

# Implementation of Protocol to Achieve Full PO Feeds in Vidant NICU

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# BACKGROUND

Premature neonates under 34 weeks of gestation can have a wide variety of complex medical conditions. After all these conditions have been appropriately managed and treated, often the last hurdle is feeding by mouth (PO). In order to send these infants home, there must be a way for them to receive nutrition safely. The majority will go home PO feeding; however, there are some that may need gastrostomy tube for safe feeding.

Once neonates' physical and neurological development permits, introducing oral feeds has many positive implications including, but not limited to, shorter transition to independent suck feeding, maternal satisfaction, and shorter hospital stay.

Similarly, failure to reach safe, satisfactory feeding can lead to complications with respiration, fatigue, growth and nutritional status, aspiration pneumonia, increased energy expenditure, hypoxia, bradycardia, apnea, and readmission.

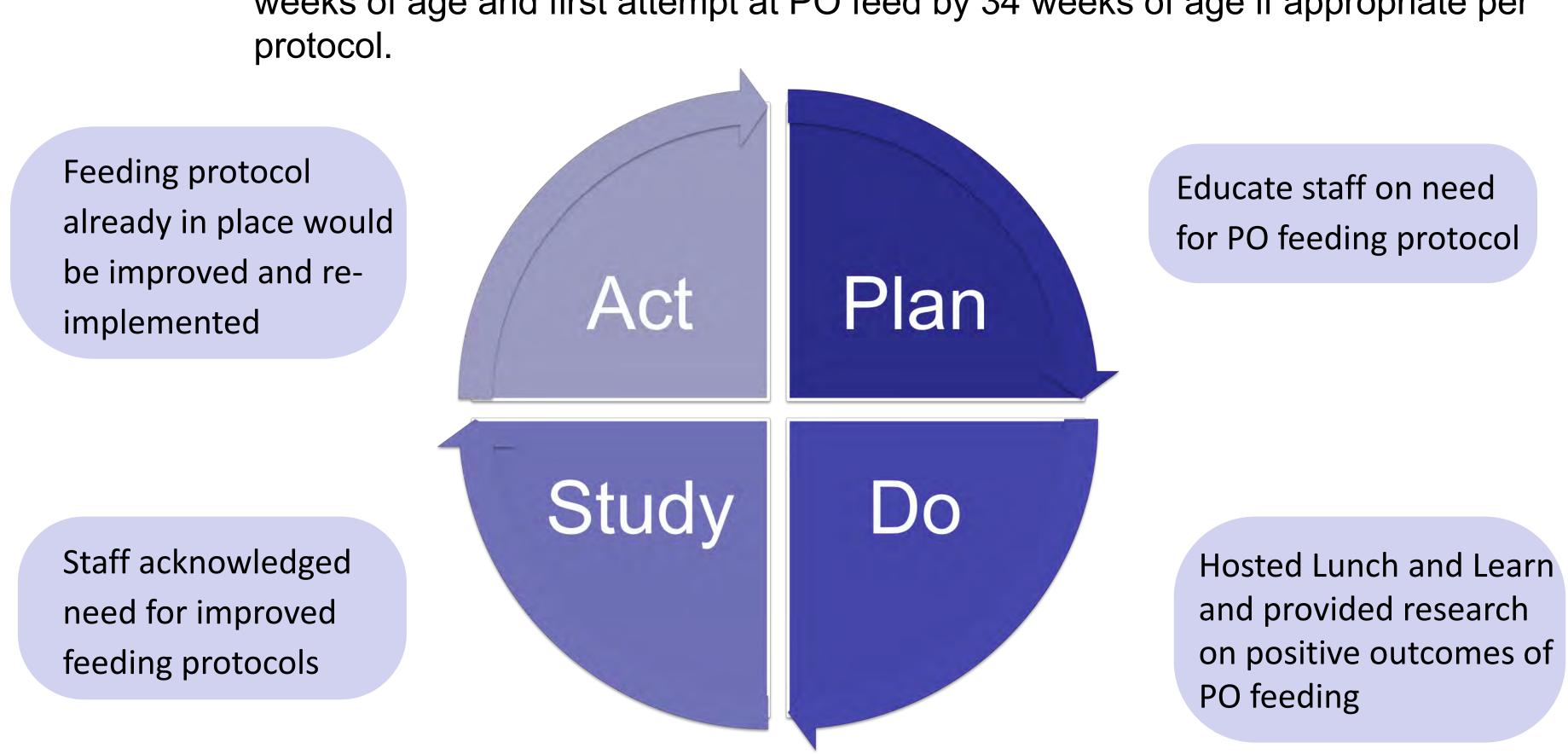
### PROJECT AIM

To decrease overall time for premature neonates less than 34 weeks to achieve full PO feeds safely via infant driven feeds protocol. If safe PO feedings can not be achieved, prompt referral for G tube placement when appropriate to discharge home safely and quickly.

# **CHANGES MADE (PDSA CYCLES)**

This interdisciplinary QI project aimed to master timeliness and efficiency so as to achieve full PO feeds when possible in Vidant NICU through three steps.

- STEP #1: Amend existing protocol of infant-driven feed and education of staff
- STEP #2: Assure that PO feeding protocols are entered into EHR to increase staff awareness of PO feeding cues. Develop and implement bedside cards for neonates at 33 weeks gestational age (GA).
- STEP #3: Establish a 90% compliance on rate of implementation and documentation of protocol, requiring PO feeding protocol orders to be placed for neonates by 33 weeks of age and first attempt at PO feed by 34 weeks of age if appropriate per protocol



# MEASURES

#### **OUTCOME MEASURES:**

- Gestational age of first PO feed
- Gestational age of reaching full PO feeds or gastrostomy tube when necessary

#### PROCESS MEASURES:

- Percentage of bedside cards places by neonates 33 weeks GA and above
- Percentage of implementation of PO protocol orders by 33 weeks GA
- Percentage of implementation of PO attempts by 34 weeks GA if respiratory status allows

#### **BALANCING MEASURES:**

- Once implemented, is there an increase in respiratory support?
- Is there an increase in feeding aspirations?

# PROJECT TOOLS

PO Feeding Protocol					
Patient Name:					
Patient Date of Birth:					
Date	GA (weeks)	Feeding Cues	PO Feed successful? (Y/N)	Provider Initials	Notes

# **NEXT STEPS**

This project has enough fundamental research to indicate need for implementation. Therefore, the next step for this project will largely be data collection in order to obtain sufficient baseline data. Namely, it will be imperative to collect current GA of first PO feeding in Vidant's NICU. The subsequent step will be the implementation of the bedside feedings cards. These will allow for concurrent data collection on infant feedings. These two sets of data will allow for the determination of any potential decrease in GA of first PO feed.

# ACKNOWLEDGEMENTS

The LINC (Leaders in Innovative Care) Scholars program was created through the REACH (Redesigning Education to Accelerate Change in Healthcare) grant.

This poster was prepared with financial assistance from the Leaders in Innovative Care program.

Special thanks to all the physicians, nurses, speech pathologists, and more who at Vidant Health and ECU Physicians are working tirelessly to improve the care of the neonatal population.

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