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## Application of non-invasive Neurally Adujusted Ventilatory Assist (NAVA) in the very low birth weight infant: A review and case study presentation

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Mechanical ventilation for the very low birth weight infant has traditionally involved either pressure or volume-breath types. Modern microprocessor ventilators are capable of delivering hybrid modes which can combine volume and pressure. NAVA takes a unique approach to mechanical ventilation, delivering assistance in proportion to and synchrony with the patients' own respiratory efforts. The electrical activity of the diaphragm (EAdi) is captured via an indwelling catheter, this EAdi signal allows for synchronization of the ventilator to the infant's own breathing effort. Synchrony is possible even in the presence of air leak, making this mode a successful choice in the neonate population, both invasively and non-invasively. Intubation has potential harmful results for the very low birth weight infant, to include tracheal trauma and infection. In an attempt to minimize these risks, non invasive NAVA has allowed for the synchronous ventilation of very low birth weight infants. A review of the use of non invasive NAVA and case studies from a Level IV Neonatal Intensive Care Unit (NICU) will be presented.

### Biography

Michele Pedicone completed a Masters of Science in Respiratory Care Leadership and Education from Northeastern University in Boston, MA and is currently pursuing a Doctoral degree in Global Health Studies at Nova Southeastern University in Fort Lauderdale, FL. She practices respiratory care at the University of Washington Neonatal Intensive Care Unit in Seattle, WA and is an instructor at Seattle Central College also located in Seattle. She is active in the Respiratory Care Society of Washington, having served as Vice-President and for the American Association for Respiratory Care as a member of the Political Advocacy Team.

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