



NEWS from Trudell Medical International*

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Confidence in Aerosol Delivery

A study conducted at the Medical University of South Carolina¹ sought to determine the impact on albuterol delivery using the **AeroEclipse*** II Breath Actuated Nebulizer (BAN) versus a conventional continuous nebulizer, in the Pediatric Emergency Department. Endpoints included:

- Change in Clinical Asthma Score (pre and post 1st treatment)
- Length of Stay in the Emergency Department
- Hospitalization rate

Study population of n=175 patients, 1 – 18 years, presenting with either wheezing or shortness of breath. Patients were stratified by their Clinical Asthma Score, and then assigned treatment using either the **AeroEclipse*** II BAN or a continuous nebulizer.

Mild Group – Clinical Asthma Score of 0 – 2, n=49

Moderate Group – Clinical Asthma Score of 3 – 6, n=110

Severe Group – Clinical Asthma Score of 7 – 10, n=16

The results were most clinically significant in the Moderate - Severe group, where patients prescribed treatment with the **AeroEclipse*** II BAN had:

- Greater first response and ~50% lower (significant) Clinical Asthma Scores after 1st treatment
- Significantly shorter stays in the Emergency Department – 52 - 72 minutes less than those in the continuous nebulizer group
- ~50% fewer patients requiring hospitalization

The **AeroEclipse*** II BAN is a significant advancement in small volume nebulization – producing aerosol only in response to the patient's inhalation – providing true on demand therapy.

Designed to generate optimum size particles, the **AeroEclipse*** II BAN offers a high percentage of respirable particles with less wasted medication.² More drug, faster, and to the right place has the potential to impact important clinical outcomes such as Length of Stay and Admission Rates through the ER.

To view the poster presented at the Pediatric Academic Societies Annual Meeting, please follow the link to the left.

¹ Christine J.H. Bong, MD, MPH, Maya Eady, MD, C. Michael Bowman, MD, M. Olivia Titus, MD. Breath Actuated Nebulizer Improves Quality of Care in Pediatric Emergency Department Asthma and Leads to System Wide Implementation. PAS Conference, Baltimore, Maryland 2009.

² TMI Aerosol Lab, Data on File. 3.0ml albuterol solution 0.83 mg/ml, 8L/min, 50psi, tidal volume 600 ml, rate 10 bpm, 33% duty cycle as inhalation (Breath Actuated Mode).