

Background

- Oral feeding dysfunction is common in infants with congenital heart disease (CHD)
- The Heart Institute at Children's Hospital Los Angeles (CHLA) initiated a **Home Nasogastric Tube (NGT) Program** through which infants with CHD can be discharged home with NGT feeds
- Literature review of 7 articles from 2016-2021 guided evidence-based practice
- A novel nurse and dietitian led model was implemented to ensure close outpatient monitoring

Objectives

- Assess **safety** of home NGT feeds in infants with CHD
- Identify factors associated with **successful advancement to full oral (PO) feeds** from home NGT

Methods

- 72 infants with CHD in the Home NGT Program from October 2017-May 2022 were included
- Patient demographics, CHD classification, and % PO intake at time of discharge home were evaluated
- Complications of home NGT were assessed
- Clinical factors associated with achieving full PO feeds were analyzed using ANOVA and multivariate logistic regression

References

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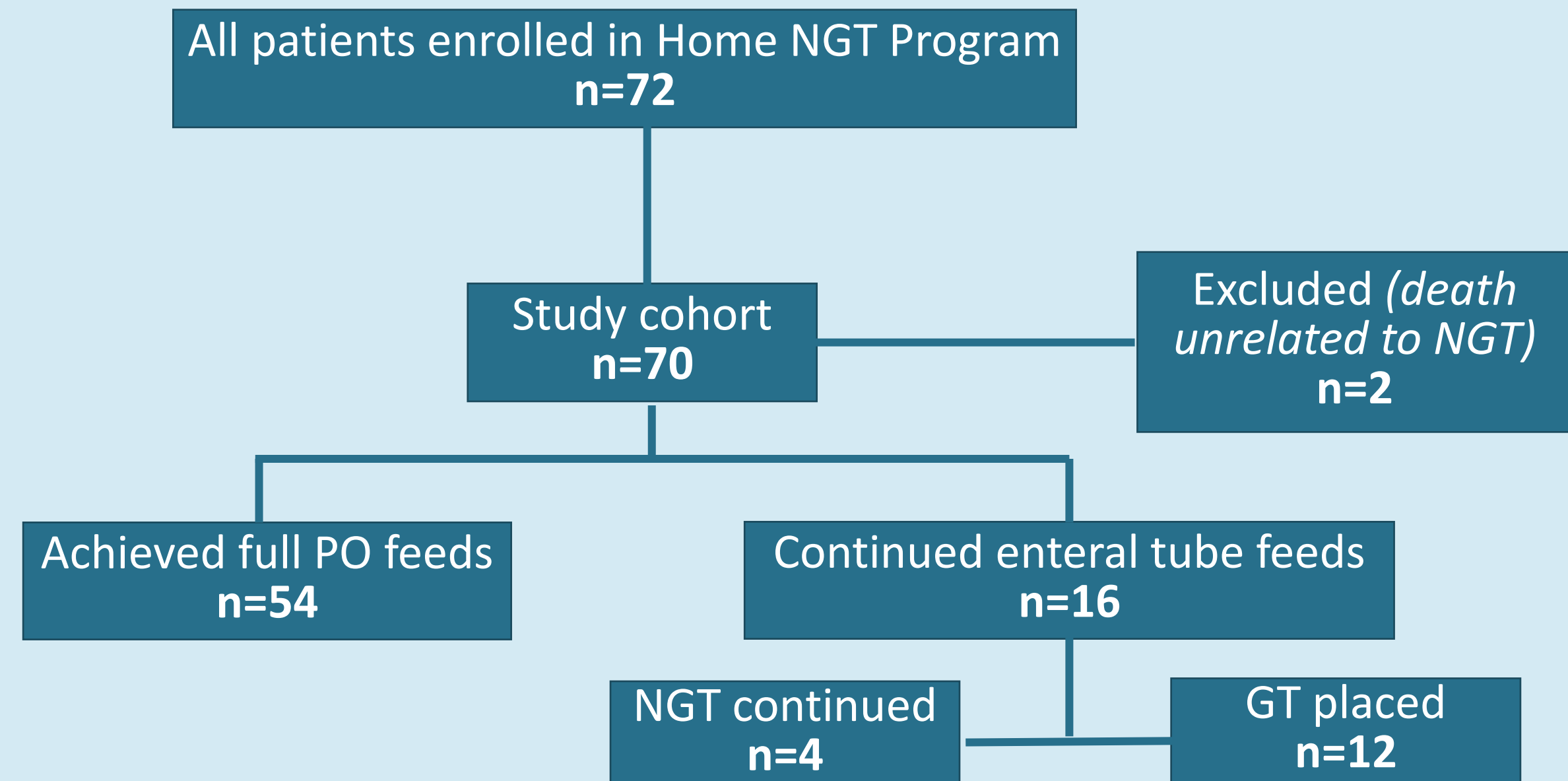
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Flow diagram of study participants



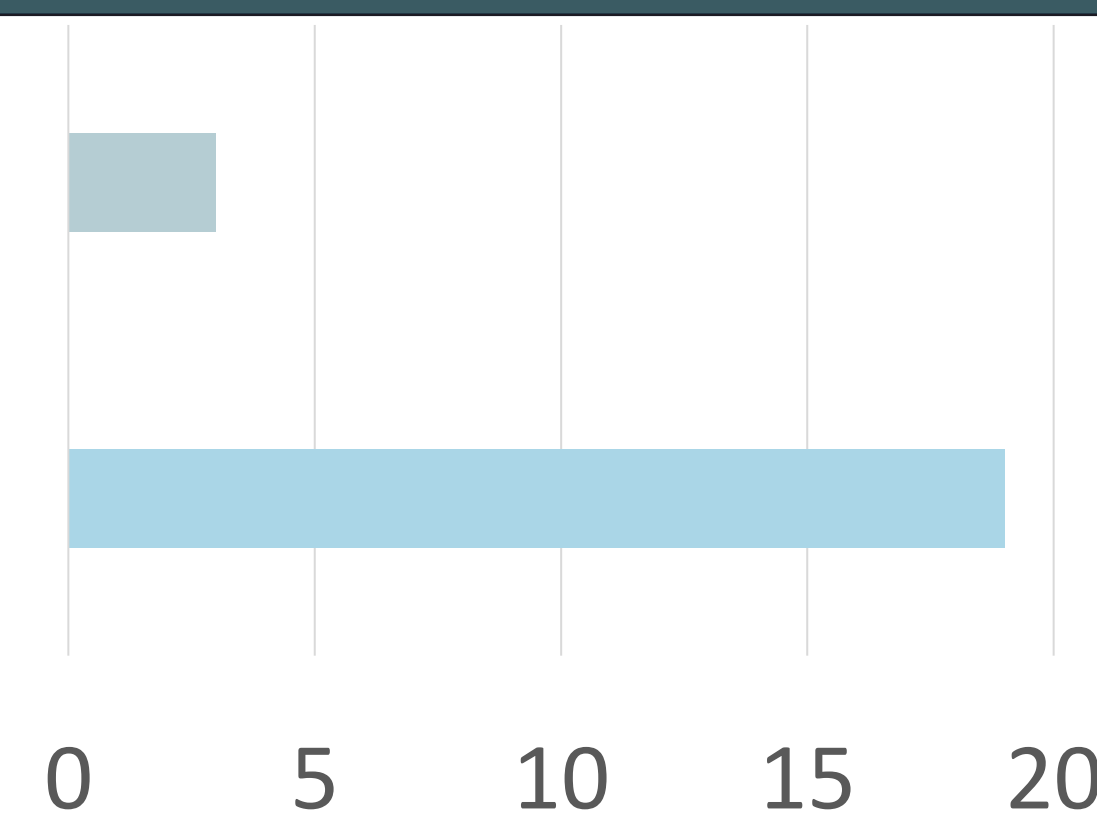
Surgical status at discharge by feeding outcome

Surgical Status	Achieved full PO (n=54)	Continued tube feeds (n=16)	*p-value via ANOVA
Pre-operative	9 (17%)	1 (6%)	p=0.02
Post-palliative surgery	23 (42%)	11 (69%)	
Post-corrective surgery	22 (41%)	4 (25%)	

Total encounters of complications

Hospital Readmissions

ED Visits



Results

Advancement to full PO feeds

- 77%** of infants achieved **full PO feeds** by study end
 - 6% continued to wean off NGT, 17% had GT placed
 - **Average duration** of home NGT was **128 days** (SD 129 days)

Higher percentage PO at discharge was associated with **successful wean off NGT**

- There was a **3% increase in the odds of successful wean** with every **1% increase in PO at discharge** (p=0.02)
- Average % PO at discharge was 29% (SD 25%)

Infants with **unrepaired CHD** or **fully repaired CHD** were **more likely to achieve full PO feeds** than infants with palliated CHD (p=0.02)

- **90%** of the infants with **unrepaired CHD** achieved **full PO**

Safety

Complications were **infrequent**, involving **11%** of patients.

- **19 total ED visits, 3 total hospital readmissions**
 - **10%** of infants experienced **ED visits**
 - 7 total patients
 - **4%** of infants required **hospital readmissions**
 - 3 total patients
 - 100% of these encounters were related to education
- **No aspiration** or other **critical events**

Conclusion

- Home NGT is a safe option for infants with CHD to optimize nutrition, with minimal ED visits and hospital readmissions.
- Thorough family education and close outpatient follow-up with a multidisciplinary team may decrease complications
- Successful advancement to full PO feeds was achieved in most patients, predicted by higher percentage oral intake at discharge.