

Section: Medical Exposure Control Plan – Information Fact Sheets
Subject: HANTAVIRUS
Section #: 383.03
Issue Date: March 21, 2011
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Approved By: 

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Michael Lozano, Jr., M.D., HCFR Medical Director

1. Identification

- a. Two specific types of Hantavirus are hemorrhagic and pulmonary. An acute zoonotic viral disease characterized by the abrupt onset of fever, lower back pain, and varying degree of hemorrhagic manifestations and renal involvement. The disease was first recognized in the Spring of 1993.
- b. Signs/Symptoms:
 - i. Abrupt onset of fever
 - ii. Hemorrhagic manifestations
 - iii. Hypotension
 - iv. Oliguric (decreased urine output) renal failure
 - v. Severe abdominal and low back pain
 - vi. Petechiae and shock
 - vii. Five clinical phases (febrile, hypotensive, oliguric, diuretic, and convalescent)

2. Infectious Agents

- a. Hemorrhagic fever with renal syndrome
- b. Bunyaviridae (found in Asia)
- c. Dobrava (found in Belgrade)
- d. Puumala (found worldwide)
- e. Seoul virus (found worldwide)
- f. Hantavirus pulmonary syndrome
- g. Sin Nombre (found in the Americas)
- h. Black Creek Canal Virus (found in Florida)
- i. Prospect Hill (found in the USA)

3. Susceptibility

- a. In both the hemorrhagic fever and pulmonary syndrome, all persons without evidence of past infections appear to be uniformly susceptible.

4. Mode of Transmission

- a. Aerosol transmission from rodent excrement.
- b. Virus is present in urine, feces, and saliva of infected asymptomatic rodents with the highest viral load in the lungs.
- c. Field rodents have been associated with most Hantavirus in Europe.
- d. The Sin Nombre virus is associated with the deer mouse found in the USA.
- e. Transmission occurs by inhalation of contaminated particles.

5. Incubation Period

- a. A few days to 2 months (usually 2 – 4 weeks).

6. Period of Communicability

- a. Not transmitted from person-to-person.

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7. Isolation

- a. Prevent rodent excrement in contact of food stores. No isolation needed to prevent spread from person-to-person.

8. Exposure Management

- a. Spray contaminated areas with a bleach solution.

9. Vaccination

- a. None

10. Definitive Therapy

- a. Includes Ribavirin IV

11. Hantavirus

Characteristics	Hemorrhagic fever with renal syndrome	Hantavirus with pulmonary syndrome
Primary Target Organ	kidney	lung
Acute Phase	febrile	febrile prodrome
Later Phases	shock, hemorrhage	shock, pulmonary edema
Disease Progression	hypotensive, oliguric, diuresis, convalescence	diuresis, convalescence
Other Clinical & Laboratory Features	thrombocytopenia, leukocytosis, proteinuria, hematuria, hemoconcentration, raised transaminases	thrombocytopenia, leukocytosis, hemoconcentration, shortness of breath, abnormal respiratory rate, infiltrates
Mortality	1 – 15%	> 50%

12. References

- a. Professional Guide to Diseases, Sixth Edition 1998, Springhouse Corp., Springhouse, Penn.
- b. Control of Communicable Diseases Manual, Sixteenth Edition 1995, American Public Health Assoc., Washington, D.C.
- c. Communicable Disease Information, Seattle – King County Department of Public Health web site, www.metrokce.gov/health/prevent/hepa.htm
- d. Infectious Diseases, Armstrong & Cohen, Mosby 1999, Volumes 1 and 2.