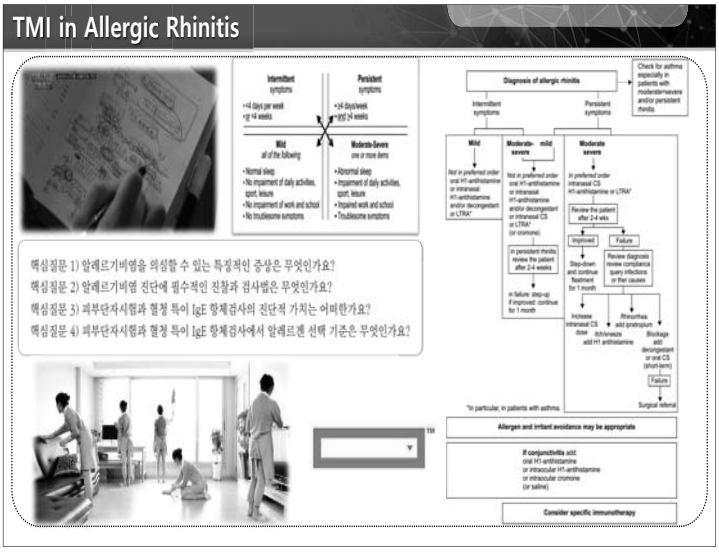
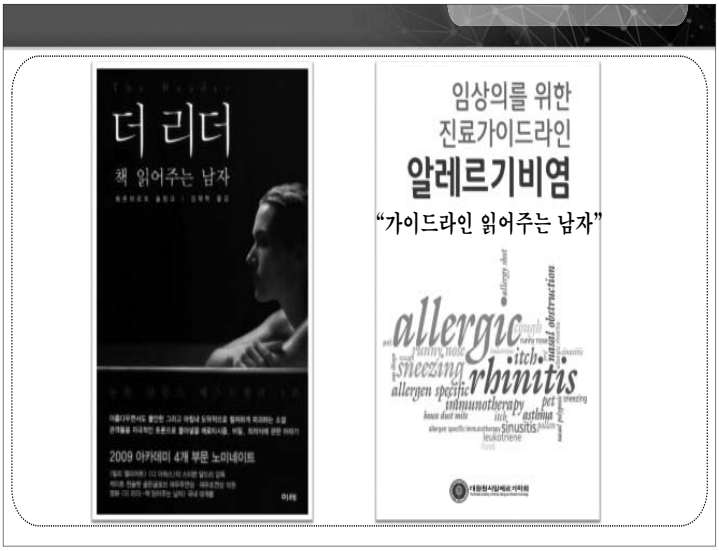
알레르기 비염, 가이드라인 으로 TMI에서 핵심 전달

김영효
인하대병원 이비인후과





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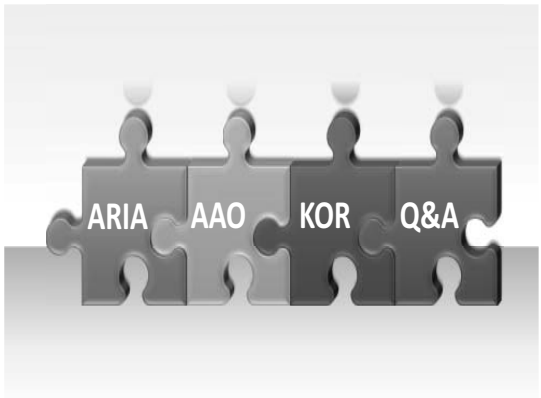

ARIA 2016 Revision

- Strength of Recommendation
- Clinical Question

ARIA 2016 Revision – 자랑스런 대한민국

Guidelines

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

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Hamilton and Toronto, Ontario, Canada; Montpellier and Paris, France; Brasov, Romania; Ghent and Brussels, Belgium; Sydney and Melbourne, Australia; Milan, Padua, and Genoa, Italy; Tampa and Fort Lauderdale, Fla; Leiden and Amsterdam, The Netherlands; Braga/Guimarães and Porto, Portugal; Salvador, Brazil; Vitoria-Gasteiz and Barcelona, Spain; St Louis, Mo; Medellín, Colombia; Wiesbaden and Berlin, Germany; Lodz, Poland; Tartu, Estonia; Mexico City, Mexico; Oslo, Norway; Dublin, Ireland; San Diego, Calif; Tokyo, Japan; Prague, Czech Republic; Athens, Greece; Manchester, Aberdeen, and Edinburgh, United Kingdom; Sassari, Rovigo; Kerman, Iran; Warsaw, Poland; Davos, Switzerland; Bethesda, Md; Vilnius, Lithuania; Turku, Finland; Stockholm, Sweden; Beijing, China; and Golnik, Slovenia

Strength of Recommendation

Strong recommendation

For patients: Most patients in this situation would want the recommended course of action, and only a small proportion would not.
For clinicians: Most patients should receive the intervention. Adherence to a strong recommendation could be used as a quality criterion or performance indicator. Formal decision aids are not likely to be needed to help patients make decisions consistent with their values and preferences.
For health care policy makers: The recommendation can be adopted as a policy or performance measure in most situations.

Conditional recommendation

For patients: The majority of patients in this situation would want the suggested course of action, but many would not.
For clinicians: Recognize that different choices will be appropriate for individual patients and that you must help each patient arrive at a management decision consistent with his or her values and preferences. Decision aids might be useful in helping patients to make decisions consistent with their values and preferences.
For health care policy makers: Policy making will require substantial debate and involvement of various stakeholders. Documentation of appropriate (eg, shared) decision-making processes can serve as a performance measure.

Question 1

Q1 : Oral Anti-Histamine (OAH) + Intra-Nasal Cortico-Steroid (INCS) vs INCS alone

Recommendation 1A (for SAR) :

Either *(Conditional Recommendation)*

Recommendation 1B (for PAR) :

INCS alone *(Conditional Recommendation)*

Question 2

Q2 : Intra-Nasal Anti-Histamine (INAH) + INCS vs INCS alone

Recommendation 2A (for SAR) :

Either *(Conditional Recommendation)*

Recommendation 2B (for PAR) :

Either *(Conditional Recommendation)*

Question 3

Q3 : INAH + INCS vs INAH alone

Recommendation 3A (for SAR) :

INAH + INCS *(Conditional Recommendation)*

Question 4

Q4 : OAH vs Leukotriene Receptor Antagonist (LTRA)

Recommendation 4A (for SAR) :

Either *(Conditional Recommendation)*

Recommendation 4B (for PAR) :

OAH *(Conditional Recommendation)*

Question 5

Q5 : INAH vs INCS

Recommendation 5A (for SAR) :

INCS *(Conditional Recommendation)*

Recommendation 5B (for PAR) :

INCS *(Conditional Recommendation)*

Question 6

Q6 : INAH vs OAH

Recommendation 6A (for SAR) :

Either *(Conditional Recommendation)*

Recommendation 6B (for PAR) :

Either *(Conditional Recommendation)*

Clinical Practice Guideline

- Diagnosis
- Avoidance & Co-morbidities
- Treatments

Guideline Definitions

Statement	Definition	Implication
Strong Recommendation	A strong recommendation means the benefits of the recommended approach clearly exceed the harms (or that the harms clearly exceed the benefits in the case of a strong negative recommendation) and that the quality of the supporting evidence is excellent (Grade A or B).[2] In some clearly identified circumstances, strong recommendations may be made based on lesser evidence when high-quality evidence is impossible to obtain and the anticipated benefits strongly outweigh the harms.	Clinicians should follow a strong recommendation unless a clear and compelling rationale for an alternative approach is present.
Recommendation	A recommendation means the benefits exceed the harms (or that the harms exceed the benefits in the case of a negative recommendation), but the quality of evidence is not as strong (Grade B or C).[2] In some clearly identified circumstances, recommendations may be made based on lesser evidence when high-quality evidence is impossible to obtain and the anticipated benefits outweigh the harms.	Clinicians should also generally follow a recommendation but should remain alert to new information and sensitive to patient preferences.
Option	An option means that either the quality of evidence that exists is suspect (Grade D)[3] or that well-done studies (Grade A, B, or C)[4] show little clear advantage to one approach versus another.	Clinicians should be flexible in their decision making regarding appropriate practice, although they may set bounds on alternatives; patient preference should have a substantial influencing role.
No Recommendation	No recommendation means there is both a lack of pertinent evidence (Grade D)[3] and an unclear balance between benefits and harms.	Clinicians should feel little constraint in their decision making and be alert to new published evidence that clarifies the balance of benefit versus harm; patient preference should have a substantial influencing role.

Diagnosis

1. Patient history and physical examination	Clinicians should make the clinical diagnosis of AR when patients present with a history and physical examination consistent with an allergic cause and 1 or more of the following symptoms: nasal congestion, runny nose, itchy nose, or sneezing. Findings of AR consistent with an allergic cause include, but are not limited to, clear rhinorrhea, nasal congestion, pale discoloration of the nasal mucosa, and red and watery eyes.	Recommendation
2. Allergy testing	Clinicians should perform and interpret, or refer to a clinician who can perform and interpret, specific IgE (skin or blood) allergy testing for patients with a clinical diagnosis of AR who do not respond to empiric treatment, or when the diagnosis is uncertain, or when knowledge of the specific causative allergen is needed to target therapy.	Recommendation
3. Imaging	Clinicians should not routinely perform sinonasal imaging in patients presenting with symptoms consistent with a diagnosis of AR.	Recommendation (against)

IgE or *IgG*...?

	Recommendation	Advantages	Disadvantages
Skin tests Skin prick, or intradermal	Recommend	• Allows for direct observation of the body's reaction to a specific antigen • Considered more sensitive than blood testing • Intradermal can be used when additional sensitivity is required or skin prick negative • Less expensive than blood testing	• Possible systemic allergic reaction (anaphylaxis) • May be affected by patient medications
Blood	Recommend	• No risk of anaphylaxis • Not affected by patient's medications • Can be used for patients with skin conditions such as dermatographism or severe eczema • Can be used for patients on β-blockers or with comorbid medical conditions that preclude skin testing	• Requires reliable laboratory, potential for laboratory errors
IgG or total IgE	Recommend against		Does not yield information helpful for management of allergic rhinitis
Other nonspecific tests Acoustic rhinometry Olfactory testing Microarray testing Nasal nitric oxide measurements Nasal allergen challenges	No recommendation for or against		

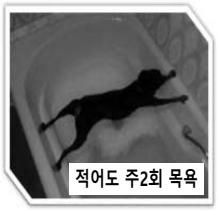
Avoidance & Co-morbidities

4. Environmental factors	Clinicians may advise avoidance of known allergens or may advise environmental controls (eg, removal of pets, the use of air filtration systems, bed covers, and acaricides [chemical agents that kill dust mites]) in AR patients who have identified allergens that correlate with clinical symptoms.	Option
5. Chronic conditions and comorbidities	Clinicians should assess patients with a clinical diagnosis of AR for, and document in the medical record, the presence of associated conditions such as asthma, atopic dermatitis, sleep-disordered breathing, conjunctivitis, rhinosinusitis, and otitis media.	Recommendation

Environmental Control Measures

Environmental Control Measure	Evidence Supports Reduction in Allergen Level		Evidence Supports Reduction in Symptoms	
	Yes	No	Yes	No
Removal of pets	X		X	
Washing pets twice a week	X			X
Acaricides to kill dust mites	X		X	
Impermeable covers for bedding	X			X
Air filtration	X			X
Combined use of multiple control measures	X		X	

Avoidance – Direct Exposure



Avoidance – Indirect Exposure

- Change their clothes when they travel from places with a high allergen concentration to places with a low allergen concentration
- Change their clothes and shower before returning home
- Refrain from bringing pet to the home of the patient

Medications

6. Topical steroids	Clinicians should recommend intranasal steroids for patients with a clinical diagnosis of AR whose symptoms affect their quality of life.	Strong recommendation
7. Oral antihistamines	Clinicians should recommend oral second-generation/less sedating antihistamines for patients with AR and primary complaints of sneezing and itching.	Strong recommendation
8. Intranasal antihistamines	Clinicians may offer intranasal antihistamines for patients with seasonal, perennial, or episodic AR.	Option
9. Oral leukotriene receptor antagonists (LTRAs)	Clinicians should not offer oral leukotriene receptor antagonists as primary therapy for patients with AR.	Recommendation (against)
10. Combination therapy	Clinicians may offer combination pharmacologic therapy in patients with AR who have inadequate response to pharmacologic monotherapy.	Option

Why NOT LTRA as a primary therapy?

Table 12. Guideline Medication Recommendations.[a]

	Recommendations for Symptoms				Recommendations for Exposure to Allergen			Recommendations for Symptom Frequency		Recommendations for Symptom Severity		
Medication Class	Congestion	Rhinorrhea	Sneezing	Nasal Itching	Seasonal	Perennial	Episodic	Intermittent	Persistent	Mild	Severe	Patient Preference
Intranasal steroids	+++	+++	+++	+++	++	++	+	++	++	++	++	Large
Oral antihistamines	+	++	++	++	+	+	+	++	+	+	No	Large
Intranasal antihistamines	++	++	++	++	++	+[b]	++	++	+[b]	++	+	Large
Leukotriene receptor antagonist	+	+	+	+	+	+	No	No	Yes	Yes	Not as monotherapy	Low

- More expensive and as effective as or less effective than oral antihistamines
- Less effective than INS
- A subset of patient who have AR and asthma who may benefit from LTRA

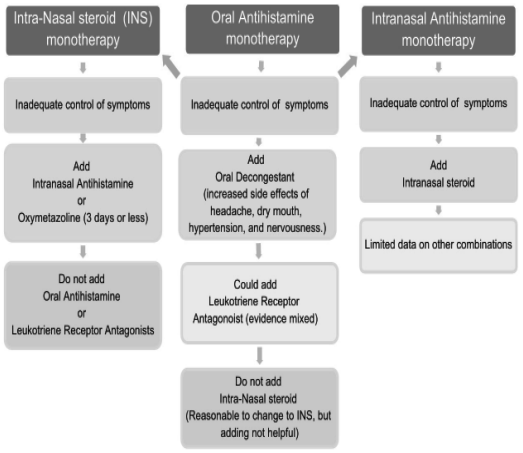
Combination Regimens

- OAH + Oral Decongestants → Better control
- INCS + INAH → More effective
- INCS + Intranasal oxymetazoline → More effective (short term)

- OAH + INCS → no benefit
- LTRA + INCS → no benefit

- OAH + LTRA → conflicting evidence (routine use not recommended)

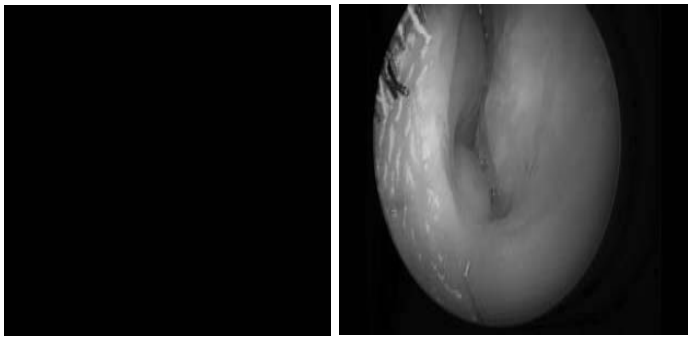
Combination Regimens



Additive Treatment Measures

11. Immunotherapy	Clinicians should offer, or refer to a clinician who can offer, immunotherapy (sublingual or subcutaneous) for patients with AR who have inadequate response to symptoms with pharmacologic therapy with or without environmental controls.	Recommendation
12. Inferior turbinate reduction	Clinicians may offer, or refer to a surgeon who can offer, inferior turbinate reduction in patients with AR with nasal airway obstruction and enlarged inferior turbinates who have failed medical management.	Option
13. Acupuncture	Clinicians may offer acupuncture, or refer to a clinician who can offer acupuncture, for patients with AR who are interested in nonpharmacologic therapy.	Option
14. Herbal therapy	No recommendation regarding the use of herbal therapy for patients with AR.	No recommendation

Surgical Intervention



대한천식알레르기학회

- 회피요법
- 약물치료 & 수술
- 임신 & 수유

문헌 근거수준과 권고안 등급

권고등급	정의
강하게 권고함	근거수준 A이고 편익이 명백하며, 진료현장에서 활용도가 높은 권고
권고를 고려함	근거수준 B이고 편익이 신뢰할 만하며, 진료현장에서 활용도가 높거나 보통인 권고
권고를 고려할 수 있음	근거수준 C 또는 D이고 편익을 신뢰할 수 없으나, 진료현장에서 활용도가 높거나 보통인 권고
권고하지 않음	근거수준 C 또는 D이고 신뢰할 수 없으며, 위해한 결과를 초래할 수 있고, 진료현장에서 활용도가 낮은 권고

회피요법

핵심질문 12

알레르기비염에서 실내 알레르겐 회피요법이 증상 개선에 도움이 되나요?

요 약

- 집먼지진드기 알레르기비염 환자에서 회피요법을 고려할 수 있다. (근거수준 C, 권고를 고려할 수 있음)
- 반려동물 알레르겐을 회피하는 가장 효과적인 방법은 반려동물을 키우지 않는 것이다. (근거수준 D, 강하게 권고함)
- 반려동물을 키우면서 시행하는 회피요법, 곰팡이, 바퀴에 대한 회피요법은 현재까지 임상적으로 추천할 근거는 부족하나, 실내 알레르겐의 농도를 줄일 수 있고, 그 방법이 인체에 유해하지 않으므로 추천한다. (근거수준 C, 권고를 고려함)

항히스타민제 병용 혹은 증량

핵심질문 14

항히스타민제 치료에도 호전되지 않는 알레르기비염 환자에서 용량을 증량하거나, 두 가지 이상 다른 종류를 병용하는 것이 효과적인가요?

요 약

- 용량의 증량이나 서로 다른 종류의 항히스타민제를 두 가지 이상 사용하는 것보다는 비강 내 스테로이드제 등 다른 치료 약제의 병용을 권장한다. (근거수준 C, 권고를 고려함)

LTRA

핵심질문 16

알레르기비염 치료에서 류코트리엔 수용체 길항제의 효능은 무엇인가요?

요 약

- 류코트리엔 수용체 길항제는 알레르기비염의 염증매개체인 류코트리엔을 차단하여 항염증 효과를 나타낸다. (근거수준 A)
- 류코트리엔 수용체 길항제는 알레르기비염 치료에 좋은 효과를 보이나 항히스타민제와 병용 투여 시 상승 효과는 확실하지 않다. (근거수준 A, 권고를 고려함)

Surgery

핵심질문 32

알레르기비염에서 언제 수술을 고려해야 하나요?

요 약

- 적절한 치료에도 호전되지 않는 경우, 하비갑개의 비대가 심하여 코막힘 증상이 심한 경우 하비갑개의 부피를 축소시키기 위한 수술을 고려할 수 있다. (근거수준 B, 권고를 고려함)
- 알레르기비염 환자에서 비중격만곡이 동반되어 있을 경우 비갑개 수술과 함께 비중격교정술을 고려할 수 있다. (근거수준 B, 권고를 고려할 수 있음)

Surgery in Pediatric Patients

핵심질문 33

학령전기 및 학동기 소아알레르기비염 환자에서 수술 치료를 권고할 수 있나요?

요 약

- 학령전기 및 학동 초기 소아알레르기비염 환자에 대한 수술적 치료의 근거는 부족하다. (근거수준 D, 권고하지 않음)
- 약물 치료에 반응하지 않는 학동 후기 알레르기비염 환자에서 수술을 고려할 수 있다. (근거수준 A, 강하게 권고함)

Treatment or AR during pregnancy

핵심질문 36

임신 중 알레르기비염은 어떻게 치료하나요?

요 약

- 효과적이고 안전한 비강세척 등의 비약물적 치료를 우선적으로 고려한다. (근거수준 A, 강하게 권고함) **Head elevation, 적절한 운동, endonasal dilator, 비강세척**
- Loratadine, cetirizine, levocetirizine, chlorpheniramine과 같은 경구 항히스타민제 사용을 고려할 수 있다. (근거수준 C, 권고를 고려함)
- Montelukast의 사용을 고려할 수 있다. (근거수준 C, 권고를 고려할 수 있음)
- 비강 내 스테로이드제의 사용을 고려할 수 있다.(근거수준 C, 권고를 고려할 수 있음)
- 임신 전에 시작한 알레르겐면역요법은 임신 중에도 유지한다. 그러나 임신 중 알레르겐 용량을 증가시키지 않으며, 새롭게 알레르겐면역요법을 시작하지 않는다. (근거수준 A, 강하게 권고함)

Treatment or AR during lactation

핵심질문 37

모유수유 중 알레르기비염은 어떻게 치료하나요?

요 약

- 1세대, 2세대 경구 항히스타민제는 안전하게 사용할 수 있다. (근거수준 B, 권고를 고려함)
- 비강 내 스테로이드제는 안전하게 사용할 수 있다. (근거수준 D, 권고를 고려함)

✓ 수유 직후 약물 복용, 다음 수유까지 3~4시간 이상의 간격을 두는 것이 권장됨
✓ 전신적으로 작용하는 약보다 국소적으로 작용하는 약을 선택
✓ Pseudoephedrine 모유생산량 감소 – 수유말기 혹은 모유량 적은 산모에서는 사용을 피함
✓ 국소 비점막수축제(oxymetazoline) – 아이의 증상(흥분,신경과민 등) 관찰하며 3일이내 사용
✓ 경구 스테로이드제 – 장기간 and/or 고용량 복용은 문제를 유발할 수 있음

TAKE HOME MESSAGES

- Skin Prick Test, Specific IgE는 추천됨.
  반면 Total IgE, IgG, imaging study 등은 추천되지 않음.
- 회피요법을 고려할 수 있으며, OAH +Oral Decongestant, INAH +INCS,
  INCS + IN decongestant 등의 combination regimen을 고려할 수 있음.
- 수술적 치료 역시 option이며
  임신 및 수유 중에도 알레르기 비염을 안전하게 치료할 수 있음.