

# EpiCenter

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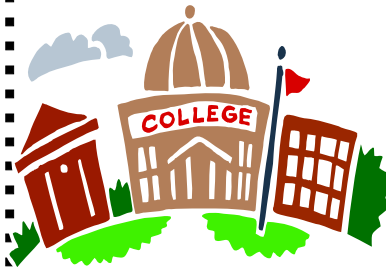
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# SPOTLIGHT: NOROVIRUS

## UNIVERSITY GETS CRASH COURSE IN NOROVIRUS



On Saturday, April 15, 2006 at 4 AM, the Palm Beach County Health Department (PBCHD) Divisions of Epidemiology and Disease Control (Epi) and Environmental Health (EH) were notified by campus police of an outbreak of gastrointestinal (GI) illness at a Boca Raton university. The campus police had transported a number of ill students from dorms to a local

hospital emergency room.

Through university e-mail, Epi requested that persons experiencing GI symptoms call our weekend answering service. Interviews were conducted by phone on Saturday and Sunday by Epi staff. Environmental Health inspected a campus café where a number of ill students had eaten on Thursday 04/13 and Friday 04/14. The campus café was closed to service during the weekend.

By Monday, 04/17 the campus café was reopened under continued supervision of Environmental Health. Epi had interviewed 100+ students ill with symptoms of nausea, vomiting and diarrhea of 24hr duration. Early stool specimen results were positive for norovirus G2.

E-mail communication with hospital infection control practitioners requested increased surveillance, testing and reporting of GI illness related to the university. Case finding continued with phone interviews of students and employees responding to the university e-mail. Names of ill students were also obtained through door-to-door canvassing by EH in three main on-campus dormitories. Physicians in the PBCHD Preventative Health Residency Program went to the campus café on two separate occasions to distribute self-administered questionnaires among students eating at the café. Case finding also included daily reporting from Student Health Services.

The dormitories were cleaned under supervision of EH to control spread of secondary infection. Self service ice dispensers with ice scoops throughout the dorms were shut down. A public school and a child day care located on the campus were inspected. No child illness was found to be associated with the outbreak.

EH continued to monitor the café. The food service workers who worked the week of 4/8 - 4/13 were interviewed. Several workers had reported illness that week. Stool samples were obtained from 3 of the workers. Two were positive for norovirus G2.

Over the course of the investigation a total of 8 samples were obtained and sent to the State Lab in Tampa for viral studies. 7 were positive for norovirus G2. The investigation found 228 persons ill with symptoms consistent with norovirus; 20 of those were identified as secondary cases.

# NOROVIRUS IN PALM BEACH COUNTY



Earlier this year, a gastrointestinal illness outbreak at a Palm Beach County university involved more than 200 people. The cause of the illness was norovirus.

Norovirus, previously known as Norwalk virus, is a group of viruses that cause gastroenteritis. Sometimes referred to as the “stomach flu,” only the common cold is reported more frequently than gastroenteritis as a cause of illness in the U.S. Norovirus is very contagious. It can be transmitted person to person, through contaminated water or food, or when the virus is aerosolized during vomiting. In the United States, the majority of cases of foodborne gastroenteritis, sometimes referred to as “food poisoning,” are caused by norovirus.

Symptoms appear usually about 24 – 48 hours after exposure to the virus and include nausea, vomiting, diarrhea and abdominal pain. Sometimes people additionally have headache, low-grade fever, chills as well as muscle aches and a general sense of tiredness. The illness is usually brief, with symptoms lasting only about 1 or 2 days. Elderly and very young individuals can become dehydrated and may need medical care. There is no specific treatment for norovirus, but it is helpful to rehydrate by drinking fluids.

People can become infected with norovirus in several ways, including:

- eating food or drinking liquids contaminated with norovirus;
- touching surfaces or objects contaminated with norovirus and then placing their fingers in their mouth;
- having direct contact with another person who is infected and showing symptoms (for example, when caring for someone with illness or sharing foods or eating utensils with someone who is ill).

People infected with norovirus are contagious from the moment they begin feeling ill to at least 3 days after recovery. Some people may be contagious for as long as 2 weeks after recovery. Therefore, it is particularly important for people to use good handwashing practices after they have recently recovered from norovirus illness.

Indeed, good handwashing practice is the key to preventing the spread of norovirus. You can decrease your chance of coming in contact with norovirus by frequently washing your hands especially after using the toilet, changing diapers and before eating or preparing food.

The norovirus outbreak at the university affected many people at one location, but the Palm Beach County Health Department Division of Epidemiology & Disease Control (Epi) regularly responds to reports of gastrointestinal (GI) illness in area long term care facilities (LTCF). Epi can assist local LTCFs during an outbreak by sending specimens to the state laboratory for viral testing free of charge. In recent county LTCF GI illness outbreaks, state lab results identified norovirus.



**PALM BEACH COUNTY HEALTH DEPARTMENT  
2006 REPORTED COMMUNICABLE DISEASES  
WEEK 34 (ENDING DATE 08/26/06)**



	This Week	This Year	Same Time Last Year
<b><u>CENTRAL NERVOUS SYSTEM AND INVASIVE DISEASES:</u></b>			
Haemophilus influenzae primary bacteremia	0	14	10
Haemophilus influenzae meningitis	0	0	0
Meningococcal disease	0	4	3
Group B Streptococcus meningitis	0	0	2
Listeria monocytogenes meningitis	0	1	1
Listeriosis	0	4	2
Streptococcus pneumoniae meningitis	0	3	2
Streptococcus pneumoniae invasive disease, drug-resistant	1	42	42
Streptococcus pneumoniae invasive disease, susceptible	1	27	33
Streptococcal disease, invasive Group A	0	17	16
Bacterial meningitis, other	0	6	9
Encephalitis, West Nile Virus	0	1	0
Creutzfeldt-Jakob Disease (CJD)	0	2	1
<b><u>VACCINE PREVENTABLE DISEASES:</u></b>			
Congenital rubella syndrome	0	0	0
Rubella (German measles)	0	0	0
Rubeola (measles)	0	0	0
Mumps	0	1	1
Pertussis	0	6	3
Tetanus	0	0	0
<b><u>HEPATITIS:</u></b>			
Hepatitis A	4	27	7
Hepatitis B, acute	0	20	31
Hepatitis B, chronic	0	215	174
Hepatitis B (HBsAg+) in pregnant women	0	49	42
Hepatitis B, perinatal	0	0	0
Hepatitis C, acute	0	2	1
Hepatitis C, chronic	9	461	1270
<b><u>ENTERIC DISEASES:</u></b>			
Giardiasis	1	48	38
Campylobacteriosis	0	64	45
Shigellosis	0	29	26
Salmonellosis	3	202	194
Cryptosporidiosis	0	9	9
Cyclosporiasis	0	8	28
Typhoid fever	0	0	2
Enterohemorrhagic E. coli (EHEC) O157:H7	0	0	2
E. coli shiga toxin + (serogroup non-O157)	0	1	0
E. coli shiga toxin + (not serogrouped)	0	12	0
Vibrio cholera 01	0	0	0
Vibrio cholera non-01	0	0	0
Vibrio fluvialis	0	0	0
Vibrio alginolyticus	0	5	0
Vibrio hollisae	0	0	1
Vibrio vulnificus	0	1	0
Vibrio parahaemolyticus	0	0	3
Vibrio, other	0	0	1
<b><u>OTHER DISEASES:</u></b>			
Human exposure to a potentially rabid animal	1	68	55
Animal rabies	0	3	9
Monkey bite	0	0	1
Brucellosis	0	0	0
Ciguatera	0	0	2
Dengue fever	0	1	3
Hemolytic uremic poisoning	0	0	1
Lead poisoning	1	18	22
Legionellosis	3	15	13
Lyme disease	0	1	4
Malaria	1	4	5
Mercury poisoning	1	4	6
Psittacosis	0	0	0
Q fever	0	0	0
Rocky mountain spotted fever	0	0	0
Toxoplasmosis	0	0	0