



Continuing Medical Education Activity Information

Allergic Rhinitis-IQ: Closing the Treatment Gap in Allergic Rhinitis Classification Schemes and Management Strategies Adult Webisode 1

Learning Objectives

Upon completion, participants should be able to:

- Identify classification schemes for AR
- Formulate appropriate management strategies for patients with AR

Program Faculty

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Target Audience

This activity is intended for nurse practitioners and physician assistants and other healthcare professionals with an interest in the management of allergic disease.

Accreditation/Designation Statement

Med-IQ is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Med-IQ designates this activity for a maximum of 0.5 *AMA PRA Category 1 Credit*[™]. Physicians should only claim credit commensurate with the extent of their participation in the activity.

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recommendation must conform to generally accepted standards of experimental design, data collection, and analysis.

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Acknowledgment of Commercial Support

This activity is supported by an educational grant from sanofi-aventis U.S.

Statement of Need

Because allergic rhinitis (AR) has a significant effect on quality of life and may lead to further health complications, healthcare professionals (MDs, NPs, and PAs) must accurately diagnose and appropriately treat affected patients based on their symptoms and level of impairment in daily life. These healthcare professionals have an important role in the diagnosis and management of AR because it is prevalent in both urban/suburban and rural settings and across various regions of the country, and many patients self-medicate. Unfortunately, professional practice gaps exist in the optimal treatment of this condition. Educational activities designed to inform healthcare professionals about advances in the understanding of the pathophysiologic mechanisms of AR and the emergence of newer medications for controlling symptoms, including the relief of nasal congestion, are needed to improve patients' overall health and quality of life.

Educational Design

This activity is available in one format. Participants can earn credit by participating in up to 4 Webisodes. Each Webisode contains an attestation and evaluation. To receive credit, each participant must read the introductory CME material, view the entire Webisode, and complete the attestation and evaluation.

Hardware/Software Requirements

Operating System

Microsoft® Windows® 98, NT, 2000, XP, ME

Browser/PDF Viewer

Microsoft Internet Explorer 5.5 or 6.0

Adobe® Acrobat® Reader® or Adobe Reader

Media Player

Windows Media® Player 7.1 or higher, OR

RealPlayer® Basic 8 or higher

Connection Type

High bandwidth (300k) is strongly recommended

Low bandwidth (100k) results in less than optimal quality

56k dial-up/modem is not sufficient

Estimated Time to Complete This Activity: 0.5 hour



Dates of Release and Expiration

Original Release Date:
June 17, 2009

Expiration Date for Submitting Test for Credit:
June 17, 2010

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Gary N. Gross, MD

Consulting fees/advisory boards: Cornerstone Biopharma, Sepracor Inc.
Speakers' bureau: AstraZeneca, GlaxoSmithKline, sanofi-aventis U.S., Genentech, UCB Pharma, Inc.
Grant/research support: Alcon, Amgen, Amphastar Pharmaceuticals, Inc., Apicron, AstraZeneca, Capnia, Inc., Johnson & Johnson, sanofi-aventis U.S., SkyePharma, GlaxoSmithKline, Novartis Pharmaceuticals, Schering-Plough Corporation

R. Grant Steen has stated no real or apparent conflicts.

Kimberly Diminni, MS, MD, has stated no real or apparent conflicts.

How to Receive CME Credit

Participants must view the CME materials, view the activity, and complete and submit the attestation and evaluation online at www.AllergicRhinitis-IQ.com. For other CME activities, please visit www.Med-IQ.com.

ADA Statement

Med-IQ fully complies with the legal requirements of the ADA and the rules and regulations thereof. If any participant in this educational activity is in need of accommodations, please contact Amy Sison, CME Compliance Manager, at (443) 543-5179.

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Adult Webisode 1:

Classification Schemes and Management Strategies

Lynn's Clinical Concerns

For 8 weeks a year for the
past 5 years:

- Sinus congestion
- Runny nose
- Difficulty breathing
through nose
- Itchy red eyes

Lynn's Clinical Concerns

More recent symptoms
not helped by her OTC
medication:

- Congestion
- Itchy red eyes

Faculty



Gary N. Gross, MD
Clinical Professor of Medicine
University of Texas
Southwestern Medical School
Dallas, TX

Lynn's Clinical Presentation

- Severe eye irritation
- Nasal congestion with copious discharge of clear mucus

Economic Impact of AR Workplace Productivity Losses

- Work Productivity Short Inventory Questionnaire
 - Assessed impact of a group of health conditions on workplace productivity
 - AR most prevalent condition
 - 55% of employees reported AR symptoms
 - Average symptom time = 52.5 days
 - Employees missed 3.6 work days/ year
 - Employees were unproductive 2.3 hours per workday when symptomatic
 - Mean total productivity loss = \$593 per employee per year

Lamb CE, et al. *Curr Med Res Opin.* 2006;22:1203-10.

Differential Diagnosis of AR

AR

- Episodic rhinitis
- Occupational rhinitis (allergen)
- Perennial rhinitis
- Seasonal rhinitis

Nonallergic rhinitis

- Atrophic rhinitis
- Chemical- or irritant-induced rhinitis
- Drug-induced rhinitis
- Emotional rhinitis
- Exercise-induced rhinitis

Conditions that may mimic symptoms of rhinitis

- Cerebrospinal fluid rhinorrhea
- Inflammatory or immunologic conditions
 - Midline granuloma
 - Nasal polyposis
 - Sarcoidosis
 - Sjögren's syndrome
 - Systemic lupus erythematosus
 - Wegener's granulomatosis
- Structural or mechanical conditions
 - Deviated septum
 - Nasal tumors

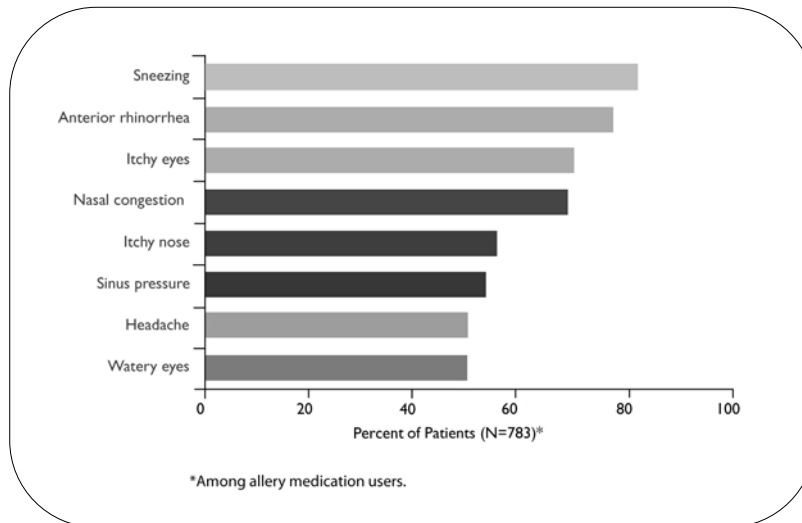
Dykewicz MS, et al. *Ann Allergy Asthma Immunol.* 1998;81:478-518..

When to Refer to a Specialist

- Diagnosis is in doubt
- Medical treatment is not successful
- Unilateral symptoms of nasal obstruction, pain, or bleeding
- Suspected structural abnormality
 - Nasal polyps
 - Granulomas

Saleh AH, et al. *BMJ.* 2007;335:502-7.

Symptoms of AR



Marple BF, et al. *Otolaryngol Head Neck Surg*. 2007;136:S107-24

Excluded Diagnoses

Excluded diagnoses:

- Upper respiratory infection
- Sinus infection
- Structural anomaly
- Drug-induced rhinorrhea

Lynn's Clinical Complaints

- Feeling of sleepiness during the day
- Lost work days
- Avoidance of the outdoors when possible
- Inability to enjoy gardening

Impact of AR

- 35 to 50 million people in the United States
- 3 million lost workdays per year
- 2 million lost school days per year
- Almost 1 in 4 rhinitis patients will miss time from work or school in any given year

Marple BF, et al. *Otolaryngol Head Neck Surg*. 2007;136:S107-24
Strachan D, et al. *Pediatr Allergy Immunol* 1997;8:161-76
Tanner LA, et al. *Am J Managed Care* 1999; 5:S235- 47

AR Symptoms Can Be Debilitating

In a sample of almost 2,000 allergy sufferers:

- 96% indicated that their day-to-day activities were reduced by rhinitis symptoms
- Most patients described their condition as moderate-to-severe
- 20% of patients felt that their physician did not take the condition seriously enough

Tanner LA, et al. *Am J Managed Care* 1999; 5:S235-47

Seasonal AR

- Common allergens:
 - Grass
 - Tree
 - Weed pollens
- Symptoms:
 - Nasal congestion and discharge
 - Sneezing
 - Pruritus
- May occur only during a discrete time of the year due to exposure to an outdoor allergen whose presence varies seasonally

Wallace DV, et al. *J Allergy Clin Immunol.* 2008;122(Suppl 2):S1-84.

Perennial AR

- Common allergens:
 - Dust mites
 - Animal dander
 - Cockroaches
 - Mold
- Symptoms:
 - Nasal obstruction
 - Postnasal drainage
- Patients may experience symptoms year-round

Wallace DV, et al. *J Allergy Clin Immunol*. 2008;122(Suppl 2):S1-84.

Classification Schemes

- Allergic Rhinitis and Its Impact on Asthma (ARIA)
- Joint Taskforce on Practice Parameters

AR: ARIA Classification in Untreated Patients

Intermittent

- < 4 days per week
- OR < 4 weeks

Persistent

- > 4 days per week
- AND > 4 weeks

Mild

- Normal sleep
- No impairment of daily activities, sport, leisure
- Normal work and school
- No troublesome symptoms

Moderate-Severe

one or more items

- Abnormal sleep
- Impairment of daily activities, sport, leisure
- Abnormal work and school
- Troublesome symptoms

Data derived from Bousquet J, et al. J Allergy Clin Immunol. 2001;108(5 Suppl):S147-S334.

Lynn's Clinical Concerns

- Persistent symptoms occurring about 8 weeks a year over the past 5 years
- Feeling of sleepiness during the day
- Lost workdays
- Avoidance of the outdoors when possible
- Inability to enjoy gardening

Patient Compliance/Adherence

- Adherence/compliance-promoting medication characteristics:
 - Ease of use and convenient dosing
 - Fast time to onset of action and long duration of effect
- Adherence/compliance-promoting patient/physician behaviors:
 - Encourage patients to keep a symptom diary
 - Patient education

Marple BF, et al. *Otolaryngol Head Neck Surg.* 2007;136:S107-24

Goals of Therapy for AR

- Avoid allergens/ irritants
- Minimize symptoms
- Decrease inflammation
- Avoid comorbidities
- Maximize compliance
- Restore patient's quality of life

Patient Adherence/Compliance

- Issues that affect adherence
 - Regular use is needed for optimal efficacy
 - Negative medicine characteristics (eg, unpleasant aftertaste/postnasal drip)
 - Cost
- Adherence-promoting medication characteristics
 - Ease of use and convenient dosing
 - Fast time to onset of action and long duration of effect
- Adherence-promoting patient/physician behaviors
 - Encourage patients to keep a symptom diary
 - Patient education

Marple BF, et al. *Otolaryngol Head Neck Surg.* 2007;136:S107-24.

Estimated Symptom Efficacy of AR Pharmacotherapies

	Sneezing	Rhinorrhea	Nasal obstruction	Nasal itch	Eye symptoms
H₁-antihistamines					
oral	++	++	+	+++	++
intranasal	++	++	+	++	0
intraocular	0	0	0	0	+++
Corticosteroids					
intranasal	+++	+++	+++	++	++
Chromones					
intranasal	+	+	+	+	0
intraocular	0	0	0	0	++
Decongestants					
intranasal	0	0	++++	0	0
oral	0	0	+	0	0
Anticholinergics					
	0	++	0	0	0
Antileukotrienes					
	0	+	++	0	++

++++ = Very good/excellent efficacy
 +++ = Good efficacy
 ++ = Mild efficacy
 + = Questionable efficacy
 0 = No effect

Bousquet J, et al. *Workshop Expert Panel. Allergic Rhinitis and its Impact on Asthma (ARIA): Executive summary of the workshop report.* *Allergy* 2002; 57:841-55.

Intranasal Corticosteroid Considerations

- The onset of effect with nasal corticosteroids may be delayed
 - May take up to 12 hours to observe symptom relief
- Consistent use over days and weeks maximizes efficacy
- Proper administration technique is critical to clinical success

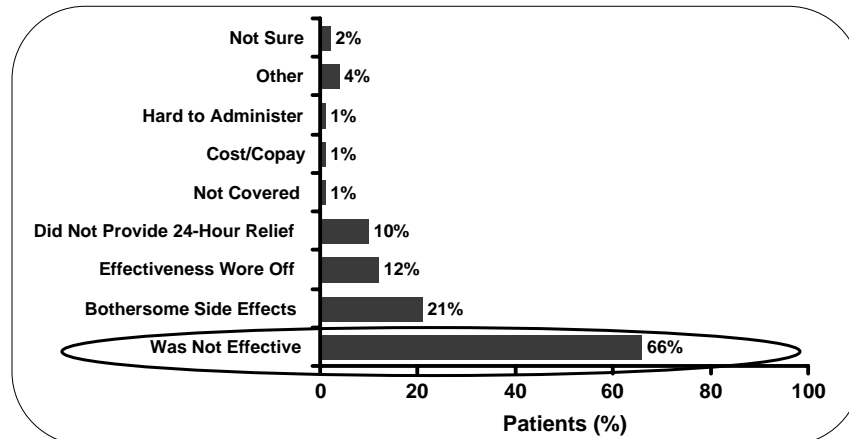
Marple BF, et al. *Otolaryngol Head Neck Surg.* 2007;136:S107-24.

Intranasal Corticosteroids

- Most common side effects include:
 - Headache
 - Epistaxis
 - Smell/ taste disturbances
 - Cough

Blais MS. *Curr Med Res Opin.* 2008;24:821-836.

Reasons for Dissatisfaction With Allergy Medication



N = 860

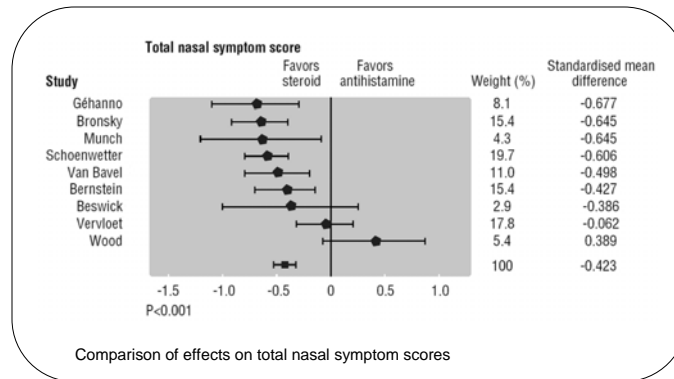
Allergies in America: A Landmark Survey of Nasal Allergy Sufferers. Available at www.mmcpub.com/scsaia/adult.pdf. Accessed 05/19/2009.

Advantages of Intranasal Medications in AR

- Increased level of active agent delivered to target tissue
- Minimize unwanted systemic effects
- Increased bioavailability of some drugs with poor oral bioavailability
- Faster onset of action

Marple BF, et al. *Otolaryngol Head Neck Surg*. 2007;136:S107-24.

Intranasal Corticosteroids and Oral Antihistamines



Adapted from Weiner J, et al. *BMJ*. 1998;317:1624-9.

Intranasal Corticosteroids Summary

- Improvements in sleep and quality of life
- An effective class of medications for AR
 - improving nasal congestion
 - rhinorrhea
 - itching
 - sneezing
- Relative lack of systemic adverse effects
- Consistent use over days and weeks maximizes efficacy
- Proper administration technique is critical to clinical success

Greiner A. *Med Clin N Am*. 2006;90:17-38.

**Take the Allergy-IQ Challenge:
How would you treat this patient?**

Severe daytime sleepiness can be a dangerous result of AR. Dennis dozed off and was injured working in a local factory. What treatment plan would you prescribe to give him more energy?

View Dennis' story today or watch more Webisodes at www.AllergicRhinitis-IQ.com.

Comments about today's program?

Call toll-free 866 858 7434
E-mail info@med-iq.com

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