

Epi Monthly Report

Gastrointestinal Outbreak in an Assisted Living Facility in Miami-Dade County, September-October 2007

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Introduction

On October 3, 2007, the Miami Dade County Health Department (MDCHD) Office of Epidemiology and Disease Control (OEDC) was notified of 21 residents at an Assisted Living Facility (ALF) complaining of gastrointestinal illness which included: diarrhea, abdominal pain, nausea, fatigue, fever, and/or vomiting. Twelve (57%) of the 21 ill residents were sent to local hospitals. The illness included residents living on the 2nd through 12th floors. No employees complained of any GI symptoms. OEDC initiated an outbreak investigation and also requested an inspection by the MDCHD Environmental Health Program.

Background

The ALF is a 15 floor high rise building that houses 315 residents and employs 118 staff. Residents have their own living quarters but share bathrooms with their neighbor. Floors 13 and 14 consist of 52 Alzheimer's clients and those clients are confined to those two floors. The ALF offers a wide range of social activities, and residents consume their meals at the common dining area, but are also allowed to go outside to eat their meals.

Methods

Epidemiologic Investigation

On October 4, 2007, OEDC sent an Epi team composed of 3 Epi staff and 4 interns to conduct a site visit of the ALF. The line list was updated and it was detected that the index case was symptomatic on September 27, 2007. Personal interviews were completed for 10 clients that reported illness, and the Administrator

provided information on 10 other clients who were not available to be interviewed. Questions in the interview included the following: room location, date of onset of symptoms, symptoms, where the client ate their meals, recent travel, and medical history.

Stool samples from the Administrator of the ALF and Infection Control Practitioners (ICPs) at the hospitals where clients were admitted were requested.

Environmental Investigation

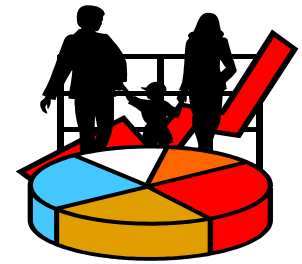
An inspection was completed on October 4, 2007 by the Environmental Health Division. The kitchen area was inspected, but no food samples were collected. Water samples were taken from the kitchen as well as water fountains from the 5th, 7th, 9th, and 11th floors.

Preliminary Control Measures

A recommendation letter was delivered to the Administrator of the ALF with emphasis to adhere to guidelines by the MDCHD to not admit new residents, discontinue communal activities, and not allow residents to circulate between floors.

Laboratory Investigation

A total of 10 stool specimens were collected and sent to the State Bureau of Laboratories Miami Branch for testing of bacteria, ova and parasites. Specimens were then forwarded to the State Bureau of Laboratories-Tampa Branch for Norovirus testing. Water samples were tested for coliform organisms.



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Confirmed case definition:

A person who was a resident of the ALF who complained of diarrhea and/or another GI complaint between 9/28-10/6/2007, and had a positive laboratory result for a clinically compatible pathogen linked to the outbreak.

Probable case definition:

A person who meets the confirmed case definition but lacks positive laboratory results for a clinically compatible pathogen linked to the outbreak.

Results

Of the 21 symptomatic individuals, investigators identified 20 ill persons who were able to provide information on their illness, or collected data from chart review. There were 14 probable cases and 6 confirmed cases. Table 1 shows the frequency of symptoms of those individuals. Among ill persons, the mean age was 85 years old (Range:), and 14 (70%) were female. Symptoms generally lasted 24-48 hours. All ill persons ate only at the facility’s dining hall. No employees reported any GI symptoms during this time period.

Table 1. Frequency of symptoms of cases (N=20) reported at an Assisted Living Facility as of October 10, 2007		
Symptoms	N	%
Diarrhea	18	90
Vomiting	11	55
Abdominal Pain	4	20
Nausea	3	15
Fatigue	1	5
Fever	1	5

Laboratory

Seven of the 10 specimens were positive for Norovirus genogroup GII. One specimen was unable to be analyzed due to contamination. Laboratory results from the environmental inspection reported that water samples were “satisfactory.”

Recommendations

The MDCHD provided the ALF with written guidelines on the how to prevent the spread of illness that included: reviewing hand washing with employees, wearing proper protective equipment while handling possibly contaminated items, and sending home an ill employee and encouraging them to see their physician immediately.

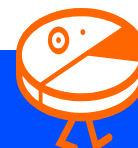
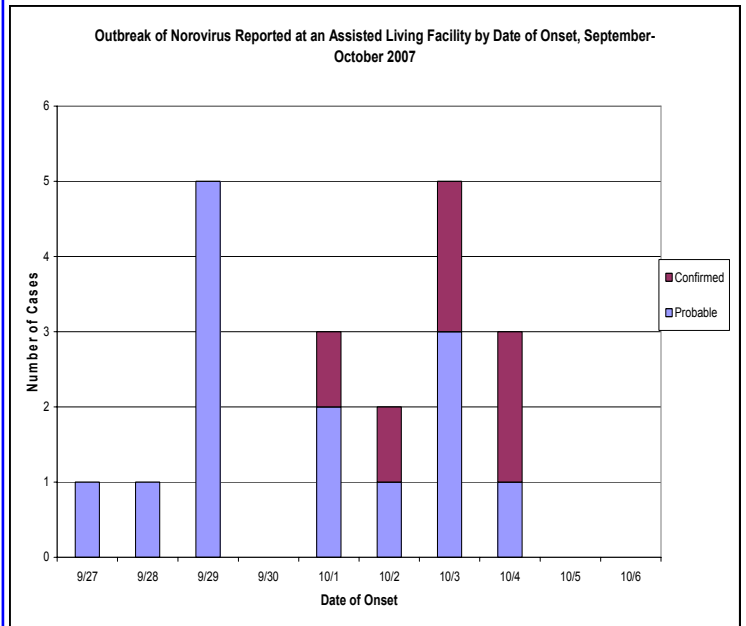
Conclusions

The epidemic curve suggests that this was a point source outbreak with secondary transmission. The first peak on 9/29 suggests that exposure occurred 24-48 hours prior to that time. Cases may have been exposed while dining, since this is the characteristic that links all cases.

Secondary transmission seemed to occur during the next few days, with a peak on 10/3.

Daily calls were made to the ALF to check the status of the outbreak. Additionally, the ALF was notified of the results of the laboratory tests. Educational material on Norovirus was sent directly to the ALF to prevent future outbreaks in the facility. Since October 5th, no new cases have been reported.

Figure 1. Epidemic curve of onset of symptoms



February is

American Heart Month

International Prenatal Infection Prevention Month

Children's Dental Health Month

Kids Ear, Nose, and Throat (ENT) Month

Burn Awareness Week (Feb. 3—9)

Condom Week (Feb. 10—16)

Muscular Dystrophy Awareness Week (Feb. 10—16)

National Donor Day (Feb. 14)

Eating Disorder Awareness Week (Feb. 24- March 1)



[How can I become an organ donor?](#)

February 14th is the 10th National Donor Day— a day to give the gift of life.

- Fill out an organ and tissue donation card and register with your State Donor Registry
- Learn how you can donate your baby's umbilical cord blood stem cells at birth
- Donate blood

Why be a Donor?

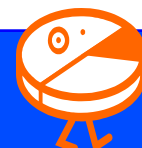
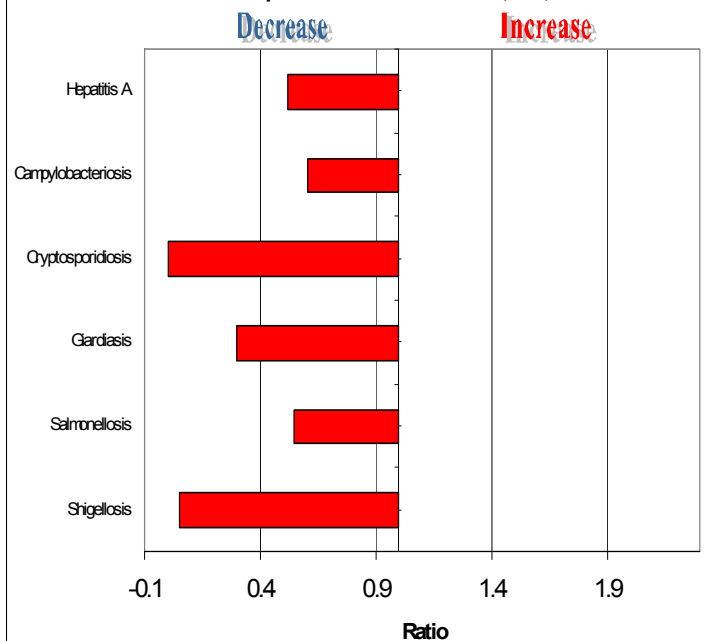
- Almost 100,000 people are in need of organs for transplant
- Every two seconds someone in America needs blood, according to the American Red Cross

TO REPORT ANY DISEASE AND FOR INFORMATION CALL:

Office of Epidemiology and Disease Control

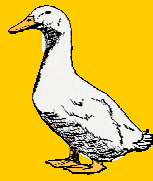
Childhood Lead Poisoning Prevention Program	305-470-6877
Hepatitis	305-470-5536
Other diseases and outbreaks	305-470-5660
HIV/AIDS Program	305-470-6999
STD Program	305-325-3242
Tuberculosis Program	305-324-2470
Special Immunization Program	786-845-0550

Selected Notifiable Disease Reports, Miami-Dade County, Comparison with Historical Data, Jan, 2008



AVIAN FLU WATCH

Unless indicated, information is current as of
February 2007



- **Since 2003**, there have been **360 human cases of avian influenza (H5N1)** confirmed by the World Health Organization (WHO). Of these, **226** cases have died. This means there is a (226/360) **62.7% fatality rate**.
- **14 Countries with confirmed human cases** include Cambodia, China, Djibouti, Indonesia, Thailand, Vietnam, Iraq, Azerbaijan, Egypt, Turkey, Nigeria, Pakistan, Myanmar, and Lao People's Democratic Republic .
- **No human cases of avian influenza (H5N1) have been reported in the United States.**
- **H5N1 has been confirmed in birds in several other countries since 2003.** H5N1 has been documented in birds in more than 30 countries in Europe & Eurasia, South Asia, Africa, East Asia and the Pacific, and the Near East. For a list of these countries, visit the World Organization for Animal Health Web Site at http://www.oie.int/download/AVIAN%20INFLUENZA/A_AI-Asia.htm.
- **No restrictions on travel to affected countries have been imposed.** Travelers should avoid contact with live poultry and monitor their health for ten days after returning from an affected country.

SOURCES: World Health Organization; World Organization for Animal Health; Centers for Disease Control and Prevention

PARTICIPATE IN INFLUENZA SENTINEL PROVIDER SURVEILLANCE

The Miami-Dade County Health Department NEEDS Influenza Sentinel Providers!!

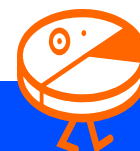
Sentinel providers are key to the success of the Florida Department of Health's Influenza Surveillance System. Data reported by sentinel providers gives a picture of the influenza virus and ILI activity in the U.S. and Florida which can be used to guide prevention and control activities, vaccine strain selection, and patient care.

- Providers of any specialty, in any type of practice, are eligible to be sentinel providers.
- Most providers report that it takes **less than 30 minutes a week** to compile and report data on the total number of patients seen and the number of patients seen with influenza-like illness.
- Sentinel providers can submit specimens from a subset of patients to the state laboratory for virus isolation **free of charge**.

For more information, please contact **Erin O'Connell** at 305-470-5660.

About the Epi Monthly Report

The Epi Monthly Report is a publication of the Miami-Dade County Health Department, Office of Epidemiology and Disease Control. The publication serves a primary audience of physicians, nurses, and public health professionals. Articles published in the Epi Monthly Report may focus on quantitative research and analysis, program updates, field investigations, or provider education. For more information or to submit an article, contact Erin O'Connell at 305-470-5660.



Monthly Report
Selected Reportable Diseases/Conditions in Miami-Dade County,
January 2008

Diseases/Conditions	2008 this Month	2008 Year to Date	2007 Year to Date	2006 Year to Date	2005 Year to Date	2004 Year to Date
AIDS ^{*Provisional}	55	55	69	141	108	119
Campylobacteriosis	8	8	5	2	0	3
Ciguatera Poisoning	0	0	0	0	0	0
Cryptosporidiosis	0	0	0	0	0	0
Cyclosporiasis	0	0	0	0	0	0
Dengue Fever	1	1	0	0	0	0
<i>E. coli</i> , O157:H7	0	0	0	0	0	0
<i>E. coli</i> , Non-O157	0	0	0	0	0	0
Encephalitis (except WNV)	0	0	0	0	0	0
Encephalitis, West Nile Virus	0	0	0	0	0	0
Giardiasis, Acute	6	6	8	3	2	5
Hepatitis A	3	3	1	2	1	1
Hepatitis B	1	1	0	1	0	0
HIV ^{*Provisional}	154	154	100	120	137	151
Influenza A (H5)	0	0	0	0	0	0
Influenza Isolates	0	0	0	0	0	0
Influenza Novel Strain	0	0	0	0	0	0
Influenza, Pediatric Death	0	0	0	0	0	0
Lead Poisoning	10	10	5	7	0	4
Legionnaire's Disease	1	1	0	0	1	0
Leptospirosis	0	0	0	0	0	0
Lyme disease	0	0	0	0	0	0
Malaria	0	0	0	0	0	0
Measles	0	0	0	0	0	0
Meningitis (except aseptic)	0	0	0	0	0	0
Meningococcal Disease	0	0	2	0	1	1
Mumps	0	0	0	0	0	0
Pertussis	0	0	2	0	0	0
Rubella	0	0	0	0	0	0
Rubella, Congenital	0	0	0	0	0	0
Salmonellosis	17	17	16	9	4	5
Shigellosis	1	1	5	4	4	8
<i>Streptococcus pneumoniae</i> , Drug Resistant	10	10	0	0	0	0
Tetanus	0	0	0	0	0	0
Toxoplasmosis	0	0	0	0	0	0
Tuberculosis ^{*Provisional}	6	6	17	19	14	12
Typhoid Fever	0	0	0	0	1	0
<i>Vibrio cholera</i> Type O1	0	0	0	0	0	0
<i>Vibrio cholera</i> Non-O1	0	0	0	0	0	0
West Nile Fever	0	0	0	0	0	0

* Data on AIDS are provisional at the county level and are subject to edit checks by state and federal agencies.

** Data on tuberculosis are provisional at the county level.

