

Allergic Rhinitis

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سوالات رایج

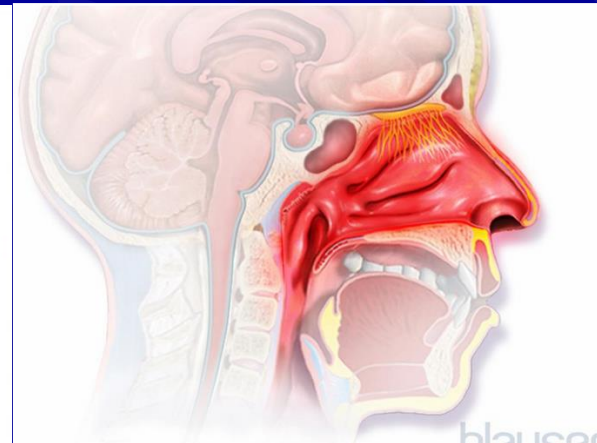
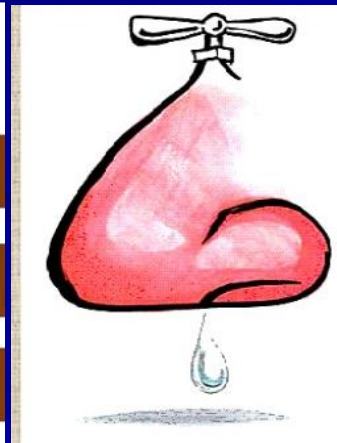
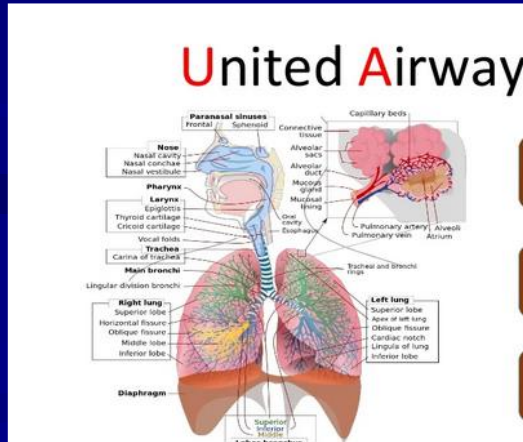
- پسر 8 ساله ای دارم که همیشه سرماخورده است. خسته شدم انقدر آنتی بیوتیک مصرف کرد.
- دختر 5 ساله، مدام بینی و چشمش را می مالد و هر دفعه دکتر بهش ستریزین یا لوراتادین میدهد.
- پسر 6 ساله اش کپ می‌شده و بعضی وقتا خروپوف می‌کنه.
- خانم دکتر تا کی باید اسپری کورتون بزنه؟
- آقای دکتر بیمار من اصلا خوب میشه؟ تا آخر عمر باید اسپری بزنه؟ علاج قطعی داره؟
- دخترم عطسه و آبریزش داره، هرچقدر پرهیز غذایی انجام میدم باز خوب نمیشه!!

آنچه قرار است مرور شود:

- تعریف رینیت آلرژیک؟
- چرا رینیت آلرژیک مهم است؟
- رینیت آلرژیک چه علایمی دارد؟
- تشخیص های افتراقی؟
- راههای تایید تشخیص؟
- درمان؟ عوارض درمان؟ رژیم غذایی؟؟!!
- چه زمانی به آلرژیست ارجاع دهیم؟

Rhin itis

- — Rhinitis refers to inflammation of the nasal passages. This inflammation can cause a variety of annoying symptoms, including sneezing, itching, nasal congestion, runny nose, and postnasal drip





Allergic rhinitis

Definition

Inflammatory condition of nasal mucosa induced by an allergen-IgE interaction in sensitized individuals.

AR is a Global Health Problem

affecting 10-25% of worldwide population with increasing prevalence

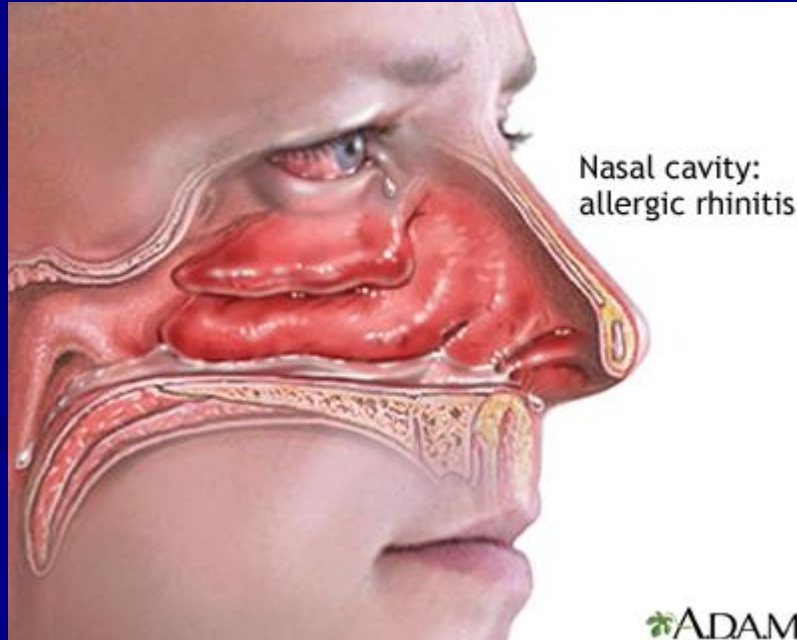
Guidelines

Allergic Rhinitis and its Impact on Asthma (ARIA) guidelines—2016 revision



Jan L. Brożek, MD, PhD,^{a,b} Jean Bousquet, MD, PhD,^c Ioana Agache, MD, PhD,^d Arnav Agarwal, BHSc,^{a,e}

چرا رینیت آلرژیک مهم است؟



مهم است چون شایع هست

- **Allergic rhinitis (AR)** is a common chronic disease affecting 20–30% of children.
- NELSON TEXTBOOK OF PEDIATRICS, TWENTY-FIRST EDITION

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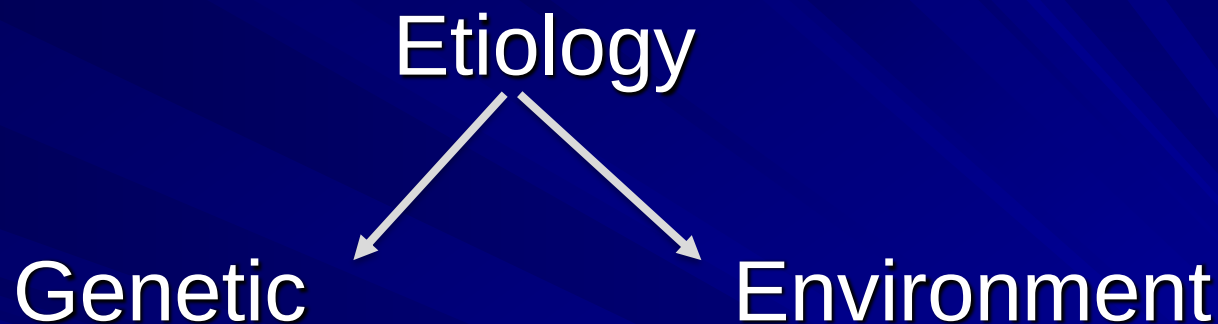
Allergic Rhinitis

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Is the most common
respiratory disease
and is increasing!

AR is an atopic disease

■ چه فاکتورهایی باعث میشود تا شخصی
مبتلا به رینیت آلرژیک شود؟



غیر از استعداد ژنتیکی ، مواجهات محیطی و مواجهات
بویژه در سال اول تولد نقش مهمی دارند.
سزارین، شروع غذای کمکی، آنتی بیوتیک، سیگار

AR classification

- AR classification as **seasonal or perennial** is giving way to the designations **intermittent and persistent**.
- AR may also be categorized as **mild-intermittent, moderate-severe intermittent, mild-persistent, and moderate-severe persistent**

Classification based on severity

- troublesome symptoms
- sleep
- daily activities, and hobby
- work or school.

■ If all of them were normal: mild AR

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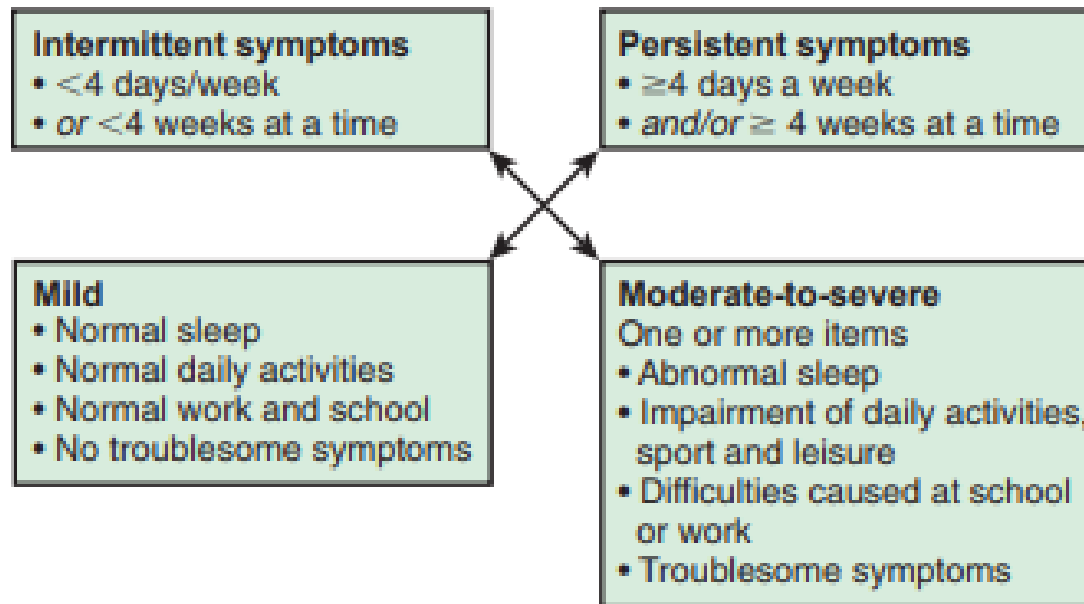


Fig. 168.1 ARIA classification of allergic rhinitis. Every box can be subclassified further into seasonal or perennial on the basis of timing of symptoms or when causative and allergen therapeutic factors are considered. For example, a UK patient with grass pollen allergy might have moderate-severe persistent seasonal rhinitis in June and July and may be suitable for specific allergen immunotherapy. ARIA, Global Allergic Rhinitis and its Impact on Asthma. (From Scadding GK, Durham SR, Mirakian R, et al: *BASCI guidelines for the management of allergic and non-allergic rhinitis*, Clin Exp Allergy 38:19–42, 2008.)

Rhinitis phenotypes AND Differential diagnosis

■ آیا هر کسی که آبریزش بینی، عطسه یا انسداد
بینی دارد، رینیت آلرژیک هست؟

Rhinitis phenotypes

most common forms

- Allergic
- Infectious: Viral (acute), bacterial, fungal
- Non-Allergic, Non-Infectious, Rhinitis
- Non-Allergic Rhinitis with Eosinophilia Syndrome
(NARES)
- Chronic Rhinosinusitis with or without Polyps:

Hypertrophic, inflammatory disorder that can affect allergic or non-allergic individuals

Rhinitis phenotypes

less common forms

- **Occupational:** May be allergic or non-allergic
- **Drug-induced:** Aspirin, some vasodilators
- **Hormonal:** Pregnancy, menstruation, hormonal contraceptives, thyroid disorders
- **Food-induced** (gustatory)
- **Cold air-induced** (skier's nose)
- **Atrophic** (rhinitis of the elderly)

Conditions that mimic rhinitis

- Cystic fibrosis
- Mucociliary defects
- Cerebrospinal rhinorrhoea
- Anatomic abnormalities
- Foreign bodies
- Tumors
- Granulomas: Sarcoid, Wegener's, Midline Granuloma

■ Symptoms of AR may be ignored or mistakenly attributed to a respiratory infection.

■ NELSON TEXTBOOK OF PEDIATRICS,
TWENTY-FIRST EDITION

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Clinical Manifestations

	Others
■ Repetitive sneezing	■ Eye symptoms
■ Watery rhinorrhea	■ Ear symptoms
■ Nasal pruritus	■ Postnasal drainage
■ Nasal congestion	

CLINICAL MANIFESTATIONS

- ✿ Mistakenly attributed to a respiratory infection.
- ✿ **Itching** (grimacing, twitching, and nasal picking, epistaxis)
- ✿ **Allergic salute**
- ✿ Nasal crease,
- ✿ Other symptoms



- headache
- wheezing & cough
- lose of smell and taste
- epistaxis
- snoring
- sleep disturbance
- irritability
- cognitive impairment
- learning disability



PHYSICAL EXAMINATION

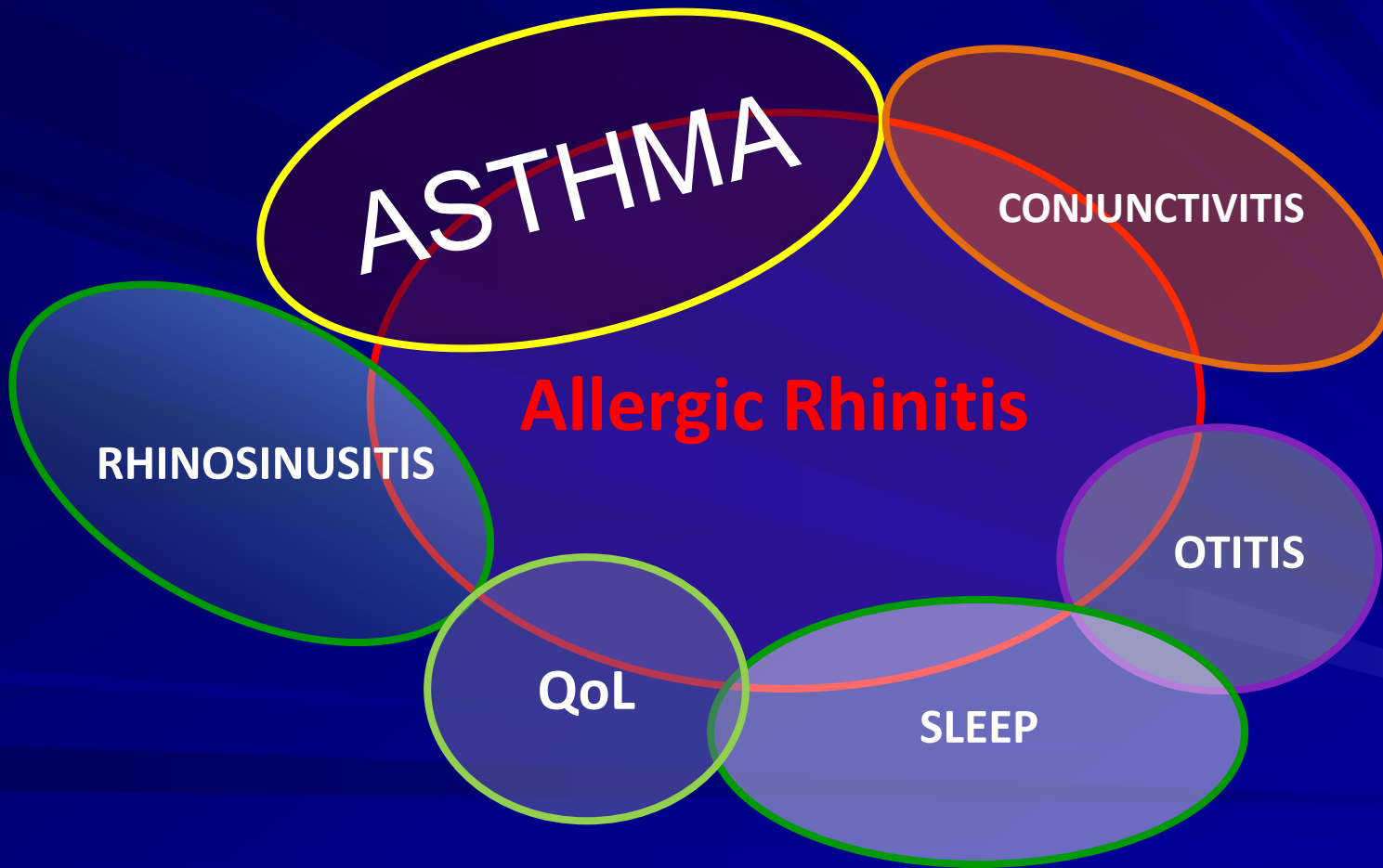
- Allergic shiner
- Dennie Morgan line
- Allergic crease
- Allergic salute
- Nasal mucosa may appear normal or pale bluish, swollen with watery secretions but only if patient is symptomatic
- Exclude structural problems (polyps, deflected nasal septum)

Others:

nasal voice, constant mouth breathing, frequent snoring, coughing, repetitive sneezing, chronic open gape of the mouth, weakness, malaise, irritability



Rhinitis and its co-morbidities



چه زمانی به تشخیصی غیر از رینیت آلرژیک شک کنیم؟

- شروع علائم زیر 6-7 ماهگی
- همیشه علائم یکطرفه است
- از دست رفتن حس بویایی از همان مراحل اولیه
- وجود تب و علائم سیستمیک مثل لرز، تعریق و بدن درد
- عدم پاسخ به درمان اولیه مناسب
- وجود علائم همراه مثل: اختلال رشد، کلاپینگ، دفرمیتی صورت

Management of AR

- Allergen Avoidance
- Pharmacotherapy
- Immunotherapy

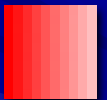


Allergen Avoidance

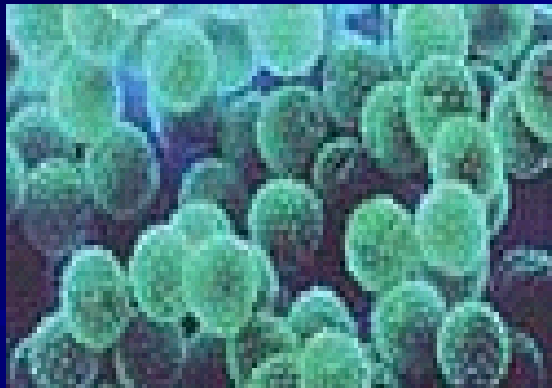
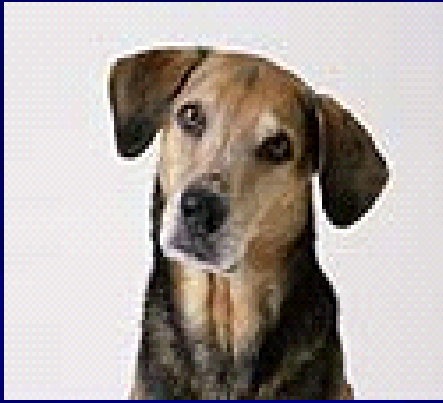
■ سوالات مهم؟

■ آیا بیمار مبتلا به رینیت آلرژیک احتیاج به
پرهیز غذایی دارد؟

خیر



Globally important sources of allergens



■ 1. Allergens

- House dust mites
- Grass, tree and weed pollen
- Pets
- Cockroaches
- Molds
- Pollutants and Irritants

Aeroallergen vs food allergens



PHARMACOTHERAPY OF ALLERGIC RHINITIS

TREATMENT

Guideline-directed management has been shown to improve disease control. **Global Allergic Rhinitis and its Impact on Asthma (ARIA)** provides an evidence-based approach to treatment and includes quality-of-life measures useful for the evaluation of symptoms and the assessment

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■ آنتی هیستامین موثر هست؟

■ چه آنتی هیستامینی بدهیم؟

Agents and actions

	Oral antihistam ines	Nasal antihistam ines	Cys-LT1 receptor antagonists	Nasal steroids	Nasal decongest ants	Oral decongest ants	Nasal ipratropium	Nasal cromones
Rhinorrhea	++	++	++	+++	0	0	+++	+
Congestion	+	+	+	+++	++++	++	0	+
Sneezing	++	++	++	+++	0	0	0	+
Pruritus	++	++	+	+++	0	0	0	+
Ocular symptoms	++	0	++	++	0	0	0	0
Onset of action	1 hr	15 min	48 hr	12 hr	5-15 min	1 hr	15-30 min	-
Duration	12-24 hr	6-12 hr	24 hr	12-48 hr	3-6 hr	12-24 hr	4-12 hr	2-6 hr

Modified from van Caunvenberge P Allergy 2000;55:116-134

■ آنتی هیستامین

■ روی انسداد بینی (کیپ شدن بینی) تاثیر ندارد

Agents and actions

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Nasal Corticosteroids

Beclomethasone dipropionate

Budesonide

Ciclesonide*

Flunisolide

Fluticasone propionate

Mometasone furoate

Triamcinolone acetonide

* Currently only approved for asthma

Nasal corticosteroids

- **Most potent** anti-inflammatory agents
- Effective in treatment of **all nasal symptoms** including obstruction
- **Superior to** anti-histamines and anti-leukotienes
- **First line** pharmacotherapy **for persistent allergic rhinitis**

Nasal corticosteroids

- Overall safe to use
- Adverse Effects
 - Nasal irritation
 - Epistaxis
 - Septal perforation (extremely rare)
 - HPA axis suppression (inconsistent and not clinically significant)
 - Suppressed growth (only in one study with beclomethasone)

1- استروئید بینی باعث آتروفی مخاط
نمیشود.

2- استروئید بینی باعث اختلال رشد نمی شود

3- حتما باید بیمار از نظر عوارض احتمالی
مونیتور شوند

اما بیهوده بیماران را از مصرف اسپری
استروئید نترسانیم

Agents and actions

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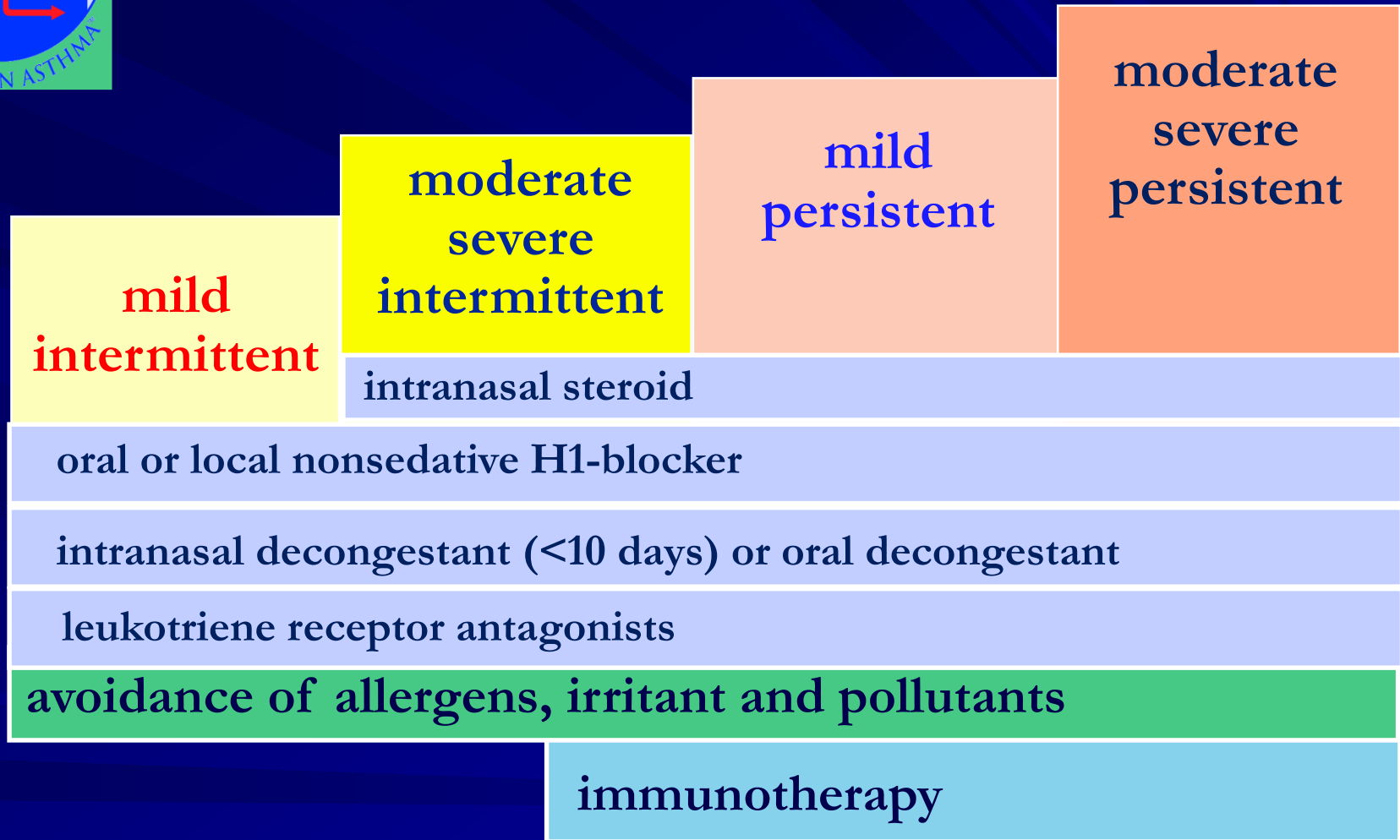
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Allergen immunotherapy (vaccines)

- Subcutaneous
- Sublingual
- Nasal



Management of Allergic Rhinitis: ARIA Guidelines



AR & Asthma

- AR is also frequently associated with asthma, which is found in
- 15% to 38% of patients with AR,
- and nasal symptoms are present in 6% to 85% patients with asthma
- In addition, AR is a risk factor for asthma,
- and uncontrolled moderate-to-severe AR affects asthma control

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In patients with rhinitis:

- Routinely query for **symptoms** suggestive of asthma
- Perform chest **examination**
- Consider **lung function testing**
- Consider tests for **bronchial hyperresponsiveness** in
selected cases

■ **When refer to an allergist**



AMERICAN ACADEMY OF ALLERGY
ASTHMA & IMMUNOLOGY

How the Allergist/Immunologist Can Help: Consultation and Referral Guidelines Citing the Evidence

Who to refer to an allergist/immunologist:

- Patients with **prolonged** or **severe** manifestations of rhinitis with **co-morbid conditions** (e.g. asthma, recurrent sinusitis, nasal polyps); with symptoms interfering with quality of life and/or ability to function; or **who have found medications** to be ineffective or **have had adverse reactions** to medications.



Thank you

