

# **PDSG Study day**

## **Nutrition and Diabetes in the young child**

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# **Evelina London**

# Background

- The Evelina London provides tertiary PICU to South East Coast
- NPDA 2020/2021

## 2.1. Age

Figure 4: Age of children and young people by unit, region and overall



# Case Study

- 21 month old girl, diagnosed at 18 months
  - 2 day history polyuria, polydipsia and irritability
  - Mother checked blood glucose (24mmol/l) and ketone levels (2.9mmol/l) at home.
- Treatment as Type 1 diabetes
  - GAD antibodies >2000 (4.9 U/ml)
  - Brother and sister also have T1
  - Mother has T1
  - 3 x maternal aunts and 3 x maternal uncles have T1
- Not in DKA, started IV maintenance fluids due to limited oral intake.
- Commenced subcut insulin

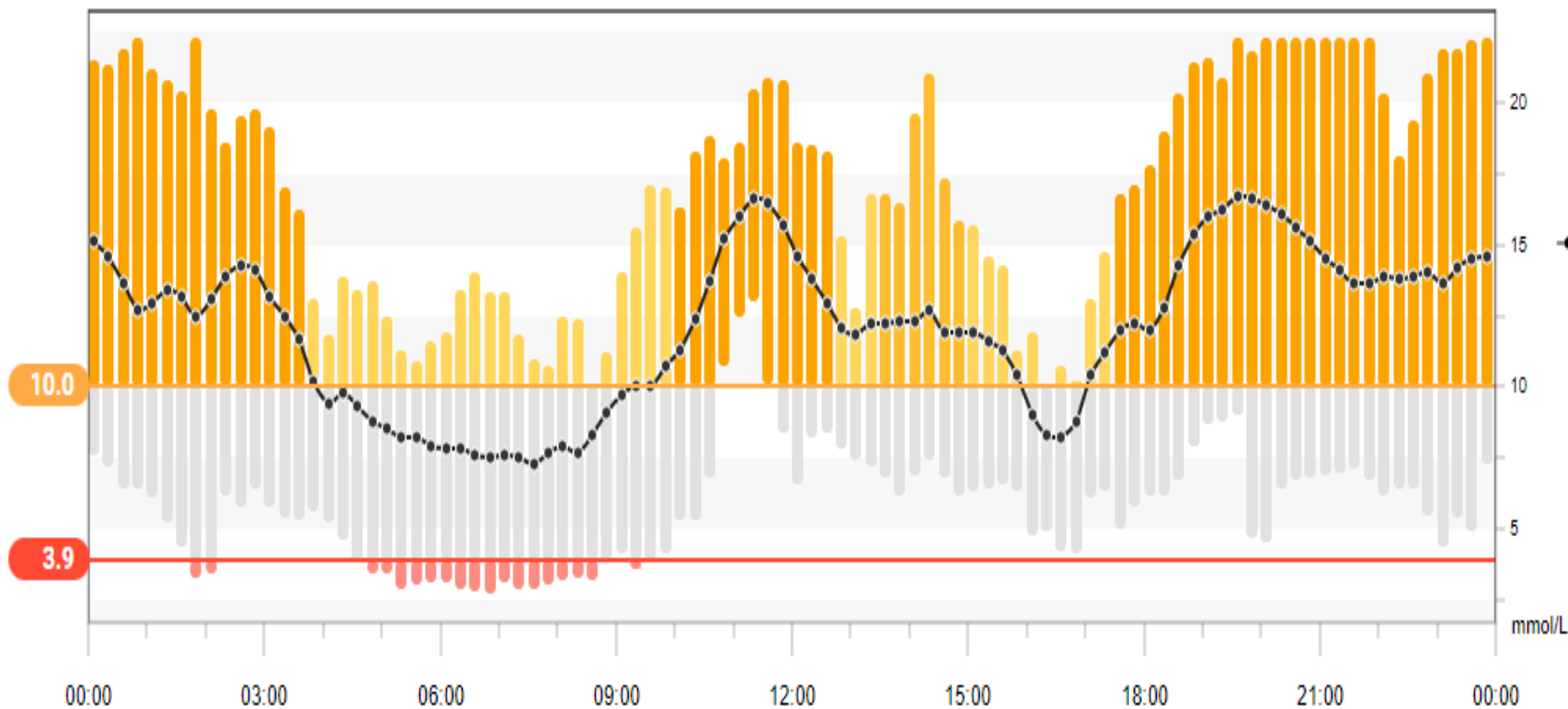
# Admission

- 3 day admission to general Paediatric ward
- Weight 8.95kg
- Started 0.5units/kg
- 2 units Levemir pm
- 1:20 CHO ratio
- 1:10 ISF
- Dexcom started pre discharge home
- Daily contact with team and adjustments to insulin

# Why MDI for this child

- Social background
- Older sister recently started T-slim with control IQ, mother planning to start same.
- Approx. 70% of our <5 caseload using an insulin pump





# Did the plan work?

- Growing well and regained lost weight
- Glucose levels very erratic (41% TIR)
- Morning hypos and often missing breakfast insulin until after school run.
- Insulin often after food
- 2 weeks post diagnosis, started refusing to eat and taking food from siblings.
  - Completely stopped drinking milk
  - Refusing meals, taking yoghurt and fruit
  - Previously very independent with eating, now mother feeding.



# What we changed

- Levemir split to b.d.
- Breakfast post school run
- Allowing A to self feed
- Insulin for yoghurt / fruit pre meal
- Importance of making up extra insulin discussed
- Discussion with siblings re sneaking food
- Attempted to engage father
- Proactive social worker and family support worker
- Rescreening for MODY

## Where are we now with this child

- Glucose levels less erratic – 54% TIR (during school holidays)
- Mum described eating as “ like before she had diabetes”
- Mother prioritizing sitting with her for meals
- Breakfast much easier over school holidays
- Over-treating hypos, often in middle of night and confusion re amount for all different families members.
- Limited engagement from father
- Child becoming very upset for injections
- Mother struggling to split insulin with meals and often missing second injection.

## Future plan for this child

- MDT, mother and social worker all agreed need to progress towards insulin pump
  - TIR lower than ideal
  - Current volume of diabetes management for 3 x children with diabetes too much for mother
  - Mother refused different closed loop system.
  - Agreed T-slim with basal IQ
  - Further attempts to engage father

## Next time plan

- Split Levemir initially
- Split meal time insulin (child dependent)
- CGM pre discharge works well
- Wider network support