

# **Histamine H2 Antagonists Reduces Non-Anaphylactic Hypersensitivity**

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While the benefits of histamine H2 antagonists have been shown in the treatment of anaphylaxis and suggested in non-anaphylactic hypersensitivity reactions in adults, they have not been studied in children. This study hypothesizes that the treatment of non-anaphylactic hypersensitivity reactions with both histamine H1 antagonists and histamine H2 antagonists results in improved clinical outcomes than with histamine H1 antagonists alone in a pediatric population. 100 children, ages 2 – 17, with non-anaphylactic hypersensitivity reactions will be randomized, double-blindly, into either a control group receiving diphenhydramine 1 mg/kg and a saline solution enterally (H1 group) or an experimental group receiving both diphenhydramine 1 mg/kg and ranitidine 3 mg/kg enterally (H1+H2 group.) Patients will be enrolled from an urban academic medical center pediatric emergency department with informed consent. Outcome will be measured by physician-examined extent of urticaria or angioedema at 4 hours and by parent report by telephone follow-up at 24 hours.

We expect to see an improved clinical outcome at 4 hours and 24 hours in the children randomized to the experimental group receiving both diphenhydramine 1 mg/kg and ranitidine 1 mg/kg enterally (the H1 + H2 group.)

We hope to extrapolate this data to show the benefits of treating all hypersensitivity reactions in children with both histamine H1 antagonists and histamine H2 antagonists.