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FEEDING ISSUES AND NUTRITION

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Nutrition and feeding

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- Feeding problems are frequent in HI e.g. Gastro Oesophagus Reflux Disease
- Infants are not fed to demand
- Feeds often need supplementation
- Fluid restricted due to medications - plus possible side effects of medications (diazoxide)
- Large volumes of IV glucose often leave little space for nutrition

Why is being able to feed your baby/ child so important?

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- Feeding is a primary event in the life of an infant.
- It is the focus of attention for parents.
- It is a source of social interaction through verbal and non-verbal communication between infant and parent.
- Feeding times assists in the formation of developing secure attachments
- The essential component of feeding behaviour in young children is the relationship between the child and the parent. (Liu and Stein 2013)

- Liu, Y, H and Stein, M, T (2013) Feeding Behaviour of Infants and Young Children and Its Impact on Child Psychosocial and Emotional Development *(2nd ed.)* University of California San Diego, USA

Quote from a mother

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"When everything else is out of control, feeding my baby was the only thing I could hope to do for him. That was my special time"

Still need that "Special time"

Parent Behaviours That Support Attachment During Feeding

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- Follow the baby's signals about what time to feed. Not possible
- Feed promptly when the baby is hungry. Not possible
- Hold the baby securely so you can look at each other during feeding. Often not possible as attached to IV lines and monitors
- Let the baby decide how much to have. Not possible
- Let the baby pause, rest, socialize, and go back to eating. Often not possible
- Don't disrupt feeding. Sometimes not possible
- Stop the feeding when the baby refuses or indicates satiety. Often not possible

Past Feeding Audit

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- Patient feeding issues were evident on admission and on discharge.
- Parental concerns continued throughout hospital admission.
- Some delayed discharges were due to feeding issues.

Parental concerns

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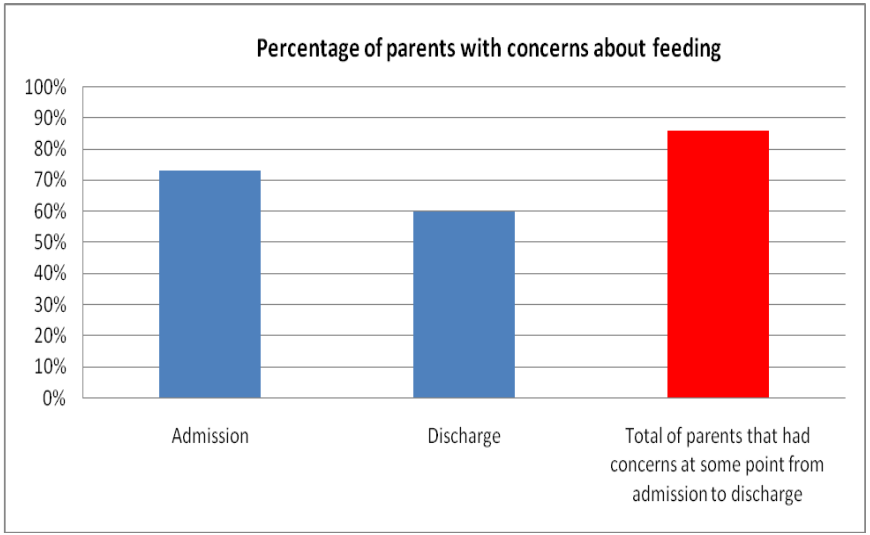
Overall, 87% (13/15) of parents had concerns at some point between admission and discharge.



Delayed Discharges

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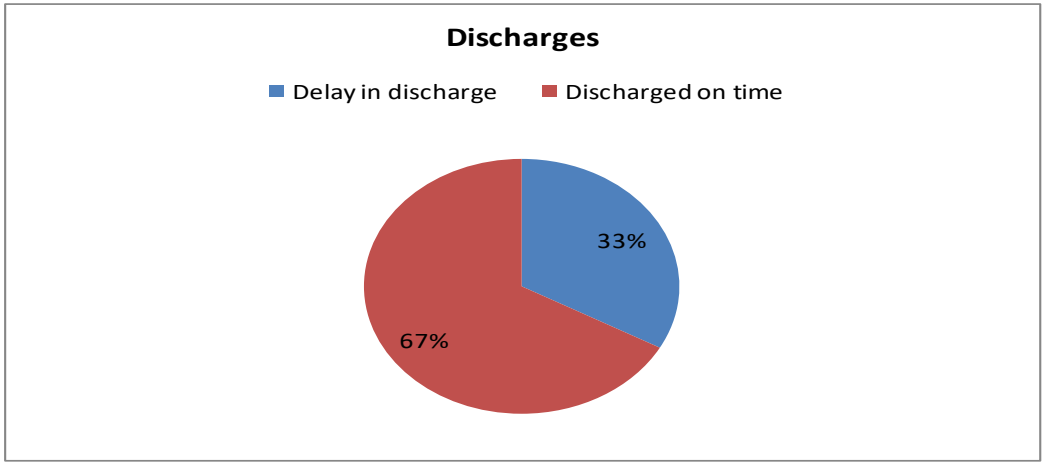
- 33% (5/15) patients had a delay in discharge.
- Feeding issues were an identified reason for delay for 80% (4/5) of patients.



Change of treatment.

- Infants always offered (trophic) feeds on admission. Maintaining orality in the first weeks of life, feeding on demand (Breast or bottle).
- Blood glucose levels are managed with subcutaneous Octreotide, IV Glucagon and small volumes of high concentrations of glucose during this time.
- Diazoxide only commenced once feeding established

Re-audit - 2 years later

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- If changes to initial management in the first few weeks have a positive impact on feeding outcomes

- How supported parents feel in understanding the nature of their child's feeding problems

Aims of follow up Audit

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The audit aimed to look at the following factors:

- Feeding issues on admission and on discharge.
- Parental concerns.
- Interventions required from Speech and Language Department / Dietetics Department.

Methodology and Results

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A sample of 12 patients /paper based questionnaires obtained from medical and nursing notes. Comparing results with previous data

Presence of a feeding difficulty

67% patients with HI presented with some kind of feeding difficulty on admission

Resolution of a feeding difficulty

76% of infants with a feeding difficulty on admission were feeding orally or breast fed on discharge (c/w 54% in previous audit)

On discharge 8% parents had concerns about feeding. (c/w 60% in previous audit)

Speech and Language Therapy/Dietetics

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- 100% parents who were concerned about their child's feeding, were referred to the Speech and Language Therapy / Dietetics Services.
- 66% patients were had dietician input
- 25% had SALT input

Recent review of 6 patients

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Factors impacting on oral feeding

- Other medical issues, e.g. pulmonary hypertension, seizures, GORD, HI associated with other syndromes, Cow milk protein allergies
- Early or established signs of feeding aversion/gagging
- The feeding regime they were on, e.g. continuous feed, TPN/NG - limiting hunger etc
- Infants often very drowsy

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SALT advice/input during admission included

- Advice to parents and staff to not push oral feeding as it was increasing aversive patterns
- Advice for positive oral experience, e.g. dummy, dummy dips as preparation for oral trials when less aversive
- Advice for messy play for children on solids
- Working with team to allow space in feeding regime to allow for oral opportunities

On discharge

- All children were discharged from GOSH with NG or PEG
- Some were discharged on small volumes of oral feed (bottle, breast or puree)
- All were discharged with advice for messy play and/or not pushing oral feeding (as this would rebuild oral aversion)
- All were discharged to local SALT for follow up

Tips to avoid oral aversion

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- **Non-nutritive sucking/comfort nursing** i.e. use a dummy or a clean finger, or pump/express and then let the baby nurse.
- **Dummy dipping** with breast milk, water or formula
- Infants with HI have often had repeated, painful / negative touches around their face e.g. tape is removed , tubes etc. Use of positive touch that comforts and gives pleasure -So kiss, stroke / touch your baby's face frequently -give your baby **more positive than negative experiences around the face**.
- **Weaning** - Many infants are willing to accept "smooth" foods such as baby cereal, but struggle with the transition to more challenging lumpy foods. - introduce solid foods that melt easily in the mouth, introduce "chunkier" forms of already preferred flavours of foods , keep demands low - just 1 or 2 tastes when introduce new foods, pick similar foods in new flavours or similar textures
- **Build trust**, Play with food, Modelling is a great way to teach your child about eating. Keep your mindset positive, Use pretend play
- **Use of Gastrostomy tubes** often reduce the need to force feed and allows time to give positive oral experiences and alleviates much of the infant and parental anxiety

Gastrostomy feeding

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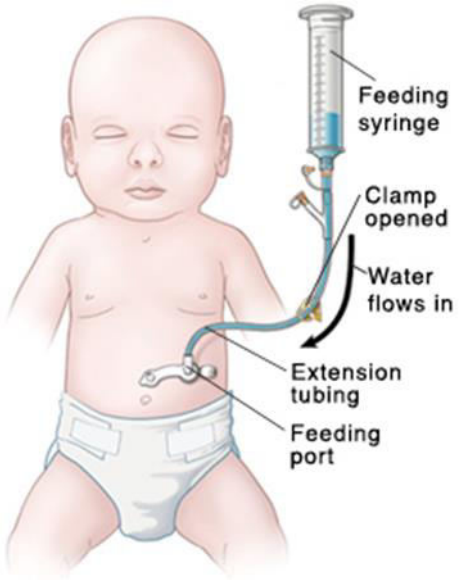
Safe method of feeding

Combination of day time bolus and continuous feeding to achieve stable blood glucose.

Prevents tube migration during sleeping and strangulation



SALT Conclusion

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"There does not seem to be much literature out there about

- The benefit of parental/staff education
- Early SALT input to identify aversion
- Good MDT working to improve oral/ feeding outcomes for HI kids"

What Next?

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- To educate parents at an early stage about positive oral experiences with aim to avoid oral aversion. This is to supported by an information leaflet
- Advice for messy play for older infants and children
- SALT to work closer with HI specialist team to identify infants early and for all to remember to give some space in feeding regime to allow for oral opportunities

Nutrition

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- Nutritional requirements - The Big 3 Macronutrients Fat, Protein and Carbohydrate. They are called macro-nutrients because we need these in large quantities to function properly and achieve adequate growth.
- Carbohydrates are the main source of energy for our bodies. The most simple form of carbohydrate is glucose.
- Carbohydrates foods: breads, cereals, pasta, rice, potatoes, fruits and vegetables

Conclusion

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- Feeding issues in HI infants and children are common
- Parental and infant/child anxiety is high around feeding
- Appropriate professional input is key
- Treat the medical and non medical associated factors around feeding aversions
- MDT needs to be more aware of feeding concerns and long term effects

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Questions

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