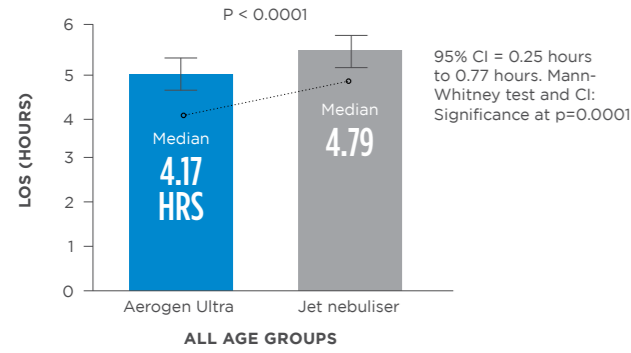


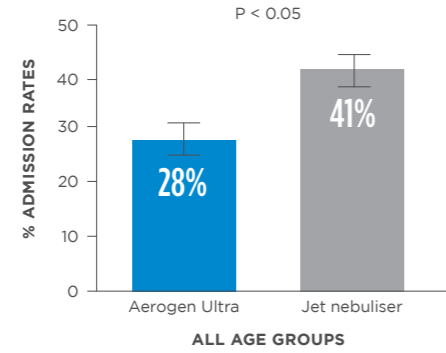
**37 min** median reduction in ED length of stay

37 minute median reduction in LOS per patient with Aerogen Ultra vs jet nebuliser.<sup>1</sup>



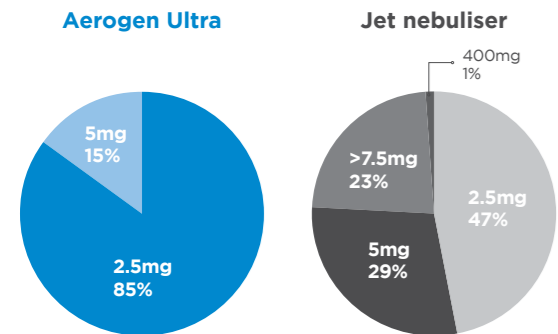
**32%** reduction in admission rates

When compared to the jet nebuliser group, admission rates are 32% lower with Aerogen Ultra.<sup>1</sup>



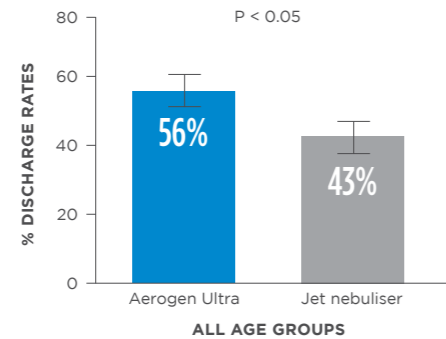
**85%** of patients achieved symptom control with one 2.5mg salbutamol dose

The Aerogen Ultra group used less total drug (p<0.001).<sup>1</sup>



**30%** higher discharge rates

When compared to the jet nebuliser group, discharges are 30% higher with Aerogen Ultra.<sup>1</sup>



# BETTER IS FASTER

Aerogen Ultra delivers significantly more medication in half the time.<sup>2</sup>

Aerogen Ultra delivers a 6-fold increase in medication to the patient's lungs compared with a jet nebuliser.<sup>3</sup>

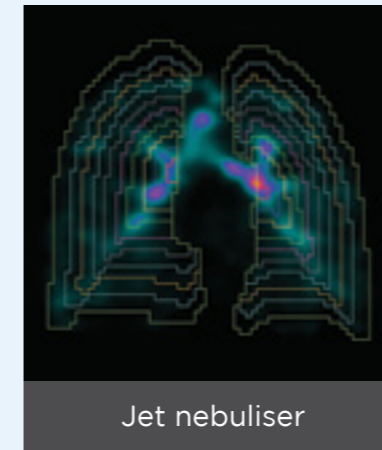
Images of healthy lungs after aerosolised drug treatment by Aerogen Ultra and jet nebuliser.

**Lung dose delivered**  
Aerogen Ultra 34.1%; jet nebuliser 5.2%

**Residual dose volume**  
Aerogen Ultra 2.4%; jet nebuliser 62.8%



Aerogen Ultra



Jet nebuliser

1. Dunne RB and Shortt S. Comparison of bronchodilator administration with vibrating mesh nebulizer and standard jet nebulizer in the emergency department. The American journal of emergency medicine. 2017 2. Hickin S, Mac Loughlin R, Sweeney L, Tatham A and Gidwani S. Comparison of mesh nebuliser versus jet nebuliser in simulated adults with chronic obstructive pulmonary disease. Poster at the College of Emergency Medicine Clinical Excellence Conference. 2014. 3. Dugernier et al. SPECT-CT Comparison of Lung Deposition using a System combining a Vibrating-mesh Nebulizer with a Valved Holding Chamber and a Conventional Jet Nebulizer: a Randomized Cross-over Study. Pharm Res. 2016 Nov 7 (epub)

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# BETTER IS FASTER



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Pioneering Aerosol Drug Delivery

# Clinical outcome data demonstrates how Aerogen Ultra is transforming the treatment of patients in the Emergency Department

## Study Design

A quality improvement evaluation using a prospectively defined data set from the EMR of 1594 patients at St. John Hospital and Medical Center, Detroit compared clinical outcomes associated with the use of a jet nebuliser versus Aerogen Ultra.<sup>1</sup>

## Study Objectives

To determine whether the improved aerosol delivery of bronchodilators would have a positive effect on respiratory patients receiving treatment in the ED in terms of:

- admission rates
- discharge rates
- total salbutamol dose

**Discover Better**

## / Aerogen® Ultra

# How does it work?

Our unique palladium vibrating mesh technology is a breakthrough in aerosol drug delivery and is at the heart of all our products.

The central aperture plate is perforated with 1,000 precision formed holes that vibrate at 128,000 times per second to produce the optimum particle size for deep airway penetration.

Aerogen Solo provides high performance aerosol drug delivery.



Powered by Aerogen Pro-X Controller or Aerogen USB Controller.



An ergonomic valved mouthpiece controls the flow of air through the chamber, maximising the aerosol delivery.

Compatible with all standard aerosol / valved face masks.



Innovative chamber design provides an aerosol reservoir for optimum drug delivery.

Oxygen port enables optional delivery of O<sub>2</sub>.

