

# Pulmonary Infections: Bronchiolitis (BRO) Overview



- Common lower respiratory tract infection and leading cause of infant hospitalization<sup>1</sup>
- Significant impact on the elderly with 177k hospitalizations per year in the US<sup>2</sup>
- No drugs approved for the treatment of BRO patients<sup>3</sup>
- Standard of care in the hospital is oxygen and hydration<sup>3</sup>

# Market Dynamics: Bronchiolitis (BRO)



150k infant hospitalizations per year in the US for bronchiolitis\*

180K elderly hospitalizations per year in the US due to RSV\*\* implying more than 220k for bronchiolitis

AIT price will be based on reduced length of hospital stay from trials

AIT estimates the total US market size is in excess of \$2 billion

Anticipate ex-US market to be comparable to the US market

We believe there is no competition

\*Pelletier et al. Direct medical costs of hospitalizations in the United States, Pediatrics 2006

\*\*Falsey et al. Respiratory Syncytial Virus infection in elderly and high risk adults, NEJM 2005

## Trial Design

- Randomized, Prospective, Double-blind
- 43 patients (age: 2-12 months) with bronchiolitis (mostly due to RSV)
- N=21: 160 ppm NO + O<sub>2</sub> 5x/day for 30 minutes up to 5 days
- N=22: Supportive Care (O<sub>2</sub> & hydration)
- 3 follow up visits at 2, 3 & 4 weeks post discharge

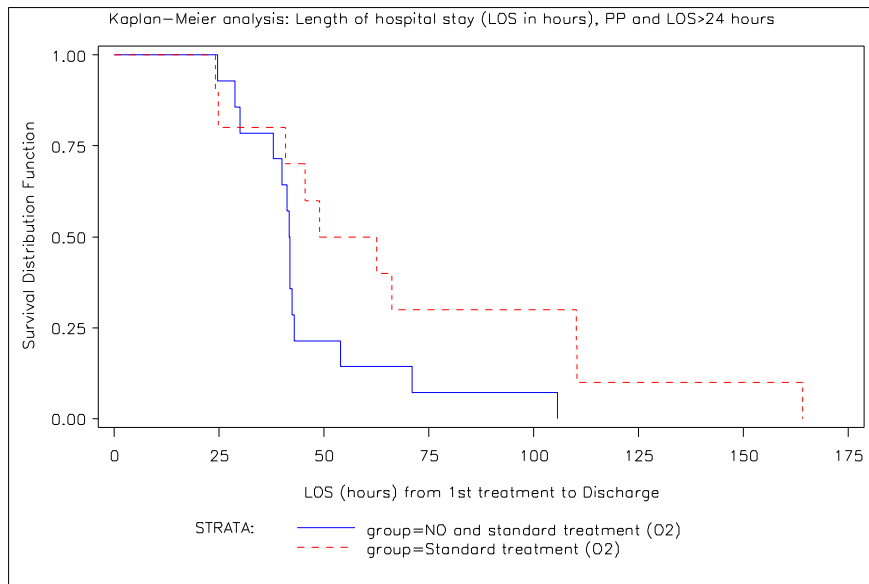
## Trial Highlights

- Single center at Soroka University Medical Center in Israel
- Presented at ATS 2015 in an oral session
- No treatment related SAEs
- Reduced length of hospital stay by >24hrs
- Statistical significance achieved in proposed phase III primary endpoint (Clinical Composite endpoint)

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## Decrease in Hospitalization time

(Per Protocol, N=24, minimum of one day of hospitalization)



**P-value 0.0587**

~34% reduction in time of hospitalization, a validated end point

On average patients stayed one day (24 hours) less in the hospital with Nitric Oxide treatment compare to standard treatment

## Randomized, Double Blind Trial

- Enroll 94 subjects at 3+ sites in Israel with a 1:1 randomization between 160 ppm NO + supportive care (O<sub>2</sub> + hydration) and supportive care alone
- Subjects will be 0-12 months old with acute bronchiolitis requiring hospitalization with at least 28 weeks of gestation
- PE (primary endpoint): the difference in hospital length of stay (discharge time based on physician decision)
- SE (secondary endpoint): the difference in time to clinical improvement based on the Modified Tal score (score  $\geq 8$  and  $\leq 10$  to enroll,  $\leq 5$  is goal)
- SE: the difference in time to S<sub>p</sub>O<sub>2</sub> of  $\geq 92\%$
- SE: Safety (specifically methaemoglobinemia and NO<sub>2</sub> levels) and Tolerability
- Treatment will be five 30 minute sessions per day not to exceed 25 treatments

## Key Changes v. Phase 2

- Age was 2-12 months
- Gestation was a minimum of 36 weeks
- Tal score to enroll was  $\geq 6$  and  $\leq 10$
- ITT analysis was not restricted to hospitalized subjects
- Length of Stay was based upon hospital discharge, not physician decision
- Analysis included 24 subjects