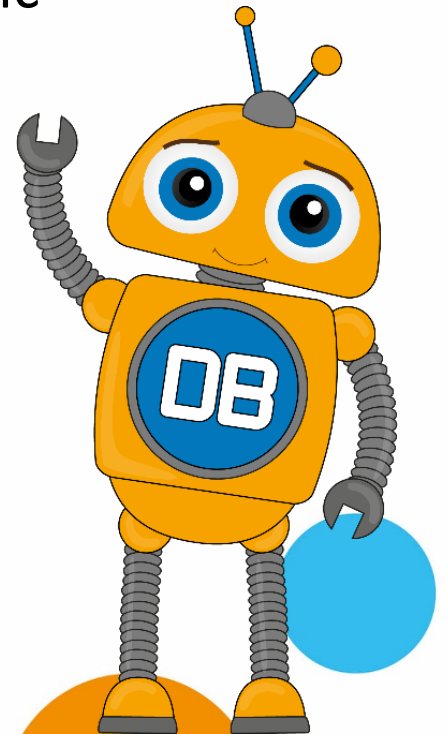
4-8 weeks

- Discuss hybrid closed loop technology with family
- Pump showcase with play specialist if required
- Encourage parents to try wearing cannulas
- Encourage child to bring Rufus
- Follow pump pathway for education
- Discuss & support with DLA

Children under 7 years of age require frequent (often quite intensive) contact with the MDT within the first year of care and the need for technology early in diagnosis. This pathway reflects these needs.

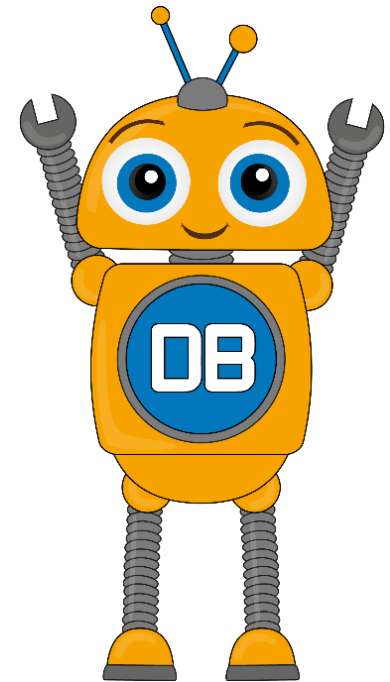
Dedicated < 7's Clinic Survey

- 24 responses (53% response rate)
- 83% interested in a dedicated clinic
- 88% wanted opportunity for informal play and activities with similar aged children
- Families willing to spend up to 2 hours in clinic
- 78% wanted access to full MDT
- 50% concerned about changing Consultant

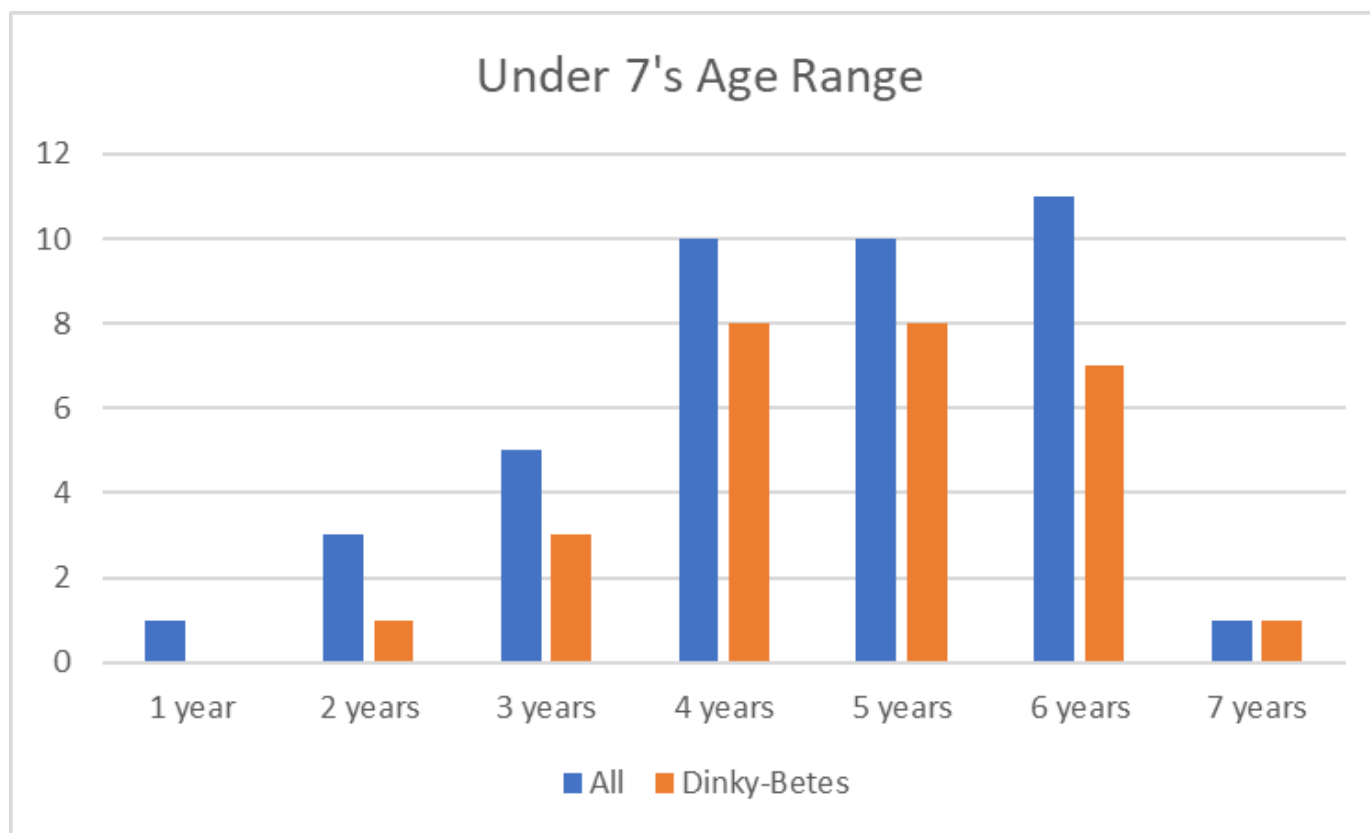


Dedicated < 7's Clinic Survey

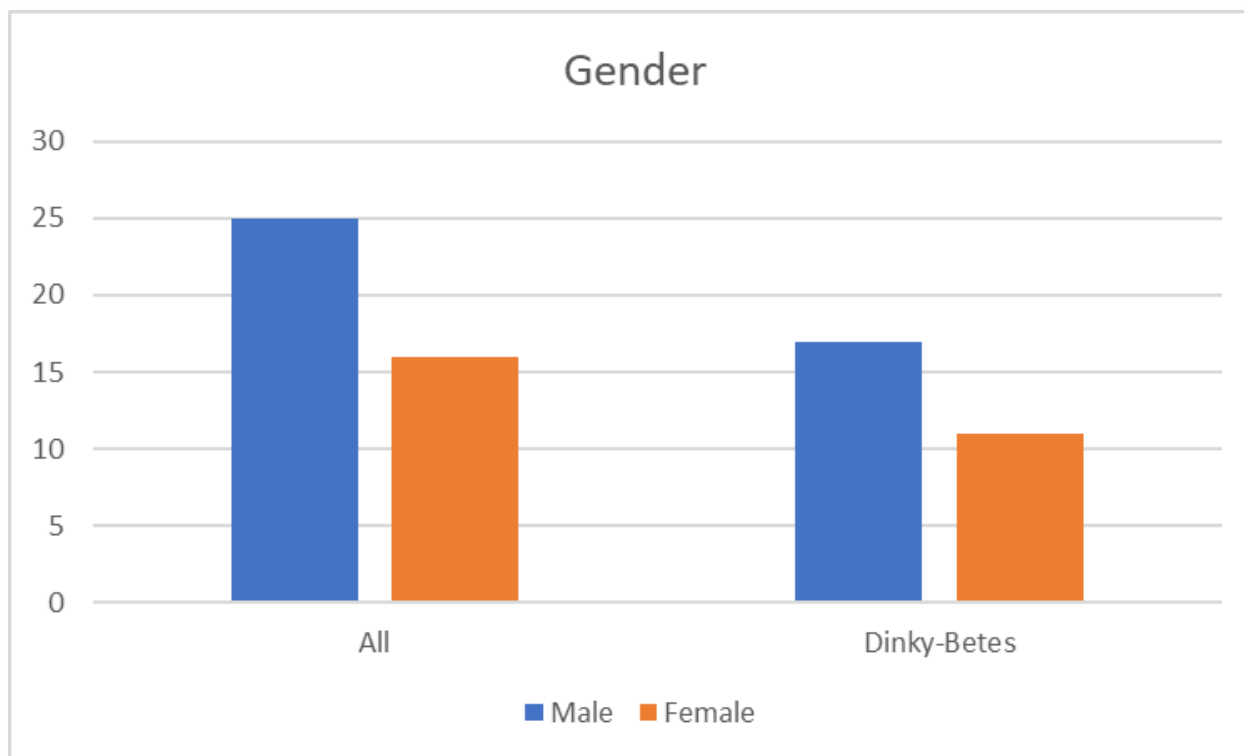
- 45% parents preferred separate access to staff
 - Children with play specialist and nurse
 - Parents with psychologist and nurse
- Enthusiasm for access to:
 - Procedure preparation
 - Practicing skills on teddies
 - Play/stories around diabetes
 - Non-diabetes related activities
 - Emotional well-being resources
- Asked for suggestions for clinic name: **Dinky-Betes!**



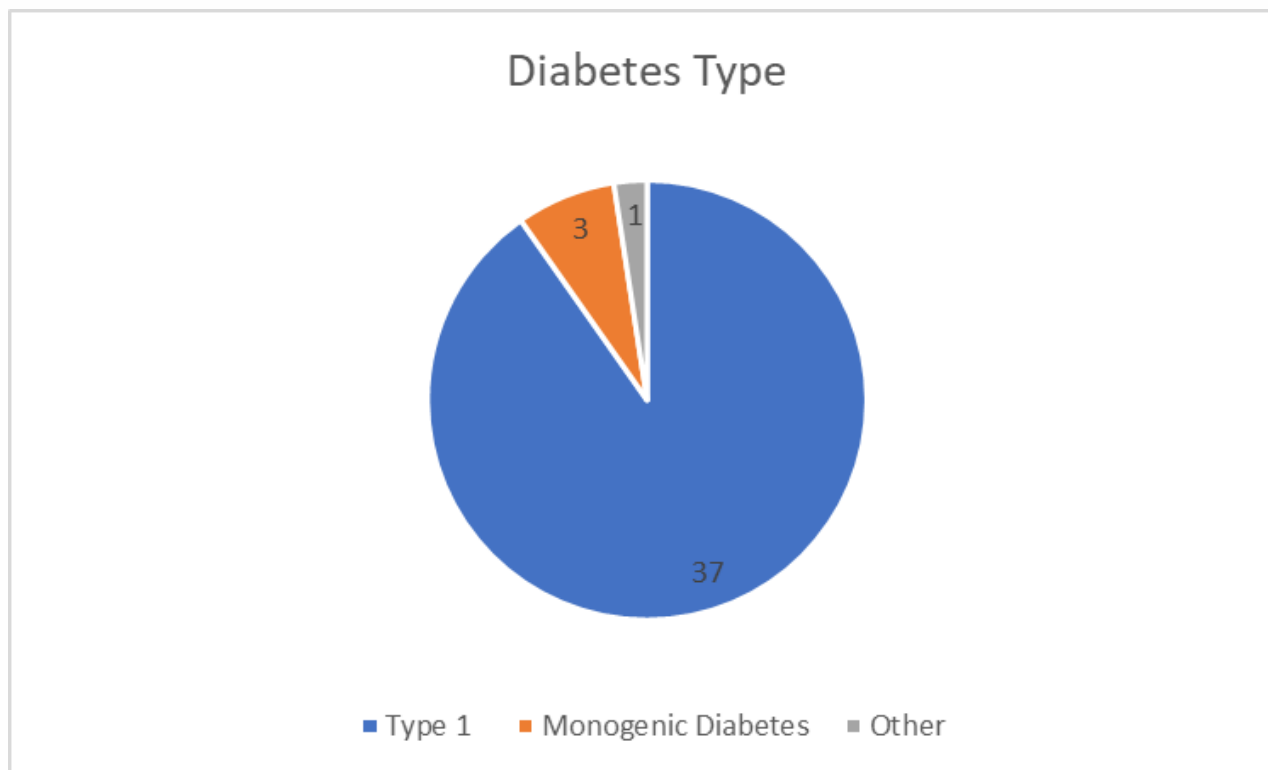
Age



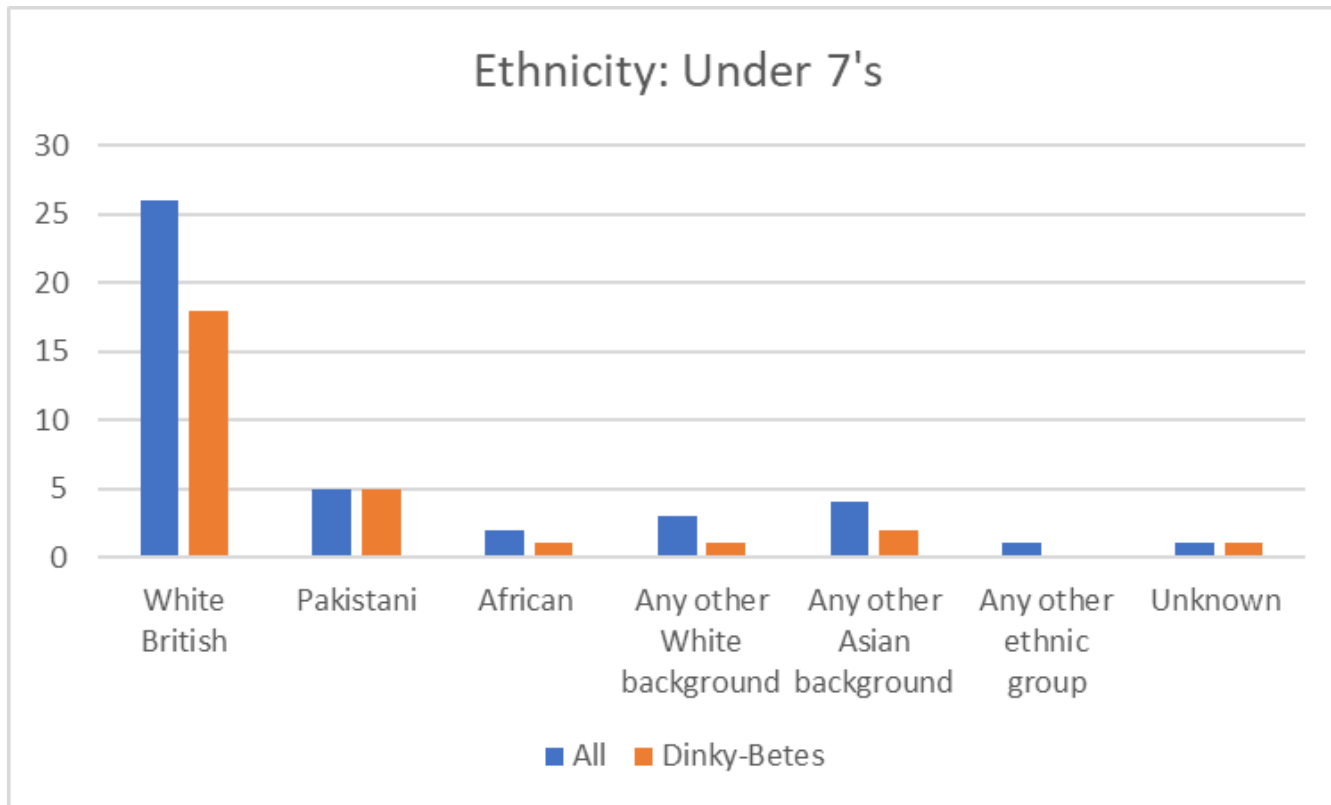
Gender



Diabetes Type

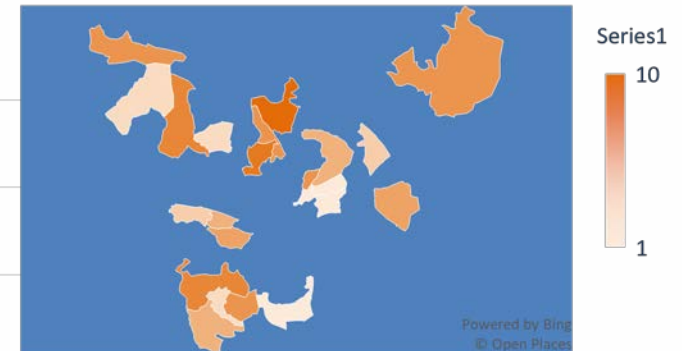


Ethnicity

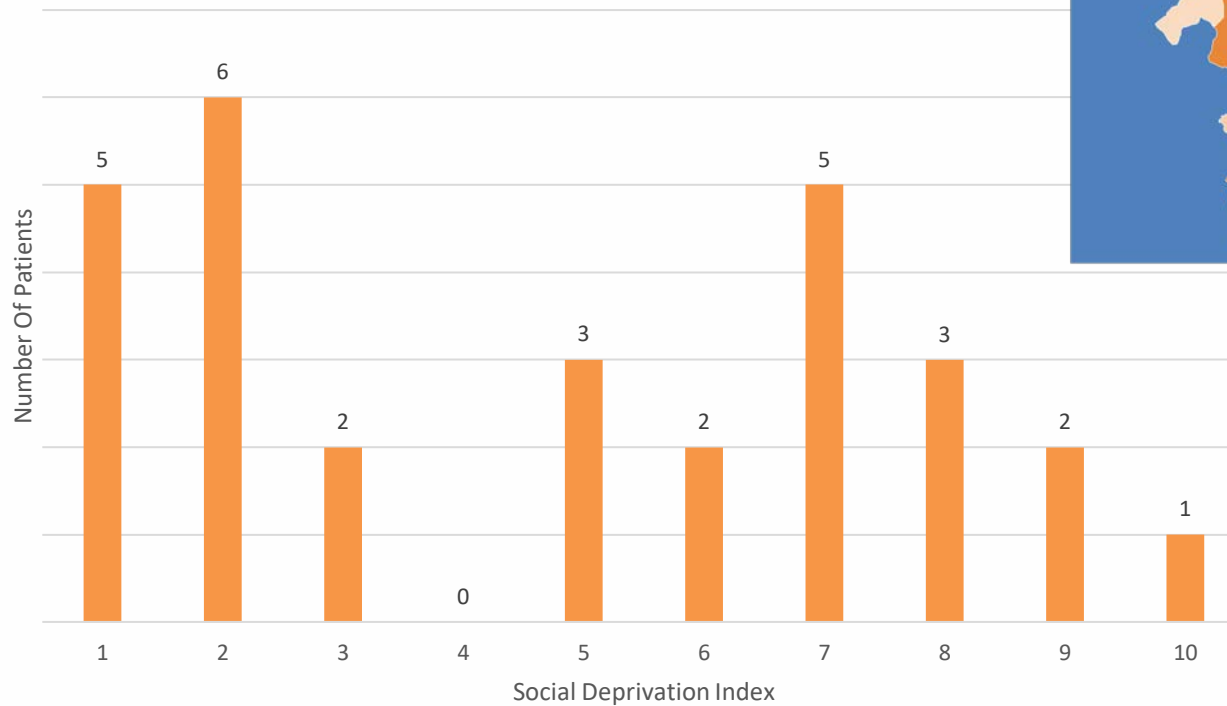


Social Deprivation

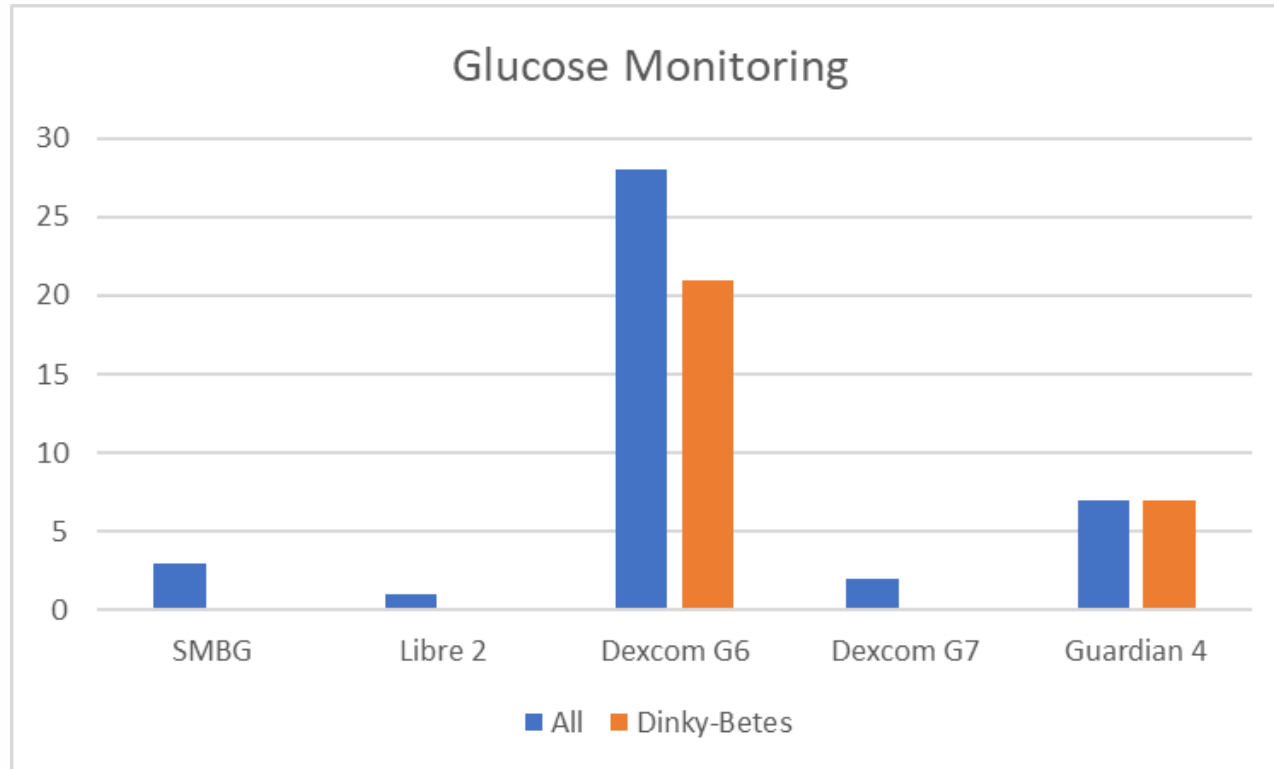
Postcodes in relation to social deprivation index in Leeds



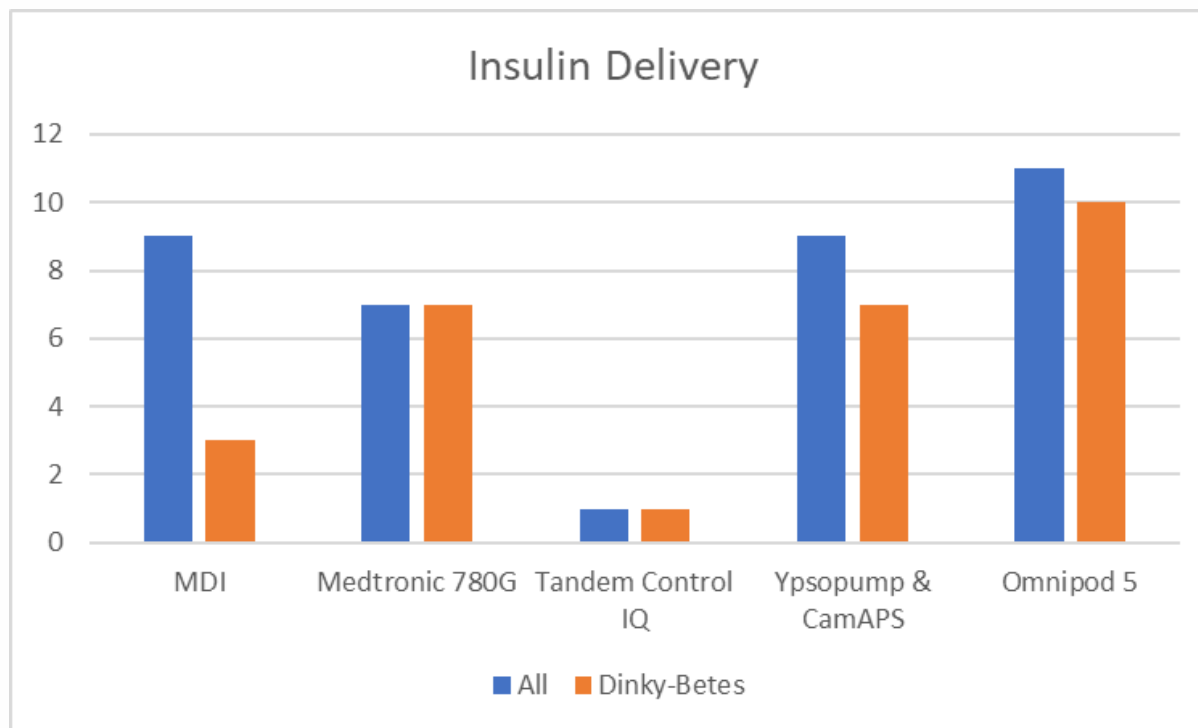
Number of Patients in Each Social Deprivation Index



Glucose Monitoring

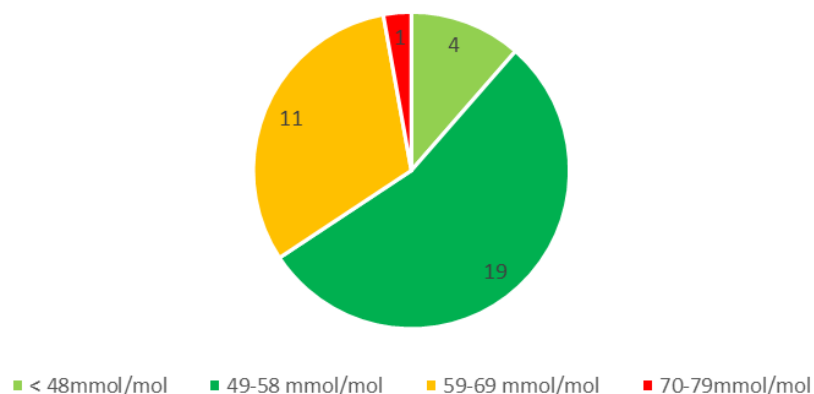


Insulin Delivery



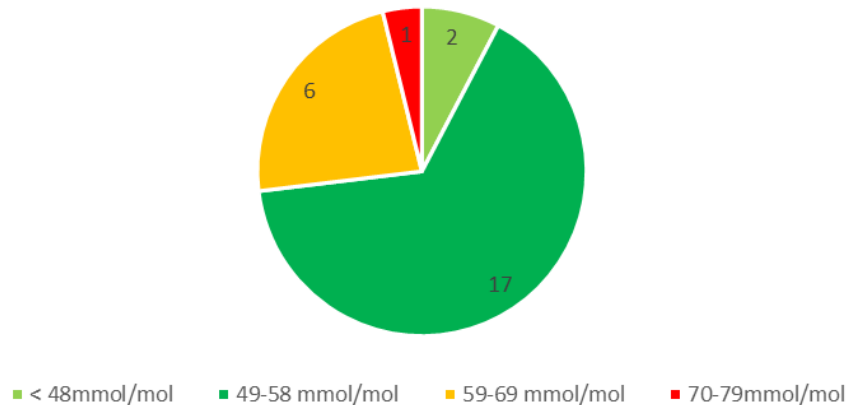
HbA1c Outcomes

HbA1c: Type 1 Diabetes Diagnosed > 3 months



N = 35

HbA1c: Dinky-Betes Diagnosed > 3 months



N = 26

Dinky-Betes Clinic



Dinky-Betes Set Up



- First clinic July 2023
- Monthly double clinics with ~ 10 – 16 appointments per clinic
- 31 children accessed – 3 transitioned out
- 8 currently in their FYOC
- 3 patients have additional developmental needs
- Age 2.5-6.5 years
- Patients matched by age, language, relationships
- Standard MDT clinic appointment
- Annual review bloods out-with clinic
- Transition plan

The Running of Dinky-Betes

How?

- Main activity room (converted meeting room)
- Two consultation rooms
- More staffing
- Replanned developmentally appropriate activities

What?

- Quarterly themed play
- Playdough/medical play
- Story time
- Parental activities
- Carbohydrate counted snacks and drinks

Why?

- A child's Right to Play (United Nations Convention on the Rights of the Child, 1989)
- Children need a safe and stimulating environment to learn (Early Years Foundation Stage, 2023)

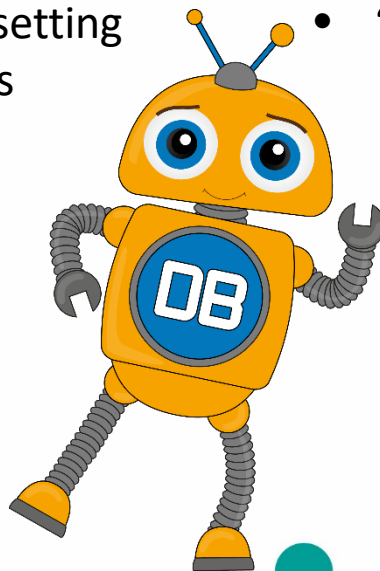


The Barriers to HCL in >7's

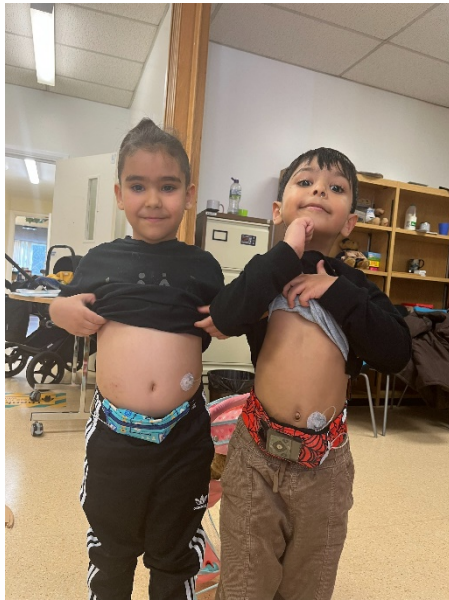
- Access to smartphones
- Total Daily Dose
- Language/Cultural barriers
- Amount of body fat
- Understanding of condition
- Additional diagnosis (removing technology)
- Additional equipment on the body
- Support of childcare setting (nursery/childminders)

The Benefits of HCL in >7's

- Restrictions of injections
- Unpredictable eating
- Unpredictable behaviour
- High activity levels
- Growth
- Illness management
- Less daily interventions
- Smaller dose availability
- Better overall management
- 'Easier' overnight management



Normalising Medical Play and the Importance of Shared Experience...



Medtronic 780



YPSOmed



Omnipod 5

Teddy Bear Clinic

- Normalising wearing technology
- Learning through play
- Meeting other children
- Family peer support
- Activity based learning
- Taking diagnosis away from individual



Case Study:

- 6 year old boy diagnosed at 16 months
- Pump therapy since Feb 2021
- Significant glucose variability on data reviewed in clinic
- Abdominal lipohypertrophy
- Clinic plan:
 - Advised to move cannula
 - No change to insulin doses
 - Significant upset at prospect at moving cannula to lower back



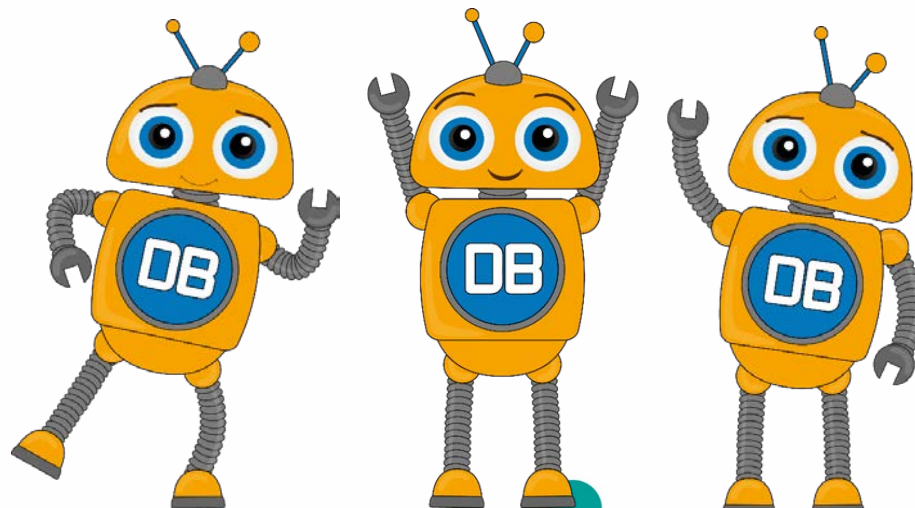
Case Study:

- Saw another child with the same pump and cannula sited on lower back
 - Asked him how it felt
 - Shared experiences
 - Put cannula on teddy and play specialist
 - Normalised feelings surrounding technology
- Outcome:
 - Moved cannula in clinic with other child and play specialist present
 - HbA1c improved from 57 mmol/mol to 50 mmol/mol in 2 months



Feedback

- Clinic is fun now, the whole family enjoy coming!
- Its good to meet other parents with the same experiences
- I like playdough
- Its great to be able to talk to the doctor without a little sponge listening in
- You need more Pokémon
- You don't know how much this clinic has changed out diabetes experience – thank you!
- As always, these sessions are so amazing and insightful. We really are blessed to have such an amazing diabetes team
- It's been wonderful for all the family to get involved and learning about diabetes. Thank you so much for everything you all do. You're all amazing!!!



Acknowledgments:

- Jo Byatt – Research article & survey
- Our Families – Getting involved and accepting change
- The Team – Supporting change
- DigiBete – Supporting graphics and poster design

Innovation of the Year Award



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