



Imported Melioidosis Case in Miami-Dade County, September 2005

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On Monday September 26, 2005 the Miami-Dade County Health Department, Office of Epidemiology and Disease Control (OEDC) was notified by the infection control practitioner of a local hospital that several laboratory employees might have been exposed to *Burkholderia pseudomallei*. The source of this potential exposure was an 80 year old female who had been admitted on 9/22/05 with a diagnosis of pneumonia.

The patient's initial symptoms included fever (103 F), headache, weakness and myalgia during 4 days prior to admission. On 9/22/05 she was transported to the hospital's Emergency Department (ED) by Fire Rescue because of dyspnea, cough, and a temperature of 101.3 F. The patient had a past medical history of pneumonia. ED medications included IV fluids, Rocephin, Zithromax, Tylenol and Potassium Chloride. She was placed in respiratory isolation on admission and several tests were performed to rule out tuberculosis. She was transferred to the ICU when her respiratory condition deteriorated and was then placed on a respiratory ventilator later

that day. The patient suffered a myocardial infarction during this admission. On 9/24/05 the antibiotics were changed to Vancomycin and Maxipime. She expired on 9/24/05.

Burkholderia pseudomallei is the etiologic agent of Melioidosis, a reportable disease in Florida. This bacterial opportunistic pathogen is considered a category B bioterrorism agent. Melioidosis, also known as Whitmore's disease, is an uncommon infection that often generates no symptoms in infected individuals. Persons who develop symptoms usually have a pre-existing condition or are immunocompromised. Clinical manifestations might include pulmonary consolidation, localized cutaneous and/or visceral abscesses, necrotizing pneumonia and septicemia. The incubation period could be as long as 25 years after exposure to the organism. Culture and/or serology are the recommended diagnostic methods. Skin with cuts or wounds exposed to contaminated soil or water or aspiration of water are the routes by which this bacillus enters the body.

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On 9/26/05 the Infection Control Practitioner notified the Office of Epidemiology and Disease Control (OEDC), Miami-Dade County Health Department, that several laboratory employees might have been exposed to *Burkholderia pseudomallei*. The OEDC started an investigation and requested the hospital to submit an isolate to the Florida DOH Bureau of Laboratories Miami Branch for further confirmation; the isolate was forwarded to the lab on 9/27/05. The following day the lab reported the identification of *Burkholderia pseudomallei* by real time PCR test.

The epidemiological investigation at the hospital identified three lab technicians who "sniffed" blood culture plates of the unusual organism and three family members who were in close contact with the patient during the period of 9/18/05 to 9/21/05. The patient had flown from Honduras to Miami on 9/18 and stayed with a son and a granddaughter during the time previous to admission. No unprotected exposure was reported among the Florida DOH Miami Branch lab staff or care personnel at the hospital, as they used proper infection control precautions. None of the individuals exposed has shown symptoms suspicious of *Burkholderia pseudomallei*-related illness.

A previous event of lab technician exposure to *Burkholderia pseudomallei* in California was reported in the MMWR issue of October 29, 2004 / 53(42); 988-990.

After consulting with the Florida DOH Bureau of Epidemiology and the Centers for Disease Control and Prevention (CDC), three weeks chemoprophylaxis was recommended to the exposed hospital laboratory technicians. The family members did not require prophylaxis, as this infection is not easily transmitted from person to person. Active surveillance in Miami-Dade local hospital labs is underway to determine if any unusual organisms have been detected recently in cultures for which no identification or confirmation was possible. This case was not reported in the state's electronic surveillance system (MERLIN) because the patient's permanent residence was in Honduras and she had

been in Florida only 4 days previous to admission. An additional case with this agent was identified at a Broward County hospital in recent months. Both cases come from the same area in Honduras. We are requesting all hospitals and laboratories in Miami-Dade to report any suspicious organisms to the OEDC and to send the isolates to the Miami DOH lab for further testing.

References and additional reading

- Control of Communicable Diseases Manual, 18th Edition, David L. Heymann, MD, Editor, APHA, WHO 2004
- Zoonoses and Communicable Diseases Common to Man and Animals, 2nd Edition, Pedro N. Acha, DVM and Boris Szyfres, DVM, Sci. Pub. No. 503, PAHO 1994



Burkholderia pseudomallei grown on sheep blood agar for 48 hours.



Foodborne Organisms Associated with Turkey

[The following information is condensed from Food Safety and Inspection Service United States Department of Agriculture web site]

A large crowd to cook for, a big bird to roast, and to many cooks in the kitchen can lead to foodborne illness from holiday dining. But handling and cooking a turkey needn't be an illness waiting to happen.

Salmonella Enteritidis may be found in the intestinal tracts of livestock, poultry, dogs, cats and other warm-blooded animals, and inside fresh shell eggs. *Salmonella* infections occur when a person ingests live *Salmonella* bacteria, which then survive digestion and reproduce in the small intestine to numbers large enough to cause symptoms. This strain is only one of about 2,000 kinds of *Salmonella* bacteria. Thorough cooking destroys *Salmonella* bacteria.

Campylobacter jejuni is one of the most common of diarrheal illness in humans. It is found in the intestinal tracts of chickens, turkeys, cattle, swine, sheep, dogs, cats, rodents, monkeys, some wild birds and some asymptomatic humans. It has also been found in water, soil and sewage sludge. Avoiding cross contamination and proper cooking prevent infection by this bacterium.

Staphylococcus aureus can be carried on human skin, in infected cuts and pimples, in nasal passages and throats. The bacteria are spread by improper food handling. Always wash hands and utensils before preparing and serving food. Cooked foods that will not be served immediately should be refrigerated in shallow, covered containers. Perishable foods should not be left at room temperature more than 2 hours. Temperature abuse can allow the bacteria to grow and produce staphylococcal enterotoxin. Thorough cooking destroys staphylococcal bacterial cells, but staphylococcal enterotoxin is not destroyed by heat, refrigeration or freezing.

Listeria monocytogenes bacteria are common in the intestines of humans and animals and in milk, soil, leafy vegetables, and food processing environments. It can grow slowly at refrigerator temperatures. It is destroyed by cooking but a cooked product can be

contaminated by poor personal hygiene. Observe "keep refrigerated" and "use-by dates" on labels.

Following basic USDA recommendations will help ensure safe, confident cooking and prevent foodborne illness for diners

Safe Thawing. There are three safe ways to thaw food: in the refrigerator, in cold water, and in the microwave oven. Store frozen turkeys in the freezer until time to thaw. While frozen, a turkey is safe indefinitely. However, if the turkey is allowed to thaw at a temperature above 40° F, any harmful bacteria that may have been present before freezing can begin to multiply again unless proper thawing methods are used.



When thawing a turkey in the refrigerator, plan ahead. Place the turkey on a platter and place in the refrigerator. For every 5 pounds of turkey, allow approximately 24 hours of thawing in a refrigerator set at 40° F.

For thawing in cold water, allow about 30 minutes per pound. Be sure the turkey is in leak-proof packaging and submerge it in cold tap water. Change the water every 30 minutes until the turkey thaws.

When thawing in the microwave, follow the manufacturer's instructions. For both defrosting in cold water and in the microwave, cook the turkey immediately after thawing because conditions were not temperature controlled.

Stuffing a Turkey The safest way to cook stuffing is in a casserole, not inside a bird. Bake the casserole in an oven set no lower than 325° F or in a microwave oven until the internal temperature reaches at least 165° F on a food thermometer. Harmful bacteria can survive in stuffing that has not reached a safe temperature, possibly resulting in foodborne illness.



Cooking a stuffed turkey is riskier than cooking one not stuffed. However, if both the stuffing and turkey are handled safely and a food thermometer is used, it is possible to cook a stuffed turkey safely. Mix wet and dry stuffing ingredients just before spooning it loosely into the turkey cavity, and roast the turkey immediately. Check the temperature of both the stuffing and the turkey. Do not remove the turkey from the oven until the stuffing reaches 165° F.

Cooking a Turkey Safely Thawing and stuffing a turkey safely are the first two basics. But cooking is the only way to destroy bacteria. The oven temperature must be set no lower than 325° F. Overnight cooking of a turkey at a low temperature can result in foodborne illness.

The internal temperature, on a food thermometer, of a whole turkey must reach 180° F in the innermost part of the thigh. If the turkey has a "pop-up" temperature indicator, it is also recommended that a food thermometer be used to test the turkey in several places. To read more "Turkey Basics" and print a cooking time chart, go to www.fsis.usda.gov/oa/pubs/tbcook.htm.

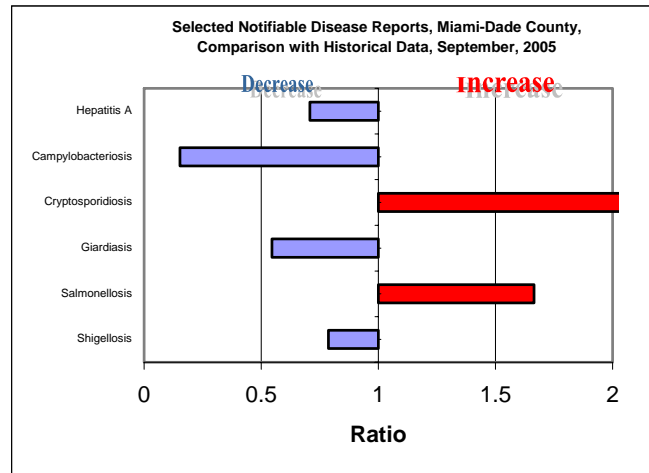
Handling Precooked Dinners and Leftovers

Some cooks forego home-cooking a turkey altogether and choose to purchase precooked dinners. There are also basic safety measures for the safe handling of these holiday meals. If the dinners are to be picked up hot, keep the food hot. Keeping foods warm is not enough. Harmful bacteria multiply fastest in the "danger zone" between 40 and 140° F. Set the oven temperature high enough to keep the internal temperature of the turkey and side dishes at 140° F or above.

Eat the food within 2 hours of pickup.

When picking up cold turkey dinners, refrigerate them as soon as possible, always within 2 hours. Serve the meal within 1 to 2 days. Turkey may be eaten cold, but reheating a whole turkey is not recommended. To reheat, slice breast meat (legs and wings may be left whole), and heat turkey pieces and side dishes thoroughly to 165° F.

Perishable foods should not be left out of the refrigerator or oven for more than 2 hours. Refrigerate or freeze all leftovers promptly in shallow containers. It is safe to refreeze leftover turkey and trimmings even if they were previously frozen.



*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 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



Monthly Report

Selected Reportable Diseases/Conditions in Miami-Dade County, September 2005

Diseases/Conditions	2005	2005	2004	2003	2002	2001
	this Month	Year to Date	Year to Date	Year to Date	Year to Date	Year to Date
AIDS ^{*Provisional}	72	1051	1116	780	878	938
Animal Rabies	0	0	0	0	0	1
Campylobacteriosis	2	105	108	102	72	92
<i>Chlamydia trachomatis</i>	340	2955	3577	3383	3683	2694
Ciguatera Poisoning	0	0	0	0	0	0
Cryptosporidiosis	7	25	16	9	5	11
Cyclosporiasis	0	11	2	1	1	0
Dengue Fever	0	1	3	1	2	4
Diphtheria	0	0	0	0	0	0
<i>E. coli</i> , O157:H7	0	0	3	0	0	2
<i>E. coli</i> , Non-O157	0	1	1	2	1	1
<i>E. coli</i> , Other	0	0	1	0	0	0
Encephalitis (except WNV)	0	0	1	0	1	0
Encephalitis, West Nile Virus	0	0	14	5	2	0
West Nile Fever	0	0	4	0	0	0
Giardiasis, Acute	15	155	226	137	154	198
Gonorrhea	131	1246	1323	1430	1575	1389
Hepatitis A	10	48	34	16	119	133
Hepatitis B	2	37	26	45	36	46
HIV ^{*Provisional}	80	1133	1368	1257	1491	1223
Lead Poisoning	16	129	215	190	222	212
Legionnaire's Disease	3	5	7	5	1	2
Leptospirosis	0	2	0	0	0	0
Lyme disease	0	0	3	4	2	6
Malaria	0	7	15	9	9	14
Measles	0	0	1	0	0	0
Meningitis (except aseptic)	0	11	8	7	4	7
Meningococcal Disease	0	5	15	3	11	14
Mumps	0	0	0	0	0	0
Pertussis	0	9	9	9	6	1
Polio	0	0	0	0	0	0
Rubella	0	0	0	0	0	0
Rubella, Congenital	0	0	0	0	0	0
Salmonellosis	72	391	330	382	236	221
Shigellosis	14	206	132	240	187	114
<i>Streptococcus pneumoniae</i> , Drug Resistant	0	53	55	96	82	139
Syphilis, Infectious	14	125	159	129	158	154
Syphilis, Other	41	441	635	795	796	625
Tetanus	0	0	0	0	0	1
Toxoplasmosis	0	9	5	8	14	11
Tuberculosis ^{*Provisional}	23	148	177	158	156	167
Typhoid Fever	0	2	3	4	3	0
<i>Vibrio cholera</i> Type O1	0	0	2	0	0	0
<i>Vibrio cholera</i> Non-O1	0	0	0	0	1	0
<i>Vibrio</i> , Other	0	0	0	1	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.

