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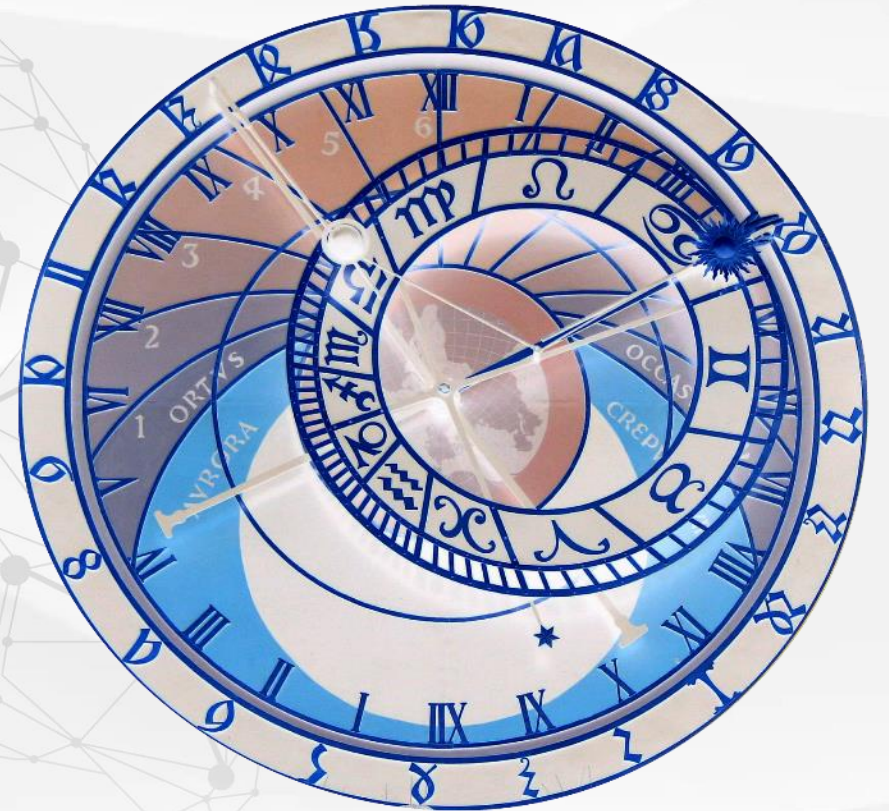
World Bronchiectasis & NTM Conference

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A laboratory assessment of nebulized medication delivery through different Oscillating Positive Expiratory Pressure (OPEP) devices – not all devices are the same

INTRODUCTION

Medications to manage care of bronchiectasis and NTM patients are often delivered via a nebulizer, as they are easy to use.

OPEP devices are also often used for airway clearance by the same group of patients and the two treatments can be combined allowing medication delivery on inhalation and OPEP therapy on exhalation.

This study compares a number of different OPEP / Nebulizer combinations using salbutamol as the modelled medication.



METHODS

Four different OPEP / Nebulizer systems were evaluated. These were:



AEROBIKA* OPEP with
AEROECLIPSE* II BAN* Nebulizer
at back of OPEP



acapella† Choice OPEP with
VixOne† nebulizer using t-piece
at front of OPEP



acapella† Choice Blue OPEP
with AEROECLIPSE* II BAN*
Nebulizer at back of OPEP

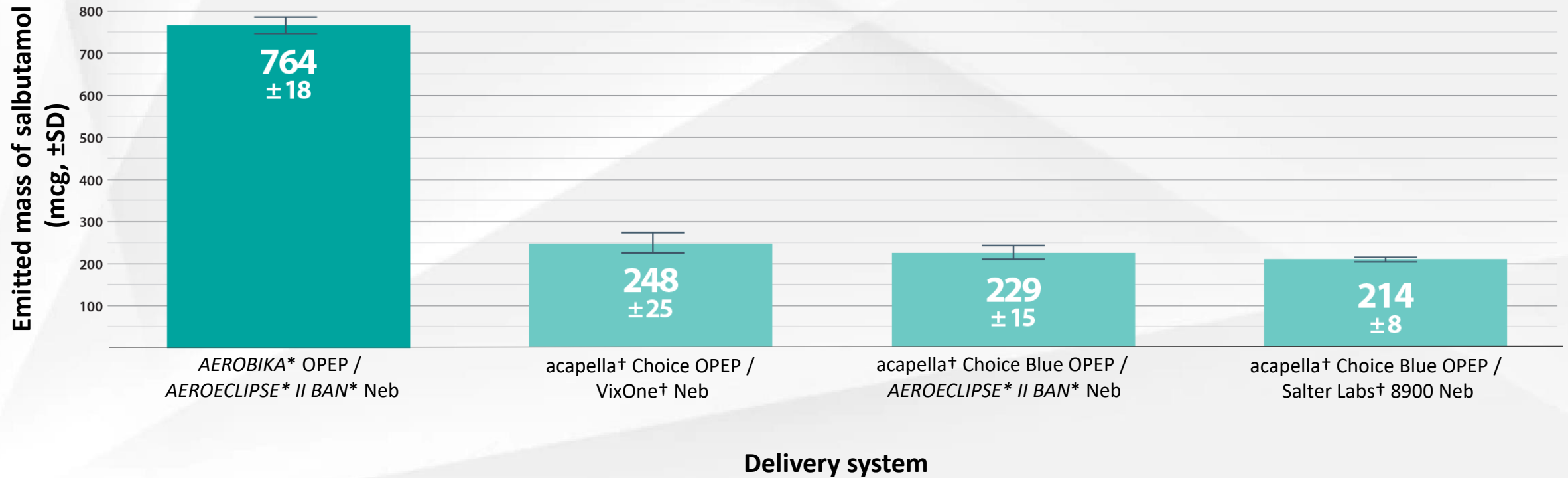


acapella† Choice Blue OPEP with
Salter Labst† 8900 nebulizer using
t-piece at front of nebulizer.

Medication delivery (total emitted mass until sputter) of salbutamol 2.5 mg in 3 ml was determined in the lab for each system using a breathing simulator and filter collection at mouthpiece (settings: 600 ml tidal volume, 1:3 I:E ratio, 2s pause after inhalation).

RESULTS

The graph below reports the medication delivered via each system



CONCLUSION

The results show that OPEP/Neb combination selection can have a large impact on the amount of drug delivered. The **AEROBIKA*** OPEP / **AEROECLIPSE*** breath actuated device combination delivered more than 3x as much salbutamol in a treatment compared to the other combinations.

Combining OPEP and nebulizer therapy has advantages in terms of patient efficiencies, convenience, and adherence, however care should be taken to ensure the drug delivery is not compromised.





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