

# Tiny Lungs, Big Impact: Neuroprotective Respiratory Strategies for the Care of Infants Born at 22 to 23 Weeks Gestation

Internet Enduring Material **Release Date:** 05/30/2025 Expiration Date for Credit: 05/29/2028

#### Content was originally presented as part of NEO: The Conference for Neonatology on February 21, 2025.

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### Time to Complete

The estimated time for completion of this Internet Enduring Material is 55 minutes.

### **Target Audience**

This presentation is intended for physicians, advanced practice providers, and other clinicians practicing within the Neonatology specialty.

### Mitigation of Relevant Financial Relationships

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### **Disclosure of Relevant Financial Relationships**

Jonathan M. Klein, MD, faculty for this educational activity, has no relevant financial relationships with ineligible companies to disclose. FDA Disclosures: none reported.

Timothy Biela, MD, Nicole Brenson and Jaya Sariga, NNP-BC, planners of this educational activity, have no relevant financial relationships with ineligible companies to disclose.

## **Commercial Support**

There is no commercial support for this enduring educational activity. *Please note: the content of this activity was originally presented at NEO: The Conference for Neonatology on February 21, 2025, which was supported in part, through a restricted medical education grant from Mead Johnson Nutrition.* 

# Overview

Despite advancements in neonatal care, initial respiratory management strategies for infants born at the limits of viability remain a significant challenge. Among those born at 24 to 25 weeks gestation, respiratory failure continues to account for approximately 50–60% of all deaths. This presentation will focus on innovative, evidence-based strategies to optimize the early use of high-frequency jet ventilation (HFJV) as a first-line respiratory modality in infants born during the canalicular stage of lung development. Emphasis will be placed on practical considerations, physiological rationale, and unit-based protocols to support improved outcomes through earlier and more effective respiratory support.

# Objectives

At the conclusion of this activity, the participant will be able to:

- Identify strategies using low tidal volume ventilation to reduce shear force injury and air trapping for infants born before 24 weeks of gestation.
- Describe the physiologic principles supporting early use of HFJV in infants at the canalicular stage of lung development.
- Apply evidence-based techniques to initiate and manage HFJV as a first-intention strategy in the delivery room and early NICU course.
- Evaluate emerging data on survival and morbidity outcomes associated with early HFJV use in this high-risk population.

## ACGME/ABMS Competencies

- Medical Knowledge
- Patient Care and Procedural Skills

### **IOM Competencies**

- Employ Evidence-based Practice
- Provide Patient-Centered Care
- Work in Interdisciplinary Teams

### Participation and Credit

Participants are expected to review all content in the video, access reference materials as needed for additional selfdirected learning, take and score 75% or greater correct on the post-test, and complete the evaluation in order to earn AMA PRA Category 1 Credit(s)<sup>TM</sup>, or nursing contact hour(s).

There are no fees for participating in or receiving credit for this online educational activity. For information on the applicability and acceptance of credit for this activity, please consult your professional licensing board.

### Contact

Should you have any questions or concerns, please contact us at continuing.education@pediatrix.com