

**GET SMART
COLORADO**
USE ANTIBIOTICS WISELY

Provider Newsletter

A resource for Colorado health care providers about antibiotic resistance and efforts to promote the judicious use of antibiotics throughout the state.

Antibiotic Awareness Week Oct. 6 –10, 2008

Get Smart Colorado is participating in an awareness week called, “Get Smart about Antibiotics.” The week is organized by the Centers for Disease Control and Prevention and will run from October 6th through 10th. Get Smart Colorado activities will run through the month of October.

The goal of the campaign is to increase knowledge of ways individuals can prevent antibiotic resistance. Along with judicious antibiotic use, Get Smart Colorado will promote the proper disposal of unused antibiotic prescriptions. Activities for the week include the following.

- Distributing a press release highlighting the importance of not using leftover antibiotics.



- Providing information on ways to dispose properly of unused medications.
- Distributing information cards about what individuals can do to protect themselves from antibiotic resistance. The cards are designed for provider offices, pharmacies and school-based clinics to distribute whenever a prescription for antibiotics is discussed, prescribed or filled.

Free educational materials are available. If you are interested in receiving additional information or materials to promote the week, please contact Get Smart Colorado at 303-692-2459 or kellykast@state.co.us.

2007-2008 Influenza Surveillance

by Janell Bezdek and Ken Gershman, MD, MPH

The constantly changing “strains” of influenza viruses cause substantial morbidity and mortality every winter. This article summarizes the Colorado Department of Public Health and Environment’s influenza surveillance for the 2007-2008 season, which is based on the following components.

- reports of influenza-associated hospitalizations
- influenza-like illness reported by sentinel providers and Kaiser Permanente Colorado
- percent positive influenza laboratory tests reported by sentinel laboratories
- circulating strain surveillance
- influenza-associated pediatric deaths
- reports of influenza outbreaks in long-term care facilities

Influenza activity in Colorado during 2007-2008 was greater than the previous

two seasons, especially the mild 2006-2007 season. The following are highlights from the season.

- Based on data from influenza-associated hospitalizations and sentinel providers’ reports, influenza activity peaked in mid-February. (Figure 1)
- As in previous years, influenza-associated hospitalization rates were highest in children less than two years of age (especially in infants less than six months) and adults 70 years and older (especially persons greater or equal to 80 years old). (Figure 2)
- Among reported hospitalized cases with specified influenza virus type, 63 percent were type A and 34 percent were type B. Influenza B viruses

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By reading this issue, you will:

- Understand current influenza trends.
- Learn about updates to influenza vaccine recommendations for school-aged children.
- Get a sneak peak of the upcoming online continuing education course to improve antibiotic prescribing.

Influenza update (continued from page 1)

characterized by the Centers for Disease Control and Prevention belonged to a different lineage than the one included in the 2007-2008 season vaccine.

- Among the type B-associated hospitalizations, 43 percent were persons over 70 years of age. Only 29 percent of type A-associated hospitalizations were in this age group.
- Two pediatric deaths were reported.
- Long-term care facilities reported a considerably higher number of outbreaks than previous years (n=55 compared with n=15 during the previous season).

For more information about influenza, visit the Colorado Department of Public Health and Environment website, www.cdphe.state.co.us/dc/influenza.

Positive influenza tests reported from sentinel laboratories by week, Colorado 2007-2008

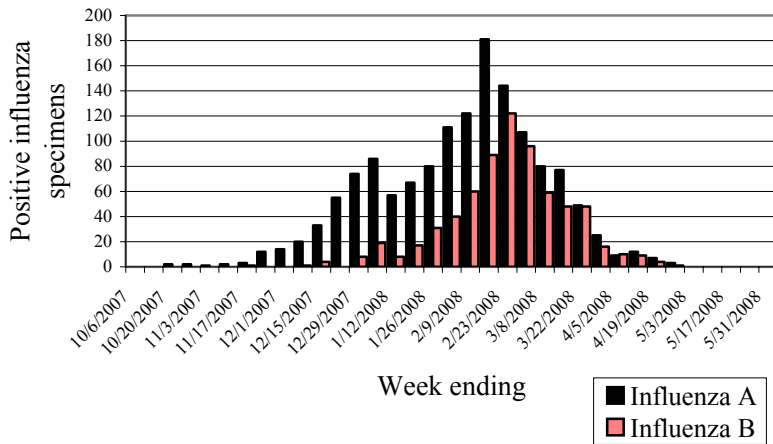


Figure 1

Influenza-associated hospitalization rates by age group, Colorado 2007-2008

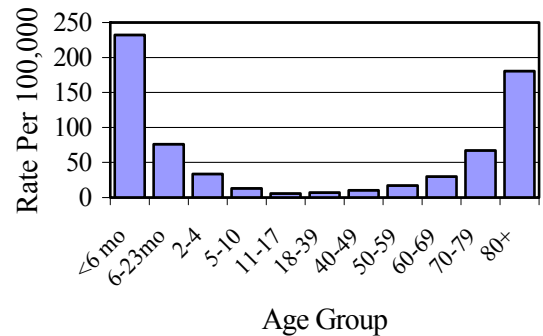


Figure 2

Influenza immunization update

by Helen Johnston

The following is a summary of the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices' 2008 update for school aged children.

- Annual vaccination for all children aged five to 18 years is recommended.
- The expansion of vaccination to include all children aged five to 18 years should begin in 2008 if feasible, but no later than the 2009-2010 influenza season.
- Annual vaccination of all children aged six months to four years and older children with conditions that place them at increased risk for complications from influenza should continue.
- All children aged six months to eight years who have not received vaccination against influenza previously should receive two doses of vaccine the first year they are vaccinated. The second dose should be administered four or more weeks after the initial dose.
- Children aged six months to eight years who previously received one or more doses of influenza vaccine at any time should receive one dose of the 2008-2009 influenza vaccine.

Annual influenza vaccination is recommended for all children aged 5 to 18 years.

- Children aged six months to eight years who only received a single vaccination during a season before 2007-2008 should receive one dose of the 2008-2009 influenza vaccine.

- A new recommendation that either trivalent inactivated influenza vaccine (TIV) or live attenuated influenza vaccine (LAIV) be used when vaccinating healthy persons aged two through 49 years. This amends the previous recommendation that LAIV is to be administered to persons aged five to 49 years.

More information is available on the Centers for Disease Control and Prevention influenza website (www.cdc.gov/flu), including any updates or supplements to these recommendations.

Additionally, with the added recommendation that all school aged children be vaccinated, the Vaccines for Children Program is important to keep in mind. All recommended routine childhood vaccines are available through this program, including influenza vaccines. Vaccines are provided to eligible children without vaccine cost to the patient or the provider. For more information about this program visit, www.cdc.gov/vaccines/programs/vfc.

Antibiotics for adults with clinically diagnosed acute rhinosinusitis: a review

by Kelly Kast, MSPH

Current treatment guidelines state antibiotics for treatment of rhinosinusitis should be reserved for patients with prolonged (greater than seven to 10 days) or severe symptoms (Rosenfeld 2007, Hickner 2001). A March 2008 meta-analysis conducted by Jim Young, et. al. concluded that even duration and clinical presentation is not enough to warrant antibiotic prescriptions (Young 2008). The following are highlights from the study.

- The authors analyzed individual patient data from 2,547 adults in nine trials.
- Fifteen patients with rhinosinusitis-like complaints would have to be given antibiotics before an additional patient was cured.
- Common clinical signs and symptoms could not identify a subgroup of patients for whom treatment was clearly justified.
- Patients with purulent discharge in the pharynx took longer to cure than those without this sign; however, the number needed to treat was still eight before one additional patient was cured.
- Patients who were older, reported symptoms for a longer duration, or reported more severe symptoms took longer to cure but were no more likely to benefit from antibiotics than other patients.
- The authors cautioned, however, that all trials included in the review excluded patients with severe symptoms. Thus, symptom severity, as a suggestion of a serious complication, is reason for immediate antibiotic treatment.
- The authors concluded common clinical signs and symptoms cannot identify patients with rhinosinusitis for whom treatment is clearly justified. Antibiotics are not justified even if a patient reports symptoms for longer than seven to 10 days.

In a comment to this article, Damoiseaux finds the results of this study, though robust, “disappointing” (Damoiseaux 2008). His criticism states that what is needed is a better understanding of the subgroups that would benefit from antibiotic treatment, not further evidence that “acute sinusitis based on clinical symptoms will not be cured with antibiotics.”

Young acknowledges this subgroup exists (Young 2008). He emphasizes the subgroup is “probably quite small” and practicing clinicians “can provide symptom relief and only prescribe an antibiotic if a patient’s condition fails to improve seven days after diagnosis (or worsen at any time)” without compromising patient safety.

Schumann and Hickner, in their article, “*Patients insist on antibiotics for sinusitis? Here is a good reason to say ‘no’*”, tout the strength of the meta-analysis’s recommendation as A-level and applaud that the evidence is applicable to primary care settings, i.e., the meta-analysis excludes studies diagnosing patients using X-ray or computed tomography (CT) scan (Schumann 2008). As the study indicates,

symptoms lasting longer than one week are not a reason to prescribe antibiotics. Schumann and Hickner emphasize the role (and evidence) for the use of symptomatic treatment: pain medications, saline nasal spray and saline irrigation. Current evidence for the use of nasal steroids is equivocal.

Articles cited

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2. Hickner JM, Bartlett JG, Besser RE, Gonzales R, Hoffman JR, Sande MA. Principles of appropriate antibiotic use for acute rhinosinusitis in adults: background. *Ann Intern Med* 2001; 37:703-10.
3. Young J, De Sutter A, Merenstein D, van Essen GA, Kaiser L, Varonen H, Williamson I, Bucher HC. Antibiotics for adults with clinically diagnosed acute rhinosinusitis: a meta-analysis of individual patient data. *Lancet* 2008; 371(9616):908-14.
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6. Schumann SA, Hickner J. Patients insist on antibiotics for sinusitis? Here is a good reason to say “no.” *J Fam Pract* 2008; 57:464-8.



Contributors

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Continuing education course

Get Smart Colorado is working with faculty, a course designer and the Colorado Foundation for Medical Care to develop an online continuing education program entitled, *“Improving Appropriate Antibiotic Prescribing for Acute Respiratory Infections.”* The goal of the course is to improve antibiotic prescribing among physicians, nurses and physicians assistants.

The course emphasizes the effective use of communication strategies between providers and patients as a means of improving appropriate prescribing of antibiotics. Case studies are used throughout the course to demonstrate patient and provider interactions as well as review current guidelines for appropriate prescribing. The course is structured into adult and pediatric sections, allowing users to choose the section most appropriate for them.

The launch date for the online program is this fall and the it will be available for two years. Anyone who has internet access can take the course. Physicians will be able to earn 1.5 CME credits while nurses can earn 1.5 CNE credits. AAFP and ACPE accreditation is pending.

After completion of the course, participants will be able to do the following:

- Describe four consequences of the overuse of antibiotics

for acute respiratory infections.

- Apply the principles of appropriate antibiotic use for treatment of acute sinusitis, acute bronchitis, pharyngitis and acute otitis media.
 - Develop practical strategies to adopt appropriate antibiotic use within one’s practice.
- The following are the course faculty.
- Katherine Anderson, MD, University of Colorado Denver Family Physician, Denver Health and Hospital Association Community Health Services
 - Deborah Chapman, PA-C, Doctors Care Clinic
 - Doug Fish, PharmD, University of Colorado Denver, School of Pharmacy
 - Sunny Linnebur, PharmD, University of Colorado Denver, School of Pharmacy
 - Lon McQuillan, MD, University of Colorado Denver
 - Linda Shimoda, RN, BSN, Pediatric Nurse Practitioner Littleton Pediatric Medical Center

The course will be available at www.co.train.org. Look for more information on credits and the official launch date in future issues of this newsletter.

Coming Soon!

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