**Purpose**

- To assess the safety and efficacy of intravenous MN-221 in reducing hospitalization rates in patients with acute exacerbations of asthma in the ED setting.

**Methodology**

- MN-221, a novel β-adrenergic receptor agonist, was designed to assess the safety and efficacy of intravenous MN-221 as add-on to standard of care (SOC) in an acute exacerbation of asthma setting.

**Main Exclusion Criteria**

- Patients with FEV1 ≤ 55% of predicted after receiving SOC, subject was randomized to receive either MN-221 or placebo.

**Study Design & Schedule**

- Patients received Standard of Care (SOC) treatment in addition to 2 doses inhaled β2-agonist (albuterol 5 mg) via nebulizer at 10-minute intervals, every 20 minutes, or 1 dose of corticosteroid of at least 60 mg given orally, and 1 dose of inhaled anti-cholinergic agent (ipratropium bromide 0.4 mg) via nebulizer.

**Conclusions and Clinical Implications**

- Reduced hospital admission and improved pulmonary function following intravenous MN-221 (Bedoradrine), a novel highly selective β1-receptor agonist, adjunctive to standard of care in severe acute exacerbation of asthma.

**Safety & PK**

- Vital signs
- 12-lead ECG and Holter
- 12-hour pulse oximetry

**Regulatory Information & Marketing Authorization**

- This drug is not approved in the United States.
- Source for information: Bedoradrine.

**Study Data**

- **Mean FEV1 (% Predicted) at Hour 5** in patients hospitalized vs. non-hospitalized patients

**Treatment Period Heart Rate Change**

- **Change from Baseline**

**Summary of Adverse Events**

- **Cardiovascular**

- **Respiratory**

- **Other**

- **Efficacy**

- **Safety & PK**

- **Methodology**

- **Main Inclusion Criteria**

- **Conventional Pharmacotherapy for Acute Exacerbation of Asthma**

- **Major Inclusion Criteria**

- **Conclusion**

- **Figure**