



# Select Communicable Diseases and Infection Control Practices in Homeless Congregate settings

## **Fundamental Strategies to Prevent Communicable Diseases**

1. Have internal process to identify an outbreak
2. Staff educated to recognize specific disease patterns
3. Documenting cases of similar etiology/symptoms with sufficient details to track source of disease outbreak
4. Rapidly implementing control measures to stop the spread based on mode of transmission of suspected infectious disease including isolation, PPE use, hand hygiene, cleaning and disinfection
5. Notification to local health department of an outbreak to secure expertise and help in managing the outbreak

## **MRSA Prevention (skin and soft tissue infections):**

Methicillin-resistant Staphylococcus aureus (MRSA) is a type of bacteria that is resistant to several antibiotics and can cause infections. In congregate settings, such as nursing homes, hospitals, and prisons, MRSA can easily spread from person to person. Here are some ways to prevent MRSA in congregate settings:

1. Hand hygiene: Encourage frequent hand washing or use of alcohol-based hand sanitizers. Hands should be washed or sanitized before and after caring for patients or residents, after touching surfaces or items in the environment, and after using the restroom.
2. Isolation precautions: Implement isolation precautions for patients or residents with MRSA infections or colonization. Use of gowns and gloves, and keeping patients or residents in separate rooms, can help prevent the spread of MRSA.
3. Environmental cleaning: Clean and disinfect surfaces and items that are frequently touched, such as bed rails, doorknobs, and equipment. Use disinfectants that are effective against MRSA.
4. Screening: Screen patients or residents for MRSA colonization upon admission or transfer, and periodically thereafter. Those who are found to be colonized can be placed on isolation precautions.
5. Education: Educate staff, patients, and residents about MRSA, how it spreads, and how to prevent it. This can include hand hygiene, covering wounds, and avoiding sharing personal items.

6. Antibiotic stewardship: Implement antibiotic stewardship programs to prevent the overuse or misuse of antibiotics, which can lead to the development of antibiotic-resistant bacteria like MRSA.

By implementing these prevention strategies, you can help reduce the spread of MRSA in congregate settings.

#### How to treat MRSA in homeless population?

Treating MRSA in homeless individuals can be challenging because of various factors such as poor hygiene, lack of access to medical care, and frequent movement between shelters or living on the streets. Here are some steps that can be taken to treat MRSA in homeless individuals:

1. Seek medical attention: Homeless individuals with MRSA should seek medical attention as soon as possible. A healthcare provider can diagnose MRSA and determine the appropriate treatment plan.
2. Antibiotics: Antibiotics are often used to treat MRSA. Depending on the severity of the infection, antibiotics can be given orally or intravenously. The length of treatment varies depending on the individual case.
3. Wound care: MRSA infections often cause skin abscesses, so proper wound care is crucial. This includes cleaning the infected area, draining the abscess if necessary, and keeping the area covered and dry.
4. Supportive care: Homeless individuals with MRSA may require additional supportive care such as pain management and nutritional support. It's important to address any underlying medical conditions that may affect healing.
5. Education: Educate homeless individuals about MRSA, how it spreads, and how to prevent it. This can include proper hand hygiene, covering wounds, and avoiding sharing personal items.
6. Housing: In addition to medical treatment, providing stable housing can help prevent the spread of MRSA in homeless populations. Access to housing can also provide a stable environment for wound care and medication management.

The choice of antibiotic used to treat MRSA wounds depends on the severity of the infection, the location of the infection, and the patient's medical history and allergies. Some antibiotics that are commonly used to treat MRSA infections include:

1. Vancomycin: This is one of the most commonly used antibiotics for MRSA infections. It is usually given intravenously and can be effective against many strains of MRSA.
2. Linezolid: This antibiotic is effective against MRSA and is usually given orally or intravenously. It is often used to treat skin and soft tissue infections caused by MRSA.

3. Daptomycin: This antibiotic is usually given intravenously and can be effective against MRSA infections that are resistant to other antibiotics.
4. Clindamycin: This antibiotic is often used to treat MRSA skin infections, especially when the infection is located in an area where surgery is not feasible.
5. Trimethoprim-sulfamethoxazole (TMP-SMX): This antibiotic combination is often used to treat MRSA skin and soft tissue infections, as well as some types of pneumonia caused by MRSA.

It is important to note that MRSA strains can be resistant to multiple antibiotics, and the choice of antibiotic should be made in consultation with a healthcare provider who can take into account the patient's medical history and current health status. Additionally, proper wound care, including cleaning the wound and changing dressings frequently, is essential to prevent MRSA infections from developing or spreading.

#### Preventing MRSA outbreaks in homeless shelters:

Preventing MRSA outbreaks in homeless shelters can be challenging, but there are several steps that can be taken to minimize the risk of transmission:

1. Increase hygiene: Encourage frequent handwashing and provide hand sanitizer throughout the shelter. Promote good personal hygiene, such as showering and changing clothes regularly, especially among those who are infected or at risk of infection.
2. Educate staff and residents: Provide training for staff and residents on MRSA, its symptoms, and how to prevent transmission. Encourage staff to report any suspected cases to management immediately.
3. Screen and isolate infected individuals: Screen all new residents for MRSA and isolate those who are infected to prevent the spread of the bacteria. Consider providing separate sleeping quarters for those infected until they have recovered.
4. Clean and disinfect: Regularly clean and disinfect high-touch surfaces, such as doorknobs, light switches, and shared bathroom areas. Use EPA-registered disinfectants that are effective against MRSA.
5. Implement infection control measures: Consider implementing infection control measures such as cohorting, where residents who are infected or at risk of infection are grouped together in the same area. This can help to limit the spread of MRSA.
6. Reduce overcrowding: Reduce overcrowding in the shelter as much as possible to minimize the risk of transmission. Consider partnering with other organizations to provide additional shelter space.

7. Encourage vaccinations: Encourage staff and residents to get vaccinated against preventable illnesses, such as the flu, which can weaken the immune system and increase the risk of MRSA infection.
8. Avoid sharing personal items: Avoid sharing personal items, such as towels, clothing, or razors, with others to prevent the spread of MRSA.
9. Clean wound, cover the wounds with sterile dressings, change dressings frequently to avoid cross contamination with MRSA

By implementing these measures, homeless shelters can minimize the risk of MRSA outbreaks and help to keep residents safe and healthy.

### **Diarrheal Infections:**

Diarrheal infections can spread quickly in homeless shelters due to the close living quarters and poor hygiene. Here are some steps that can be taken to prevent and manage diarrhea outbreaks in homeless shelters:

1. Promote good hygiene: Encourage frequent hand washing with soap and water or use of hand sanitizer. Provide access to clean water and soap and display posters with instructions on how to wash hands properly.
2. Educate staff and residents: Provide education to staff and residents on how diarrheal infections spread and how to prevent them. Encourage staff to report any cases of diarrhea to management immediately.
3. Isolate those infected: Isolate anyone with diarrhea symptoms from the general population until they are symptom-free for at least 48 hours. Consider providing separate bathroom facilities for those with diarrhea symptoms.
4. Clean and disinfect: Regularly clean and disinfect high-touch surfaces, such as doorknobs, light switches, and bathroom facilities. Use EPA-registered disinfectants that are effective against diarrhea-causing pathogens.
5. Provide safe food and water: Ensure that the food and water provided in the shelter are safe to consume. Regularly test water sources to ensure they are free of contaminants.
6. Encourage vaccination: Encourage staff and residents to get vaccinated against preventable illnesses, such as the flu and rotavirus, which can cause diarrhea.
7. Partner with local health agencies: Work with local health agencies to develop an outbreak response plan and to receive guidance on managing outbreaks of diarrheal infections.

By implementing these measures, homeless shelters can minimize the risk of diarrheal infections and help to keep residents safe and healthy.

### Types of Diarrheal Infections:

Several microorganisms can cause diarrheal diseases in homeless shelters. The most common ones include:

1. **Norovirus:** This is the most common cause of acute gastroenteritis in the general population and is highly contagious. It spreads easily in crowded environments, such as homeless shelters, through contaminated surfaces, food, or water.
2. **Salmonella:** This bacterium can cause foodborne illness and is commonly found in raw or undercooked meat, poultry, eggs, and dairy products. It can also be spread through contact with contaminated surfaces or fecal matter.
3. **Shigella:** This bacterium causes a severe form of diarrhea known as shigellosis. It is spread through contaminated food, water, or surfaces, or through person-to-person contact.
4. **Campylobacter:** This bacterium is commonly found in raw or undercooked poultry, unpasteurized milk, and contaminated water. It can cause a severe form of diarrhea known as campylobacteriosis.
5. **Escherichia coli (E. coli):** Some strains of E. coli can cause diarrhea and other gastrointestinal symptoms. It is often spread through contaminated food or water.
6. **Cryptosporidium:** This parasite can cause cryptosporidiosis, a diarrheal illness that can be severe in people with weakened immune systems. It is spread through contact with contaminated water, food, or surfaces.

Preventing the spread of these microorganisms requires proper hygiene, sanitation, and food safety measures, as well as prompt identification and isolation of infected individuals.

### Treatment of Diarrheal Infections:

The use of antibiotics for the treatment of diarrheal diseases depends on the cause of the illness. Antibiotics are only effective against bacterial infections, and they are not effective against viral or parasitic infections. Here are some antibiotics that may be used to treat specific bacterial causes of diarrhea:

1. **Azithromycin:** This antibiotic is often used to treat *Campylobacter* infections.
2. **Ciprofloxacin:** This antibiotic is effective against many types of bacteria that cause diarrhea, including *Campylobacter*, *Shigella*, and *Salmonella*.
3. **Trimethoprim-sulfamethoxazole (TMP-SMX):** This antibiotic is often used to treat *Shigella* and some strains of *E. coli*.
4. **Metronidazole:** This antibiotic is effective against some types of bacterial infections, such as *Clostridium difficile*, and some parasitic infections.

5. Prescribe anti-parasitic medication: The medication of choice for giardiasis is usually metronidazole, tinidazole, or nitazoxanide. The medication is usually taken for 5-10 days.

It is important to note that antibiotics should only be used to treat bacterial infections and only under the guidance of a healthcare professional. Inappropriate use of antibiotics can lead to the development of antibiotic-resistant bacteria, which can be difficult to treat. In addition, antibiotics may cause side effects and should only be used when necessary.

### Preventing Diarrheal Diseases in Homeless Shelters:

Preventing diarrheal outbreaks in homeless shelters requires a multi-faceted approach that includes improving hygiene practices, ensuring safe food and water sources, and identifying and managing outbreaks early. Here are some steps that can be taken to prevent diarrheal outbreaks in homeless shelters:

1. Practice good hygiene: Encourage residents, staff, and volunteers to practice good hand hygiene by washing hands frequently with soap and water or using hand sanitizer. Promote proper hygiene practices, such as covering coughs and sneezes, and avoiding close contact with people who are sick.
2. Ensure safe food and water sources: Provide access to safe food and water sources, and ensure that all food is prepared and stored properly to prevent contamination. Regularly inspect and clean kitchen and food storage areas.
3. Manage outbreaks early: Be alert for signs of diarrheal outbreaks, such as an increase in cases of diarrhea, and implement outbreak control measures promptly. Isolate individuals with diarrhea and investigate the source of the outbreak.
4. Improve sanitation: Ensure that the shelter is kept clean and disinfected, with particular attention paid to high-touch surfaces and areas where food is prepared and served.
5. Provide access to healthcare: Provide access to healthcare services for residents who are ill and track and trend cases to monitor for outbreaks.

### Food-borne Diseases:

Food-borne infections are a significant health risk in homeless shelters, where access to safe food and water may be limited. Some common food-borne infections that can occur in homeless shelters include Salmonella, E. coli, and norovirus. Here are some steps that can be taken to prevent food-borne infections in homeless shelters:

1. Ensure safe food handling practices: Train staff and volunteers on safe food handling practices, including proper hand hygiene, food storage, and cooking temperatures. Regularly inspect and clean kitchen and food storage areas.
2. Monitor food sources: Ensure that all food sources are safe and reputable, and monitor food shipments and storage to prevent contamination. Discard any food that is past its expiration date or shows signs of spoilage.
3. Promote proper hygiene practices: Encourage residents, staff, and volunteers to practice good hand hygiene, and provide access to hand sanitizer and hand-washing stations.
4. Monitor for outbreaks: Monitor for signs of food-borne illnesses and outbreaks, such as an increase in cases of diarrhea or vomiting, and investigate promptly. Isolate individuals who are ill and implement outbreak control measures.
5. Provide access to healthcare: Provide access to healthcare services for residents who are ill, and monitor for outbreaks.

It is important to note that preventing food-borne infections in homeless shelters requires ongoing effort and attention to safe food handling practices, hygiene, and outbreak control measures. Regular training and education, along with close monitoring of outbreaks, can help prevent and control food-borne illnesses in homeless shelters.

#### Types of food-borne diseases in homeless shelters:

Several different microorganisms can cause food-borne diseases in homeless shelters, including:

1. Salmonella: This bacterium is commonly found in contaminated food, especially poultry and eggs. Symptoms of salmonella infection include fever, diarrhea, and abdominal cramps.
2. E. coli: Certain strains of E. coli can cause severe illness, especially in individuals with weakened immune systems. Symptoms include diarrhea, abdominal pain, and fever.
3. Norovirus: This highly contagious virus can spread rapidly in crowded settings like homeless shelters. It causes symptoms such as vomiting, diarrhea, and stomach cramps.
4. Staphylococcus aureus: This bacterium can produce a toxin in food that causes rapid onset of symptoms like vomiting and diarrhea.
5. Clostridium perfringens: This bacterium can grow in cooked foods that are left at room temperature for too long, producing a toxin that can cause diarrhea and abdominal pain.

6. **Listeria:** This bacterium can grow in refrigerated foods and can cause severe illness in pregnant women and individuals with weakened immune systems. Symptoms include fever, muscle aches, and gastrointestinal symptoms.
7. **Botulinum toxin** is a type of neurotoxin produced by the bacterium *Clostridium botulinum*. It is one of the most potent toxins known, and can cause severe illness or even death if ingested in sufficient quantities. The toxin can be found in foods that have been improperly processed or stored, especially those that are low-acid and have been canned or vacuum-packed.
8. **Brucella** is a type of bacteria that can cause food-borne infections in humans. The most common route of transmission is through the consumption of contaminated dairy products, such as unpasteurized milk and cheese made from unpasteurized milk. *Brucella* bacteria, can cause symptoms such as fever, fatigue, headache, muscle and joint pain, and loss of appetite. In severe cases, it can lead to complications such as arthritis and inflammation of the heart and brain.

#### Treatment of Food-borne diseases:

The treatment of food-borne diseases depends on the specific type of infection and its severity. In general, the following measures may be recommended:

1. **Fluid and electrolyte replacement:** Diarrhea and vomiting can cause dehydration and electrolyte imbalances. Treatment may involve replenishing fluids and electrolytes through oral rehydration solutions or, in severe cases, intravenous fluids.
2. **Antibiotics:** If the food-borne infection is caused by bacteria, antibiotics may be prescribed to treat the infection. However, antibiotics are not effective against viral infections, and may not be necessary in all cases of bacterial infections.
3. **Antiemetics:** Medications that can help relieve nausea and vomiting may be prescribed or recommended.
4. If you have a suspected or confirmed food-borne illness, it is important to avoid preparing food for others until you have fully recovered to prevent further spread of the infection.

#### Preventing food-borne diseases in homeless shelters:

Preventing food-borne diseases in homeless shelters involves implementing measures to ensure safe food handling, preparation, and storage. Here are some ways to prevent food-borne diseases in homeless shelters:

1. **Train staff:** Staff should be trained on safe food handling practices, such as hand hygiene, temperature control, and avoiding cross-contamination.



2. **Maintain a clean environment:** A clean environment can help prevent the growth and spread of harmful bacteria. Surfaces, utensils, and equipment should be cleaned and sanitized regularly.
3. **Control temperature:** Proper temperature control is important to prevent the growth of harmful bacteria. Food should be stored at the appropriate temperature and cooked to the proper temperature.
4. **Source safe food:** Food should be sourced from reputable suppliers and inspected upon arrival to ensure that it is safe for consumption.
5. **Implement a food safety plan:** A food safety plan should be in place that outlines procedures for food handling, preparation, and storage. The plan should be reviewed regularly and updated as needed.
6. **Educate residents:** Residents should be educated on safe food handling practices, such as washing hands before eating and avoiding cross-contamination.
7. **Monitor for illness:** Staff should monitor residents for signs of illness, and any resident with suspected food poisoning should be isolated and referred for medical attention.

### **Aerosol Transmitted Diseases:**

Aerosol transmission occurs when respiratory droplets containing infectious agents are produced by an infected individual through coughing, sneezing, or talking, and then inhaled by a susceptible individual. Aerosol transmission can occur over short distances (less than 1 meter) or over longer distances (up to several meters) and is a known route of transmission for several diseases.

Here are some examples of diseases that can be transmitted through aerosols:

1. **COVID-19:** COVID-19 is primarily transmitted through respiratory droplets, which can be inhaled by another person. However, there is also evidence to suggest that the virus can remain airborne in certain circumstances and be transmitted through aerosols.
2. **Tuberculosis:** Tuberculosis (TB) is a bacterial infection that primarily affects the lungs. TB is spread through the air when an infected person coughs, sneezes, or talks, and another person inhales the bacteria.
3. **Measles:** Measles is a highly contagious viral infection that spreads through the air when an infected person coughs or sneezes.
4. **Influenza:** Influenza is a viral infection that spreads through the air when an infected person coughs or sneezes.

5. Legionnaires' disease: Legionnaires' disease is a type of pneumonia that is caused by the bacterium *Legionella pneumophila*. The bacteria can be found in water systems, and the disease is transmitted through inhalation of aerosols containing the bacteria.
6. Coccidioidomycosis, also known as valley fever, is a fungal infection caused by the fungus *Coccidioides immitis* or *Coccidioides posadasii*. This fungus is commonly found in soil in arid and semi-arid regions, such as the southwestern United States, Central and South America, and parts of Africa. Coccidioidomycosis is primarily a respiratory infection that is contracted by inhaling fungal spores from the soil.

To prevent the transmission of aerosol-transmitted diseases, it is important to practice good respiratory hygiene, such as covering the mouth and nose when coughing or sneezing, and avoiding close contact with people who are sick. Proper ventilation and air filtration can also help reduce the risk of transmission. In healthcare settings, personal protective equipment (PPE) such as masks and respirators can help prevent the spread of aerosol-transmitted diseases.

#### Types of aerosol transmitted diseases in homeless shelters:

There are several types of aerosol-transmitted diseases that can be of concern in homeless shelters. Some of these diseases include:

1. Tuberculosis (TB): TB is a bacterial infection that can be spread through the air when an infected person coughs or sneezes. Homeless individuals may be at increased risk for TB due to poor living conditions and compromised immune systems.
2. Influenza: Influenza is a viral infection that can be spread through the air when an infected person coughs or sneezes. Homeless individuals may be at increased risk for influenza due to poor living conditions and close contact with others in shelters.
3. COVID-19: COVID-19 is a viral infection caused by the SARS-CoV-2 virus that can be spread through the air when an infected person coughs, sneezes, or talks. Homeless individuals may be at increased risk for COVID-19 due to close living quarters and limited access to healthcare.
4. Measles: Measles is a highly contagious viral infection that can be spread through the air when an infected person coughs or sneezes. Homeless individuals may be at increased risk for measles due to close living quarters and limited access to healthcare.
5. Pertussis: Pertussis, also known as whooping cough, is a bacterial infection that can be spread through the air when an infected person coughs or sneezes.

Homeless individuals may be at increased risk for pertussis due to poor living conditions and limited access to healthcare.

Preventing the spread of aerosol-transmitted diseases in homeless shelters requires a multi-pronged approach that includes providing adequate ventilation, promoting good respiratory hygiene (such as covering coughs and sneezes), promoting hand hygiene, and encouraging vaccination against preventable diseases such as influenza and measles. Providing access to healthcare and housing can also help reduce the risk of disease transmission among homeless individuals.

#### Treatment of aerosol transmitted diseases:

The treatment for aerosol-transmitted diseases depends on the specific disease and its severity. Some common treatments for these diseases include:

1. Antibiotics: Antibiotics are often used to treat bacterial infections such as tuberculosis and pertussis.
2. Antivirals: Antiviral medications may be used to treat viral infections such as influenza and COVID-19.
3. Supportive care: In some cases, supportive care such as oxygen therapy, intravenous fluids, and rest may be necessary to help the body fight off the infection.
4. Vaccines: Vaccines are available for some aerosol-transmitted diseases such as influenza and measles. These vaccines can help prevent infection and reduce the severity of symptoms in those who do become infected.

#### Preventing aerosol transmitted diseases in homeless shelters:

Preventing the transmission of aerosol-transmitted diseases in homeless shelters can be challenging, but there are several measures that can be taken to reduce the risk of infection. Some of these measures include:

1. Adequate ventilation: Ensuring that the shelter has proper ventilation can help reduce the concentration of infectious particles in the air.
2. Promoting respiratory hygiene: Encouraging residents and staff to cover their mouths and noses when coughing or sneezing can help reduce the spread of infectious particles in the air.
3. Promoting hand hygiene: Providing access to hand hygiene facilities such as hand sanitizer and soap and water can help reduce the spread of infection.
4. Encouraging vaccination: Encouraging residents and staff to get vaccinated against preventable diseases such as influenza and measles can help reduce the spread of infection.

5. Providing education: Providing education on the signs and symptoms of infectious diseases and how they are spread can help residents and staff recognize and report potential cases.
6. Isolation and quarantine: Isolating or quarantining individuals who are sick or at risk of infection can help reduce the spread of infectious particles in the air.
7. Providing adequate healthcare: Providing access to healthcare can help ensure that residents receive prompt diagnosis and treatment for infectious diseases, reducing the risk of transmission.

### **Infestations in Homeless Shelters:**

Infestations in homeless shelters can pose a serious health risk to residents and staff. Some of the most common infestations in homeless shelters include bed bugs, lice, Scabies, fleas, and rodents. These infestations can cause skin irritation, allergic reactions, and the spread of disease. Here are some steps that can be taken to prevent and control infestations in homeless shelters:

1. Regular cleaning and maintenance: Regular cleaning and maintenance can help prevent infestations by removing potential sources of food and shelter for pests.
2. Inspection and monitoring: Regular inspection and monitoring can help detect infestations early, allowing for prompt action to be taken to control them.
3. Proper storage of food and waste: Proper storage of food and waste can help prevent infestations by denying pests access to potential sources of food.
4. Pest control measures: Pest control measures such as insecticides, traps, and bait stations can be used to control infestations once they are detected.
5. Collaboration with local health authorities: Collaborating with local health authorities can help ensure that appropriate measures are taken to control infestations and prevent the spread of disease.

### **Types of infestations in homeless shelters:**

There are several types of parasites that can cause infestations in homeless shelters. Some of the most common parasites include:

1. Bed bugs: Bed bugs are small insects that feed on human blood. They are typically found in bedding and furniture and can cause skin irritation and allergic reactions.
2. Lice: Lice are small insects that live on human hair and feed on blood. They can cause itching and skin irritation and are easily spread from person to person.

3. Fleas: Fleas are small insects that feed on blood and are typically found on pets or wild animals. They can also infest human homes and shelters and cause itching and skin irritation.
4. Scabies: Scabies is a skin infestation caused by tiny mites that burrow into the skin. It can cause intense itching and a rash, and is easily spread through skin-to-skin contact.
5. Head and body lice: Head and body lice are parasites that live on the human scalp and body hair, respectively. They feed on human blood and can cause itching and skin irritation.
6. Tapeworms: Tapeworms are intestinal parasites that can be spread through the ingestion of contaminated food or water. They can cause diarrhea, abdominal pain, and weight loss.
7. Pinworms: Pinworms are intestinal parasites that are easily spread through close contact with infected individuals. They can cause itching around the anus and irritability.

#### Treatment for various infestations in homeless shelters:

The treatment for parasites causing infestations in homeless shelters depends on the type of parasite and the extent of the infestation. In general, the following treatments may be recommended:

1. Bed bugs: Bed bugs can be treated with insecticides that are applied directly to infested areas or furniture. Infested bedding and clothing should be washed and dried on high heat.
2. Lice: Lice can be treated with medicated shampoos or lotions that kill the lice and their eggs. Bedding, clothing, and other personal items should be washed in hot water and dried on high heat.
3. Fleas: Fleas can be treated with insecticides that are applied to infested areas or pets. Infested bedding and clothing should be washed and dried on high heat.
4. Scabies: Scabies can be treated with medicated creams or lotions that kill the mites. All clothing, bedding, and towels should be washed in hot water and dried on high heat. Permethrin cream is the most commonly prescribed medication for scabies or oral Ivermectin in severe cases
5. Head and body lice: Head and body lice can be treated with medicated shampoos or lotions that kill the lice and their eggs. All clothing and bedding should be washed in hot water and dried on high heat.
6. Tapeworms: There are several medications that can be used to treat tapeworms, including praziquantel, niclosamide, and albendazole. These medications work by killing the tapeworm in the intestines. The medication prescribed will depend

on the type of tapeworm and the severity of the infection. Also avoid undercooked meats.

7. Pinworms: Pinworms can be treated with medications that kill the worms. All bedding and clothing should be washed in hot water and dried on high heat. The most common medications used to treat pinworms are mebendazole, albendazole, and pyrantel pamoate.

#### Preventing parasitic infestation in homeless shelters:

Preventing parasitic infestations in homeless shelters can be challenging, but there are some measures that can be taken to reduce the risk of infestation. Here are some ways to prevent parasitic infestations in homeless shelters:

1. Good hygiene: Encourage all residents to practice good personal hygiene, such as washing hands regularly with soap and water, keeping nails short, and avoiding sharing personal items like towels and combs.
2. Cleaning and disinfecting: Regularly clean and disinfect common areas, including bathrooms, showers, and sleeping areas. Use appropriate disinfectants to kill parasites and their eggs.
3. Screening: Screen residents for parasitic infestations upon entry to the shelter and regularly thereafter. Any individuals found to be infected should be treated and isolated until they are no longer contagious.
4. Pest control: Implement effective pest control measures to prevent infestations of insects or rodents that may carry parasites.

#### References:

1. **National Healthcare for the Homeless Council:** The National Healthcare for the Homeless Council is a national organization that provides resources and support to healthcare providers who work with homeless populations. Their website provides access to a wide range of tools and resources for healthcare providers, including clinical guidelines, training materials, and research.
2. **Healthcare and Housing Collaboration:** A Guidebook for the Homeless: This guidebook, produced by the US Department of Housing and Urban Development, provides guidance on how to establish effective partnerships between healthcare providers and housing providers to improve health outcomes for homeless individuals.
3. **Health Care for the Homeless Clinicians' Network:** The Health Care for the Homeless Clinicians' Network is a network of healthcare providers who work with homeless populations. They provide a range of resources and support for

healthcare providers, including clinical guidelines, research, and training materials.

4. **The Joint Commission:** The Joint Commission is a national organization that accredits healthcare organizations in the United States. They provide guidelines and standards for healthcare providers who work with homeless populations, including recommendations for providing culturally competent care, ensuring patient safety, and improving access to care.
5. **SAMHSA Homeless Resource Center:** The Substance Abuse and Mental Health Services Administration (SAMHSA) Homeless Resource Center provides a range of resources and support for healthcare providers who work with homeless populations, including clinical guidelines, training materials, and research.

## **Appendix A:**

## TABLE OF COMMUNICABLE DISEASES

Disease	Signs & symptoms	Incubation	Communicability	Prevention
<b>Chicken pox</b> – varicella zoster virus; viral disease	Esp seen winter & spring. Resp symptoms, malaise (not feeling well), low-grade fever followed by rash starting on face & trunk spreading to rest of body. Fluid filled vesicles rupture & scab over within 1 week.	10-21 days	Thru inhalation of airborne droplets & direct contact of weeping lesions & contaminated linens.	Mask patient. Provider should avoid contact if they've never had chicken pox. Vaccination now available (1995) and of childhood immunizations. Pt isolated until all lesions crusted over and dry.
<b>Hepatitis</b> – inflammation of the liver due to multiple causes (virus most common)	Signs & symptoms generally same for all forms: Headache; fever; weakness; joint pain; anorexia; nausea; vomiting; RUQ pain; jaundice; dark urine; clay-colored stools	Acute or Chronic incubation varies	Contact with blood and body fluids ( Hep A transmits via oral-fecal contamination)	Most important is avoidance of contact with blood and body fluids of all persons.
<b>Hepatitis A</b> – infectious or viral	May have no symptoms. Adults may have abdominal pain, loss of appetite, nausea, diarrhea, light colored stools, dark urine, fatigue, fever & jaundice.	15-50 days; average 30 days. Disease follows mild course &	Fecal-oral route. Virus lasts on hands about 4 hours. More	Vaccines in active areas (active immunity). Good handwashing.
<b>Hepatitis B</b> – serum hepatitis	It can take 1-9 months before symptoms develop. Some have mild flu-like symptoms. Dark urine, light colored stools, fatigue, fever & jaundice. Can develop acute hepatitis, cirrhosis, liver cancer.	4-25 weeks; average 8-12 weeks	Direct contact (blood, semen, vaginal fluid, saliva). Can become asymptomatic chronic carrier capable of transmitting disease to others.	Vaccination 90% effective. Virus stable on surfaces with dried for 7 days.
<b>Hepatitis C</b> Leading cause of cirrhosis & liver cancer.	Chronic condition in 85% of infected people. Liver fibrosis into cirrhosis in 20% of infected people.	2-25 weeks; avge 7-9 weeks. Disease may be dormant 10-20 years before symptoms.	Contact with infected blood primarily with IV drug use & sexual contact.	Since 1989 screen for HCV. No vaccine to high mutation rate.



<p><b>HIV</b> – a virus that attacks the immune system &amp; causes AIDS (a collection of signs &amp; symptoms)</p>	<p>Mono-like syndrome, fatigue, fever, sore throat, lymphadenopathy, splenomegaly, rash, diarrhea. Skin lesions (Kaposi's sarcoma); opportunistic infections (Pneumocystic carinii pneumonia, Tb)</p>	<p>Variable. May develop detectable antibodies 1-3 months. Variable time from HIV infection to diagnosis of AIDS.</p>	<p>Bloodborne through blood &amp; body fluids</p>	<p>Universal standard precautions</p> <p>Death is usually from opportunistic diseases that take advantage of the patient's weakened systems.</p>
<p><b>Influenza (flu)</b></p> <p>Viral disease</p>	<p>Epidemics usually in winter. Sudden onset fever for 3-5 days, chills, tiredness, malaise (not feeling well), musculoskeletal aches, nasal discharge, dry cough, mild sore throat. Children can also experience GI symptoms of nausea, vomiting &amp; diarrhea although this is uncommon in</p>	<p>1-4 days</p> <p>Peak flu season is late December through March.</p>	<p>Direct contact especially in crowded areas via droplets. The virus can persist on surfaces for hours but indirect contact is less</p>	<p>Vaccination available annually; most effective if received from September to mid-November. Treatment is symptomatic (rest, OTC med for fever &amp;</p>
<p><b>Measles</b> (rubeola, hard measles)</p>	<p>Initially symptoms of severe cold with fever, conjunctivitis, swollen eyelids, photophobia, malaise, cough, nasopharyngeal congestion, red bumpy rash lasting about 6 days</p>	<p>7-14 days; average 10 days</p>	<p>Inhalation of infective droplets &amp; direct contact. Highly communicable virus mostly before prodrome starts (early or impending disease time), to about 4 days after rash appears.</p>	<p>Handwashing critical. MMR vaccination part of childhood program.</p>

<p><b>Meningitis</b> – inflammation of meninges caused by bacteria &amp; viruses</p>	<p>Viral meningitis – most common type of meningitis; self-limited disease lasting 7-10 days. Bacterial – Neisseria meningitides bacteria causes very serious infection; fever, chills, headache, nuchal rigidity (stiff neck) with flexion, arthralgia (achy joints), lethargy, malaise (ill feeling), altered mental status, vomiting, seizures.</p>	<p>2-4 days up to 10 days</p>	<p>Resp droplets; contact with oral secretions, crowding, close contact, smoking, lower socioeconomic status. Viral meningitis can also be spread via contact with feces of infected person.</p>	<p>Practice good handwashing. Mask for pt and self. Universal precautions. Post exposure antibiotics started within 24 hours. Vaccination now part of childhood series (Haemophilus influenza type B). Avoid crowded places</p>
<p><b>Monkeypox</b></p>	<p>Rare viral disease. 12 days after exposure get fever, headache, muscle aches, backache, swollen lymph nodes, tired. Rash 1-3 days after fever; often starts on face as fluid filled bumps &amp; the spreads.</p>	<p>12 days</p>	<p>From an animal with monkeypox if bitten or touch the animal's  Person-to-person from large respiratory droplets during long periods of face-to-face contact w/rash</p>	<p>No specific treatment. Vaccinations are best options of high risk population.</p>
<p><b>MRSA</b> – methicillin resistant staphylococcus aureus</p>	<p>Usually found in ill patients who are multidrug resistant. Often in open wounds, post-op wounds, around G-tube sites.</p>		<p>Usually spread from infected patients via hands of HCW &amp; inanimate objects (B/P cuff, stethoscope).</p>	<p>Handwashing after any patient contact. Wear gloves when doing pt contact. Protective gowns when in contact with infected linens. Avoid sharing of equipment. HCW can be colonized with MRSA (not common) but often are not ill &amp; are not at risk to other healthy persons (peers, family).</p>

<b>Pertussis – whooping cough</b>	1 <sup>st</sup> phase – common cold symptoms lasts 1-2 weeks. 2 <sup>nd</sup> phase lasts month or longer. No fever. Mild cough that can become severe & violent, productive. 3 <sup>rd</sup> phase – frequency and severity of coughing decreases.	6-20 days	Transmitted via respiratory secretions or in an aerosolized form. Highly contagious except in 3 <sup>rd</sup> phase. Communicability greatest before 2 <sup>nd</sup> phase.	Mask pt. DPT vaccination in childhood series (not sure how long immunity lasts).
<b>Diarrheal Diseases</b>	Acute onset of diarrhea, abdominal cramps, bloody diarrhea, dehydration, loose watery stool, fevers	Few hours to few days	Through contact with stool, aerosolized projectile vomiting(Norovirus)	Frequent Hand Washing Disinfection of contaminated surfaces Safe food products
<b>Food-borne Diseases</b>	Watery diarrhea, Fevers, Abdominal cramping,	Few hours to few days	Contaminated food, food toxins from improperly preserved or uncooked food	Safe food storage Maintaining proper temperature for cooking/storing food, frequent Hand Hygiene

<p><b>Scabies</b></p>	<p>A parasitic disease of skin caused by a mite. Penetration is visible as papules, vesicles, or tiny linear burrows containing mites &amp; their eggs. Lesions prominent around finger webs, anterior surfaces of wrists &amp; elbows, anterior axillary folds, belt line, thighs, external genitalia in men, nipples &amp; abd &amp; lower portion of buttocks in women. Itching intense esp at night. Complications limited to lesions that get infected from scratching.</p>	<p>2-6 weeks before onset of itching. Reexposure – symptoms develop in 1-4 days.</p>	<p>Transmitted skin to skin contact. Transfer from underwear &amp; bedclothes only if immediate contact. Communicable until eggs &amp; mites are destroyed by tx, ordinarily 1 or occasionally 2 courses of tx 1 week apart.</p>	<p>Educate on mode of transmission &amp; need for early diagnosis &amp; tx. No work or school until day after tx started. Contact isolation. Disinfection for clothes &amp; bed sheets used 48 hours prior to start of tx. Tx is a topical solution.</p>
<p><b>Tuberculosis-MTB</b> Aerosol transmitted</p>	<p>Primarily affects resp system. May spread to other organ systems. Development of disease about 6-12 months after infection. Chills, fever, fatigue, productive or non-productive chronic cough, weight loss, night sweats, hemoptysis. <u>TB infection</u> – person has the bacteria but are not sick &amp; not capable of spreading the disease. May become ill if health status changes. May be treated prophylactically for now. <u>TB disease</u> – person ill, is capable of Transmitting via aerosolized droplets from lungs</p>	<p>4-12-weeks Persons most susceptible: HIV, close contact with TB pt, immunocompromised, foreign borne in country with high TB rate, Some HCW &amp; prison guards, malnourished, ETOH &amp; drug Users.</p>	<p>Most commonly through airborne resp droplets. Repeated exposure is generally necessary to become infected so prolonged exposure increases risk.</p>	<p>Universal precautions. Mask pt and self. The N95 mask required Around TB patient. Skin test annually. If the TB skin test is positive, May signal active disease  Patient can be treated</p>