

# Optimising Treatment of Neonatal Hypoglycaemia

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## INTRODUCTION

Hypoglycaemia is recognised as being a leading cause of admission to neonatal units in term babies. Neonatal hypoglycaemia can potentially cause seizures, brain injury and ultimately a poor neurodevelopmental outcome. Optimal glucose management can therefore prevent harm, avoid mother-baby separation, reduce neonatal unit admissions and lessen cost to the NHS.

### AIMS

- To improve the recognition, diagnosis and management of hypoglycaemia.
- To assess adherence of current practice to the trust's hypoglycaemia guidelines.
- To educate the MDT on optimal, timely management of hypoglycaemia.

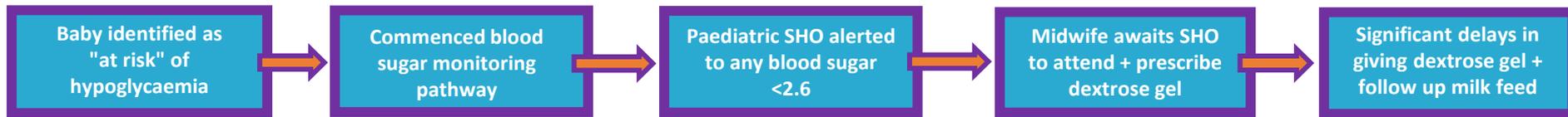
### METHOD

- Data was prospectively collected on all neonates on the post-natal ward with a blood sugar <2.6mmol/l over 6 weeks.
- Specific information on each hypoglycaemic episode was recorded and then analysed by comparing to the South Eastern Trust hypoglycaemia guidelines.

### RESULTS

- 10% of infants with blood sugar <2.6mmol/l did not receive medical review or intervention
- Only 63% of babies appropriately received oral dextrose gel and a follow up milk feed.
- Delays to initial sugar check - average 5h of life.
- Average time from hypoglycaemia to receiving dextrose gel was 28 mins (longest delay 80 mins).

## PREVIOUS PRACTICE



## IMPLEMENTING CHANGE

### Increasing awareness

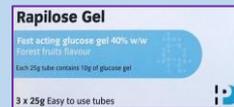
- Daily safety brief reminders
- Improved accessibility of guideline
- Visual aids & posters in all relevant clinical areas

### Introduction of PGD (midwifery prescribed) dextrose

- Regular zoom teaching over 8 weeks
- PGD guideline established with pharmacy
- Dextrose gel now stored in multiple accessible areas

### Educating the MDT

- Specific teaching during medical staff's induction
- Simulation training sessions
- Emphasising feeding support + election of hypoglycaemia "champions" across the MDT



## CONCLUSION

### Repeat data collection has shown:

- 87% reduction in babies requiring review by paediatric doctor
- Now 71% of babies appropriately receiving dextrose gel + feed
- Time to initial blood sugar check reduced from 5h to 4h 15mins
- Average time to treat reduced from 28mins to 12mins

### Future steps:

- To extend project across all units in NI to standardise care
- Data gathered will contribute to a new regional guideline
- Continued education to achieve 100% compliance to hypoglycaemia policy



## NEW PRACTICE

