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### Multistate Outbreak of Monkeypox — Illinois, Indiana, and Wisconsin, 2003

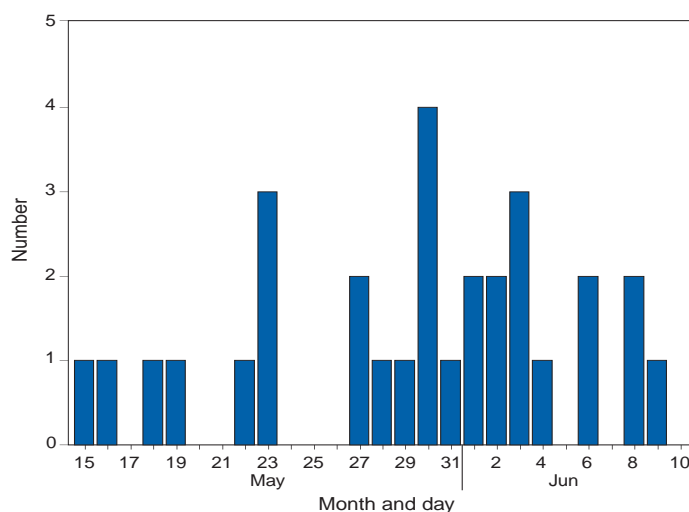
CDC has received reports of patients with a febrile rash illness who had close contact with pet prairie dogs and other animals. The Marshfield Clinic, Marshfield, Wisconsin, identified a virus morphologically consistent with a poxvirus by electron microscopy of skin lesion tissue from a patient, lymph node tissue from the patient's pet prairie dog, and isolates of virus from culture of these tissues. Additional laboratory testing at CDC indicated that the causative agent is a monkeypox virus, a member of the orthopoxvirus group. This report summarizes initial descriptive epidemiologic, clinical, and laboratory data, interim infection-control guidance, and new animal import regulations.

As of June 10, a total of 53 cases had been investigated in Illinois, Indiana, and Wisconsin. Of these, 29 (49%) cases were among males; the median age was 26 years (range: 4–53 years). Data were unavailable for sex and age for two and 14 patients, respectively. A total of 14 (26%) patients have been hospitalized, including a child aged <10 years with encephalitis.

Detailed clinical information was available for 30 cases reported in Illinois and Wisconsin. Among these, the earliest reported onset of illness was on May 15 (Figure 1). For the majority of patients (22 [73%]), a febrile illness has either preceded or accompanied the onset of a papular rash (Figure 2); respiratory symptoms (16 [64%]), lymphadenopathy (14 [47%]), and sore throat (10 [33%]) also were prominent signs and symptoms (Table). The rash typically progressed through stages of vesiculation, pustulation, umbilication, and encrustation. Early lesions became ulcerated in some patients. Rash distribution and lesions have occurred on the head, trunk, and extremities; many patients had initial and satellite lesions on palms, soles, and extremities. Rashes were generalized in some patients.

All patients have had contact with animals; however, at least two patients also reported contact with another patient's lesions or ocular drainage. A total of 51 patients reported

FIGURE 1. Number\* of persons with monkeypox, by date of first symptom onset — Illinois and Wisconsin, May 15–June 10, 2003



\* N = 30.

direct or close contact with prairie dogs (*Cynomys* sp.), and one patient reported contact with a Gambian giant rat (*Cricetomys* sp.). One patient had contact with a rabbit (Family *Leporidae*) that became ill after exposure to an ill prairie dog at a veterinary clinic. Traceback investigations have been initiated to identify the source of monkeypox virus introduced into the United States and have identified a common distributor where prairie dogs and Gambian giant rats were housed

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should be encouraged to obtain a history from pneumonia patients of whether they visited or worked at a health-care facility and whether family members or close contacts also are ill. Targeted surveillance for community-acquired pneumonia in areas recently affected by SARS might provide another means for early detection of these cases.

The findings from the Toronto investigation indicate that continued transmission of SARS can occur among patients and visitors during a period of apparent HCW adherence to expanded infection-control precautions for SARS. Maintaining a high level of suspicion for SARS on the part of health-care providers and infection-control staff is critical, particularly after a decline in reported SARS cases. The prevention of health-care-associated SARS infections must involve HCWs, patients, visitors, and the community.

#### References

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## Update: Severe Acute Respiratory Syndrome — United States, June 11, 2003

CDC continues to work with state and local health departments, the World Health Organization (WHO), and other partners to investigate cases of severe acute respiratory syndrome (SARS). This report updates SARS cases reported worldwide and in the United States, and describes the eighth probable U.S. SARS case with laboratory evidence of SARS-associated coronavirus (SARS-CoV) infection.

During November 1, 2002–June 11, 2003, a total of 8,435 probable SARS cases were reported to WHO from 29 countries, including 70 from the United States; 789 deaths (case-fatality proportion: 9.4%) have been reported, with no SARS-related deaths reported from the United States (1). In the United States, a total of 393 SARS cases have been reported from 42 states and Puerto Rico, with 323 (82%)

cases classified as suspect SARS and 70 (18%) classified as probable SARS (i.e., more severe illnesses characterized by the presence of pneumonia or acute respiratory distress syndrome) (2). Of the 70 probable patients, 68 (97%) had traveled to areas with documented or suspected community transmission of SARS within the 10 days before illness onset; the remaining two (3%) patients were a health-care worker who provided care to a SARS patient and a household contact of a SARS patient (3). Of the 68 probable SARS cases attributed to travel, 35 (51%) patients reported travel to mainland China; 17 (25%) to Hong Kong Special Administrative Region, China; five (7%) to Singapore; one (1%) to Hanoi, Vietnam; 14 (21%) to Toronto, Canada; and five (7%) to Taiwan; of these, seven (10%) reported travel to more than one of these areas.

Serologic testing for antibody to SARS-CoV has been completed for 134 suspect and 41 probable cases. None of the suspect cases and eight (20%) of the probable cases have demonstrated antibodies to SARS-CoV, seven of which have been described previously (3). The eighth serologically confirmed probable SARS case occurred in a North Carolina resident who traveled to Toronto, Canada, on May 15 and visited a relative in a health-care facility on May 16 and 17. The relative's hospital roommate and another visitor in the room during these visits both subsequently had SARS diagnosed. The patient returned to the United States on May 18, and had a fever on May 24, followed by respiratory symptoms. He was treated as an outpatient for these symptoms beginning on May 27, and a chest radiograph on June 3 documented pneumonia. The patient has remained in isolation at home. All of the exposed health-care workers and family contacts are under active surveillance for SARS.

Serologic testing on this patient was negative for antibody to SARS-CoV at day 10 of illness and positive at day 11. SARS-CoV RNA was not detected by RT-PCR in nasopharyngeal and oropharyngeal swabs collected from the patients 11 days after onset of symptoms.

**Reported by:** State and local health departments. SARS Investigative Team, CDC.

#### References

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