

EPI Update for Friday, February 10, 2006
Center for Acute Disease Epidemiology
Iowa Department of Public Health (IDPH)

Items for this week's EPI Update include:

- **Imported Vaccine-Associated Paralytic Poliomyelitis**
- **Influenza Update**
- **FDA Approves New Laboratory Test To Detect Human Infections With Avian Influenza A/H5 Viruses**
- **Mumps Testing Update**
- **EPI Update Survey (Below) Please complete and reply**

Imported Vaccine-Associated Paralytic Poliomyelitis

The Feb 3, 2006 issue of the CDC's **MMWR** contains a report on vaccine-related polio virus infecting a 22-year-old female U.S. citizen while visiting Central and South America on a study-abroad program. The patient became ill with fever, malaise, neck and back pain, and ultimately respiratory failure and paralysis. Stool cultures identified Sabin-strain poliovirus types 2 & 3, found in oral polio vaccine (OPV) preparations. She subsequently recovered respiratory function but still had residual weakness in both legs two months later.

The patient had never been vaccinated with either OPV (oral polio vaccine) or injected polio vaccine (IPV) because of a religious exemption. The patient was likely exposed to live Polio-vaccine virus, OPV when she stayed with a host family whose 2 month old infant had been immunized with live oral Polio vaccine just 4 days prior to the patient's arrival.

This case highlights the need for people who travel out of the U.S. to be well protected from vaccine preventable diseases. Adults who are unvaccinated, incompletely vaccinated, or whose vaccination status is unknown should receive IPV before traveling to areas where polio is epidemic or endemic. The risk for a traveler for contracting paralytic disease much greater in a polio-endemic country or outbreak country (e.g., Nigeria) than in an OPV-using country that is free from wild poliovirus. This case, however, shows that there is also some risk for unvaccinated people who visit countries where live polio vaccine is still used. More information on specific vaccination recommendations can be found in the Epi Manual at http://www.idph.state.ia.us/adper/surveillance_manual.asp

Influenza Update

Seasonal Influenza: Iowa and the United States

Iowa continues at regional activity. Influenza-like illness is increasing slowly in all reporting populations. Schools in Polk and Sioux Counties reported overall student absenteeism greater than >10% on several days last week. For more information on the

Iowa Influenza Surveillance Network or to view our activity map, visit our Web site at <http://www.idph.state.ia.us/adper/iisn.asp>.

Avian Influenza

Confirmation of H5N1 in one large commercial poultry farm in Nigeria marks further geographical spread of the virus. Experience in several other countries has shown how quickly the H5N1 virus can spread and become firmly established in poultry. In Nigeria, as in other parts of Africa, most village households maintain free-ranging flocks of poultry as a source of income and food. Close human contact with poultry is extensive, though the virus still does not spread easily from bird to human. Only in one case has it spread from human to human.

The World Health Organization (WHO) has confirmed several more cases in Turkey that were previously reported by Turkish health authorities. As of Feb. 9th, 166 cases have been confirmed including 88 deaths. The single case reported in Iraq was also a fatality. The only country with sustained, consistent case reports of human illness is China.

Pandemic Influenza Planning Efforts

More than 400 people attended the Pandemic Influenza Summit held in Des Moines on Feb. 3. Video footage of the summit is available on the IDPH Web site at www.idph.state.ia.us/pandemic. A variety of fact sheets on influenza are also available at this site.

FDA Approves New Laboratory Test To Detect Human Infections With Avian Influenza A/H5 Viruses

On Feb. 3, the U.S. Department of Health and Human Services (HHS) announced that the Food and Drug Administration (FDA) has approved a new rapid test to diagnose infection with H5 strains of influenza (i.e. Bird Flu). The test is called, the Influenza A/H5 (Asian lineage) Virus Real-time RT-PCR Primer and Probe Set. It will be distributed to Laboratory Response Network (LRN)-designated laboratories to enhance early detection and surveillance activities. The University Hygienic Laboratory (UHL) is the LRN laboratory for the state of Iowa. UHL participated in the validation studies conducted by the CDC on this test and will use it to replace the older version of the A/H5 RT-PCR test.

Mumps Testing Update

There have been a number of reports of patients with mumps-like symptoms as well as several laboratory confirmed cases of mumps this year in Iowa. An updated mumps chapter for the IDPH Epi Manual and a case follow-up form were discussed in last week's EPIUpdate and can be found at http://www.idph.state.ia.us/adper/surveillance_manual.asp.

It is difficult to clinically differentiate mumps from other conditions causing parotid swelling. Parotitis can be caused by adenovirus, Epstein-Barr virus, parainfluenza virus

types 1 and 3, influenza A virus, Coxsackie A virus, echovirus, lymphocytic choriomeningitis virus, HHV-6, and human immunodeficiency virus. Parotitis can also occur due to non-infectious causes. Lab tests are needed for diagnosis and subsequent treatment.

Laboratory tests should be collected on individual cases and on 2 or 3 individuals out of a cluster who have acute illness and symptoms most consistent with disease. Blood should be tested for IgM antibodies during the acute phase of illness, optimally 4 to 5 days after onset of symptoms. Paired acute and convalescent serum specimens are recommended for IgG testing because false positive IgM results can occur. Additionally, collecting a throat swab after the parotid glands have been massaged and collecting urine for mumps virus isolation is recommended. The specimens submitted for viral culture should be collected as soon as possible after onset of symptoms and within the first 5 days of parotitis.

Collect

- Serum for IgM and IgG antibody detection.
- Throat swab for viral culture in M4 transport media tube (pink fluid), massaging the parotid and salivary glands prior to swabbing the throat at the Stensen's duct orifice (level with upper 2nd molar). Laboratories have M4 transport tubes available in the Biodefense Kits (blue box) or viral collection kits. If M4 transport media is needed, contact UHL.
- Urine - clean catch - for mumps virus isolation

Clinical specimens should be delivered to UHL as soon as possible and no later than 4 days after collection. Specimens should be kept cold during transport, but not frozen.

A person with acute illness should stay home. The appropriate treatment is supportive care. The case should be isolated during the infectious period (for nine days after onset of parotid swelling). There are no effective post-exposure recommendations to prevent secondary cases in contacts, but susceptibles should be vaccinated to prevent tertiary cases. Birth before 1957 does not guarantee mumps immunity. In outbreak settings vaccination with mumps containing vaccine, preferably MMR, should be considered for anyone who has not received 2 doses of vaccine.

EPI Update Survey

“Epi Update” Survey

From: Patricia Quinlisk, MD, MPH 2-

10-06

The Iowa Department of Public Health is conducting this brief survey to assess the impact that this newsletter has on YOU. Your feedback is critical for us to improve upon the content and ensure that the newsletter meets your needs. The survey results will be available in March '06. Your email address and any identifying responses will be kept confidential.

This should take only 2-3 minutes. THANK YOU!

1) Click on *reply* so you can enter your answers.

2) Type an X to the left of the best fitting answers .

3) Click *send* to email your answers back to us.

1. Which **ONE** of the following categories best describes you:

- A) Healthcare professional (physician, nurse, veterinarian, public health worker, etc.)
- B) Healthcare student (medicine, veterinary, nursing, public health, etc.)
- C) Teacher (grade school, high school, university, vocational, etc.)
- D) Government worker (public official, lobbyist, secretary, etc.)
- E) Journalist (any media representative)
- F) Other type of professional: _____
- G) General Public

2. Select your primary location:

- A) County in Iowa, specify: _____
- B) State surrounding Iowa:
- Minnesota
 - Wisconsin
 - Illinois
 - Missouri
 - South Dakota
 - Nebraska
 - Kansas
- D) Other states in the USA –specify state: _____
- E) Other country: _____

3. How has reading the EPI Update impacted you? (Select **ALL THAT APPLY.**)

- EPI Update:
- A) has never changed any part of my professional or personal activities
- B) has given me something interesting to read each Friday
- C) has changed personal activities (cooking, hand washing, swimming, etc.)
Give examples: _____
- D) is a valuable tool in professional activities (giving vaccinations, finding information, helping make recommendations, etc.)
Give examples: _____
- E) Other – please explain _____

4. In the EPI update, you need information on: (Select **ALL THAT APPLY.**)

- A) Specific agents causing Infectious Diseases (ID) (Influenza, rabies, hepatitis, etc.)
- B) Vaccinations
- C) Rare diseases (Human Botfly, Mad Cow Disease, etc.)
- D) Local or state ID issues (outbreaks, diseases happening in Iowa, etc.)
- E) Bordering states ID issues
- F) International or national ID issues
- G) Pharmaceuticals (antibiotics, anti-virals, immunoglobulin, etc.)

- H) Iowa legislation on ID issues
 - I) Behavioral issues that relate to ID (smoking, food, stress, cancer, obesity, etc.)
 - J) Upcoming events, conferences or training on ID and public health
 - K) Health Alerts from the CDC (no longer recommending some anti-virals for the flu)
 - L) Other –please specify: _____
- COMMENTS: _____

5. You are currently satisfied with the information on: (Select **ALL THAT APPLY.**)

- A) Specific agents causing Infectious Diseases (ID) (Influenza, rabies, hepatitis, etc.)
 - B) Vaccinations
 - C) Rare diseases (Human Botfly, Mad Cow Disease, etc.)
 - D) Local or state ID issues (outbreaks, diseases happening in Iowa, etc.)
 - E) Bordering states ID issues
 - F) International or national ID issues
 - G) Pharmaceuticals (antibiotics, anti-virals, immunoglobulin, etc.)
 - H) Iowa legislation on ID issues
 - I) Behavioral issues that relate to ID (smoking, food, stress, cancer, obesity, etc.)
 - J) Upcoming events, conferences or training on ID and public health
 - K) Health Alerts from the CDC (no longer recommending some anti-virals for the flu)
 - L) Other –please specify: _____
- COMMENTS: _____

6. Information in following areas should be improved upon: (Select **ALL THAT APPLY.**)

- A) Specific agents causing Infectious Diseases (ID) (Influenza, rabies, hepatitis, etc.)
 - B) Vaccinations
 - C) Rare diseases (Human Botfly, Mad Cow Disease, etc.)
 - D) Local or state ID issues (outbreaks, diseases happening in Iowa, etc.)
 - E) Bordering states ID issues
 - F) International or national ID issues
 - G) Pharmaceuticals (antibiotics, anti-virals, immunoglobulin, etc.)
 - H) Iowa legislation on ID issues
 - I) Behavioral issues that relate to ID (smoking, food, stress, cancer, obesity, etc.)
 - J) Upcoming events, conferences or training on ID and public health
 - K) Health Alerts from the CDC (no longer recommending some anti-virals for the flu)
 - L) Other –please specify: _____
- COMMENTS: _____

7. The EPI Update should contain **MORE** information on which diseases: (Select **ALL THAT APPLY.**)

- A) Influenza (human, avian, swine, etc.)
- B) Rabies
- C) Hepatitis (type A, B, C)

- D) Food-borne illnesses (Salmonella, *E. coli*, Giardia, etc.)
- E) West Nile virus
- F) Pertussis (whooping cough)
- G) Meningitis
- H) Rare diseases (Human Botfly, leprosy, histoplasmosis, tuberculosis, etc.)
- I) Other disease(s) _____

8. The EPI Update should contain **LESS** information on which diseases:
(Select **ALL THAT APPLY**.)

- A) Influenza (human, avian, swine, etc.)
- B) Rabies
- C) Hepatitis (type A, B, C)
- D) Food-borne illnesses (Salmonella, *E. coli*, Giardia, etc.)
- E) West Nile virus
- F) Pertussis (whooping cough)
- G) Meningitis
- H) Rare diseases (Human Botfly, leprosy, histoplasmosis, tuberculosis, etc.)
- I) Other disease(s) _____

9. Select what best describes the technical reading level in the EPI Update:

- A) Overly technical
- B) Appropriately technical
- C) Not technical enough

COMMENTS: _____

10. Select what best describes the overall amount of information in the EPI Update:

- A) too much information –needs to be more concise
- B) an appropriate amount of information
- C) too little relevant information –needs more depth

COMMENTS: _____

11. Select from where you receive the EPI Update:

- A) directly from the Iowa Department of Public Health
- B) through a professional organization/society list server
- C) from a list server or forwarding through my work place
- D) from another individual forwarding it (family, friend, etc.)
- E) Other: _____

12. On what weekday is it most useful to receive the EPI Update?

- A) Monday
- B) Tuesday
- C) Wednesday
- D) Thursday
- E) Friday

13. The epidemiology learning item with 5 questions in a newsletter and the answers in the next newsletter (“EPI 5”) is:

- A) a great learning tool and I wish such questions were in every update
- B) a nice refresher and I wish such questions were included about once per month
- C) nice to have about once per year
- D) not helpful and should not be included

COMMENTS: _____

14. Regarding humorous and/or epidemiologically interesting stories (e.g. Epidemiology of Christmas Fever, or story about a live raccoon in back of a someone’s car), such stories:

- A) should be included MORE
- B) are included enough
- C) should NOT be included

COMMENTS: _____

15. The historical perspective articles (e.g. the Avian Flu epidemic at Grinnell College in Iowa during the 1950s):

- A) are very important and should be included regularly
- B) are somewhat important, and should be included only when relevant to current events
- C) should not be included

COMMENTS: _____

16. The announcements, conferences and training events are:

- A) important because I attended events found within or often used the information
- B) interesting to read about, but I have seldom used the information
- C) not to be included

COMMENTS: _____

17. The Internet links included for further information are:

- A) very useful –I clicked on some each week and was satisfied
- B) somewhat useful –I clicked on several of them and was satisfied
- C) not useful –I clicked on several of them and was NOT satisfied
- D) I have never used any of the reference links
- E) Other: _____

COMMENTS: _____

18. In this section, please provide any additional suggestions or comments to help us make the EPI Update as helpful as possible. _____

THANK YOU! for your participation in this questionnaire. If you have questions, comments or would like to see the results of this survey, please contact our MPH intern Philip Bovet at: PBovet@idph.state.ia.us, IDPH phone number: 1-800-362-2736 or 515-

242-5935. If you would like to visit our EPI Update archive page, then click on the following link: http://www.idph.state.ia.us/adper/epi_update.asp.

Have a healthy and happy week!

Center for Acute Disease Epidemiology

Iowa Department of Public Health

800-362-2736