

EPI Update for Friday, July 22, 2005  
 Center For Acute Disease Epidemiology  
 Iowa Department of Public Health

*Items for this week's EPI Update include:*

- **Heat Index goes triple digits: Hints on staying cool**
- **Updates on Pertussis Treatment and Prophylaxis**
- **Update on ISU Entomology Lyme Disease Project: New Lyme Disease Tick Surveillance Postcard**
- **CDC 2005 Recommendations on Prevention and Control of Influenza**
- **Meetings**

**Heat Index goes triple digits: Hints on staying cool**

At our website <http://www.idph.state.ia.us/> you will find information on how to stay cool and healthy during these hot days. You will also find information for those going on RAGBRAI on how to beat the heat while biking across Iowa.

**Updates on Pertussis**

The Centers for Disease Control and Prevention (CDC) guidelines for the "Control of Pertussis Outbreaks, 2000" is currently under revision. The following is updated information that should replace material in the 2000 version. Future updates will be posted at <http://www.cdc.gov/nip/publications/guide.htm> as they become available. These updates will also be reflected in a revision to the "EPI" Manual pertussis chapter.

- **Treatment and Chemoprophylaxis** - The following chart summarizes the updated recommendations for use of antibiotics for pertussis treatment and prophylaxis.

**Table 1. Summary of oral macrolide treatment and chemoprophylaxis for pertussis by age group**

Age group	Erythromycin (14-day course)	Clarithromycin (7-day course)	Azithromycin (5-day course)
≥6 months	40-50 mg/kg/day in 4 divided doses (maximum 2 gm/day) X 14 days	15 mg/kg/day in 2 divided doses (maximum 500mg/dose) X 7 days	10mg/kg/day in single dose on day 1 then
1-5 months	As above (estolate preparation preferred if available)	As above	5mg/kg/day on Days 2 - 5
<1 month	As above (Use as alternate drug in doses above. Drug use is associated with elevated risk of IHPS)	Not recommended (Safety data unavailable)	10mg/kg/day in single daily dose X 5 days Preferred drug. 10mg/kg/day in a single daily dose X 5 days. Only limited safety available.

TMP-SMZ may be used as an alternative agent in patients who are allergic to macrolides, who cannot tolerate macrolides, or who are infected, rarely, with a macrolide-resistant strain of *Bordetella pertussis*. The recommended dose in children is trimethoprim 8 mg/kg/day, sulfamethoxazole 40 mg/kg/day in two divided doses for 14 days. For adults, the recommended dose is trimethoprim 320 mg/day, sulfamethoxazole 1,600 mg/day in two divided doses for 14 days. Because of the risk of kernicterus, TMP-SMZ should not be given to pregnant women, nursing mothers, premature neonates, or infants <2 months of age.

Initiating antimicrobial treatment in the patient after three weeks of cough has limited benefit except in high-risk cases.

- **Hospitals, Institutions and Clinics**

Health-care workers who have appropriately followed standard and droplet precautions (including wearing a surgical mask) during close contact with cases do not require post-exposure prophylaxis.

- **Use of Pertussis Vaccine After Having Pertussis Disease**

Currently many experts recommend children (especially infants age <12 months) who have a history of pertussis disease complete the routine childhood vaccination series for pertussis with DTaP. This is recommended because the duration of protection from pertussis disease is unknown and pertussis can be difficult to confirm. At least one study found that infants (age <12months) may have a suboptimal immune response following pertussis disease.

- **Recommendations for Use of Tdap and Td vaccines among Adolescents**

Final national recommendations on use of these new vaccines are pending and will be posted in the Friday Epi-Update when available. Draft recommendations are as follows:

- Tdap should replace Td for all 11 and 12 year olds.
- Those ages 13-18 years who have not yet received a Td booster, should receive Tdap in place of Td.
- Adolescents ages 11-18 who have received Td are encouraged to receive a single dose of Tdap to provide protection against pertussis if they have completed their recommended childhood DTaP vaccination series, once five years have elapsed to limit the risk of local reactions.

### **Update on ISU Entomology Lyme disease project: New Lyme disease tick surveillance postcard**

Iowa State University, Department of Entomology, in partnership with Iowa Department of Public Health, has conducted a Lyme disease tick surveillance project for over 15 years (<<http://www.ent.iastate.edu/lds/lds.html>>). This project has been and continues to be very valuable for knowing what species of ticks occur in Iowa and where they occur. Previously, ticks that were submitted to ISU and were identified as deer ticks were tested for the organism that causes Lyme disease, and this result was reported to the individual who submitted the tick. Based on past and current research, in addition to recommendations by the Infectious Disease Society of America (IDSA), ISU Entomology will no longer report the results of testing deer ticks for *Borrelia burgdorferi*

to the submitter of the tick. The rational being, people were using this result to inappropriately determine need for treatment. Testing deer ticks for *Borrelia burgdorferi* will continue for research purposes only.

If you find a tick attached to yourself and would like to have the specie of tick identified, mail the tick to Lyme Disease Project, Department of Entomology, 440 Science II, Iowa State University, Ames, IA 50011-3222. Place the tick in a sealed plastic bag with tissue paper and 2-3 drops of water, and mail in a standard envelope; please include your name and address; geographic location where you found the tick; and whether it was attached or not and to what (e.g., you? your dog?). You will receive a postcard in the mail that identifies the species of the tick.

Although Lyme disease is the most common tick-borne disease reported in Iowa, only 49 confirmed cases were reported last year. The percentage of deer ticks in Iowa estimated to be infected with the organism that causes Lyme disease (*Borrelia burgdorferi*) is around eight to 10 percent. The chance of being infected with the organism is actually much lower and is actually less than three percent. Research shows that the deer tick must be attached for more than 24 hours (typically 48 to 72 hours) to transmit the organism. Additionally, the nymph stage (pre-adults) of deer ticks is more likely to transmit the organism than adult deer ticks. Because feeding nymphs are rarely noticed due to their small size, they are more likely to feed for at least 48 to 72 hours. The Infectious Disease Society of America (IDSA) **does not** recommend giving antibiotics just because someone has been bitten by a tick. Treatment by a medical provider should not be based on the results of testing deer ticks but **rather on evaluation of the patient**.

The recommendation by CDC, IFDSA and IDPH for persons who find ticks attached to them is to watch for fever or a rash at the site of attachment for 30 days. If these symptoms occur, they should see their medical provider to be assessed for Lyme disease or one of the other diseases that can be transmitted by ticks (for example, human granulocytic ehrlichiosis, Rocky Mountain spotted fever or babesiosis of which the first two are known to occur in Iowa).

For the IDSA's guidelines on treatment of Lyme disease, please go to:

<http://www.journals.uchicago.edu/CID/journal/issues/v31nS1/000342/000342.web.pdf>  
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More information about tick-borne diseases is available on the CDC's website at:

<http://www.cdc.gov/ncidod/ticktips2005/>>>

### **CDC 2005 recommendations on Prevention and Control of Influenza**

You might not be thinking of Influenza yet, but CDC is. Here are three of the principle changes/recent updates are:

- ACIP recommends that persons with any condition (e.g., cognitive dysfunction, spinal cord injuries, seizure disorders, or other neuromuscular disorders) that can compromise respiratory function or the handling of respiratory secretions or that

can increase the risk for aspiration be vaccinated against influenza (see “Target Groups for Vaccination”).

- ACIP emphasizes that all health-care workers should be vaccinated against influenza annually, and facilities that employ health-care workers are strongly encouraged to provide vaccine to workers by using approaches that maximize immunization rates.
- Use of both available vaccines (inactivated and LAIV) is encouraged for eligible persons every influenza season, especially persons in recommended target groups. During periods when inactivated vaccine is in short supply, use of LAIV is especially encouraged when feasible for eligible persons (including health-care workers) because use of LAIV by these persons might considerably increase availability of inactivated vaccine for persons in groups at high risk.

For the entire MMWR go to

<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr54e713a1.htm> and

<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr54e713e1.htm>.

**Meetings:**

- Save The Date!  
The annual Iowa HIV/AIDS Conference will be held October 11 & 12 in Des Moines.