

WISCONSIN EPI EXPRESS

June 23, 2006

[Wisconsin Department of Health & Family Services](#)
Division of Public Health
Bureau of Communicable Diseases and
Preparedness

"Always have chlorinated soda for nurses to wash their hands, especially after dressing or handling a suspicious case. It may destroy germs at the expense of the cuticle, but if it takes off the cuticle, it must be bad for the germs."

Florence Nightingale

The WISCONSIN EPI EXPRESS provides a regular update on communicable disease issues of importance in our state and is intended primarily for participants in the public health surveillance system. Please let us know if the topics covered are on target or if there are others that we should be addressing. Thank you. Akan Ukoenn MPH, Director, Bureau of Communicable Diseases and Preparedness

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1. STATEWIDE VARIANCE GRANTED TO USE QUANTIFERON TB GOLD FOR TB SCREENING

The Bureau of Quality Assurance (BQA) has granted a state-wide variance allowing any hospital or Community Based Residential Facility (CBRF) to use the "TB blood test" in place of the Mantoux TB skin test for tuberculosis screening.

Hospitals and CBRFs are the only two providers in Wisconsin for which the TB skin test is specified in the requirements. For all other types of licensed providers that require screening for infectious diseases (nursing homes, facilities for the developmentally disabled, etc.), the TB skin test is not specified. Thus, all other providers may choose to screen for tuberculosis infection using the "TB blood test" in place of the TB skin test without any special variance or waiver.

The QuantiFERON TB-GOLD test cannot be used solely for establishing the presence or absence of active TB disease; only the presence or absence of latent TB infection.

Additional information on QuantiFERON TB GOLD can be accessed at the Wisconsin TB Program website at www.dhfs.wisconsin.gov/tb

BQA memos are no longer mailed out to providers but are distributed electronically by a variety of methods. To subscribe to the BQA memo series electronically, go to: http://dhfs.wisconsin.gov/dsl_info/signup.htm

For more information contact the TB Program at (608) 266-9692.

2. PRESENCE OF DEER TICKS IN SOME STATE PARKS

Researchers from Michigan State University have been and continue to work on a CDC-funded study examining the abundance and distribution of *Ixodes scapularis* (deer ticks/ black-legged ticks) in the eastern United States. *I. scapularis* are the ticks that transmit Lyme Disease in Wisconsin.

During the summer 2005 they performed sampling in several Wisconsin state parks and are currently discussing where to sample in 2006. Listed below are the parks sampled in 2005 and whether or not *I. scapularis* was detected.

- Black River State Forest (Jackson County) - yes
- Brunet Island State Park (Chippewa County) - yes
- Council Grounds State Park (Lincoln County) - yes
- Kettle Moraine State Park - North Unit (Sheboygan/Washington Counties) - no
- Mirror Lake State Park (Sauk/Columbia Counties) - yes
- Potawatomie State Park (Door County) - no
- Rib Mountain State Park (Marathon County) - yes
- Wildcat Mountain State Park (Vernon County) - Yes

It is noteworthy that all sites were sampled multiple times, and the two negative sites were sampled five times.

These data may be useful to you in responding to questions about the risk of Lyme disease acquisition in particular areas.

For more information, contact Dr. Jim Kazmierczak (608) 266-2154 or Dr. Mark Sotir (608) 267-9000.

3. SURVEILLANCE FOR INFLUENZA AND OTHER VIRUSES IN WISCONSIN

Readers of the Wisconsin Epi Express (WEE) may be aware that the vaccine for the upcoming 2006-2007 influenza season includes a strain of the virus first identified here in Wisconsin (A/Wisconsin/67/2005). Wisconsin has for many years had a program of active laboratory influenza and other respiratory virus surveillance, developed and continued under the leadership of Dr. Pete Shult at the Wisconsin State Laboratory of Hygiene (WSLH). In large part because of its longstanding involvement in and commitment to influenza testing, the WSLH was recently selected by CDC as the first state laboratory, and only the second laboratory in the US to perform antiviral drug resistance for influenza. The following article, taken from the WSLH website, describes the state respiratory virus surveillance program, which now also includes syndromic surveillance for influenza like illness (ILI):

Surveillance for Influenza and Other Viruses in Wisconsin

Active surveillance for influenza and other viruses in Wisconsin is a collaborative effort by the Wisconsin Division of Public Health (WDPH) Bureau of Communicable Diseases and Preparedness (BCDP) and the Wisconsin State Laboratory of Hygiene (WSLH). Influenza surveillance is a central element in overall viral surveillance in Wisconsin and incorporates clinician diagnoses, laboratory testing, and data analysis. All reporting and specimen/ isolate submission by clinicians, laboratories, and other test sites in the state is voluntary.

Syndromic Surveillance (Clinician diagnoses): The Wisconsin Sentinel Clinician Program is part of the U.S. Sentinel Physician Surveillance Network designed and implemented by the Influenza Branch of the Centers for Disease Control and Prevention (CDC). Sentinel

clinicians provide voluntary, year-round reports by age group of the number of patients presenting with influenza-like illness (ILI) and the total number of patient visits each week. ILI is described as the presence of fever > 100° F (oral or equivalent) with cough or sore throat in the absence of a known cause. Participating clinicians are geographically chosen to provide a representative sample of patients in the state and include physicians, nurse practitioners and physician assistants who specialize in family practice medicine or pediatrics.

The BCDP uses data received from the CDC to monitor influenza activity nationwide and in Wisconsin. The BCDP calculates baseline and threshold levels of ILI for the state and for each of the five public health regions in Wisconsin. The baseline level is used to differentiate low and moderate ILI activity while the threshold level differentiates moderate and high ILI activity.

Additional information is provided to the BCDP by voluntary reporting of influenza outbreaks in long-term care facilities, schools and other congregate settings.

Laboratory-based surveillance: Wisconsin's laboratory-based viral surveillance depends on a combination of testing at the Wisconsin State Laboratory of Hygiene (WSLH) and voluntary reporting and specimen or isolate submissions by virology laboratories and rapid testing sites throughout the state.

- Selected clinicians (sentinel submitters) at clinic and hospital sites in Wisconsin submit a limited number of respiratory specimens directly to the WSLH for viral testing.
- Virology laboratories throughout Wisconsin (the Wisconsin Virology Laboratory Information Network or "LIN"), provide weekly summaries to the WSLH of the total number and types of specimens tested and the number positive for each virus. LIN members also submit selected viral isolates to the WSLH or the Milwaukee Health Department Laboratory (MHDL) for subtyping or serotyping.
- Rapid Testing Sites throughout Wisconsin provide a weekly summary to the WSLH of the total number of specimens tested and the number positive for selected agents, including influenza. Rapid Testing Sites also submit their first influenza-positive specimens to a virology laboratory for culture-confirmation. Subtyping of influenza isolates is performed at the MHDL or at the WSLH.

Both the BCDP and the WSLH monitor the types of viruses detected and the percentage of positive specimens to assess activity within the state. Evaluation of test results in context is especially important during periods of low ILI activity when the positive predictive value (PPV) of rapid test results is low.

Each week, the BCDP provides current information on respiratory virus activity in the state on the Health Alert Network (HAN).

4. MUMPS OUTBREAK AFFECTING ADOLESCENTS AND YOUNG ADULTS IN AUSTRIA, 2006

Readers of the WEE are undoubtedly aware of the outbreak of mumps which began in Iowa, and spread to Wisconsin and a number of other nearby states. The outbreak here has been well covered in the media, but the following article, taken from the weekly online journal *EuroSurveillance* describes a similar outbreak which occurred at roughly the same time in Austria, and how the public health system there responded to it:

Mumps outbreak affecting adolescents and young adults in Austria, 2006

Epidemiology

Austria is currently experiencing the longest outbreak of mumps since mumps vaccination was first introduced into the national immunization program in 1974. A total of 87 cases have been reported. The main affected provinces are Kärnten (known in English as Carinthia, located in southern Austria), Niederösterreich and Wien (both in northeast Austria). The age group most affected is people between 18 and 30 years old.

The provincial health authorities in Kärnten were informed of an increased number (n=16) of cases of mumps in adolescents and young adults aged 16-20 years, that occurred in five neighbouring health districts in Kärnten in April and May 2006, and on 22 May 2006, the Austrian Agency for Health of Food Safety's department for infection epidemiology was asked for help to investigate a temporal and geographical cluster of mumps. As mumps is not a notifiable disease in Austria, data protection issues have hindered the investigation of this outbreak, and active case finding by personal interviews of the 87 passively ascertained cases was not possible.

By 14 June, 47 cases of mumps from five neighbouring districts in Kärnten had been serologically (blood samples) confirmed in the national reference laboratory in Vienna. Data on possible or probable cases are not yet available. In two further Austrian provinces local medical laboratories have noticed an unusual high number of mumps cases since April 2006 (18 cases in Niederösterreich and 13 cases in Wien).

By 14 June, there were two serologically confirmed cases of mumps meningitis, five serologically confirmed cases of orchitis, and one serologically confirmed case of pancreatitis, and another case involved a pregnant woman.

Investigation

After the first alert in Kärnten, mumps information sheets (one type for healthcare providers and another type for the affected population) were disseminated to local physicians and hospitals in the five districts. The local physicians and hospitals were asked to complete a questionnaire which, despite data protection requirements, should enable a proper case series investigation. Currently, demographic data, clinical onset, case classification (possible, probable or confirmed case), complications (such as meningitis and orchitis), admission to hospital and history of mumps infection and mumps vaccination is being collected. In order to identify sources of infection and people at risk of mumps infection, data is being collected on contact history between 25 and 14 days before clinical onset (swelling of one or more salivary glands) and between the two days before clinical onset and the ninth day after clinical onset, (period of infectiousness).

Initial analysis of case data suggested that there could be a common link between the initial cases in Kärnten, namely attendance at an Easter festivity on 16 April, which may have been the occasion on which the mumps virus was introduced to a community with a high proportion of susceptibles. We hypothesize that adolescents and young adults born before 1994 have either not been vaccinated or have been vaccinated with one dose only.

Routine vaccination programmes and current responses

The bivalent mumps-measles (MM) vaccine was introduced in Austria in 1974, and was replaced in 1994 by the trivalent mumps, measles and rubella (MMR) vaccine. Reliable data on vaccination coverage for MMR in Austria are not available.

Since 31 May, MMR vaccine has been offered to the population of these five health districts by local health authorities, physicians and hospitals. Between 500 and 600

people have so far been vaccinated. The vaccination campaign is being publicized in the media.

Further information on the outbreak will be provided when it becomes available.

Acknowledgements

Institute of Virology, Medical University of Vienna

5. RECENT NOROVIRUS OUTBREAKS ON RIVER AND SEAGOING CRUISE SHIPS IN EUROPE

There have been a number of reports in the WEE over the years, of enteric diseases and outbreaks here in Wisconsin. In recent years, noroviruses have been frequently associated with outbreaks of gastroenteritis in the state, particularly in congregate settings e.g. nursing homes. In Europe, norovirus outbreaks are often associated with tourism venues, including hotels and resorts, and bus tours, but probably even more frequently with cruise ships. The following article, also taken from the most recent issue of *EuroSurveillance*, describes an unusually large number of outbreaks in different countries occurring within a short time period, and all associated with cruise ships. The report also serves to illustrate the rapid electronic disease and outbreak information sharing capabilities that exist between and among the member countries of the European Union:

Recent norovirus outbreaks on river and seagoing cruise ships in Europe

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European Centre for Disease Prevention and Control, Stockholm, Sweden

Seven recent or ongoing outbreaks of norovirus infection on cruise ships have been reported in various media, and several have been posted in ProMED-mail [1]. DIVINE-NET, the European network for the prevention of emerging (food-borne) enteric viral infections (<http://www.eurofoodborneviruses.co.uk/DIVINEVENT/DIVIndex.asp>) has launched a European investigation, in collaboration with the European Centre for Disease Prevention and Control (ECDC).

Between 24 April and 9 June 2006, four cruise ships each reported one on-board outbreak of gastroenteritis, and three ships each reported two outbreaks to the appropriate health authorities. Infection was confirmed in two ships after samples tested positive for norovirus; other samples are still being tested. Based on the current information, it appears that the seven ships are owned by five different companies. Most of the ships have been operating in the Baltic Sea.

DIVINE-NET has sent a request for information to its focal points in the 13 European countries that participate in the network, providing the travel routes of the involved ships and requesting additional information. By 14 June, there was no indication of a common factor linking these outbreaks. The European Commission issued an alert to European Union member states via the European Early Warning and Surveillance System on 15 June.

Norovirus outbreaks are a well-known problem on cruise ships and ship operating companies have guidelines for sanitation procedures. Despite implementing thorough disinfection measures, outbreaks tend to continue on consecutive cruises [2]. Because norovirus is highly contagious and can be spread via several different routes, including person-to-person, food, water and environmental contamination, the ships provide an excellent environment for the virus to spread rapidly [3]. The outbreak investigations are

usually performed by local health authorities in collaboration with ship operating companies. However, it is not always clear who should be in charge of investigations and to what extent the local authorities can collect confidential information, especially if the ships are in international waters. As the ships visit several cities in various countries, the actions taken in one country may not be readily informed to the authorities in other countries.

Although the norovirus outbreaks occur regularly on cruise ships, the seven events in a relatively short time period raise questions on possible common links between the outbreaks and underline a need for international guidelines on outbreak investigations on cruise ships.

Information reported to DIVINE-NET on 13 June is presented below. Information is not complete, but gives an idea of the extent of the outbreaks.

Ship A, The Netherlands

Route: Zutphen (Netherlands) -Antwerp (Belgium)

- Cases: On 26 April 2006, an outbreak of gastroenteritis (15 cases) was reported on a cruise ship chartered by a Japanese tour organization. The index patient became ill on 24 April. The ship left for Antwerp, Belgium on 24 April.
- Samples: Swab samples were taken from door handles, toilets, and a reception counter and found to be positive for norovirus. The sequences were determined: GGII.4.
- A stool sample was collected from one of the patients and tested negative for norovirus.
- Control measures taken: At the time of reporting some hygiene measures had been taken. The ship was thoroughly cleaned before the arrival of a new group of passengers. No new cases have been reported.

Ship B, The Netherlands

Route: Kiel (Germany), Nijmegen (Netherlands), Vienna (Austria)

- Cases: On 22 May a general practitioner reported several cases of norovirus infection to the Municipal Health Service in Nijmegen (eastern Netherlands, on the Rhine and close to the border with Germany). No further investigation was performed at that time.
- On 9 June new cases were reported from the ship B. Ship B was at that time sailing towards Vienna.
- Samples: During the second outbreak, patient samples were collected in Germany and sent to RIVM in Bilthoven for norovirus testing. No further information available at this time.

Ship C, docked at Harwich (England, UK)

Route: Harwich (UK), Bergen (Norway), Flam (Norway), Gudangan(Norway), Rosendal (Norway), Harwich.

- Cases: On 29 May, an outbreak of gastroenteritis was reported, thought to be caused by norovirus. About 70 passengers and 15 crew members were infected. Most of the passengers on ship C are from the United Kingdom. It was reported that two passengers were ill when the ship departed from Bergen to Flam.
- On 9 June, a second outbreak was reported, affecting 28 people in a new group of passengers. Bergen in Norway was visited during this trip.
- Samples: During the first outbreak, stool samples from passengers were examined to look for norovirus at a laboratory in Trondheim, Norway. Due to miscommunication, no patient or environmental samples were taken during the second outbreak.

- Food supply: Both trips included an excursion to a fish market [where?], where passengers ate various fish and shellfish. Therefore this market is a potential source of infection.

Ship D, Nijmegen (The Netherlands)

Route: Kiel (Germany) - Nijmegen (Netherlands) – Vienna (Austria)

- Cases: On 30 May, a cruise ship reported 61 cases of gastroenteritis in a group of American passengers. The index case had illness onset on 20 May, and the last reported case had illness onset on 30 May. There was a peak of 15 new cases on 28 May. MHS Nijmegen and the VWA (Dutch Food Safety Authority) visited the ship for further investigation.
- During ship D's previous trip, it was reported that a small number of gastroenteritis cases occurred. According to the ship's captain, some of the passengers mentioned having had the same symptoms before boarding the ship. However, this was not confirmed by a medical doctor.
- Both ship B and ship D are owned by the same company. However, none of the crew members had worked on both ships.
- Samples: Six patient samples were collected. Stool samples from two patients tested positive for norovirus; testing of samples from a further four patients is still in progress. Environmental swab samples tested positive, and sequences from swabs, patients and other cruise ships will be compared.
- Food supply: ship B and D were both supplied with food in Kiel, by a company that may supply other cruise ships. Fresh food was purchased locally. It is unclear whether high risk foods such as shell fish and soft fruit were included in this local purchase.

Ship E, docked at Southampton, (England, UK)

Route: Vigo (Spain), Southampton (UK)

- Illness reported 30 May
- Arrival from Vigo, Spain. It is not known whether there were any stops between Vigo and Southampton.
- Dealt with by Southampton and Spain.
- No further information currently available

Ship F, docked at Dundee (Scotland, UK)

Route: Tallinn (Estonia), Copenhagen (Denmark), Stockholm (Sweden), Helsinki (Finland), St Petersburg (Russia)

- Cases: on 29 May a first outbreak was reported in Dundee.
- On 9 June, a second outbreak was reported in Hull
- In one of the outbreaks, 70 passengers and 15 crew members were affected. It is not known whether passengers brought the virus onto the ship or whether the outbreak is linked to its sister ship, ship C, which is owned by the same company. Ship F did not visit Bergen.
- No further information currently available

Ship G, docked at Leith (Scotland, UK)

- On 12 June an outbreak was reported with 116 cases.
- This ship is owned by a different company.
- No further information is currently available.

Acknowledgments: J Harris (DIVINE-NET)

References:

1. <http://www.promedmail.org/>
2. Centers for Disease Control and Prevention (CDC). Outbreaks of Gastroenteritis Associated with Noroviruses on Cruise Ships --- United States, 2002. MMWR Morb Mortal Wkly Rep. 2002 Dec 13;51(49):1112-5. (<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5149a2.htm>)
3. Isakbaeva ET, Widdowson MA, Beard RS, Bulens SN, Mullins J, Monroe SS, et al. Norovirus Transmission on Cruise Ship. Emerg Infect Dis. 2005 Jan;11(1):154-8. (<http://www.cdc.gov/ncidod/eid/vol11no01/04-0434.htm>)

6. REGION V INFERTILITY PREVENTION PROJECT (RVIPP) ADVISORY COMMITTEE MEETING TO BE HELD IN MADISON, WISCONSIN- JUNE 28-29, 2006

The RVIPP Advisory Committee Meeting, sponsored by Health Care Education and Training (HCET) will be held June 28-29th in Madison, Wisconsin at the Madison Concourse Hotel, One West Dayton Street (1-800-356 8293). The RVIPP Advisory Committee meets annually to inform and advise members on current and future initiatives for the prevention and control of *Chlamydia trachomatis* infections. A new study recently released by Partnership for Prevention identified screening for chlamydia infection among sexually active women as one of the top five most valuable preventive health services that can be offered in medical practice today ("Priorities for America's Health"; a study sponsored by the Centers for Disease Control and Prevention and the Agency for Healthcare Research and Quality, to be published in the *American Journal of Preventive Medicine* in July). The meeting will begin Wednesday, June 28th at 9:30 a.m. and end at noon on Thursday, June 29th. State Alliance members from all six states in Public Health Service Region V will be in attendance, including Wisconsin representatives from the Division of Public Health (DPH) Sexually Transmitted Diseases Program, DPH Family Planning Program, the Wisconsin State Laboratory of Hygiene, Planned Parenthood of Wisconsin, the Milwaukee City Health Department, and HCET (Madison office).

Topics to be covered include determining regional plan objectives for 2006-2007, highlights and updates on chlamydia and gonorrhea prevention and control efforts in each state, and progress made towards achieving the strategic and regional plan objectives for 2006. Subcommittees (Client Services, Laboratory, Data and Evaluation, Training and Advocacy) will meet and state reports will be presented Thursday, June 29th at 8:30 a.m.

For more information, contact: Lori Amsterdam at (608) 267-5220 amstele@dhfs.state.wi.us or Shana Cash at (317) 247-9008 scash@hcet.org

Telephone Reporting of Unusual Disease Occurrences

Occurrences of diseases that are uncommon or atypical in Wisconsin, and outbreaks or clusters of disease which are identified, should be reported by phone as soon as possible, to (608) 258-0099. Reports may be made to this number on a 24/7 basis, but please do not use it for normal and routine disease reporting

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