

Infection Prevention Special Needs Shelters

Jacqueline Whitaker RN MS LHRM CPHQ CIC FAPIC

Infection Prevention: Objectives and Your Role

- Know the client population and its impact on the special needs shelter
- Know the routes of disease transmission and how to break the chain of transmission
- Know when to perform hand hygiene and the proper technique
- Know the appropriate personal protective equipment (PPE) to wear to prevent the transmission of infection
- Know how to segregate the population; if isolation indicated
- Know the disaster preparedness, responsiveness and recovery phases as they relate to prevention and control of communicable infectious diseases



Who is a candidate for the special needs shelter?

- Need electricity, e.g. nebulizers, O₂ concentrators, electric wheelchairs, CPAP machines, etc.
- Memory care issues
- Need minimal assistance performing their own care,
 e.g. wound care, hygiene and ADLs



How do you identify the population and its needs?

- Florida CHARTS and other public health data
- Risk assessment of your population
- Review previous year's events during hurricane season
- Evaluate screening tool used upon intake
- Client outreach including fliers and meetings with caregivers



What happens when clients arrive?

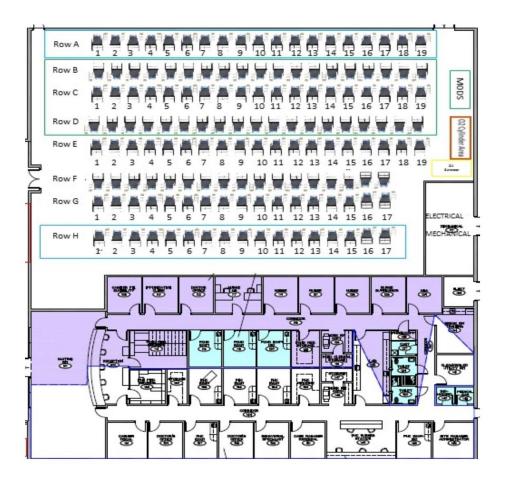
Screened upon admission to the shelter

Triaged by the nurse; if indicated

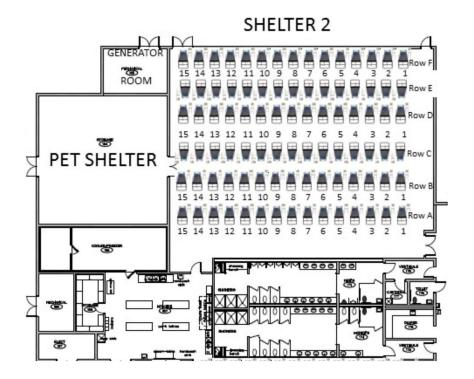
Placement according to client needs



Shelter 1

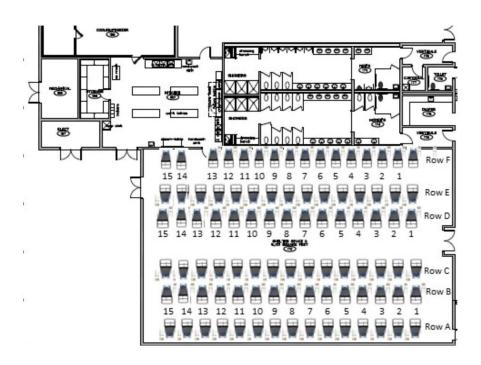




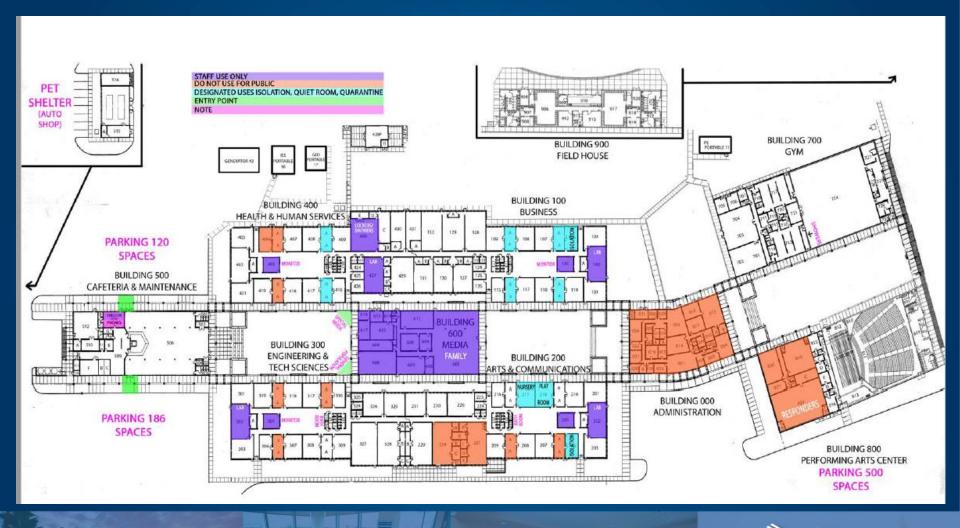




Shelter 3









Monitoring for Signs and Symptoms of Infection

- Fever of 100.4 or higher
 - Vomiting
 - Diarrhea
 - Persistent cough
 - Scabies
 - Bed bugs
 - Skin rash or sores
 - Open wounds



What happens if a client gets sick or injured?

Medical professional will triage

First aid stations onsite, if needed

- EMS available if needed for transport to local hospital
- Documentation according to local CHD protocol



What happens if transmission is identified?

- Cluster or outbreak benchmarks are determined by the CHD
- Additional infection prevention measures will be taken as necessary depending on the infectious communicable disease
 - -Cohorting
 - -Sporicidal disinfectant
 - Dedicated personal hygiene locations



Determine how it is transmitted?

- 1st link pathogen (virus, bacteria, fungus and parasites)
- 2nd link reservoir (humans, animals, water, the environment)
- 3rd link portal of exit (sneezing, coughing, blood exposure)
- 4th link mode of transmission (contact [direct or indirect], droplet, airborne
- 5th link portal of entry (respiratory tract, GI tract, skin/mucous membrane)
- 6th link susceptible host (immunization status, age, lifestyle, immune status)



Chain of Infection

Mode of Transmission

Host

Portal of

Entry

Reservoir

Portal of Exit

How Do We Break the Chain of Transmission?





Hand hygiene is the most important, evidence based, prevention measure we as healthcare providers can perform to prevent the spread of infectious diseases.



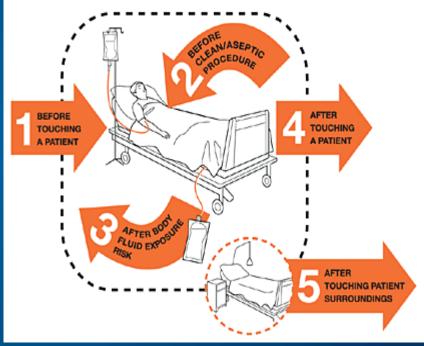
When is hand hygiene indicated?

- 1. Before eating food
- 2. After handling uncooked foods, particularly raw meat, poultry, or fish
- 3. After going to the bathroom
- 4. After changing a diaper, or cleaning a child who has gone to the bathroom
- 5. Before and after tending to someone who is sick
- 6. Before and after treating a cut or wound
- 7. After blowing your nose, coughing, or sneezing
- 8. After handling an animal or animal waste
- 9. After handling garbage



WHO or CDC Hand Hygiene programs







How to perform hand hygiene





Hand Hygiene Products





Examples of various hand hygiene products Needs to have ≥60% alcohol content



Respiratory and Cough Etiquette Stations

Utilizes the following:

- hand hygiene
- masks
- tissue



PPE Stations should be placed at entrances and communal areas.



Standard Precautions

- Applies to ALL patients
- Applies to ALL activities with blood and body fluids





Proper donning and doffing of PPE is essential for breaking chain of transmission





Bloodborne Pathogen Transmission in Health Care Providers

- Occupationally, can be acquired in the following ways:
 - Needlestick or other sharps injury with infected blood or body fluid
 - <u>Percutaneous</u> exposure to infected blood or body fluid with non-intact skin
 - Splash to mucous membranes with infected blood or body fluid



Bloodborne Pathogen Transmission in Health Care Workers

- How do I protect myself?
 - Sharps should be placed as close to <u>point of use</u> as possible
 - Gloves should be worn to prevent inadvertent exposure to infectious blood or body fluid
 - <u>Safety glasses or mask with face shield</u> to prevent exposure to the mucous membranes



Bloodborne Pathogens Risk During Exposure

- 5-33% Chance of getting HBV (Hepatitis B)
- 1.8% chance of getting HCV (Hepatitis C)
- 0.3% chance of getting HIV (Human Immune Deficiency Virus)



Environmental Cleaning

Who's job is it anyway?





Environmental Cleaning

- It is everyone's job!
- Frequent cleaning of high touch surfaces important in communal settings





Environmental Cleaning

- Sanitize or disinfect surfaces on a scheduled basis
 - Kitchens and bathrooms on a daily basis or as necessary
 - Living areas at least weekly or as necessary
 - ➤ Bed frames, mattresses and pillows should be cleaned/laundered between occupants
 - ➤ Other furniture on a weekly basis
 - ➤ Spills cleaned immediately



Environmental Cleaning cont'd.

- Sanitize high risk surfaces using a product
 - with a sanitizer label
 - or 1 tsp. of bleach and 1 qt. of water
- Mix solutions on a daily basis
- High risk surfaces
 - Food preparation surfaces
 - -Surfaces for diaper changing
 - -Surfaces soiled with body fluid



PDI wipes –An example

How do you clean and disinfect with a PDI Bleach Wipe?



Step 1

Use a PDI Bleach Wipe to pre-clean the surface of all debris.

Step 2

Use a second PDI Bleach Wipe to thoroughly wet the surface.

Step 3

Keep the surface wet for 4 minutes and then let surface air dry.

The Unit will PDI Bleach Wipe all equipment as indicated between each patient and prior to items taken out of a discharge room. How do you clean and disinfect with me?



Step 1

Use a PDI wipe to pre-clean the surface of all debris.

Step 2

Use a second PDI wipe to thoroughly wet the surface.

Step 3

Keep surface wet for 2 minutes and then let air dry.

The Unit will PDI Bleach Wipe all equipment as indicated between each patient and prior to items taken out of a discharge room.





Key elements for prevention of disease transmission in a communal setting

Placement and segregation, if indicated

Early identification

- Transfer, if indicated
- Care in place with segregation, utilization of PPE and vigilant hand hygiene



Laundry

- Garments heavily soiled should be disposed of in a plastic bag
- Wash clothing normally with laundry detergent

Bleach can be used at normal concentrations

Dry clothes completely in dryer



Points to Ponder

- Hand hygiene
- Standard Precautions
- Category specific isolation (prior to transport)
- Educate the clients
- Document activities to share and develop action plans to mitigate/prevent



Questions? & Answers!



