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Office of Epidemialogy and Disease Control

Community Response to Hepatitis A in a Fast Food Service Worker Miami-Dade County, May 2004

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Background

Hepatitis A infection is caused by the hepatitis A virus (HAV). The most common mode of transmission is person-to-person, caused from fecal contamination and oral ingestion. Presence of serum IgM anti-HAV indicates a current or recent infection and it is required to confirm a diagnosis of HAV infection. Most cases present an acute, self-limited illness associated with fever, malaise, jaundice, anorexia, and nausea. Incubation period is usually 15 to 50 days, with an average of 30 days.

Confirmed hepatitis A cases in Miami-Dade County decreased to 69 in 2003 from 149 in 2002 after reaching a peak of 228 confirmed cases in 2001. The Miami-Dade County Health Department (MDCHD) Office of Epidemiology and Disease Control's (OEDC) Hepatitis Prevention Program has made several interventions to control the spread of hepatitis A in the county including the education and vaccination of travelers and men who have sex with men, as well as providing immune globulin (IG) to those who have been exposed to active cases of

HAV infection.

In addition, followed the CDC recommendations to vaccinate children 2-18 years of age in the Homestead/Florida City area (an area which had high rates of hepatitis A).

On May 20, 2004, a hospital infection control practitioner reported a hepatitis A case with confirmatory laboratory results to the OEDC, triggering the start of an epidemiological investigation and the subsequent application of control measures in the community.

Epidemiological Investigation

An initial interview was conducted and it unveiled the fact that the patient was a food handler at a local fast food restaurant, as well as a part time employee at an assisted living facility (ALF). The patient had been preparing and packing food at the restaurant during day and night shifts while symptomatic with diarrhea. Sixteen employees from the fast food restaurant were identified as close contacts, as well as the patient's one-year-old child, six elderly residents at the ALF where the patient worked part-time,

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Miami-Dade County 🦇 HEALTH DEPARTME

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and a friend of the patient who resides at another location. On May 21, 2004, the Department of Business and Professional Regulation (DBPR) conducted an environmental inspection of the restaurant. DBPR inspectors found serious environmental violations in the facility, and issued a report requesting the restaurant to solve these violations within 24 hours. In the meantime, the OEDC, after contacting the restaurant administrator and several employees, submitted a Hepatitis A alert to the local media asking restaurant patrons who may have been exposed to the employee during the infective period to contact the OEDC for further education and chemoprophylaxis. The decision to notify the public was based on the results of the Customer Risk *Evaluation*; this evaluation reflected that the patient had handled food, her hygienic habits, the environmental violations at the restaurant, and the volume of customers receiving services there. Immune globulin was offered to all patrons considered at high risk of exposure to HAV through the ill employee.

Environmental Inspection

An inspector from the Department of Business Professional Regulations (DBPR) found critical environmental violations at the restaurant. Some of these violations included: standing water in the kitchen entrance, water leaking from the pipes of three compartment sinks, floor in need of cleaning and repair, kitchen walls in need of cleaning, no sanitizing solution in use, and insects on the floors of the kitchen and bathroom. The restaurant's manager was given 24 hours to comply with the recommendations received from the DBPR inspector.

Preventive Measures

A single HAV infected food handler may be able to transmit HAV to dozens or even hundreds of persons. Post exposure prophylaxis is recommended for persons considered to be at high risk of exposure to an active case of HAV. However, routine vaccination of food handlers is not recommended because their profession does not put them at higher risk for HAV infection. Post exposure prophylaxis

with HAV Immune Globulin (IG) is recommended to protect individuals exposed to infectious HAV patients; IG is >85% effective if administered within 2 weeks of the initial exposure to HAV.

A total of 758 doses of IG were provided throughout a six-day period, and over 800 persons visited the MDCHD to receive chemoprophylaxis and/or education. The attendance included restaurant employees, ALF



residents, one household contact, and restaurant patrons. The largest proportion of persons who received IG was between the ages of 25 and 65 years old. IG was administered to 15 employees (2%), 6 ALF residents (1%), and 737 patrons (97%).

Recommendations to reduce the risk of HAV transmission in food serving settings include:

- Hygiene practices to include: proper techniques of hand washing and education on prevention of hepatitis A
- Reducing bare hand contact with foods that are not subsequently cooked
- Disinfection procedures for produce or shellfish

The OEDC conducts routine surveillance of hepatitis A in Miami-Dade County to ensure that early detection and effective control measures are implemented to prevent the spread of this disease in our community. No secondary cases were identified from this exposure despite the intensive media campaign implemented during that period. Several patrons who complained of gastrointestinal symptoms during their visit to MDCHD's clinic or through telephone reports to the OEDC were offered HAV testing, but none of them tested positive to acute HAV infection.



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Lessons learned from this episode

- a. The local media was a strong and positive ally on our quest to provide consistent information to potentially exposed patrons
- b. The community trusted MDCHD and actively engaged on the preventive actions recommended, bringing their relatives, colleagues, and friends to MDCHD for chemoprophylaxis and/or education
- c. Prompt release of information on cases of potentially massive exposure to infectious agents contributes to the enhancement of the public's trust on the public health system, as well as to the effective implementation of control measures

References

- 1. Food Safety http://www.cdc.gov
- 2. Centers for Disease Control and Prevention. MMWR Recommendations Rep. 1999;48 (RR-05):1-15

Acknowledgments

We thank the following persons and Offices for their contributions to the efforts of hepatitis A prevention in Miami-Dade County: MDCHD Administrator and Deputy, Hepatitis Prevention Program Staff, OEDC Bio-terrorism team, MDCHD Chat Team, Family Planning, Special Immunization Program, School Health, Public Information Office, MDCHD Division of Environmental Health, Polk County Health Department, Pinellas County Health Department, Florida Department of Health, Hepatitis Program.





*Ratio of current month total to mean of 15 month totals (from previous, comparable, and subsequent month periods for the past 5 years).



To report diseases or for information:Office of Epidemiology and Disease Control
Childhood Lead Poisoning
Prevention Program(305) 623-3565
(305) 324-2490
Other diseases and outbreaks
(305) 324-2413

 HIV/AIDS Program
 (305) 324-2459

 STD Program
 (305) 325-3242

 Tuberculosis Program
 (305) 324-2470

 Special Immunization Program
 (786) 845-0550

Nights, weekends, and holidays (305) 377-6751



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Monthly Report Selected Reportable Diseases/Conditions in Miami-Dade County, July 2004

Diseases/Conditions	2004	2004	2003	2002	2001	2000
Diseases/Conditions	this Month	Year to Date				
AIDS Provisional	184	1102	985	1214	1004	1076
Animal Rabies	0	0	0	0	1	0
Campylobacteriosis	23	87	78	59	73	90
Chlamydia trachomatis	409	2231	2597	2732	1999	1828
Ciguatera Poisoning	0	0	0	0	0	1
Cryptosporidiosis	4	11	7	3	8	5
Cyclosporosis	1	1	1	1	0	0
Diphtheria	0	0	0	0	0	0
<i>E. coli</i> , 0157:H7	1	2	0	0	0	1
E. coli, Non-O157	0	0	0	1	0	0
<i>E. coli</i> , Other	0	0	0	0	0	0
Encephalitis (except WNV)	0	0	0	1	0	0
Encephalitis, West Nile Virus	3	3	0	0	0	0
Giardiasis, Acute	35	169	97	122	144	96
Gonorrhea	147	799	1113	1217	1014	1278
Granuloma Inguinale	0	0	0	0	0	0
Hepatitis A	4	20	25	82	86	46
Hepatitis B	5	24	34	11	30	57
HIV Provisional	892	141	627	687	845	804
Lead Poisoning	36	177	140	155	122	234
Legionnaire's Disease	2	6	3	0	1	0
Leptospirosis	0	0	0	0	0	0
Lyme disease	1	2	2	1	4	3
Lymphogranuloma Venereum	0	0	0	0	0	0
Malaria	2	10	5	8	12	18
Measles	0	0	0	0	0	0
Meningitis (except aseptic)	3	8	2	4	7	7
Meningococcal Disease	1	12	3	10	12	17
Mumps	0	0	0	0	0	1
Pertussis	2	7	4	4	1	4
Polio	0	0	0	0	0	0
Rubella	0	0	0	0	0	0
Rubella, Congenital	0	0	0	0	0	1
Salmonellosis	57	221	254	152	130	146
Shigellosis	19	109	187	126	69	124
Streptococcus pneumoniae, Drug Resistant	6	51	64	72	120	117
Syphilis, Infectious	20	98	99	120	118	78
Syphilis, Other	73	450	633	621	433	453
Tetanus	0	0	0	0	1	0
Toxoplasmosis	3	4	5	14	7	0
Tuberculosis "Provisional	25	133	128	130	117	178
Typhoid Fever	1	2	2	2	0	1
Vibrio cholera Type O1	0	0	0	0	0	0
Vibrio cholera Non-O1	0	0	0	1	0	0
Vibrio, Other	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.



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