

## ZOONOTIC DISEASE OUTBREAKS

### REPORTING INFORMATION

- **Class C:** Report by the end of the next business day to the local public health department where the patient resides. If patient residence is unknown, report to the local public health department in which the reporting health care provider or laboratory is located. The exception: if the outbreak, unusual incident, or epidemic has an unexpected pattern of cases, suspected cases, deaths, or increased incidence of disease that is a major public health concern, then such outbreak, unusual incident, or epidemic shall be reported immediately via telephone.
- Reporting Form(s) and/or Mechanism:
  - [Ohio Confidential Reportable Disease form](#) (HEA 3334), [Positive Laboratory Findings for Reportable Disease form](#) (HEA 3333), the local public health department via the Ohio Disease Reporting System (ODRS) or telephone.
  - There may be specific forms developed for selected venues and agents, such as for turtle-associated salmonella and psittacosis. Check with the Ohio Department of Health (ODH) Outbreak Response and Bioterrorism Investigation Team (ORBIT) or the ODH Zoonotic Disease Program (ZDP).

### AGENT

Zoonotic disease outbreaks can be caused by many different microorganisms, fungus and parasites. In Ohio, diseases most commonly associated with zoonotic disease outbreaks include *Salmonella* (reptiles, poultry), *Campylobacter* (cattle, dogs) and *Cryptosporidium* (cattle). If the causative agent identified is reportable as an individual listing under the OAC (e.g. *Salmonella*), the case(s) should be reported as the specific disease.

### CASE DEFINITION

A Zoonotic Disease Outbreak (ZDO) occurs when two or more persons experience a similar illness after exposure to the same animal or the same or similar species of animals. Epidemiologic evidence must implicate animals as the probable source of the illness.

### SIGNS AND SYMPTOMS

Symptoms vary depending on the agent. Incubation and duration of illness vary from a few hours to several days or longer, depending upon the agent.

### DIAGNOSIS

If the suspected zoonotic outbreak agent is an enteric disease, human stool specimens should be collected from symptomatic persons and sent to the ODH Laboratory. Depending upon the suspected organism, Cary-Blair, bulk stool specimens and/or parasite kits will be used for transport of the specimens.

Collection of samples from suspected animal vectors or reservoirs should be discussed with ODH ORBIT/ZDP staff prior to being submitted to the Ohio Department of Agriculture for any testing. Sample collection and shipping instructions will vary with the samples type and agent under consideration. Animal specimens, such as feces or tissues, must be accompanied by the [ADDL Sample Submission Form](#). A copy of the ADDL sample submission form should be faxed to ODH (either ORBIT or ZDP as instructed) at the time of shipment.

## **EPIDEMIOLOGY**

### **Source**

Animals, their food, their body fluids or their stools or insects are possible sources. Most reported outbreaks in the United States have been associated with turtles and other reptiles, dogs, dairy cows, swine, poultry and other animals.

### **Occurrence**

There is no seasonality to zoonotic outbreaks.

### **Mode of Transmission**

Ingestion or contact with contaminated animals, animal food or animal body fluids or stool.

### **Period of Communicability and Carrier State**

Varies depending upon the agent.

## **PUBLIC HEALTH MANAGEMENT**

Zoonotic disease outbreaks should be investigated to uncover the source of infection so that interventions can be instituted and further cases prevented. In addition to testing of biological samples, the following are important:

- Histories of symptoms and exposures (including exposure to animals and insects) should be obtained for cases and compared to those of non-cases or non-ill persons.
- The source of the animals/insects should be investigated to determine whether or not the animals themselves are infected or whether their food or something else might be the source of the outbreak.

Based upon analysis of animals samples and/or epidemiologic and clinical findings, advise persons with animal contact about decontamination, clean up and prevention techniques.

## **GENERAL REFERENCES ON ZONOTIC DISEASES**

ODH Zoonotic Disease web page: <http://www.odh.ohio.gov/zdp>

Ohio Animal and Zoonotic Disease Reporting Reference:  
<http://www.odh.ohio.gov/pdf/animdis/AnZooDisRef.pdf>

CDC Healthy People, Healthy Pets: <http://www.cdc.gov/healthypets/>