Poster 13: Practice  
Aerosolized Epoprostenol as an Alternative to iNO

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Vanessa M. Gleason, Thomas Jefferson University Hospital, Pennsylvania;  
Carrie McClintic, Thomas Jefferson University Hospital, Pennsylvania;  
Sandra Weibel, Thomas Jefferson University Hospital, Pennsylvania;  
Christopher Manigrassi, Thomas Jefferson University Hospital, Pennsylvania;  
Amy Callahan-Lesher, Thomas Jefferson University Hospital, Pennsylvania;  
Raymond Malloy, Thomas Jefferson University Hospital, Pennsylvania

Due to the increased utilization of inhaled nitric oxide (iNO) for off-label indications and lack of reimbursement, a protocol was developed to provide appropriate indications, management, administration and monitoring of aerosolized epoprostenol for physicians, nurses, pharmacists, and respiratory care practitioners.

iNO is prescribed, off-label, for pulmonary hypertension, right heart failure, and life-threatening hypoxemia due to acute respiratory distress syndrome (ARDS). However, no randomized, controlled, trials have evaluated the clinical impact of iNO in these patients and several trials have failed to show any survival impact for patients with ARDS. Observational studies have shown that iNO can improve important physiological parameters in subsets of patients with pulmonary hypertension, right heart failure, and hypoxemia. Here at TJUH from July ’06 to Oct ’06, iNO was used in 5 SCCU patients, 3 SICU patients, 2 NICU patients and 3 diagnostic patients. The total cost of using iNO in these 13 patients was approximately $88,500 vs. $16,220 with aerosolized epoprostenol. Theses figures were used to estimate an annual cost savings per year of approximately $216,800 with using aerosolized epoprostenol instead of iNO in adult patients.

A multidisciplinary protocol utilizing aerosolized epoprostenol for mechanically ventilated patients with a diagnosis of ARDS who have failed to respond to conventional management methods. The protocol is initiated by a physician, prepared by the pharmacist, delivered to the nurse for administration and titration by the respiratory therapist. The nurse will document vital signs at the specified intervals.

Results: pending

Aerosolized epoprostenol is an equally effective, inexpensive, and safer alternative to the use of iNO for the above off-label indications and for “salvage” treatment of a subset of ARDS patients who would otherwise die of life-threatening hypoxemia.