Are ARIA and US guidelines agreeing?

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Conflicts of interest (real or perceived)

I and/or my institution have received funding for services as advisor, speaker and/or researcher for the following companies (in the last 36 months):

ALK Abello, Allergopharma, Stallergenes, HAL Allergy, Allergy Therapeutics, Bencard, Lofarma, Novartis, LETI, Biomay, MEDA, Nuvo, Circassia, ANERGIS, Biotech Tools s.a., Sanofi, Mobile Chamber Experts (a GA2LEN Partner), Pohl-Boskamp, Indoor Biotech.

EAACI > ExCom, Past Chair and Board member ITIG
DGAKI > ext. Board of Directors
Are ARIA and US guidelines agreeing?

1- Guidelines in allergic rhinitis
2- Weaknesses of EBM-guidelines
3- The ARIA strategy: from a guideline to change management
4- MASK: the IT strategy
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Diagnosis and Management of Rhinitis: Complete Guidelines of the Joint Task Force on Practice Parameters in Allergy, Asthma and Immunology

Mark S Dykewicz, MD; Stanley Fineman, MD, MBA; Editors
David P Skoner, MD, Chair, Workgroup on Rhinitis
Richard Nicklas, MD; Rufus Lee, MD; Joann Blessing-Moore, MD; James T Li, MD, PhD; Leonard Bernstein, MD; William Berger, MD, MBA; Sheldon Spector, MD; and Diane Schuller, MD, Associate Editors

The diagnosis and management of rhinitis: An updated practice parameter

Chief Editors: Dana V. Wallace, MD, and Mark S. Dykewicz, MD
Co-Editors: David I. Bernstein, MD, Joann Blessing-Moore, MD, Linda Cox, MD, David A. Khan, MD, David M. Lang, MD, Richard A. Nicklas, MD, John Oppenheimer, MD, Jay M. Portnoy, MD, Christopher C. Randolph, MD, Diane Schuller, MD, Sheldon L. Spector, MD, and Stephen A. Tilles, MD

American Academy of Allergy Asthma & Immunology

Practice Guideline

Treatment of seasonal allergic rhinitis
An evidence-based focused 2017 guideline update

Mark S. Dykewicz, MD; Dana V. Wallace, MD; Fuad Baroody, MD; Jonathan Bernstein, MD; Tim Craig, DO; Ira Finegold, MD; Faith Huang, MD; Desiree Larenas-Linnemann, MD; Eli Meltzer, MD; Gary Steven, MD, PhD; David I. Bernstein, MD; Joann Blessing-Moore, MD; Chitra Dinakar, MD; Matthew Greenhawt, MD, MBA; Caroline C. Horner, MD; David A. Khan, MD; David Lang, MD; John Oppenheimer, MD; Jay M. Portnoy, MD; Christopher R. Randolph, MD; Matthew A. Rank, MD; Workgroup Chair and Cochair: Mark S. Dykewicz, MD; Dana V. Wallace, MD
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Classification of Rhinitis

**Categories:**
- Seasonal rhinitis
- Perennial rhinitis

**Frequency**
- Intermittent symptoms:
  - <4 days a week
  - or <4 weeks
- Persistent symptoms:
  - ≥4 days a week
  - and ≥4 weeks

**Severity:**
Mild: when symptoms are present but are not interfering with quality of life

ARIA 2017: we retained the terms *seasonal* and *perennial* allergic rhinitis to enable the interpretation of published evidence.
Diagnosis of Rhinitis

History
General ENT examination
Skin test
  - Prick, intracutaneous, atopy patch, prick-prick, scratch test
  - Negative control: Saline resp. diluent used to preserve the allergen
  - Positive control: histamine dihydrochloride
In-vitro
  - sIgE
Nasal challenge
  Environmental exposure units

Skin testing
  - Positive control histamine
  - Negative control saline or 50% glycerinated HSA saline

IC testing
  In vitro assays for sIgE
Conjunctival provocation
Nasal provocation
Bronchial challenge
Specific IgE
  Eosinophils, cytokines, etc.
Symptomatic Treatment: Questions

1. Should a combination of oral H₁-antihistamine and intranasal corticosteroid versus intranasal corticosteroid alone be used for treatment of AR?
2. Should a combination of intranasal H₁-antihistamine and intranasal corticosteroid versus intranasal corticosteroid alone be used for treatment of AR?
3. Should a combination of an intranasal H₁-antihistamine and an intranasal corticosteroid versus intranasal H₁-antihistamine alone be used for treatment of AR?
4. Should a leukotriene receptor antagonist versus an oral H₁-antihistamine be used for treatment of AR?
5. Should an intranasal H₁-antihistamine versus an intranasal corticosteroid be used for treatment of AR?
6. Should an intranasal H₁-antihistamine versus an oral H₁-antihistamine be used for treatment of AR?

Question 2: Should a combination of an intranasal H₁-antihistamine

Recommendation 2A: In patients with SAR, we suggest either a combination of an INCS with an INAH or an INCS alone (conditional recommendation | moderate certainty of evidence).

Recommendation 2B: In patients with PAR, we suggest either a combination of an INCS with an INAH or an INCS alone (conditional recommendation | very low certainty of evidence).
### Symptomatic Treatment: Recommendations!

<table>
<thead>
<tr>
<th>Seasonal allergic rhinitis</th>
<th>Perennial allergic rhinitis</th>
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<tbody>
<tr>
<td>INCS + OAH or INCS</td>
<td>INCS rather than INCS + OAH</td>
</tr>
<tr>
<td>INCS + INAH or INCS</td>
<td>INCS + INAH or INCS</td>
</tr>
<tr>
<td>INCS + INAH rather than INAH</td>
<td>OAH rather than LTRA</td>
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<tr>
<td>LTRA or OAH</td>
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### Seasonal allergic rhinitis

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<tr>
<td>INCS</td>
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<tr>
<td>LTRA</td>
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Not yet published

### ARIA in summary:

INCS ± OAH
INCS ± INAH
OAH
LTRA
(INAH)
AAAAl = Unmet needs

More evidence for combination therapy!
Allergic Rhinitis and its Impact on Asthma (ARIA) guidelines—2016 revision

Diagnosis of allergic rhinitis

Intermittent symptoms

Mild

Not in preferred order oral H₁ blocker or intranasal H₂-blocker and/or decongestant or LTIRAR

Moderate-severe

Not in preferred order oral H₁ blocker or intranasal H₂-blocker and/or decongestant or intranasal CS or LTIRAR
(or chronic)

In persistent rhinitis review the patient after 2-4 wks

If failure: step-up
If improved: continue for 1 month

Persistent symptoms

Mild

Moderate-severe

In preferred order intranasal CS
H₁ blocker or LTIRAR

Review the patient after 2-4 wks

Improved

Step-down and continue treatment for > 1 month

Failure

Review diagnosis

Query infections or other causes

Add or increase intranasal CS dose

Rhinorhea add ipratropium

Blockage add decongestant or oral CS (short term)

Failure referral to specialist

Check for asthma especially in patients with severe and/or persistent rhinitis

Allergen and irritant avoidance may be appropriate

If conjunctivitis
Add oral H₁-blocker or intraocular H₁-blocker or intraocular cromone (or saline)

Consider specific immunotherapy
Assessment of same questions

Same conclusions

GRADE methodology
Are ARIA and US guidelines agreeing?

YES
Are ARIA and US guidelines agreeing?

1- Guidelines in allergic rhinitis
2- Weaknesses of EBM-guidelines
3- The ARIA strategy: from a guideline to change management
4- MASK: the IT strategy
Efficacy of guideline-guided treatment

Bousquet et al, Allergy 2003

- Cluster-randomized CT
- 3 EU countries
- 224 patients consensus treated, 241 free of choice
- International consensus on rhinitis
- Pollen season
- primary end point: RQLQ
Efficacy of guideline-guided treatment

Bousquet et al, Allergy 2003

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- primary end point: RQLQ

Bar chart showing:
- Consensus vs Free treatment
- Mean total RQLQ score per day:
  - Day 0
  - Day 7
  - Day 21
Representativity of AR patients enrolled in RCTs
Costa D et al, J Allergy Clin Immunol 2011

- 311 patients seen by 48 GPs during grass pollen season in South France
- Evaluation of characteristics of patients fulfill with ICs/ECs from 4 RCTs in AR
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7.4% (!)
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ARIA Phase 1: Development

WHO CC rhinitis and asthma
GA²LEN
EFA

ARIA pharmacy

Implementation strategy and scaling up
Application to developing countries

Guideline development: Shekelle methodology

WHO workshop
52 languages

ARIA Phase 3: MASK = ICPs

WHO CC rhinitis and asthma

GARD DP

GA²LEN

MeDALL

MACVIA

EFA

European Innovation Partnership on Active and Healthy Ageing
REFERENCE SITE

Integrated care pathways for airway diseases (AIRWAYS-ICPs)
EUFORŒA

52 languages

72 countries


ARIA 2016: Care pathways implementing emerging technologies for predictive medicine in rhinitis and asthma across the life cycle

MACVIA-ARIA Sentinel Netwok for allergic rhinitis (MASK-rhinitis): the new generation guideline implementation

Allergic Rhinitis and Its Impact on Asthma (ARIA) Guidelines – 2016 Revision
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One finger approach > cell phone changes the management of AR with improved shared decision making.
FIG 1. Step-up algorithm in untreated patients using the VAS (adolescents and adults). The proposed algorithm considers the treatment steps and patient preference and VAS levels in ratio. If ocular symptoms remain, add intraocular treatment.

Bousquet et al. JACI 2016
Assessment of control in untreated symptomatic patient

- **VAS < 5/10**
  - Initiate treatment ANY 1st line
  - Re-assess VAS daily up to 48-72 hr
  - If symptomatic: continue treatment
  - If no symptoms: consider step down treatment or STOP

- **VAS ≥ 5/10**
  - Initiate treatment Intermittent rhinitis: ANY Persistent rhinitis: INCS or INCS+AZE
  - Re-assess VAS daily up to 48-72 hr
  - If symptomatic: continue treatment
  - If no symptoms: consider step down treatment

*: consider INCS+AZE if previous treatment ineffective (historical)

FIG 1. Step-up algorithm in untreated patients using the VAS (adolescents and adults). The proposed algorithm considers the treatment steps and patient preference and VAS levels in ratio. If ocular symptoms remain, add intraocular treatment.

Assessment of control in treated symptomatic patient

- **VAS < 5/10**
  - 1st Line (Anti H1 oral/IN or INCS or LTRA or INCS+AZE)
  - Re-assess VAS daily up to 7-14 days
  - If symptomatic: continue treatment
  - If no symptoms: consider step down treatment

- **VAS ≥ 5/10**
  - Step-up treatment INCS or INCS+AZE
  - Consider referral to specialist and AIT

FIG 2. Step-up algorithm in treated patients using the VAS (adolescents and adults). The proposed algorithm considers the treatment steps and patient preference and VAS levels in ratio. If ocular symptoms remain, add intraocular treatment.

* Bousquet et al. JACI 2016
ICP in allergic rhinitis

Patient with allergic rhinitis symptoms

Pharmacist
- Incorrect diagnosis
- Severity
- OTC medication
- Improvement
- Failure
- Check For asthma
  - YES

Primary care
- Incorrect diagnosis
- Severity
- Treatment
- Improvement
- Failure

Specialist

Emergency care (asthma)
ICP in allergic rhinitis

Some of the problems in AR management that may be solved by ICPs

• Self-medication
• From one step to the next
• Integrated connection
• From first symptom to AIT
Future of guidelines
ARIA and AAAAI guidelines both follow GRADE-methodology > high grade of harmonization in questions and recommendation.

Even EBM guidelines are limited: evidence from clinical trials is narrowed to a limited group of patients.

The guidelines can and should be improved with ‘real-life data’ >> MACVIA ICPs (one finger approach)
Thank you

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