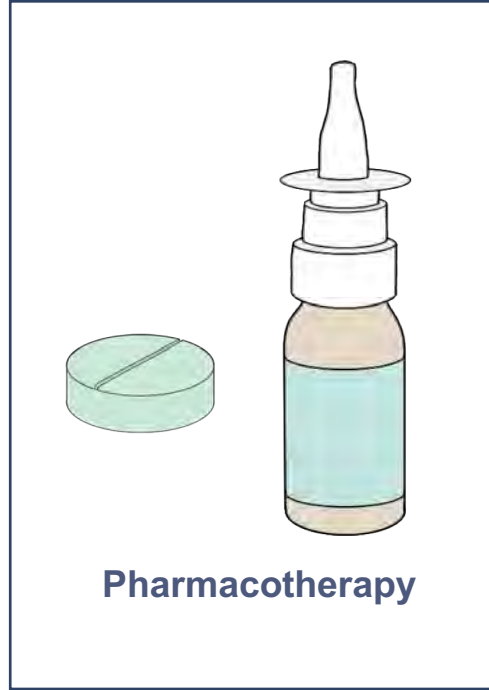
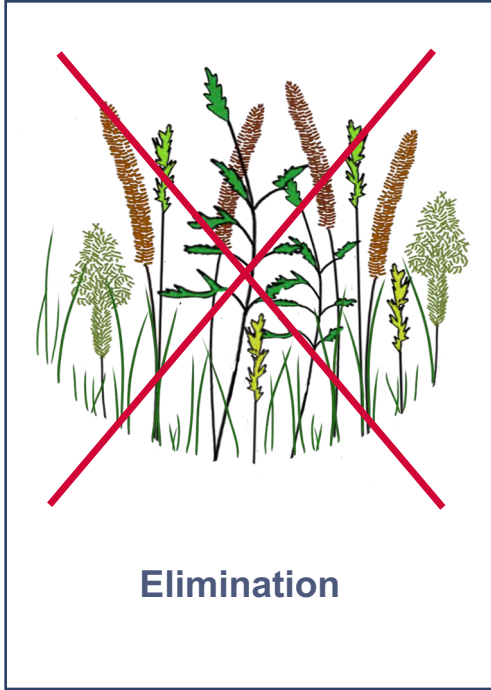


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of Basel**

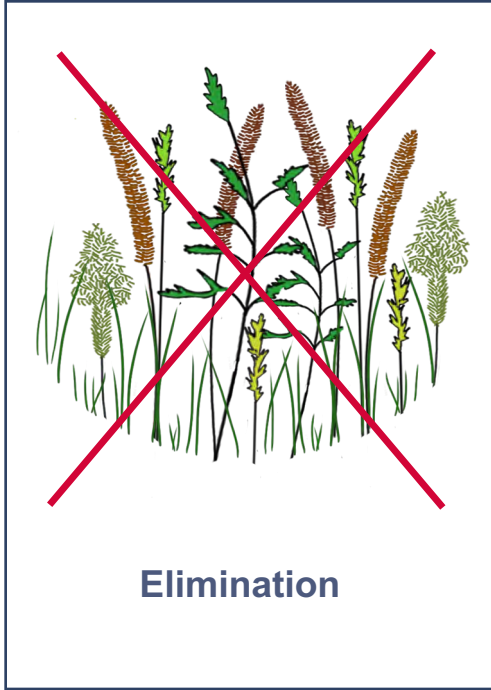
# **Therapeutic approaches**

Prof. Andreas J. Bircher

# Therapeutic approaches

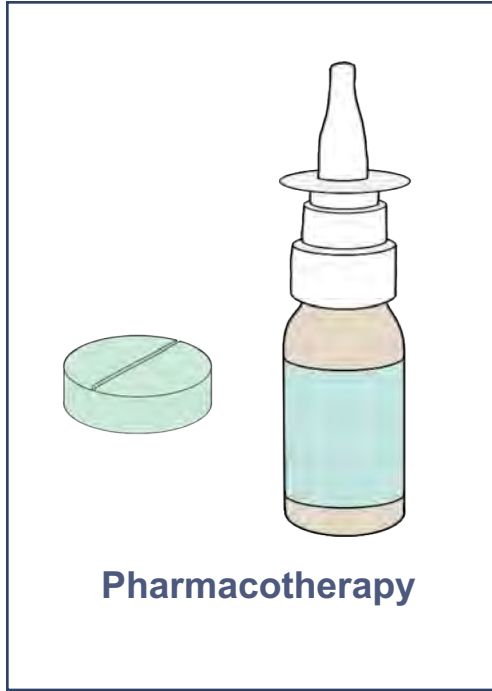


# Elimination



- Avoid contact with allergen
- Sometimes difficult (ie volatile allergens)

# Pharmacotherapy

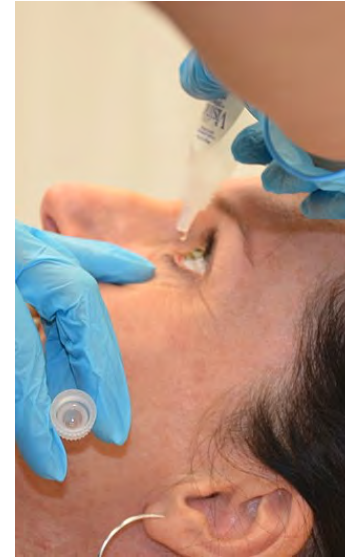


- Block or inhibit mechanism causing the allergic symptoms
- Include antihistamines, betamimetics, leukotriene receptor antagonists, adrenaline and biologics (ie antibodies)

# Pharmacotherapy

## Antihistamines

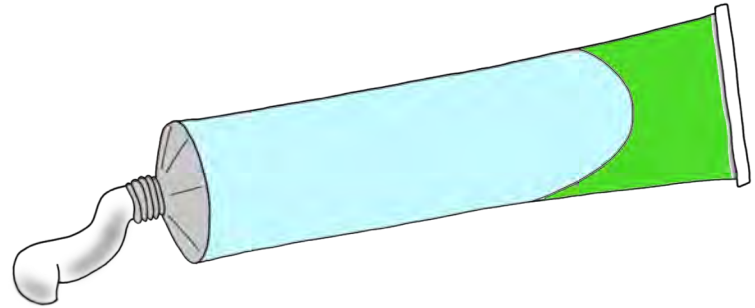
- Available as tablets, as nasal spray, as drops for oral use or eye drops and as intravenous injection
- Reduces effects induced by histamine (ie itch, redness, tears, mucosal secretions and swelling)



# Pharmacotherapy

## Corticosteroids

- Available as spray for asthma and the nose, creams or ointments for the skin, tablets or as injectable solutions
- Used to treat respiratory or skin allergies



# Pharmacotherapy

## Betamimetics

- Available as inhalator
- Treatment of acute asthma

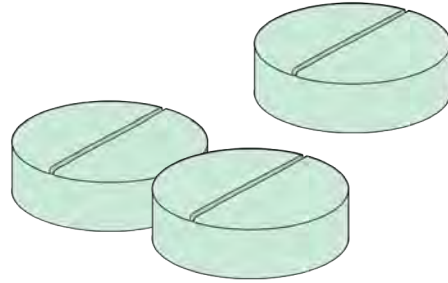




# Pharmacotherapy

## Leukotriene receptor antagonists

- Available as pills
- Treatment of asthma (mainly in children)



# Pharmacotherapy

## Adrenaline

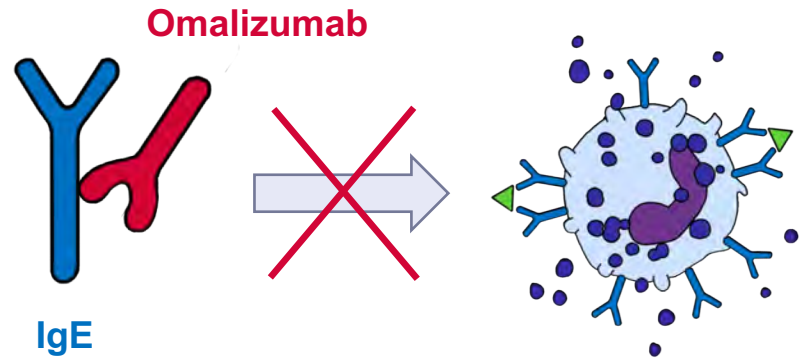
- Available as solution for injection (autoinjector)
- Treatment of severe allergic reactions (anaphylaxis)



# Pharmacotherapy

## Biologics

- Monoclonal antibodies that bind to a target in the immune system
- Example Omalizumab: binds to free circulating IgE and thereby reduces IgE-mediated mast cell and basophil activation



# Immunotherapy

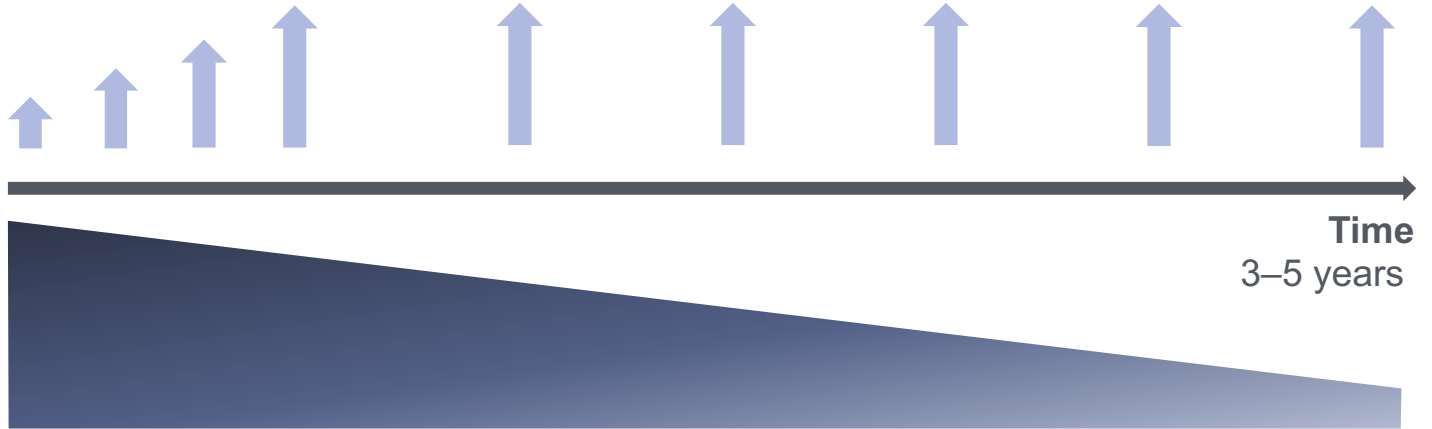


## Allergen-specific immunotherapy (ASIT)

- Also known as allergen immunotherapy, desensitization or hypo-sensitization
- Treatment of respiratory (eg pollen, mites or animal dander) and venom allergies
- Exposure to increasing amount of allergens reduce the allergic response
- Available for injection or sublingual use

# Immunotherapy

Allergen  
administration



Symptom  
severity