Biologics in Severe Asthma

Each antibody blocks a different target: the choice depends on the asthma phenotype

IgE

Omalizumab (anti-IgE)

severe persistent allergic asthma

IL-5

Mepolizumab, reslizumab (anti-IL-5)

severe eosinophilic asthma

5R

Benralizumab (anti-IL-5R)

severe eosinophilic asthma

IL-4

Dupilumab (anti-IL-4/IL-13)

type 2 asthma · also nasal polyps and atopic dermatitis

Allergic, high IgE
Omalizumab

High eosinophils
IL-5 pathway

Asthma, polyps, eczema
Dupilumab covers all three

All are second line: first optimize inhaled treatment, inhaler technique and adherence · rule out parasites before blaming eosinophilia on asthma