

# Improving severe pediatric asthma outcomes with the implementation of a multidisciplinary program

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## Abstract

**Introduction:** The implementation of interdisciplinary care strategies for the follow-up of patients with asthma has proven to be very effective in improving the long-term evolution of these children. **Objectives:** Describe the clinical, functional and therapeutic characteristics of patients with a diagnosis of uncontrolled severe asthma (UCSA), identify the differences in the characteristics in the management between patients with difficult-to-treat severe asthma (SDCA) and treatment-resistant severe asthma (STRA). **Materials:** Analytical study of serial cases, patients were evaluated for 6 months, patients with UCSA diagnosis were admitted to the Pneumology Service of the Pediatric Hospital of Córdoba, with ages between 5 and 15 years old. **Results:** 23 patients entered the study. 47.82% were defined as SDCA and 52.17% STRA. During the first 6 months of the program; hospitalizations were only 4% (p: 0.001). Besides, the number of visits to the emergency room decreased to 39.13% (p: 0.003). Regarding the Inhalation technique, 73.9% (n: 17) presented improvement (p: 0.0001). Only 13% (n = 3) of the patients continued with ACT <20 (p: 0.0001). We found differences in the use of rescue medication (p: 0.003) and greater attendance at Emergency Rooms (p: 0.005), during the 6-month evaluation process, in favor of the group of treatment-resistant asthmatics. **Conclusion:** Implementing this type of interdisciplinary program allowed a marked improvement in all modifiable variables of asthma in patients with SDCA. All this not only leads to improving the management of patients with UCSA.

## *Title Page:*

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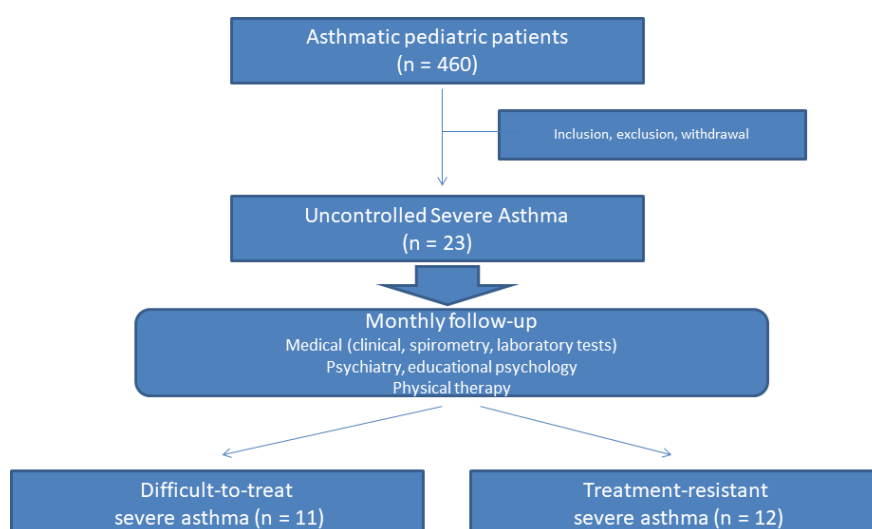
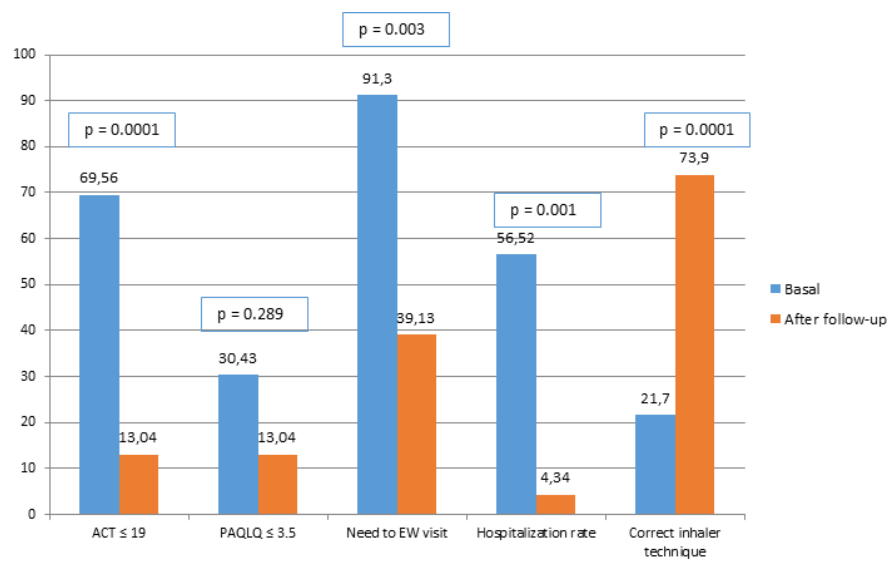
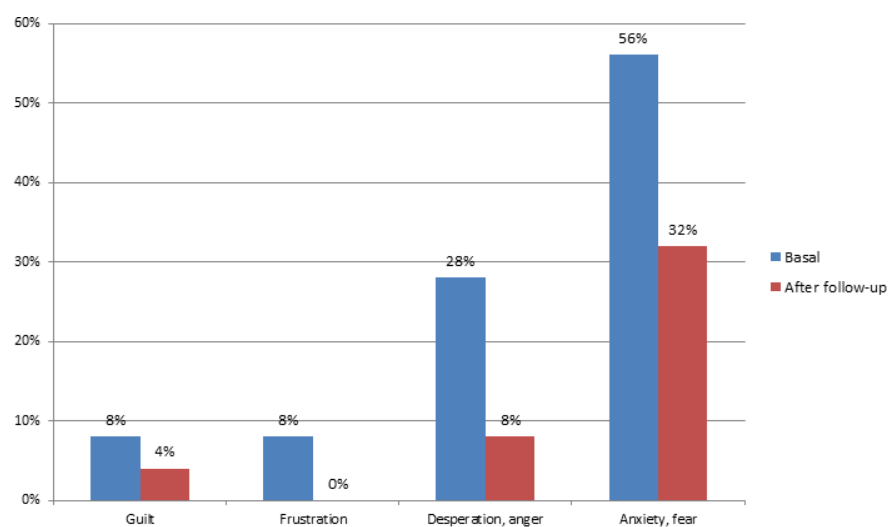


Figure 1. Patient disposition



**Figure 2. Impact of program implementation**

ACT: Asthma Control Test; EW: emergency ward; PAQLQ: Pediatric Asthma Quality of Life Questionnaire



**Figure 3. Caregivers' reactions during asthma exacerbations**

ACT: Asthma Control Test; EW: emergency ward; PAQLQ: Pediatric Asthma Quality of Life Questionnaire

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