

Allergies and Asthma



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Objectives



- Understand the relationship between asthma and allergic rhinitis
- Understand what is going on in your body with allergic asthma
- Learn the role of environmental control, medication therapy, and allergen immunotherapy in allergic asthma
- Know the HAP Formulary Drug List

Rhinitis and Asthma



- High prevalence, high cost illnesses
- Both illnesses have a major effect of the sufferer's quality of life
- Both illnesses have a strong association with allergy
- Both rhinitis and asthma have common inflammatory pathways
- Improved control of rhinitis leads to improve asthma outcomes

Allergic Rhinitis (AR): Risk Factor for ASTHMA

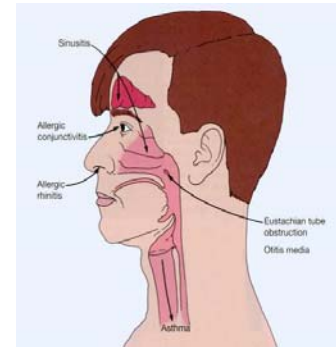


- Prevalence of AR: Adults 31.5%
Children 40%
- About 50-80% of asthmatics have AR
- About 40% of allergic rhinitis cases have Bronchial Asthma

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Allergic Rhinitis

Related Anatomic Structures Compromised by Allergic Rhinitis



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What is Allergic Rhinitis?

Inflammatory “swell up” reaction to an airborne allergen

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- Exposure to a foreign substance (mold, pollens) through the nose and causes a series of reactions in the body to make the nasal passages to become inflamed leading to runny nose and itchy watery eyes.

Epidemiology Of Allergic Rhinitis

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- Most common chronic nasal disease in the United States (U.S.)
- Affects up to 22% of U.S. population
 - 2.5% of all clinician visits
 - > \$1 billion spent on over-the-counter and prescription medications
- 70% experience onset before age 30
- Genetic predisposition

Signs And Symptoms Of Allergic Rhinitis

- General Appearance
- Eyes
- Nose
- Ears
- Sinuses
- Mouth
- Throat
- Chest

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Impact of Allergic Rhinitis

- Sleep disturbances
- Limit in daily activities
- Harder to concentrate and make decisions
- Missed work and school days
- Trigger asthma

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Management of Allergic Rhinitis

- Environmental Control
- Drug Therapy
- Physician and Patient relationship – this includes the allied team i.e.) nurses, pharmacists and care coordinators

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Management of Allergic Rhinitis and Asthma

- Education
- Environmental Control
- Proper Drug Treatment

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Environmental Control

- Major triggers of Allergic Rhinitis and Asthma
 - Pollens
 - Molds
 - House dust mites
 - Animals
 - Insect aeroallergens (eg., moths)



Environmental Control Measures: Pollen

- Close windows, doors
 - Avoid window/attic fans
 - A/C on recirculate
- Reduce outdoor exposure as practicality allows:
 - When pollen counts are high
 - Highest in early AM
 - On sunny, windy days with low humidity
 - Shower or bathe following exposure



Environmental Control Measures: Molds

- Remain in closed environment as practicality allows
 - A/C units, though helpful, can harbor mold
- Avoid lawn mowing, raking leaves, etc.
 - Face masks can be of some value
- Avoid/remedy dampness
 - Dehumidifier
- Minimize humidifier use
 - If used, keep very clean



Reducing Exposure to House Dust Mites

- Use bedding encasements
- Wash bed linens weekly at 130° F
- Avoid down fillings and use allergen proof pillows and mattresses
- Limit stuffed animals to those that can be washed
- Switch to hardwood floors



Reducing Exposure to Pets

- People who are allergic to pets should *not* have them in the house.
- At a minimum, do not allow pets in the bedroom.

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Pharmacologic Therapy

- Nasal corticosteroids – GOLD STANDARD OF TREATMENT
- Antihistamines (oral)
- Combination agents (oral) – oral antihistamine and nasal spray and antibiotic – USUALLY NOT NECESSARY
- Intranasal antihistamines

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Nasal Corticosteroids

- Best in managing all 4 symptoms of rhinitis
Sneezing, itchy nose, nasal drip and congestion
- Takes about 10 days to work, so overlap with an oral antihistamine
- Take it consistently every day

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Nasal Corticosteroids HAP Formulary

- Generic and lowest tier 1
 - Fluticasone (Flonase)
 - Triamcinolone (Nasacort AQ)
- Brand and Tier 3 and Requires Prior Auth.
 - Budesonide (Rhinocort),
 - Beclomethasone (Beconase)
 - Mometasone (Nasonex)
 - Fluticasone furoate (Veramyst)

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Antihistamines (oral)

- Reduce allergic symptoms
 - Itching
 - Sneezing
 - Runny Nose
 - Little effect on nasal congestion – many of them come with a decongestant
- HAP Formulary
 - Over-the-counter claritin generic
 - Not all patients have this covered as a prescription benefit



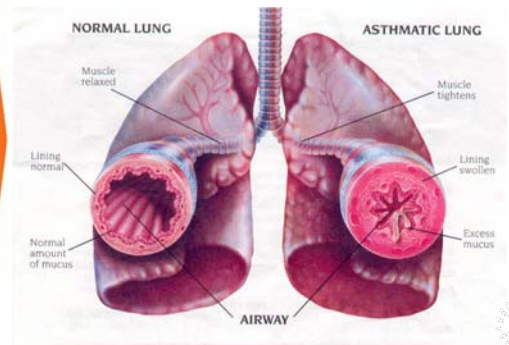
Intranasal Antihistamine

- Used as alternatives to the oral antihistamines
- Physicians seem to prescribe when nasal corticosteroids and oral antihistamines do not work
- HAP Formulary
 - Azelastine (Astelin) – generic lowest tier



Asthma

What Is Asthma?



Epidemiology of Asthma

- Asthma affects nearly 17 million Americans
- Asthma accounts annually for:
 - 11 million office visits to the doctor
 - 1 million urgent care department visits
 - 1.6 million emergency department visits
 - 500,000 hospitalizations
 - 5,500 deaths



Asthma

- Coughing
- Wheezing
- Shortness of breath
- Chest tightness



Pharmacologic Management of Asthma

Long-term control

Quick relief

Airway inflammation
Airway hyper-responsiveness

Bronchoconstriction



Long-Term Control Medications

Preventive, taken daily to achieve and maintain control of asthma symptoms

- Inhaled corticosteroids
- Oral corticosteroids
- Long-acting beta-2 agonists (inhaled and oral)
- Leukotriene modifiers



Inhaled Corticosteroids

- Most effective long term treatment – GOLD STANDARD
- Lowers inflammation in the lungs to allow for breath and to keep the lung airways open
- Lower emergency room visits
- Decrease death
- Must take daily



Inhaled Corticosteroids Side effects

- In general less side effects and safer than oral steroids (prednisone)
- Side effects
 - Oral thrush – yeast infection on tongue
Side effects can be reduced by mouth-rinsing with warm water after use and using a spacer
- Long term use of high dose inhaled steroids can affect bone strength, and development of cataracts or glaucoma



Inhalation Devices

Metered Dose Inhaler



- Requires coordination
- Can use a spacer if you have trouble with coordination



Inhalation Device

- Dry Powder Inhalers
 - Need to be able to perform rapid inhalation
- Nebulizer
 - Machine produces a mist of the medication
 - Used for small children or elderly or for severe asthma episodes



HAP Formulary Inhaled Corticosteroids

- Lowest tier 1
 - Beclomethasone (Qvar)
 - Budesonide (Pulmicort) – comes as a flex-inhaler
 - Fluticasone Diskus and HFA (Flovent)
- Tier 2
 - Pulmicort Turbuinhaler (similar to diskus)
- Tier 3
 - Ciclesonide (Alvesco)
 - Mometasone (Asmanex)

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Oral Steroids

- Used when asthma out of control and the inhalers are not working
- Used for short term (3-10 days) and have to taper off
- Rarely used as long term use
- Side Effects (many)
 - increase in blood sugar, osteoporosis,weaken your immune system, increase blood pressure, insomnia

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Long-Acting Beta-2 Agonists

- Keeps the lungs open to allow for breathing
- Helps the inhaled corticosteroids work better
- Never to be used alone, only in combination with inhaled corticosteroids

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HAP Formulary

- Combination Inhaled Corticosteroids and Long-Acting Beta-2 Agonists
 - Tier 2
 - Fluticasone/salmeterol (Advair)
 - Budesonide/formoterol (Symbicort)
 - Tier 3
 - Mometasone/formoterol (Dulera)

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Short Acting Beta-2 Agonist

- Only to be used for fast relief of shortness of breath
- They are a good indicator for control
 - the more you are using it the less controlled is your asthma
- Side Effects – short term
 - rapid heart rate
 - tremor



Short Acting Beta-2 Agonist

HAP Formulary

- Tier 1
 - Albuterol – solution for nebulizer and tablets and syrup
- Tier 2
 - Proair HFA Inhaler
 - Ventolin HFA Inhaler
- Tier 3
 - Xopenex HFA Inhaler



LEUKOTRIENES – Montelukast (Singulair)

- Used in mild asthma
- Lowers inflammation, but not as good as inhaled corticosteroids
- Works well in children
- Comes as 5mg and 10mg tablets taken once daily
- Generic Tier 1



Anti-IgE Antibody Omalizumab (Xolair)

- Used for moderate to severe asthma
 - on high dose inhaled corticosteroids and not controlling asthma and
 - 3 or more oral steroid treatments
 - 2 or more hospital admissions
- It's administered as a subcutaneous injection once a month
- It does not replace the inhaled corticosteroid
- Only given by a pulmonologist (lung doctor)



HAP TOOLS

- HAP Care Track Program
 - Open to all HAP members 18 years and older
 - Comprehensive disease management program that supports your relationship with your doctor by helping you stick to your prescribed treatment plans



HAP's CareTrack™ Program

Services may include:

- Nurse Health Coach who works one on one with you over the phone
- Pharmacist who monitors if you are taking more medications than needed, not taking the appropriate medications or if there needs to be dosage adjustments.
- Behavioral Health Specialist to help you identify emotional triggers and behavioral conditions that impact your ability to follow your doctor's treatment plan.



HAP's CareTrack™ Program

- A six-week education program to teach you how to effectively manage your conditions. Sessions are held in convenient locations throughout the year.
- A report sent to your primary care doctor, listing any gaps in care.



Thank You!





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