### Development of a Primary Care Follow-Up Guideline for NICU Graduates Using the Delphi Method Ezela Agolli, DNP, APRN, CPNP-PC

#### **PROBLEM STATEMENT**

- The primary care providers in St. Petersburg/Tampa Bay area lack a standardized approach for managing neonatal intensive care unit (NICU) graduates.
- A survey conducted by the American Academy of Pediatrics revealed that only 50% of outpatient providers reported feeling comfortable in determining and coordinating the care of NICU graduates (Hussey & Donohue, 2015).

### **PROJECT PURPOSE**

- A synthesized guideline incorporates current research on NICU graduates' challenges, providing evidence-based recommendations for monitoring, screenings, and interventions. This comprehensive guideline prevents complications, promotes healthy development, and enhances quality of life (Smith & Stewart, 2022).
- PICOT Question: Can a panel's expertise, using the Delphi method, develop a standardized NICU graduate follow-up guideline for primary care providers, replacing the previous non-standardized approach?

### METHODS

- **Model:** Quality improvement
- Subjects (Participants)
  - The panel of experts compromised a neonatologist from the outpatient NICU follow-up clinic, one inpatient neonatologist from the children's hospital, one pediatrician, and one pediatric advanced practice registered nurse.
- Setting
- Pediatric hospital in St. Pete, Florida
- Instruments/Tools
  - An outline of pertinent subjects for outpatient NICU graduate care was provided to panel participants.
  - Panel rated their response using a 5-point Likert scale with 1=low importance to 5=high importance.
  - Consensus was considered reached when over 70% of participants either agreed or disagreed with each statement, indicating majority agreement (Vogel et al., 2019).

#### **Data Collection**

- Data collection was conducted from 4/1/23 to 6/1/23.
- Round one (four weeks): Expert panel identified key topics for the guideline. 14 topics were retained, while 3 subtopics were removed from the initial outline.
- Round two (four weeks): Guideline created and reviewed to align with majority's opinions. Shared with panelists. Three panel members agreed, one did not respond. This resulted in the attainment of consensus.

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# Delphi Method Process



## Dephi Round I Results

**Results:** A total of 14 relevant topics with 38 subtopics were submitted to the panel for evaluation. Following the panels review, 14 topics were considered relevant to include in the guideline and 3 subtopics removed: Neonatal HTN BP and potential tx parameters, routine vaccination schedule, and Hep B schedule for preterm infants

Relevant Topics: Screenings, nutrition and growth, vaccinations, technology dependent NICU graduate, development, mental health, vision, audiology, gastrointestinal, respiratory, cardiology, neurology, genitourinary, musculoskeletal, dental

Subtopics: Developmental testing (overview an delays), sensory screening, cognitive screening, recommended guidelines for breastfeeding and formula feeding NICU graduates, osteopenia, routine vaccination schedule, Hep B schedule for NICU graduates, Synagis vaccination, appropriate screening times for vision and hearing screens for NICU graduates, neonatal HTN BP and potential treatment parameters, anemia of prematurity, overview of most common NICU graduate diagnoses and indications for referral for the organ systems listed in topics, information on: home oxygen, cardiorespiratory monitoring, tracheostomy and home ventilator, and feeding tubes

## Dephi Round II Results

Results: The collected responses were analyzed and shared. The finalized outline was then shared with the panelists for their review and agreement. Among the panel members, three agreed, while one did not respond, ultimately resulting in consensus being achieved.

### DISCUSSION

- Guidelines improve patient outcomes and standardize care, reducing morbidity and mortality.
- The Delphi method incorporated expert panel insights to develop a NICU follow-up guideline through iterative feedback and consensus-building.
- The Delphi method facilitates consensus and integrates diverse perspectives, aligning with literature on guideline development (Taylor, 2020).

### SUSTAINABILITY/FUTURE PLANS

- Share the guideline widely with healthcare professionals and organizations
- Foster collaborations to enhance visibility and endorse the guideline
- Collaborate with outpatient primary care providers and future DNP students to integrate the guideline into practice and provide training
- Continuously monitor the guideline's impact and gather user feedback
- Regularly review and revise the guideline to reflect new evidence

### LIMITATIONS

- Bias and subjectivity due to expert opinions
- Reliance on expert opinions over empirical evidence
- Lack of direct interaction among experts
- Time and resource-intensive process
- Difficulty in measuring consensus effectively

### RECOMMENDATIONS

- Establish a diverse expert panel
- Clearly define scope and objectives
- Provide clear instructions and structured feedback forms
- Consider anonymity and confidentiality
- Balance inclusiveness and efficiency





### REFERENCES

