

Department of: HEALTH

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Board of Chosen Freeholders County of Burlington New Jersey



<u>Physical Address:</u> 15 Pioneer Boulevard Westampton, NJ 08060

<u>Mailing Address:</u> 49 Rancocas Road P.O. Box 6000 Mount Holly, NJ 08060-6000

Transmission:

Microorganisms are transmitted by several routes, and the same microorganism may be transmitted by more than one route. There are five main routes of transmission- contact, droplet, airborne, common vehicle and vector borne.

Isolation Precautions in the Shelter Setting

- 1. <u>Contact transmission</u> can be divided into two subgroups- direct contact transmission and indirect contact transmission. Direct contact transmission involves a direct body surface to body surface contact and physical transfer of microorganisms. Direct contact transmission can also occur between two people, one serving as the source of infection and the other as a susceptible host. Indirect contact transmission involves contact of a susceptible host with a contaminated intermediate object, usually inanimate, such as contaminated equipment or contaminated hands that are not washed and/or gloves that are not changed between clients.
- 2. **Droplet transmission** is caused by droplets that are generated from the source person, primarily during coughing, sneezing and talking. Transmission occurs when droplets containing microorganisms generated from the infected person are propelled a short distance through the air and deposited on the host's conjunctivae, nasal mucosa or mouth. Because droplets do not remain suspended in the air, special air handling and ventilation are not required to prevent droplet transmission.
- 3. <u>Airborne transmission</u> occurs by dissemination of either airborne droplet nuclei (small particles five microns or smaller in size) of evaporated droplets containing microorganisms that remain suspended in the air for long periods of time or dust particles containing the infectious agent. Microorganisms carried in this manner can be dispersed widely by air currents and may be inhaled by a susceptible host within the same room or over a longer distance from the source patient (depending on environmental factors). Special air handling and ventilation requirements are required to prevent airborne transmission. Microorganisms transmitted by the airborne route include Mycobacterium tuberculosis and the rubeola and varicella viruses, to name a few.
- 4. <u>Common vehicle transmission</u> applies to microorganisms transmitted by contaminated items such as food, water, medications, devices and equipment.
- 5. <u>Vector borne transmission</u> occurs when vectors such as mosquitoes, flies, rats and other vermin transmit microorganisms. This route of transmission is of less significance in the United States than in other regions of the world.

Standard Precautions will be used for the care of all clients. Clients with known or suspected conditions requiring contact or droplet precautions may be cared for in the shelter setting provided the appropriate personal protective equipment is available. Clients requiring airborne



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precautions should **not** be cared for in the shelter setting due to the fact that specialized ventilation requirements are not available in the shelter setting.

Recommended DISEASE Control Measures for Disaster Shelters

- 1. <u>Assessments:</u> Assess all patients for dehydration, discomfort, and general well-being. Note specific symptoms indicating infection.
- 2. **Recording information:** Maintain a log noting the name, chief complaint and date of reported illness for all ill residents <u>and</u> staff.
- 3. **<u>Reporting</u>**: In the event of two or more cases with similar symptoms, please contact the local county health department.
- 4. **Diagnostics:** Notify the resident's personal physician. Request laboratory testing to identify the agent responsible for resident's illness.
- 5. **Notification of outbreak:** In the case of an outbreak advise all staff, residents, families and visitors of the situation—post notices on all entrances to the shelter and in places visible to the shelter residents.

6. Observe Standard Precautions.

- a. Placement:
 - Shelter residents who are ill should be placed with other individuals who are having the same symptoms. Syndrome complexes which should be cohorted (kept together) include:
 - ⇒ Diarrhea acute diarrhea, fever, nausea and vomiting
 - \Rightarrow Respiratory fever and cough
 - ⇒ Rash either petechial/ecchymotic, Vesicular, or maculopapular (with cough, coryza and fever). Each type of rash indicates a different possible infection.
 - \Rightarrow Skin/Wound infection abscesses or draining wound that cannot be covered
 - If there is only one symptomatic individual, the person should be kept away from healthy people.
 - Limit ill individuals' mobility as much as possible. If separate rooms are not available, it may be helpful to designate a specific area for the ill individuals.
 - If the shelter has rooms, designate one room as a clinic area and keep healthy individuals out.
- b. Personal Protective Equipment (PPE):
 - Healthcare workers should wear gloves and/or gowns when in direct patient contact or in contact with items in the patient's environment and change gloves between patient contacts.



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- Attention to proper removal of PPE is important. Used, soiled PPE must be carefully discarded as close to the point of use as possible.
- If possible, healthcare workers should wear a mask when cleaning areas grossly contaminated by feces or vomitus.
- Masks should be worn whenever there is a possibility of aerosolization of the contaminated materials.
- 7. <u>Cleaning of contaminated areas/equipment to prevent transmission of microorganisms/</u><u>germs:</u>
 - Avoid sharing patient care equipment (e.g., bedside commodes). If such items must be shared, they should be cleaned and disinfected before reuse.
 - Devise a schedule to ensure cleaning of shelter common areas (e.g., handrails and doorknobs), shelter bathrooms and dining facilities, if they exist.
 - Paper towels or a disposable mop and soap or detergent should be used to completely clean up feces, vomitus or/and body fluid.
 - After complete cleaning a 10% bleach solution (or equivalent commercial product) should be used for terminal (environmental) disinfection.

8. Hand washing:

- Enforce proper hand washing for all healthcare workers and shelter residents.
- Whenever possible use running water and soap for hand washing.
- Alcohol gel preparations may be used for hand sanitization when hands are not grossly soiled.
- Post signs in visible areas reminding individuals to wash hands thoroughly.
- 9. <u>Work restrictions:</u> Do not let ill healthcare workers care for other individuals. All ill workers should be excluded from the shelter environment until 24-48 hours after the cessation of symptoms.

References

"Shelter Isolation Precautions." *Florida Health*. Florida Department of Health, n.d. Web. 10 Feb. 2017. <u>http://www.floridahealth.gov/programs-and-services/emergency-preparedness-and-response/healthcare-system-preparedness/spns-healthcare/</u>