

# OPTIMISATION OF OMALIZUMAB FOR SEVERE ALLERGIC ASTHMA IN PEDIATRIC POPULATION

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## BACKGROUND AND IMPORTANCE

Omalizumab is indicated in children aged 6 years and older as adjunctive therapy to improve the control of uncontrolled severe allergic asthma (SAA).



## AIM AND OBJECTIVES

To assess the effectiveness of omalizumab optimisation in pediatric patients with SAA

## MATERIAL AND METHODS

**Study design:** Retrospective descriptive study including all pediatric patients who received omalizumab for the treatment of SAA. The initial dose of omalizumab was determined according to IgE levels (IU/mL) and body weight (Kg).

Optimisation strategies: reduction of the dose received while maintaining the administration interval or maintaining the dose and increasing the administration interval, until discontinuation if possible.

The following variables were recorded: sex, age, initial dose, optimisations, treatment time to optimisation and treatment discontinuation.

**Effectiveness** was measured as the maintenance of stable disease after optimisation. **Safety** was assessed by adverse reactions (AR).

## RESULTS

- 38 patients
- 25 ♂
- Median age: 10 (6-13) years
- Initial treatment regimen:
  - 22 patients started treatment every 4 weeks
  - 16 patients every 2 weeks
- Mean duration of treatment: 59 (3-96) months

- 36 patients achieved treatment optimisation
- Median time from omalizumab initiation to optimisation: 36 (12-84) months
- N° of optimisations performed: 1 (n=14), 2 (n=5), ≥3 (n=8).
- 26 patients achieved treatment discontinuation due to disease stability, 9 of them without prior optimisation.

Since treatment optimisation, 10 patients experienced loss of asthma stability due to exacerbation of the disease, 3 of them resumed the previously used regimen.

All of them subsequently achieved asthma stabilisation.

6 patients had some AR: four had headache, one had weight gain and one had flu-like syndrome.

## CONCLUSION AND RELEVANCE

Omalizumab optimisation guidelines in patients with allergic asthma with stable disease have been effective in most patients, achieving drug withdrawal in more than half of the patients. This omalizumab optimisation strategy could reduce the risk of AR of omalizumab in children and helps to decrease the costs associated with the drug.

