

GEORGIA LONG TERM CARE INFECTIOUS DISEASE CARDS



LONG TERM CARE INFECTIOUS DISEASE EDUCATIONAL PROGRAM



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GEORGIA LONG TERM CARE INFECTIOUS DISEASE CARDS

NOTE:

The information displayed on these disease cards is intended for use by certified long term care facilities on behalf of the Georgia Long Term Care Infectious Disease Educational Program in accordance with CDC guidelines as of 11/11/2021. Please refer to your facility's policies and procedures for additional protective measures.



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C. DIFF

Also known as *Clostridioides difficile* or *C. difficile*

OVERVIEW:

C. diff is a germ (bacterium) that causes severe diarrhea and colitis (inflammation of the colon). It is estimated to cause almost half a million infections in the United States each year. About 1 in 6 patients who get *C. diff* will get it again in the subsequent 2-8 weeks. One in 11 people >65 diagnosed with healthcare-associated *C. diff* die within one month.

TRANSMISSION:

- *C. diff* is shed in feces. Any surface, device, or material (toilets, bathtubs, thermometers) that becomes contaminated could serve as a reservoir for *C. diff* spores. The spores can also be transferred to patients via the hands of healthcare personnel who have touched a contaminated surface.

INCUBATION PERIOD: unknown

SIGNS/SYMPTOMS:

- Severe diarrhea
- Stomach tenderness or pain
- Fever
- Nausea
- Loss of appetite

Signs and symptoms usually develop within 5 to 10 days after starting a course of antibiotics. However, they may occur as soon as the first day or up to three months later.

DIAGNOSIS: stool culture, molecular tests, antigen detection, toxin testing, colon examination in rare cases

TREATMENT:

Treatments are only used if person has signs or symptoms.

- Antibiotics
- Antibody-based therapy
- Fecal microbiota transplant
- Probiotics

PPE CONSIDERATIONS

ALL STAFF

- Implement **“Contact Precautions”** for all C. diff patients; consider pre-emptively placing symptomatic patients on **“Contact Precautions”** until laboratory results are available.
- Use disposable or dedicated patient care equipment whenever possible. If not possible, clean and disinfect patient equipment immediately after use.
- Use gloves and gown when entering patient rooms.
- Wash hands before entering and exiting the patient room.
- Alcohol-based hand rubs are not effective against C. diff.

SPECIAL CONSIDERATIONS - HEALTHCARE WORKERS

- Care providers should use gloves and gown when entering patients’ rooms and during patient care. Remove PPE and perform hand hygiene when exiting the room.
- Change gloves and gowns and perform hand hygiene when moving from one patient to another when patients are cohorted, and before leaving room.
- Utilize surface disinfection guidance from the CDC and EPA.

COVID-19

Associated with Coronavirus SARS-CoV-2

OVERVIEW:

COVID-19 is a respiratory illness caused by the SARS-CoV-2 virus that first impacted China in 2019. Usually, it can be treated at home and individuals can recover without special treatment. Older people and those with underlying medical conditions are more likely to develop serious illness.

TRANSMISSION:

- Small droplets and particles that contain the virus land on the eyes, nose, or mouth especially through coughing or sneezing.
- Touching eyes, nose, or mouth with hands that have virus on them.
- COVID-19 is extremely contagious. However, this can be reduced by wearing masks, social distancing, and hand hygiene.

INCUBATION PERIOD: 2-14 days (usually 5-6 days)

SIGNS/SYMPTOMS:

Initial symptoms non-specific

- Fever
- Cough
- Shortness of breath
- Loss of taste and/or smell
- Sore throat

COVID-19 can be spread asymptomatically.

DIAGNOSIS: Viral test that tests for current infection or antibody test which

TREATMENT:

- Stay home, rest, and notify your doctor.
- If symptoms become severe, seek medical attention.
- Medications may be needed and/or prescribed.
- Hospitalization may be required.

ALL STAFF

- All staff should observe "**Standard, Contact, and Droplet Precautions**" when caring for patients with suspected or confirmed COVID-19.
- Immediately isolate those suspected or at risk for having COVID-19
- Implement respiratory hygiene by placing a surgical mask over the patient's nose and mouth
- If an Aerosol Generating Procedure is being performed, then wear an N95 respirator or Powered Air-Purifying Respirator (PAPR).

SPECIAL CONSIDERATIONS - HEALTHCARE WORKERS

- Care providers should wear gloves, a gown, either a face shield that fully covers the front and sides of the face or goggles, and a surgical mask.
- Effective vaccines are readily available for COVID-19.

HEPATITIS A, B, & C

OVERVIEW:

Hepatitis is an inflammation of the liver. When the liver is inflamed or damaged, it can lose its ability to process nutrients, filter blood, and fight infections. At least six different hepatitis viruses have been identified. Hepatitis B & C infections can become chronic.

TRANSMISSION:

- Hep A: Ingestion of fecal matter from close person-to-person contact, sexual contact, or ingestion of contaminated food or drink from an infected person.
- Hep B & C: Contact with infected blood, semen, and other bodily fluids including birth to an infected mother, sharing of contaminated needles, and sexual contact with an infected person.

INCUBATION PERIOD:

A

15-50 days

B

45-160 days

C

14-180 days

SIGNS/SYMPTOMS:

Initial symptoms non-specific

- Fever
- Fatigue
- Loss of appetite
- Nausea
- Vomiting
- Abdominal pain
- Gray-colored bowel movements
- Joint pain
- Jaundice

Patient may be asymptomatic in many cases, but can still pass the infection to others.

DIAGNOSIS: Serological tests

TREATMENT:

- Best addressed through supportive treatment
- Antivirals can be effective against Hep C
- Some chronic Hep B & C patients can be treated with antiviral drugs

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ALL STAFF

- All staff should observe "**Standard Precautions**" when caring for patients with suspected or confirmed Hepatitis A.
- All staff should observe "**Standard Precautions**" when caring for patients with suspected or confirmed Hepatitis B or C.
- **Hand hygiene** should be stressed when working with patients with Hepatitis.

SPECIAL CONSIDERATIONS - HEALTHCARE WORKERS

- All persons working with patients should be vaccinated against Hepatitis A & B.
- Titers can be drawn to check immune status to vaccinations.

REMEMBER: Hepatitis viruses can survive outside the body at room temperature on environmental surfaces for extended periods of time.

A

Survives Months

B

Survives 7 Days

C

Survives 3 Weeks

HUMAN IMMUNODEFICIENCY VIRUS (HIV)

OVERVIEW:

HIV attacks immune cells that help ward off infections, which makes one more vulnerable. Commonly spread through unprotected sex or sharing injection drug equipment. If not treated, HIV can develop into Acquired Immunodeficiency Syndrome (AIDS), which has no cure.

TRANSMISSION:

- Through contact with infected blood, semen, or vaginal fluids.

INCUBATION PERIOD: There are 3 stages of HIV/AIDS, so it depends on the time of diagnosis. The first stage is the most infectious period. The second period can be asymptomatic and last for up to 10 years. The third period is AIDS, when the CD4 cell count drops below 200 cells/mm.

SIGNS/SYMPTOMS:

Initial symptoms non-specific

- High fever
- Sore throat
- Fatigue
- Night sweats
- Muscle aches
- Rash

Symptoms can start anywhere from two weeks to two months after exposure. There is a possibility for no symptoms at all. These symptoms are common with other illnesses, so it is important to get tested if unsure. Talk to a healthcare provider to discuss available options.

DIAGNOSIS: Blood testing with either an at home kit or at a doctors' office.

TREATMENT: (Continued on backside)

- PrEP: pre-exposure prophylaxis
- PEP: post-exposure prophylaxis
- ART: antiretroviral therapy

PPE CONSIDERATIONS

Report Within 7 Days

ALL STAFF

- All staff should observe "**Standard Precautions**" when caring for patients with suspected or confirmed HIV/AIDS.
- There currently is no vaccine, but research is ongoing.

TREATMENT CONTINUED

- PrEP: pre-exposure prophylaxis taken before exposure for high risk groups
- PEP: post-exposure prophylaxis taken right after exposure to HIV
- ART: antiretroviral therapy using three or more antiretroviral medications, referred to as a "cocktail". Some medications can be combined into one pill.

SPECIAL CONSIDERATIONS - HEALTHCARE WORKERS

- If a healthcare worker is potentially exposed to contaminated blood or body fluids, they may be prescribed PEP, which must be started within 72 hours after possible exposure for 28 days.
- Taking medication can prevent the transmission of HIV to others, both before and after infection.

INFLUENZA (FLU)

Infection from Influenza A and Influenza B

OVERVIEW:

Influenza is a contagious respiratory illness caused by influenza viruses that infect the nose, throat, and lungs. It can cause mild to severe illness, and at times can lead to death. The best way to prevent the flu is by getting a flu vaccine each year.

TRANSMISSION:

- Through droplets made when infected people cough, sneeze, or talk.
- Touching a surface or object that has the flu virus on it and then touching their own mouth, eyes, or nose.
- Adults may be able to infect others up to 1 day before symptoms develop and up to 5-7 days after becoming sick.

INCUBATION PERIOD: 1-4 days from exposure until symptoms begin, with an average of about 2 days.

SIGNS/SYMPTOMS:

Initial symptoms non-specific

- Fever
- Cough
- Sore throat
- Runny or stuffy nose
- Headaches
- Muscle or body aches
- Fatigue
- Vomiting
- Diarrhea

Complications from flu infection can include sinus infections, ear infections, inflammation of the heart, brain, or muscles, pneumonia, and sepsis.

DIAGNOSIS: Clinical picture or lab tests

TREATMENT:

- Antiviral drugs can be used to treat flu by lessening symptoms and reducing the amount of time a person is sick by 1-2 days. They also can prevent serious flu complications, like pneumonia.

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ALL STAFF

- All staff should observe "**Standard and Droplet Precautions**" when caring for patients with suspected or confirmed influenza.
- Hand hygiene plus gloves, gown, face shield/eye protection, and surgical mask as indicated by patient care activities and risk of exposure to blood/body fluids. Depending on the type of flu, an N95 may be needed (see CDC recommendations).
- The patient should wear a surgical mask.

SPECIAL CONSIDERATIONS - HEALTHCARE WORKERS

- Effective vaccines are readily available for seasonal influenza.
- Adequate ventilation is important. If you must transport the patient with acute febrile respiratory illness, keep the windows of your vehicle open (if feasible) and set the heating/air-conditioning systems on a non-recirculating cycle and set exhaust fan to high in patient compartment.
- Clean and disinfect surfaces frequently.

LEGIONNAIRES' DISEASE

Infection with the bacteria *Legionella*

OVERVIEW:

Legionella bacteria are found naturally in freshwater environments, like lakes and streams. The bacteria becomes a health concern when it grows and spreads in human-made building water systems like showerheads and sink faucets, cooling towers, hot tubs, hot water heaters, and large plumbing systems. People at risk for Legionnaires' disease include those with compromised immune systems.

TRANSMISSION:

- Inhalation (breathing in small droplets of water)
- Aspiration of drinking water contaminated with *Legionella*
- *Legionella* is usually not transmitted person-to-person

INCUBATION PERIOD: 2-14 days or longer

SIGNS/SYMPTOMS:

Initial symptoms non-specific

- Cough
- Shortness of breath
- Fever
- Muscle aches
- Headaches

Legionnaires' disease can also be associated with diarrhea, nausea, and confusion.

Health departments reported nearly 10,000 cases of Legionnaires' disease in 2018.

Most cases are found in the summer and early fall but can occur at any time.

DIAGNOSIS: A chest x-ray is needed to confirm pneumonia and a urine test or sputum sample are used to confirm the presence of *Legionella*.

TREATMENT: Antibiotics can treat the illness. Possible complications include lung failure and/or death.

OTHER CONSIDERATIONS

Report Within 7 Days

PPE CONSIDERATIONS

- All staff should observe “**Standard Precautions**” when caring for a patient with suspected or confirmed Legionnaires’ disease.
- When performing maintenance on older water systems, follow OSHA’s occupational exposure standards for PPE, including:
 - Gloves
 - **N95** (or comparable) **filtering disposable respirator** (fit-testing required)
 - Eye protection (i.e. face shields with safety glasses or goggles)

SPECIAL CONSIDERATIONS

- Engineering and maintenance staff who maintain their building’s water systems should implement controls for *Legionella*. Examples of building water systems that should be maintained include:
 - Showerheads and sink faucets

MEASLES

OVERVIEW:

Measles (also called rubeola, red measles, or hard measles) is a highly contagious virus and a serious illness that may be prevented by vaccination. Currently, measles most often occurs in susceptible persons - those who have never had measles or a measles vaccine.

TRANSMISSION:

- Airborne through coughs, sneezes, and breathing. In some cases, the virus can be airborne up to two hours after a person with measles leaves the room.
- Handling or touching contaminated objects and then touching your eyes, nose, or mouth.
- Patient is contagious from 4 days before the rash becomes visible to 4 days after the rash appears.

INCUBATION PERIOD: 7-14 days from exposure until cold-like symptoms appear.

SIGNS/SYMPTOMS:

Initial symptoms non-specific

- High fever
- Watery eyes
- Runny nose
- Cough

A red blotchy rash appears 3 to 5 days after the start of symptoms, usually beginning on the face (hairline), spreading down the trunk and down the arms and legs. The rash usually lasts 4 to 7 days. The fever may still be present after the rash starts.

Measles is sometimes complicated by diarrhea, ear infection, or pneumonia.

DIAGNOSIS: Clinical picture and lab confirmation

TREATMENT:

- No specific antiviral therapy for measles
- Supportive care to relieve symptoms and address complications is necessary

ALL STAFF

- All staff should observe "**Standard and Airborne Precautions**" when caring for patients with suspected or confirmed measles, regardless of immunity.
- All healthcare staff entering a suspected/confirmed measles patient's room should use respiratory protection consistent with **airborne infection control precautions**, including the use of a fit-tested **N95 respirator**. While the possibility of MMR vaccine failure is low for healthcare providers exposed to measles-infected patients, providers should still observe all airborne precautions in caring for these patients.
- Place patient in an airborne infection isolation room.

SPECIAL CONSIDERATIONS - HEALTHCARE WORKERS

- Healthcare workers should ensure that they are appropriately vaccinated with MMR (2 doses). If a healthcare provider without evidence of immunity is exposed to measles, MMR vaccine should be given within 72 hours, or immunoglobulin should be given within 6 days when available. Exclude healthcare personnel without evidence of immunity (i.e. written documentation of adequate vaccination or laboratory evidence) from duty from day 5 after first exposure to day 21 after last exposure, regardless of post-exposure vaccine.

MENINGITIS

Bacterial, Viral, Fungal, Parasitic, Amebic, & Non-Infectious

OVERVIEW:

Meningitis is an inflammation of the protective membranes covering the brain and spinal cord. A bacterial or viral infection of the fluid surrounding the brain and spinal cord usually causes the swelling. However, injuries, cancer, certain drugs, and other types of infections also can cause meningitis. It is important to know the cause of meningitis because the treatment is dependent on the cause.

TRANSMISSION:

- Person-to-person (bacterial and viral)
- Inhalation of fungal spores
- Consuming incorrectly prepared foods
- Contaminated water enters nose

INCUBATION PERIOD: Variable, 1 to 10 Days

SIGNS/SYMPTOMS:

Symptoms vary by disease. Most commonly the vascular system, gastrointestinal system, central nervous system, and eyes are affected. Bleeding can occur under the skin, in internal organs, and from body orifices.

- Fever
- Headache
- Stiff neck
- Photophobia (eyes being more sensitive to light)
- Nausea and vomiting
- Altered mental status (confusion)
- Rash

DIAGNOSIS: Test blood, cerebrospinal fluid, nose swab, or stool sample. Collect travel or exposure history.

TREATMENT: Antibiotics, antivirals, antifungals, support therapy

Note: Highly important to determine cause

ALL STAFF

- All staff should observe "**Standard Precautions**" when caring for patients with suspected or confirmed meningitis. "**Droplet, Contact, and Airborne Precautions**" may also be necessary depending on cause.
- Transmission can occur from droplets and fluids, making **protection of personnel mucosae vital**.
- **Proper donning, doffing, and disposal of PPE and any used medical equipment are essential**, both to protect the healthcare worker and to prevent transmission to others.

SPECIAL CONSIDERATIONS - HEALTHCARE WORKERS

- **Bacterial** meningitis is the most dangerous form and treatment is the most time sensitive.
- Transportation of patients with airborne precautions require the patient to wear a surgical mask and personnel to wear fit-tested **N95 respirators**.

METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS (MRSA)

Infection with the bacteria *staphylococcus aureus*

OVERVIEW:

MRSA infections can spread in hospitals and in other healthcare facilities. Risk factors for MRSA include being hospitalized, having an invasive medical device, and residing in a long-term care facility. Studies show that 33% of people carry *S. aureus* in their nose, usually without any illness. Approximately 5% of patients in U.S. hospitals carry MRSA in their nose or on their skin.

TRANSMISSION:

- Direct contact with an infected wound
- Contaminated hands
- Touching contaminated objects, such as towels

INCUBATION PERIOD: 1 - 10 days

SIGNS/SYMPTOMS:

Initial symptoms non-specific

- Swollen, painful red bumps
- Infection is warm to the touch and full of pus
- Fever

MRSA can cause severe problems including bloodstream infections, pneumonia, surgical site infections, sepsis, and death. MRSA kills more Americans per year than AIDS.

People who carry MRSA but do not have signs of infection can spread the bacteria to others.

DIAGNOSIS: Needs a laboratory test (a culture) to confirm the presence of the bacteria.

TREATMENT: Specific antibiotics can treat the illness but many strains of MRSA are antibiotic-resistant. Surgery can also be performed to drain the boils.

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PPE CONSIDERATIONS

ALL STAFF

- All staff should regularly wash their hands for at least 20 seconds.
- All staff should keep their wounds covered with clean, dry bandages until they heal.
- Keep personal items personal - meaning it is best to avoid sharing items such as towels, sheets, razors, and clothing.
- Clean surfaces that frequently contact bare skin with detergents and disinfectants.

SPECIAL CONSIDERATIONS - HEALTHCARE WORKERS

- If a patient has a cut or sore, wash hands and bed linens in a washing machine set to the hottest water setting and dry them in a dryer set to the hottest setting.

Report Immediately
with vancomycin
MIC $\geq 4\mu\text{g/ml}$



NOROVIRUS

Commonly known as the “Stomach Flu”

OVERVIEW:

Norovirus is a highly contagious virus that causes vomiting and diarrhea. This infection occurs most frequently in closed and crowded environments such as hospitals, nursing homes, childcare centers, schools, and cruise ships.

TRANSMISSION:

- Direct contact with an infected person
- Consuming contaminated food or water
- Touching contaminated surfaces and then putting unwashed hands into mouth
- Outbreaks occur most often from November to April

INCUBATION PERIOD: 12 - 48 hours

SIGNS/SYMPTOMS:

- Diarrhea
- Vomiting
- Nausea
- Stomach Pain
- Fever
- Body Aches

Some people with norovirus show no signs or symptoms. However, they are still contagious and can spread the virus to others. The virus can continue to be shed in feces for up to two weeks after recovery.

DIAGNOSIS: Diagnosis based on symptoms or stool sample.

TREATMENT:

- No specific treatment, illness usually resolves within 1-3 days.
- Staying well hydrated is advised, and if patient is unable to replace fluids, they may receive them through a vein.

PPE CONSIDERATIONS

ALL STAFF

- Adherence to PPE use according to **“Contact and Standard Precautions”** is recommended for individuals entering patient care area (gowns & gloves) to reduce likelihood of exposure.
- Patient should be on **“Contact Precautions”** in a single occupancy room and should remain on Contact Precautions for a minimum of 48 hours after resolution of symptoms.
- Promote adherence to hand hygiene among healthcare personnel, patients, and visitors.
- Consider suspending group activities (e.g., dining events) for duration of a norovirus outbreak.
- Virus may be aerosolized from feces or vomitus. If cleaning areas heavily contaminated with these, personnel should wear a mask.

SPECIAL CONSIDERATIONS - HEALTHCARE WORKERS

- Use a surgical or procedure mask and eye protection or full face shield if there is an anticipated risk of splashes to the face during the care of patients, particularly those who are vomiting.
- Clean and disinfect shared equipment between patients.
- Hand sanitizer is not as effective as washing with soap and water at removing norovirus particles.

PERTUSSIS (WHOOPIING COUGH)

Infection with the bacterium *Bordetella pertussis*

OVERVIEW:

Pertussis (whooping cough) is an acute infectious disease of the upper respiratory tract caused by the bacterium *Bordetella pertussis*. Pertussis is highly contagious and known for violent, uncontrollable coughing which often makes it hard to breathe. It is preventable by vaccine.

TRANSMISSION:

- Airborne droplets from an infected individual's coughs.
- Contact with secretions from an infected individual.
- Secondary attack rate is 80%.
- Immunizations from childhood last a few years at most.

INCUBATION PERIOD: 7 - 10 days

SIGNS/SYMPTOMS:

Initial symptoms non-specific

- Minimal fever
- Apnea (in babies)
- Runny nose
- Nonspecific cough

Three stages: Catarrhal (1-2 weeks), Paroxysmal cough (1-6 weeks), and Convalescence (weeks to months).

In later stages of pertussis, the patient will have bursts of numerous, rapid coughs (called paroxysms). A long inspiratory effort will follow the paroxysms, accompanied by a characteristic high-pitched whoop. Patient may become cyanotic during these coughs.

DIAGNOSIS: Clinical picture (cough for 2+ weeks with whoop, paroxysms, or post-tussive vomiting) and a variety of lab tests (culture, PCR, serology).

TREATMENT:

- Early use of antibiotics

ALL STAFF

- All staff should observe "**Standard and Droplet Precautions**" when caring for patients with suspected or confirmed pertussis.
- All staff entering a suspected or confirmed pertussis patient's room should wear surgical masks.
- If there is question to whether the patient has pertussis or tuberculosis, a fit-tested **N95 respirator** or Powered Air Purifying Respirator (PAPR) should be worn by healthcare workers. Patient should be placed in a negative pressure room.
- Clean your hands after any patient contact.

SPECIAL CONSIDERATIONS - HEALTHCARE WORKERS

- Healthcare workers should ensure that they are appropriately vaccinated against pertussis.
- If a healthcare worker is exposed to pertussis, and not wearing a mask, antibiotic prophylaxis is recommended.

PNEUMONIA

OVERVIEW:

An infection of the lungs that can cause mild to severe illness in people of all ages. Common causes of pneumonia include influenza, respiratory syncytial virus (RSV) and SARS-CoV-2 (virus that causes COVID-19). There are over 30 kinds of pneumonia caused by viruses, bacteria, or fungi. Pneumococcal pneumonia can be prevented by a vaccine.

TRANSMISSION:

- Human-to-human contact with an infected person's mouth or when small droplets become airborne when coughing or sneezing.
- Pneumonia already developed in the lungs may spread to other lobes of the lung or the other lung.

INCUBATION PERIOD: About 7-10 days

SIGNS/SYMPTOMS:

- Cough
- Fever
- Heavy Sweating
- Bluish color to lips or fingernails
- Shaking chills

"Walking" pneumonia is a mild form, where people feel well enough to continue their every day tasks.

About 50,000 deaths are caused by pneumonia each year.

DIAGNOSIS: Chest X-rays, blood tests, chest CT scan, sputum culture.

TREATMENT:

- Most viral pneumonias do not have a specific treatment.
- May require antibiotics, antifungals, oxygen, nebulizers, suctioning, intubation, and ventilator use.

PPE CONSIDERATIONS

ALL STAFF

- Most patients with pneumonia do not need to be in isolation.
- Staff should observe **“Standard Precautions”** when caring for patients with pneumonia.
- Some forms of pneumonia also require **“Droplet and/or Contact Precautions”**.
- Clean hands and any medical tools used after handling a patient with pneumonia.

SPECIAL CONSIDERATIONS - HEALTHCARE WORKERS

- Care providers should wear gloves, a gown, and respiratory protection like a mask or **N95 filtering facepiece respirator** depending on the cause of pneumonia.
- Healthcare providers should receive an annual influenza vaccine.
- An effective vaccine is readily available for pneumococcal pneumonia for those who are 65 years or older or have certain medical conditions.
- If pneumonia is caused by COVID-19, refer to the COVID-19 card in this pocket-guide.

TUBERCULOSIS

Infection with the bacterium *Mycobacterium tuberculosis*

OVERVIEW:

Tuberculosis (TB) is a treatable infectious disease that usually affects the lungs and airway, but may also affect other parts of the body, such as the kidney, spine, and brain. Not everyone who is infected with TB will become sick, which is referred to as a Latent TB Infection.

TRANSMISSION:

- Active TB infections of the lungs or airway can easily be spread through airborne transmission.
 - Speaking, singing, talking, or coughing can send tiny droplets containing TB bacteria into the air.
- Latent TB and TB in areas other than the lungs and airway cannot be transmitted.
- Rates of TB infection have increased recently.

INCUBATION PERIOD: 2-4 weeks, though the disease may remain latent for years.

SIGNS/SYMPTOMS:

Active TB in lungs/airway:

- Pain in chest
- Coughing up blood or sputum
- Weakness or fatigue
- Weight loss
- No appetite
- Chills
- Fever
- Sweating at night
- Cough (3+ weeks)

Latent TB is not symptomatic.

DIAGNOSIS: Skin test or TB blood test

TREATMENT:

- Active TB disease can be treated by taking several drugs for 6-9 months. It is extremely important to finish the medication regimen so that the infection does not become drug-resistant.
- Latent TB infections are often prescribed treatment to prevent the development of TB disease.

PPE CONSIDERATIONS

Report Immediately

ALL STAFF

- All staff should observe "**Standard and Airborne Precautions**" when caring for patients with suspected or confirmed TB.
- A surgical mask should be placed upon the patient, if possible.
- All staff caring for patients with suspected or confirmed TB should wear a fit-tested **N95 respirator** or a Powered Air Purifying Respirator (PAPR), if one is available. If a respirator is not available, use a surgical mask.

SPECIAL CONSIDERATIONS - HEALTHCARE WORKERS

- Transportation of patients with active TB requires that the patient wear a surgical mask during transport and that EMS personnel wear fit-tested **N95 respirators**.
- EMS guidelines suggest keeping the windows of the vehicle open (if feasible) and to have heating/air conditioning systems on a non-recirculating cycle and set exhaust fan to high in patient compartment.

URINARY TRACT INFECTION (UTI)

OVERVIEW:

UTIs are common infections that happen when bacteria, often from the skin or rectum, enter the urethra, and infect the urinary tract. The infections can affect several parts of the urinary tract, but the most common type is a **bladder infection** (cystitis).

TRANSMISSION:

- Bacteria from vagina, genital, or anal areas may enter the urethra, travel to the bladder, and cause an infection.
- Not spread person-to-person, but can be caused by sexual activity or anything that brings bacteria into contact with the urethra.

INCUBATION PERIOD: variable, but usually a few days

SIGNS/SYMPTOMS/STRATEGIES:

- Pain or burning while urinating
- Urge to urinate despite empty bladder
- Pressure/cramping in groin or lower abdomen
- Bloody urine

Strategies to reduce CAUTIs (catheter-associated urinary tract infections): ensure indwelling urinary catheter use is necessary, use appropriate insertion and maintenance, ensure appropriate use of urine cultures and non-treatment of asymptomatic bacteriuria.

DIAGNOSIS: physical exam, urine test

TREATMENT:

- Antibiotics are usually the first line of treatment. Which drug is prescribed and for how long depends on patient health conditions and type of bacteria found.

OTHER CONSIDERATIONS

RISK FACTORS

- UTIs are common in women. Risk factors specific to women include:
 - **Sexual activity:** Sexually active women tend to have more UTIs than women who are not sexually active. New sexual partners also increase the risk of infection.
 - **Certain types of birth control:** Women who use diaphragms for birth control may be at higher risk, as well as women who use spermicidal agents.
 - **Menopause:** Decline in circulating estrogen make older women more vulnerable to infection.

PREVENTION

- All staff should observe “**Standard Precautions**”.
- Drink plenty of water and encourage frequent toileting.
- For females, wipe front to back.
- For males, pull back foreskin (if present) and clean from tip to base.
- Urinate after intercourse.
- Avoid potentially irritating feminine products (deodorant sprays, douches).
- Keep urinary drainage bag **lower** than the level of the patient’s bladder!!!

UNIVERSAL/STANDARD PRECAUTIONS

Universal/Standard Precautions are designed to reduce the risk of transmission of microorganisms from both recognized and unrecognized sources of infection.

- Blood
- Bodily fluids, secretions, and excretions
- Non-intact skin
- Mucous membranes

Steps of Universal/Standard Precautions

- | | |
|--------------------------------------|---|
| 1. Wash hands | 5. Wear protective clothing |
| 2. Use barrier protection | 6. Wash hands and skin |
| 3. Wear gloves | 7. Use care when handling sharp instruments |
| 4. Wear mask and eye/face protection | 8. Flush exposed areas, if applicable |

DROPLET PRECAUTIONS

Droplets are generated primarily from coughing, sneezing, or talking.

Steps of Droplet Precautions

- | | |
|--|------------------------------------|
| 1. Practice Standard Precautions | 3. Isolate patient in private room |
| 2. Wear surgical mask and eye protection | 4. Place surgical mask on patient |

CONTACT PRECAUTIONS

Direct Contact: skin-to-skin contact and physical transfer of microorganisms to a susceptible host from an infected or colonized person

Indirect Contact: contact of a susceptible host with a contaminated object

Steps of Contact Precautions

1. Practice Standard Precautions
2. Wear gloves and protective clothing
3. Change gloves and wash/sanitize hands between tasks and procedures
4. Ensure that precautions are maintained during transportation
5. Isolate patient in private room upon arrival at hospital

AIRBORNE PRECAUTIONS

Special air-handling precautions and ventilation are required to prevent airborne transmission.

Steps of Airborne Precautions

1. Practice Standard Precautions
2. Wear fit-tested N-95 respirator (or PAPR) and eye protection
3. Place surgical mask on patient
4. Place patient in negative pressure room