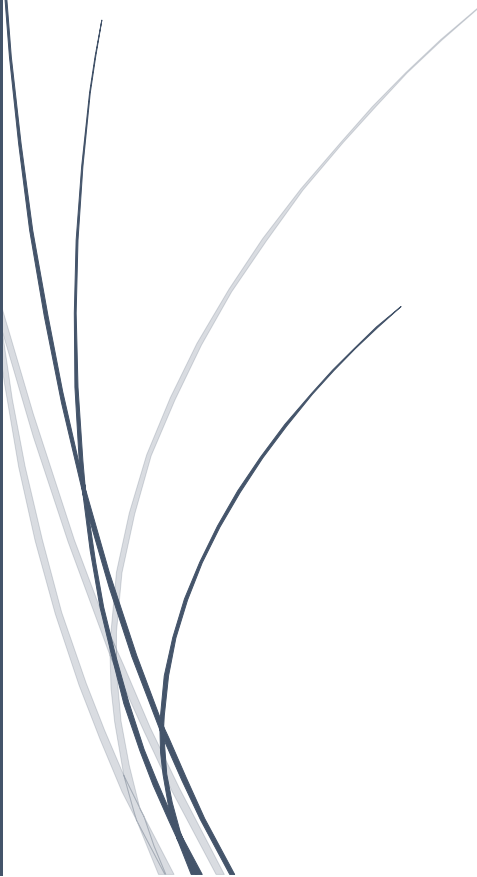


A dark blue vertical bar runs down the left side of the page. A blue arrow points to the right from the bar, containing the date 6/9/2020 in red text.

6/9/2020

Core A

Indiana Direct Support Professional Training

Several thin, curved lines in shades of blue and grey originate from the bottom left corner and sweep upwards and to the right, creating a decorative graphic element.

Lauren Koen BSN, RN, MPA
Kathy Auberry, DNP, RN, CDDN

Table of Contents

Your Role as a Direct Support Professional (DSP) Providing Medical Care	4
Objectives	4
What is a Support Team?	4
What medical care is required from a direct support professional?	4
DSP Role in Reporting Changes	5
DSP Role in Appointments	5
Standard Precautions	7
Objectives	7
General Overview	7
Performing Hand Hygiene	7
Table A: When to Wash Hands with Soap and Water Versus Hand Sanitizer	7
Proper Hand Washing Technique for Soap and Water	8
Glove Use	8
Perform Cough Etiquette	8
Communicable Diseases	9
Objectives	9
General Overview	9
Blood Borne Pathogens	9
Hepatitis and Tuberculosis	9
Inflammation and Infection	11
Objectives	11
General Overview	11
How do microorganisms enter the body?	11
Some things to keep in mind:	11
Signs and Symptoms of Inflammation versus Infection	11
Treatment for Infections or Symptoms from Infections	12
When should you treat a fever?	12
When should you treat diarrhea?	13
When to Notify Your Nurse or Individual's Physician	13
Strep Throat	14
Influenza (Flu)	14

Pneumonia _____	15
Athlete’s Foot (Tinea Pedis) _____	15
Conjunctivitis (Pink Eye) _____	16
Urinary Tract Infection _____	16
Antibiotics _____	16
Vital Signs _____	17
Objectives _____	17
General Overview _____	17
Table B: Vital Signs _____	17
Temperature _____	18
Heart Rate or Pulse _____	18
Respirations _____	18
Blood Pressure _____	18
Pulse Oximetry Readings _____	19
When to Call 911 _____	20
Objectives _____	20
When to call 911 in the case of injury _____	21
Anaphylaxis or Severe Allergic Reaction _____	21
Common allergens that can cause severe allergic reaction _____	21
Fatal Five _____	23
Objectives _____	23
Aspiration and Dysphagia _____	23
Interventions to prevent aspiration for individuals diagnosed with dysphagia _____	24
Dehydration _____	24
Notify your individual’s nurse if your individual: _____	25
Constipation _____	25
Can constipation really be fatal?? _____	26
Seizures _____	27
Preventing Seizures _____	27
Basic steps to follow in addition to individual’s individualized plan: _____	28
For any individual with a known seizure disorder call 911 _____	28
After a seizure _____	28
Steps to Avoid Injuries During Seizures _____	28

Sepsis	29
Ways to prevent sepsis	29
Developmental Disabilities and Dementia	30
Objectives	30
General Overview	30
Intellectual Disability	30
Cerebral Palsy	31
Do all people with cerebral palsy have an intellectual disability?	31
Autism Spectrum Disorder (ASD)	32
Do all people with an ASD diagnosis also have an intellectual disability?	32
Comorbidities	32
Attention Deficit/ Hyperactivity Disorder (ADHD)	33
Dementia	33

Your Role as a Direct Support Professional (DSP) Providing Medical Care

Objectives

- Demonstrate comprehension of DSP role in providing medical care
- Describe the importance of the support team and DSP role within a support team
- Express DSP role in reporting changes
- Explain DSP role and responsibilities for individual appointments

Direct Support Professionals (DSPs) are tasked with supporting individuals in multiple aspects of daily living by implementing each individual's person-centered care plan, which is an individualized plan that is created with the individual and their support team. Although direct support professionals are required to go through multiple trainings and support individuals in all aspects of daily living, this section will only focus on the aspect of a DSP role in the context of providing medical care. Ensure that you review your agency's policies for all required trainings and all DSP responsibilities.

Direct Support Professionals are a vital part of the support team when providing medical care for their individuals. DSPs typically have the most direct, hands-on care with their individuals out of any other members of the team. Individuals' nurses may only see their individual weekly or monthly, so the nurse relies on DSP reports for any concerns or changes as soon as they are noticed to provide prompt medical care as needed. DSPs will most likely be the first to notice any changes in behavior or possible noticeable symptoms. This makes your role as a DSP vital to the health and wellness of the individuals you serve, and it is important to maintain accurate and consistent communication with all members of the support team.

What is a Support Team?

The support team is composed of the individual, guardian, direct support professionals, and other needed professionals to provide care and create plans. In Supported Group Living sites (group homes), the medical support team includes the individual, parent/guardian, direct support professionals, the nurse, the primary care provider, all specialist practitioners (such as cardiologist, endocrinologist, etc.), possibly a behaviorist (if applicable), and any other members you and your agency determine needs to be a part of the medical team. Refer to your agency policy for who to contact and when to contact the support team. In Home and Community Based Services Waiver, the individual and/or guardian determines who is a part of his/her team.

What medical care is required from a direct support professional?

According to the National Alliance for Direct Support Professionals, DSPs support their individuals with health and wellness through implementation of the following skills:

- Administer medications accurately and in accordance with agency policy and procedures.
- Assist individuals in implementing health and medical treatments as indicated by the nurse or medical practitioner. Only implement health and medical treatments that is within your scope and with the appropriate training as indicated by your agency's policy.

- Use appropriate first aid/safety procedures when responding to emergencies and as trained per your agency policy.
- Assist individuals in scheduling, keeping, and following through on all health appointments.
- Assist individuals in completing personal care activities as needed, such as bathing, brushing teeth, etc. while encouraging as much independence as possible.
- Correctly utilize needed adaptive equipment and ensure that all adaptive equipment is available and in working order.
- Empower individuals to advocate their medical needs and ensure individuals understand their medical plan as much as possible.
- Monitor for changes in health or behavior and communicate those changes to the support team.
- Implement all risk plans correctly and safely as indicated by your agency policy and nurse.

Direct support professionals are responsible for ensuring that they understand their medical role for their individual and follow all agency policies for any health and wellness implementation.

DSP Role in Reporting Changes

As a DSP, you may have the most direct care with your individual out of any other member of the team. Nurses will assess individuals and create individualized plans such as high risk and/or healthcare plans. However, nurses rely on DSPs to carry out these plans appropriately and report any changes or abnormal vital signs as indicated by the individualized plans. DSPs will likely be the first members of the team to notice side effects from medications, behavioral changes, changes in mentation, or any changes in their overall health or general affect. The support team and the nurses rely on dependable, timely, and accurate reporting from DSPs for their individuals. If you are ever unsure of what should be reported to your individual's support team or nurse, refer to your agency's policies and your individual's individualized plan. Remember, if you are at all concerned about an individual's health or wellbeing, you should always contact the individual's nurse or practitioner.

DSP Role in Appointments

DSPs often take individuals to appointments, so it is important that you are familiar with your agency's policy on appointments and needed documentation. Some standard things to remember are as follows:

- Ensure that you have all needed medical information including current medication list, diagnoses, insurance information, allergies, guardian contact information (if applicable), pharmacy information, and any other required information as indicated by your agency.
- If an individual will need medications while at a practitioner's appointment, ensure that you have all necessary medications in a pharmacy labeled container. Also ensure that you bring any needed supplies to administer medications such as pudding, spoon, gloves, travel sharps container, etc.
 - Ensure that you follow your agency policy for administering medications in the community and document according to your agency policy.
- Make sure that you schedule appointments according to your agency policy and notify all members of the support team prior to any appointments.
- If your individual's nurse or members from the support team want specific issues to be addressed with a practitioner, ensure that you bring a list of questions to ask during the appointment and a method to document any updates from the practitioner.

- Bring any required paperwork from your agency and ensure that it is all filled out correctly with any needed signatures prior to leaving the appointment.
- If a practitioner chooses to make any medication changes during an appointment, follow your agency's policy for documenting these changes and communicating changes with the individual's nurse in a timely manner.
- Advocate for the individual during the appointment. Encourage participation based on level of ability.
 - Ensure that a practitioner has the correct pharmacy information for sending any medication orders
- Ensure that you communicate all updates, changes and important information with the support team and individual's nurse as indicated by your agency.

Standard Precautions

Objectives

- Define standard precautions and indicate the importance of following standard precautions
- Demonstrate proper hand hygiene procedures and distinguish when to use soap and water versus hand sanitizer
- Identify all times that DSPs should wash hands
- Explain when to use gloves and proper procedure for applying and removing gloves
- Perform appropriate cough etiquette

General Overview

Standard precautions are the most basic necessary steps to prevent the spread of microorganisms and disease. These standards apply to all individuals irrespective of their disease state. Direct Support Professionals should treat all bodily fluids from any person as potential sources of contamination, so it is important to take the necessary precautions to prevent self-contamination or spreading diseases to others. According to the Centers for Disease Controls (CDC), Direct Support Professionals should always follow these steps while working with individuals:

1. Good Hand Hygiene
2. Wear gloves if there is a possibility of contact with any bodily fluids or contaminated items
 - a. Bodily fluids include feces, urine, blood, saliva, vomit, vaginal secretions, and semen
3. Perform cough etiquette
4. Ensure individuals do not share personal items such as toothbrush, utensils, cups, brushes, etc.
5. Clean and disinfect commonly shared surfaces and any contaminated surfaces or objects.
6. Utilize sharps containers for all sharps when needed

Performing Hand Hygiene

- Washing hands regularly is the number one method to preventing the spread of disease and protecting yourself and individuals from illness.
- DSPs should wash hands:
 - Before eating
 - Before and after any direct contact with an individual’s skin
 - After contact with blood, body fluids or excretions, mucous membranes, non-intact skin, or wound dressings
 - Before and after removing gloves
 - After using a restroom
 - Before and after preparing food
 - After handling garbage

Table A: When to Wash Hands with Soap and Water Versus Hand Sanitizer

Soap and Water	Hand Sanitizer
<ul style="list-style-type: none"> • Hands are visibly soiled • When working with someone who has C-diff or norovirus 	<ul style="list-style-type: none"> • All other times

- | | |
|--|--|
| <ul style="list-style-type: none">• Before eating• After using the restroom | |
|--|--|

Proper Hand Washing Technique for Soap and Water

1. Turn on the water and wet your hands and wrists first.
2. Apply soap to your hands and wrists.
3. Rub your hands, palm to palm, vigorously for at least 20 seconds. Remember to scrub all surfaces, including the backs of your hands, wrists, between your fingers and under your fingernails. Interlace your fingers and rub to ensure you scrub between fingers well.
4. Point your arms downward, and rinse from elbow to fingertips. Rinse each hand separately and ensure all soap suds are rinsed off.
5. Leave the water running while you dry your hands with a clean, disposable (or single-use) towel.
6. Throw away the towel and get a clean single use towel. Turn the faucet off using a clean paper towel as a barrier.
7. Dispose of the towel appropriately, preferably in a can with a foot-pedal-operated lid.

*Remember, antibacterial soaps are NOT any more effective at washing hands than regular soaps. Antibacterial soaps may cause the growth of bacteria resistant to antibacterial agents making them harder to kill.

Glove Use

- The CDC recommends wearing gloves any time there is a possibility of exposure to blood, bodily fluids, feces, urine, or any contaminated items
- Before applying medication patches
- Before performing procedures where there is the possibility of exposure to blood, bodily fluids, feces, or urine.
- Before applying gloves, DSPs should wash hands.
- Change gloves during individual care if going from a contaminated area, such as skin with feces or urine, to a clean area.
- When removing gloves, avoid touching the outside contaminated area with bare hands.
- Always wash hands after removing gloves

Perform Cough Etiquette

- Always cover your mouth and nose with a tissue when coughing or sneezing.
- Throw away all used tissues immediately after use.
- Wash hands after coughing or sneezing.
- Cough onto your sleeve if tissues are not available.

Communicable Diseases

Objectives

- Define communicable diseases and blood borne pathogens and identify examples of each
- Explain how to protect against exposure to blood borne pathogens
- Indicate common methods for contracting Hepatitis A, B, and C and explain how to reduce risk of exposure
- Define tuberculosis (TB) and mode of transmission for those with active TB

General Overview

Communicable diseases are any diseases that can be spread through contact with a person or their fluids, breathing in the microorganism or spread through a vector such as a mosquito. Following standard precautions can help protect you from several communicable diseases.

Blood Borne Pathogens

According to OSHA, Blood Borne Pathogens are infectious microorganisms that are in human blood. Some examples include Hepatitis B (HBV), Hepatitis C (HCV), and human immunodeficiency virus (HIV).

To protect against exposure to blood borne pathogens always:

- Follow all standard precautions!
- Remember, treat all bodily fluids as if they contain contaminants, so wear gloves at all times when there is a possibility of exposure to bodily fluids!
- When working with any sharps (needles), always follow all safety protocols
 - Once done with a needle, immediately dispose in the designated sharps container to prevent an accidental stick. NEVER recap a needle after it has been used.
- In the event that there is any possible exposure to a blood borne pathogen, such as a needle stick or exposure to another individual's bodily fluids through mucous membranes or a cut in the skin, immediately notify your agency and follow your agency's hazardous material exposure policy.

Hepatitis and Tuberculosis

Hepatitis means inflammation of the liver caused by a viral infection. The most common types of Hepatitis are type A, B, and C.

- Hepatitis A is transmitted through feces, so the most common mode of contact with the virus includes direct contact with an infected person's feces and eating or drinking contaminated food or drink.
- Hepatitis B is transmitted through blood, semen, and other bodily fluids. It is most commonly transmitted through sexual contact, sharing contaminated needles or an accidental needle stick.
- Hepatitis C is transmitted through blood, and it is most commonly contracted through sharing contaminated needles or accidental needle sticks.

Following Standard Precautions greatly reduces any risks of exposure to Hepatitis.

Tuberculosis is caused by a bacterium that most commonly affects the lungs. It is transmitted through the air, which means that you can get the infection by breathing the same air as an individual with *active tuberculosis*. Due to tuberculosis being transmitted via air, it can spread rapidly if the individual is not quarantined and treated. Anyone with a diagnosis of active TB, must seek immediate medical treatment and must follow hospital procedures for preventing the spread of TB until they are no longer contagious. Tuberculosis can be present in some people in a latent form. This means that an individual has been exposed to tuberculosis but does not have an active infection and cannot spread the germ to others.

Inflammation and Infection

Objectives

- Explain how microorganisms enter the body
- Identify and distinguish the difference in signs and symptoms of inflammation versus infection
- Demonstrate understanding of when and how to treat a fever and diarrhea
- Indicate general medical signs and symptoms that should be reported to your nurse
- Identify signs and symptoms for strep throat, flu, pneumonia, athlete's foot, and conjunctivitis and indicate when to notify your nurse of symptoms
- Demonstrate understanding of how to prevent strep throat, flu, athlete's foot and conjunctivitis
- Explain how to properly administer antibiotics

General Overview

Inflammation is the body's response when you are exposed to a microorganism and often causes swelling, redness, and heat. These symptoms are due to an immune response trying to prevent any microorganisms from entering the blood stream. *Infection* is when a disease-causing microorganism enters the body. You may still see all the symptoms of inflammation along with discharge, or pus, at the site of the infection. If the infection is in the blood stream, you may experience whole body responses such as fever, aches, fatigue, vomiting, and diarrhea.

How do microorganisms enter the body?

Microorganisms, or germs, enter the body through eyes, nose, mouth (mucous membranes), urogenital openings, and cuts or bites in the skin. The most common methods for contracting a disease or illness is through consuming contaminated food or drink, coming into contact with infected skin or bodily fluids, being bitten by an infected host, or breathing in microorganisms through the air. Bodily fluids include urine, feces, blood, saliva, semen, or vaginal secretions. Following universal precautions help to protect you and your individuals from infection and illness.

Some things to keep in mind:

- If you touch contaminated objects or bodily fluids without gloves or personal protective equipment (PPE), wash your skin immediately using proper hand washing techniques. This can greatly reduce the likelihood of any microorganisms entering the body and making you sick.
- If you are ever exposed to another person's bodily fluids through the eyes, nose, mouth or cuts in your skin, report it to your agency immediately and follow your agency's protocol.
- Remember, you should treat ALL bodily fluids as if they are potentially contaminated and follow proper procedures to protect yourself and others from infection!

Signs and Symptoms of Inflammation versus Infection

Inflammation occurs when the body is trying to remove a physical, chemical, or disease-causing organism to prevent infection. Signs and symptoms include:

- Redness
- Swelling
- Heat

- Pain
- Loss of function
- Burning or pain with urination
- Nausea and vomiting
- Shortness of Breath

These symptoms are the result of the body rushing white blood cells to the site of the irritant in an attempt to prevent it from entering the body and causing infection. For example, if someone falls and scrapes their knee on the ground, the open cut leaves them vulnerable to microorganisms from the ground and air invading and causing an infection. The body immediately activates an immune response causing the site to get red and swell to try to push out any microorganisms that may have tried to enter through the open cut. The skin surrounding the scrape will likely feel warm and painful due to the increased blood flow to the area causing increased pressure pushing on the surrounding nerve endings.

For any inflammation caused by minor scrapes or injuries utilize first aid as trained and monitor for signs of infection.

Infection occurs when the inflammatory response is unsuccessful and disease-causing microorganisms enter the body. Infection can be caused by a bacteria, virus, or fungal microorganism. The signs and symptoms may vary depending on the cause of the infection. Generally, the body may exhibit signs and symptoms of infection such as:

- Fever
- Diarrhea
- Fatigue
- Cough
- Muscle aches
- Discharge (such as pus)

Treatment for Infections or Symptoms from Infections

Treatments will vary depending on the microorganism that is causing the infection. Antibiotics can be taken orally or applied topically (on the skin) for bacterial infections. There are some antiviral medications for certain viruses, but most viral infections do not have a cure requiring the body to eliminate the virus through an immune response. Fungal infections can be treated with antifungal medications applied topically or taken orally. If you suspect that an individual has an infection, consult with your individual's nurse for directives.

Viruses, bacterium, and fungi can all cause similar infectious responses in the body as listed above. It may seem like you should treat all symptoms immediately, but sometimes this can cause more harm rather than be beneficial.

When should you treat a fever?

According to the literature (see table of evidence) and the Mayo Clinic, a fever can improve the body's immune response allowing the body to fight microorganisms more effectively. Immediately treating a fever can result in a decreased immune response and prolonged or worsened illness.

- For any fever, it is important to drink plenty of fluids and rest to prevent dehydration.

- **Remember that not all fevers are bad!** The immune system works better at a higher temperature, which is why the body triggers a fever to help fight off infection. Before treating a fever with medication, consult your individual's nurse for when and how to treat a fever or follow your agency policy.
- Follow your agency's policy or your individual's individualized plan for when to report a fever to your individual's nurse or when to take your individual to a practitioner.
- If an adult is immunocompromised (having an impaired immune system) or receiving chemotherapy, follow your individual's individualized plan or consult with your individual's nurse for when to report a fever.

When should you treat diarrhea?

Most diarrhea cases clear up on their own and do not require any medical treatment. If someone has chronic diarrhea, they should see a gastroenterologist for the best treatment methods. For non-chronic, sudden onset diarrhea, the following recommendations are suggested:

- It is important to replace lost fluids and electrolytes from diarrhea, so encouraging plenty of fluids is the best way to address diarrhea.
 - Encourage water, juice, and/or broth. Note that some juices, such as apple juice, may worsen diarrhea.
- Avoid any foods that may cause or worsen diarrhea such as dairy, fatty foods, high-fiber foods, and spicy foods.
- **Do not give antidiarrheals for diarrhea caused by an acute infection without first consulting your nurse!** Antidiarrheals may be appropriate in some cases, but you should **always consult with your nurse first!**
 - *Keep in mind that if the diarrhea is caused by a bacterial or parasitic infection, it is important that the body eliminate these microorganisms as quickly as possible to prevent worsening infections. In this case, antidiarrheal medication will prevent the body from doing this and may make the infection worse!*
- In some cases, taking a probiotic may help to restore the natural microorganisms in the gut reducing diarrhea. This is especially true for diarrhea caused by taking antibiotics. Always consult with your nurse and follow your agency policy about taking any over the counter medications.
 - Some practitioners may prescribe a probiotic when prescribing antibiotics to prevent diarrhea. Administer medications as instructed by the prescribing practitioner.

When to Notify Your Nurse or Individual's Physician

You should notify your nurse any time you think an individual may be developing an infection so she/he can monitor the individual and give you further directives for the plan of care. The following are some examples of when to notify your nurse:

- If there is any injury that begins to have pus discharge, increased swelling around the site after initial injury, or if there are any concerns for possible infection.
- Any open sores caused by pressure.
- Any reported earache or sore throat
- Diarrhea and/or vomiting lasting over 12 hours.

- Fever greater than 100.4 degrees Fahrenheit taken via temporal, ear, or oral. Fever greater than 101 taken axillary.
 - If an individual has a fever between 100.5°-102° for greater than three days or as indicated by your agency policy, notify your nurse. A delay in reporting low grade fevers can be very dangerous!
 - If any fever of 100 or higher is accompanied with stiff neck, severe headache, shortness of breath, or any other unusual symptoms, notify your nurse immediately!
- Follow your agency policy or specific individual plan for any other times that a nurse should be contacted.
- **If you are ever concerned about your individual's immediate safety, call 911 immediately!!**

Strep Throat

Most sore throats are caused by a virus, but strep throat is caused by a bacterial infection. Most people get strep throat by breathing in the bacteria, sharing eating or drinking utensils with someone that is infected, or touching surfaces with the bacteria and then touching their mouth or noses. To prevent strep throat, do not share eating utensils or drinking glasses. Disinfect shared surfaces frequently to prevent the spread of bacteria and be especially vigilant when someone displays any symptoms of illness. According to the CDC, signs and symptoms of strep throat include:

- Sore throat that can start very quickly
- Pain when swallowing
- Fever
- Red and swollen tonsils, sometimes with white patches or streaks of pus
- Tiny, red spots on the roof of the mouth
- Swollen lymph nodes in the front of the neck

If anyone exhibits these symptoms, they should go to a practitioner to determine if they have strep throat and need to be on antibiotics. Strep throat is highly contagious, so people should not go to school or work until they are fever free AND have been on antibiotics for AT LEAST 24 hours! If you suspect your individual has strep throat, notify your individual's nurse or follow agency policy for the plan of care for your individual.

Influenza (Flu)

Influenza, or the flu, is caused by several different flu viruses and is contracted through breathing in the virus. To avoid contracting the flu, wash hands frequently and wear a face mask when caring for someone with the flu. *People with the flu can spread the virus to others up to 6 feet away!* People are contagious 1 day prior to developing symptoms and 5-7 days following the start of symptoms. It is important to limit contact with others until at least 24 hours free of any symptoms of flu to avoid spreading it to others. According to the CDC, signs and symptoms may include some or all of the following:

- Fever (some people with the flu may not have a fever)
- cough
- sore throat
- runny or stuffy nose

- body aches
- headache
- chills
- fatigue
- sometimes diarrhea and vomiting

If you take an individual to the practitioner for the flu, they may complete a rapid flu test. Some practitioners may choose not to complete a rapid flu test since treatment often does not change with confirmation of diagnosis. Some practitioners may prescribe antiviral medications, but these may only lessen symptoms and shorten illness by 1-2 days. Treatment is typically determined by the accompanying symptoms and often includes rest and fluids. Contact your agency nurse or follow agency policy for treatment plan of care if flu is suspected.

Pneumonia

Pneumonia is an infection that causes fluid to accumulate in the lungs, and it can be caused by a virus, bacteria, fungus or by aspiration. Pneumonia is often diagnosed through medical history, chest x-ray, and sputum culture. According to the American Lung Association, signs and symptoms may include:

- Cough, which may produce greenish, yellow or even bloody mucus
- Fever, sweating and shaking chills
- Shortness of breath
- Rapid, shallow breathing
- Sharp or stabbing chest pain that gets worse when you breathe deeply or cough
- Loss of appetite, low energy, and fatigue
- Nausea and vomiting, especially in small children
- Confusion, especially in older people

Treatment will vary depending on the cause of the pneumonia and the severity of the pneumonia. Pneumonia can be fatal, so it is important to notify your nurse or practitioner if your individual is showing signs of potential pneumonia infection. It is especially important to seek medical attention immediately if an individual has a history of severe pneumonia, is medically fragile, or showing more severe symptoms such as severe shortness of breath, bluish color, or extremely high fever not responding to medications.

Athlete's Foot (Tinea Pedis)

Athlete's foot is a fungal infection that typically occurs on the feet causing itchy, red, scaly skin. Athlete's foot can be cured using topical antifungal powders or creams. Fungi prefer moist, warm environments, so it is important to keep skin dry and clean to prevent fungal infections. According to Mayo Clinic, the best methods for preventing athlete's foot include:

- Keep feet dry and ensure that you dry between toes after bathing. Air feet out whenever possible.
- Change socks regularly. Sleep without socks to allow feet to air out.
- Wear light, well-ventilated shoes, and alternate the shoes individuals wear. Avoid shoes made of synthetic material, such as vinyl or rubber.

- Wear water shoes or sandals around public pools, locker rooms, restrooms, or any other public facilities.
- Don't share shoes between individuals.
- Clean bathroom and showers between each individual to prevent spreading infections!

Conjunctivitis (Pink Eye)

Conjunctivitis or Pink Eye can be caused by bacteria, virus, or allergens. The best way to avoid pink eye is through frequent and consistent hand washing. According to the CDC, typical signs and symptoms include:

- Pink or red color in the white of the eye
- Watery eyes
- Itching, irritation, and/or burning; people may feel like there is a foreign body in their eye
- Discharge (pus or mucus)
- Crusting of eyelids or lashes, especially in the morning

Treatment may not be necessary depending on the source of the pink eye as well as the duration of symptoms. If your individual exhibits any signs of pink eye, contact your nurse to determine the best plan of care.

Urinary Tract Infection

A urinary tract infection (UTI) is an infection in any part of the urinary system. This includes the kidneys, ureters and bladder. Most often UTIs are treated with antibiotics. According to the Mayo Clinic symptoms can include:

- A strong urge to urinate
- A burning sensation when urinating
- Passing frequent, small amounts of urine
- Urine that appears cloudy
- Urine that appears red or pink (a possible sign of blood in the urine)
- Strong smelling urine
- Pelvic pain in women

If your individual exhibits any of the above signs or symptoms, contact your nurse.

Antibiotics

Antibiotics are medications that are given to treat bacterial infections. Antibiotics are not effective curing infections caused by any other types of microorganism such as viruses and fungi. According to the CDC, overuse of antibiotics can cause bacteria to become resistant to these medications limiting treatment options. It is important to only take antibiotics when necessary. Some negative side effects may include:

- rash
- dizziness
- nausea and vomiting
- diarrhea

- yeast infections
- sensitivity to the sun
- Allergic reactions ranging from mild to anaphylactic shock

It is important to administer antibiotics at the same time every day, and it is important to finish the prescription even after symptoms from infection are gone! If people do not take antibiotics as prescribed for the entirety of the prescription, it can lead to a worse infection that is resistant to that antibiotic. Milk or antacids may interfere with some antibiotics, so it is important to avoid taking these while taking antibiotics. Check with your nurse to see if this applies to the ordered antibiotic. If the bacterial infection is not gone after completing antibiotics, contact your nurse immediately or follow agency policy to determine if more medication is needed.

Vital Signs

Objectives

- Identify the normal ranges for all vital signs
- Identify how to measure each vital sign
- Describe factors that can affect pulse rate
- Indicate the proper procedure for taking a blood pressure and identify the symptoms of high and low blood pressure
- Explain when to report pulse oximetry readings to your nurse

General Overview

As a direct support professional, you may be asked to monitor an individual’s vital signs. This section will review basic vital signs for adults, how to measure them, and what the normal range of measurement is for each vital sign. For Direct Support Professionals working with children under the age of 18, refer to supplemental information for vital sign ranges for different age groups in children.

This table provides *general guidelines* for normal ranges for each vital sign. Keep in mind that every person is different and their individual baseline readings can vary from the typical average adult ranges listed in this table. If you are ever unsure of when to report an abnormal vital sign, always consult your nurse or your agency’s policies.

Table B: Vital Signs

Vital Sign	Normal Range	How to measure
Temperature	97-99 degrees Fahrenheit	Oral Axillary readings are about 1 degree lower than oral Temporal and ear readings are about 0.4 degrees higher than oral
Heart Rate or Pulse	60-100	Count number of beats in 1 minute Automated machine- follow manufacture instructions

Respirations	12-20	Count number of breathes in 1 minute
Blood Pressure	Top number (Systolic): 90-120 Bottom Number (Diastolic): 60-80	Follow manufacturer instructions for appropriate procedure with automatic cuff
Pulse Oximetry Readings or Oxygen levels	95-100% Any reading under 90% is considered low	Place pulse oximeter on a finger. Fingers must be warm, and individual must be holding still for accurate readings.

Temperature

A normal temperature for an adult can range from 97-99° Fahrenheit. Keep in mind that for those that tend to run at a lower temperature, a fever may be indicated at a lower temperature than average. Follow manufacturer instructions for proper thermometer use.

Heart Rate or Pulse

A typical resting pulse range for an adult is 60-100, which means that an adult's heart beats 60-100 times per minute. A resting pulse rate must be taken when an individual is sitting and has been at rest, meaning no recent vigorous activity. According to Mayo Clinic, there are several factors that can affect resting heart rate causing higher or lower readings including:

- Age
- Fitness and activity levels
- Being a smoker
- Diagnosis of cardiovascular disease, high cholesterol, or diabetes
- Air temperature
- Body position (standing up or lying down, for example)
- Emotions
- Body size
- Medications

Respirations

A respiration rate is the number of times a person breathes in one minute. For an adult at rest, the average respiration rate is 12-20. Some people may have a slightly different baseline, so it is important to know your individual's baseline. Causes for a varied respiration rate include: Asthma, Anxiety, Pneumonia, Heart failure, and use of narcotics.

Blood Pressure

Blood pressure is taken with a blood pressure cuff and is reported as a fraction representing the measurement of the pressure in the arteries. When taking a blood pressure, ensure that you put the cuff on as indicated by the manufacturer. There are often pictures on the cuffs to show exactly how and where it should be placed on a person's arm or wrist. Ensure that the individual is holding their arm in the appropriate position as indicated by the manufacturer while the automatic cuff is getting a reading. The following include some general guidelines for getting an accurate blood pressure reading:

- Ensure the individual is sitting with both feet on the floor and their arm is relaxed

- Any movement while the cuff is getting a reading can cause a false reading and should be re-checked for accuracy.
- Do not take a Blood pressure within 30 minutes of smoking, drinking caffeine, or any exercise for an accurate resting blood pressure
- If the cuff is having a difficult time getting any reading, try changing the batteries or consider replacing the cuff for a new one.
- If you get a reading that is outside the normal range, check the blood pressure on the other arm to determine accuracy.

For any reading that is outside the normal range, notify your nurse. Keep in mind that if either the top number or bottom number are out of range, you should notify your nurse. For the top number, or systolic pressure, the normal range for an adult is 90-120. For the bottom number, or diastolic pressure, the normal range for an adult is 60-80.

Symptoms of Low Blood pressure. If you see any of the following symptoms, you should check your individual's blood pressure and report any abnormal readings to your nurse. According to Mayo Clinic, symptoms of low blood pressure include:

- Dizziness or lightheadedness
- Fainting (syncope)
- Blurred vision
- Nausea
- Fatigue
- Lack of concentration

Keep in mind that if an individual has not eaten or drank anything for over 24 hours or has vomiting or diarrhea for over 24 hours, they are at risk for low blood pressure.

High blood pressure does not often have any outward physical symptoms. Extremely high blood pressure, such as a blood pressure over 180 top number or over 120 bottom number, may be accompanied with confusion, dizziness, or headache. This is an emergency and you should call 911 and seek immediate medical attention.

Pulse Oximetry Readings

Pulse oximetry readings measure the percent of oxygen in the blood. A normal range is between 95-100%. Any reading less than 90% is considered low and should be reported to your nurse. Pulse oximetry readings are typically obtained using a device called a pulse oximeter that is placed on an individual's finger. Keep in mind that an individual must hold still, and the fingers must be warm to obtain an accurate reading. If your individual ever seems out of breath or if they show any signs of low oxygen levels such as bluish lips or fingers, check their oxygen level and notify your nurse. If your individual is showing any signs of distress due to difficulty breathing, call 911 immediately.

When to Call 911

Objectives

- Demonstrate a thorough comprehension of when to call 911
- Identify when to call 911 for injury
- Define anaphylaxis and identify the signs and symptoms
- Identify common allergens that can cause anaphylaxis and explain how to treat with an epi pen

According to the American College of Emergency Physicians, the following are some general examples of when to **CALL 911 IMMEDIATELY**

- Chest pain
- Sudden loss of vision
- Severe constant abdominal pain
- Bleeding heavily despite constant pressure
- Severe illness with bluish or grey skin
- Severe low blood pressure with either top number less than 85 or bottom number less than 50
- A fast heartbeat (more than 120-150) at rest especially if associated with shortness of breath or feeling faint
- Drowning
- Choking
- Severe burns
- Poisoning or drug overdose
- New severe headache
- Sudden intense severe pain
- Severe high blood pressure with top number over 200 or bottom number over 120
- Possible signs of stroke
 - Sudden weakness
 - Sudden change in speech
 - Sudden numbness
 - Any sudden change in usual behavior or activity level
- Any seizure symptoms when person DOES NOT have a seizure disorder
 - Lower person to the ground and remove any objects around them that could cause injury
 - Roll on their side and protect their head by placing in your lap or on a pillow
 - NEVER restrain a person or put anything in their mouth
- For those with a known seizure disorder, follow individualized seizure protocol for when to call 911, and call 911 if
 - They stop breathing during seizure and/or turn blue
 - Seizure is abnormal for that person or lasting longer than usual for that person
 - If you are at all concerned for their immediate safety
- Difficulty breathing, especially if not improved with rest or accompanied with bluish lips or severe wheezing
- Bloody or coffee ground looking vomit or diarrhea

- Any loss of consciousness
- Severe allergic reaction or anaphylaxis
- Someone is threatening to hurt or kill themselves or someone else
- **IF YOU ARE EVER CONCERNED FOR AN INDIVIDUAL'S IMMEDIATE SAFETY, CALL 911!!!!**

When to call 911 in the case of injury

- **DO NOT MOVE THE INDIVIDUAL AND CALL 911 IMMEDIATELY!!!**
- Fall resulting in abnormal limb placement (example: arm or leg is in an unnatural position) or protruding bone
- Fall with severe head injury
- Any fall in which the individual reports inability to move on their own or when they cannot move in their normal way (baseline)

Anaphylaxis or Severe Allergic Reaction

Anaphylaxis is a severe allergic reaction that can occur within seconds after exposure to an allergen and can be life threatening if not treated immediately. When exposed to a severe allergy, the body triggers an immune response that floods the body with several chemicals causing a sudden drop in blood pressure and the airway to swell up and potentially close. **Before working with your individual, ensure that you are aware of any allergies and are familiar with their individualized allergy plan and treatment as prescribed by their practitioner.** According to Mayo Clinic, the following are common signs and symptoms of severe allergic reaction:

- Skin reactions, including hives and itching and flushed or pale skin
- Low blood pressure
- Constriction of your airways and a swollen tongue or throat, which can cause wheezing and trouble breathing
- A weak and rapid pulse
- Nausea, vomiting or diarrhea
- Dizziness or fainting

Call 911 immediately if any symptoms occur after exposure to an allergen!! Even if an epi pen is administered, the individual must seek medical attention immediately!!

Common allergens that can cause severe allergic reaction

- Peanuts and tree nuts
- Fish and shellfish
- Milk
- Certain medications, including antibiotics, aspirin and other over-the-counter pain relievers, and the intravenous (IV) contrast used in some imaging tests
- Stings from bees, yellow jackets, wasps, hornets and fire ants
- Latex

This is just a list of the most common allergens. A person can have an anaphylactic response to other things not included on this list or at times a cause is never determined. If your individual is allergic to anything, ensure that your individual avoids any contact with the allergen to prevent anaphylaxis. If your

individual is allergic to any medications, ensure that all medical professionals, physicians, nurse practitioners, pharmacists, dentists, etc. are aware before prescribing any medications.

Prior to working with your individual, ensure that you are aware of your agency's policies for addressing allergic reactions as well as your individual's individualized allergy protocol if they have one. Some individuals may require an Epi Pen to treat any exposure to an allergen. Ensure that the individual has the Epi pen with them at all times in case of emergency and ensure that you and your individual are properly trained on administration of the Epi pen. **If an epi pen is ever administered, the individual must go to the hospital immediately even if symptoms improve!!** Individuals may have a second reaction after the epi pen wears off, so they must seek medical attention immediately!

Fatal Five

Objectives

- Define each of the fatal five causes of death: aspiration and dysphagia, dehydration, constipation, seizures, sepsis
- Explain the signs and symptoms for each of the fatal five causes of death
- Demonstrate an understanding of how to prevent aspiration and dysphagia
- Identify factors that can contribute to an increased risk of dehydration and explain when to notify a nurse of signs and symptoms
- Indicate factors that can increase the risk for constipation and how to prevent it
- Identify methods to help prevent seizures and demonstrate the proper steps to follow if someone has a seizure
- Define sepsis and explain how to prevent it

According to the Indiana Bureau of Developmental Disabilities, the fatal five preventable causes of death include aspiration, dehydration, constipation, sepsis, and seizures. Aspiration and seizures are still among the top primary causes of death in Indiana for people with developmental disabilities. Also, there is a rising concern regarding the threat of sepsis.

Aspiration and Dysphagia

Aspiration is when food or drink enters the lungs when swallowing. People are at an increased risk for aspiration if they have a diagnosis of *dysphagia*, which means the muscles in their mouth and throat do not work correctly causing difficulty swallowing. Aspiration can lead to pneumonia, which can become fatal especially if there is a delay in diagnosis. Individuals with developmental disabilities can be at an increased risk for aspiration due to decreased alertness, chronic chest congestion, and behavioral issues related to eating. Some signs and symptoms of possible aspiration from dysphagia include:

- Feeling that food is sticking in your throat
- Pain when swallowing
- Trouble starting a swallow
- Individual complaining of heartburn or chest hurting after eating
- Coughing or wheezing after eating
- Coughing while drinking liquids or eating solids
- Excessive drooling
- Feeling congested after eating or drinking
- Shortness of breath or fatigue while eating
- Repeated episodes of pneumonia

If individual does not have a diagnosis of dysphagia or reflux, (stomach acid flowing back into the throat) notify your nurse if any symptoms are noticed. Your individual will likely need to complete a swallow study to determine if they have dysphagia and determine if a modified diet is required for safe eating.

If aspiration is suspected, have the individual pause from eating or drinking and contact your nurse for further instructions or follow your agency policy. Monitor for any signs and symptoms of pneumonia

such as continued difficulty breathing, decreased oxygen levels, and temperature. If an individual shows any signs of pneumonia, contact your individual's nurse for directives.

Interventions to prevent aspiration for individuals diagnosed with dysphagia

If an individual is diagnosed with dysphagia, they should see a speech pathologist to determine if any modifications to diet are required for safe eating. For example, some people may require thickener in their liquids or chopped or pureed food. Prior to working with your individual, ensure that you are familiar with their individualized eating protocol and are comfortable implementing it correctly with your individual. Always follow practitioner's orders for dietary modifications.

- Have your individual sit upright for all meals and for at least 30 minutes after eating or drinking.
- Follow all diet modifications as ordered.
- Encourage individuals to take smaller bites and take drinks between bites to encourage slower eating.
- Eliminate any distractions during meal times.
- If supervision is required for safe eating, ensure that your individual is always in line of sight while eating or drinking.
- Use modified eating utensils or straws as ordered by a practitioner or speech pathologist.
- If swallowing exercises are recommended, ensure your individual completes these as ordered.
- If individual has reflux issues, encourage your individual to avoid any foods that can trigger reflux such as
 - Spicy foods
 - Greasy foods
 - Acidic or citric foods such as oranges or tomatoes
 - Caffeine
 - Peppermint
 - Alcohol

Dehydration

Dehydration occurs when the body loses more fluids than it takes in causing your body to have issues carrying out normal functions from lack of sufficient fluids. Some common causes of dehydration include vomiting, diarrhea, not drinking enough water, excessive sweating, and fever. Some people are more susceptible to dehydration, such as those that are elderly and those with certain chronic diseases such as diabetes or kidney disease. Individuals with impaired ability to feel thirsty, that need assistance drinking, or receive fluids primarily through gastrointestinal tubes (G-tube) are at an increased risk for dehydration. According to Mayo Clinic, some common signs and symptoms include:

- Extreme thirst
- Less frequent urination
- Dark-colored urine
- Fatigue
- Dizziness
- Confusion

Dehydration can cause low blood pressure, constipation, increased seizure activity, and if untreated for extended periods of time, coma or death.

Notify your individual's nurse if your individual:

- Has any of the above symptoms
- Has had diarrhea or vomiting for 24 hours or more with little to no fluid intake
- Is irritable or disoriented and much sleepier or less active than usual
- Has bloody or black stool
- You may notify the nurse sooner for individuals with signs of dehydration that also have seizure disorders or chronic constipation.

For individuals with impaired ability to feel thirsty or individuals that rely on staff assistance with food and drink, it is important that staff keep track of their fluid intake. Follow practitioner orders regarding recommended daily fluid intake and type of fluid for those that primarily use G-tubes. It is important to keep in mind that certain activities can increase your individual's need for daily fluid consumption such as:

- Vomiting or diarrhea
- Being outside in hot or cold weather
 - Hot weather causes increased fluid loss from sweating and cold weather can cause moisture loss through prolonged exposure to dry air.
- Exercising
- Fluid loss from a fever
- General illness

For individuals that use a G-tube, follow their individualized protocol for proper procedures and plan. Also, consult with your nurse to determine how often and how much extra fluids individuals can receive through their G-tube if needed. If an individual has a medical condition requiring a fluid restriction, consult with your nurse before increasing daily fluid amounts.

Constipation

Constipation is difficulty passing stools or having infrequent stools. According to Mayo Clinic, there are several different risk factors and medical conditions that can cause constipation.

- Being an older adult
- Being dehydrated
- Eating a diet that's low in fiber
- Getting little or no physical activity or physical disability prohibiting physical activity
- Taking certain medications, including sedatives, narcotics, some antidepressants or medications to lower blood pressure
- Having a mental health condition such as depression or an eating disorder
- Blockages such as bowel obstruction, narrowing of colon, or certain types of cancer
- Neurological disorders such as multiple sclerosis or Parkinson's
- Inability to relax pelvic muscles
- Impaired coordination of pelvic muscles

Signs and symptoms for constipation may be difficult to notice in some individuals with limited to no verbal communication. For these individuals, it is important to keep track of frequency in bowel movements and notify your nurse of any signs of constipation. According to Mayo Clinic, constipation is defined as having fewer than three stools per week. However, constipation may be indicated sooner than this requiring staff intervention. Follow your agency protocols for reporting constipation. According to Mayo Clinic, some common signs and symptoms of constipation include:

- Having lumpy or hard stools
- Straining to have bowel movements
- Feeling as though there's a blockage in your rectum that prevents bowel movements
- Feeling as though you can't completely empty the stool from your rectum
- Needing help to empty your rectum, such as using your hands to press on your abdomen and using a finger to remove stool from your rectum

Can constipation really be fatal??

YES! If someone goes for an extended period of time without passing a stool, it can become hard and cause impaction. Once an individual is impacted, it can be very difficult to pass a stool on their own and usually requires medical intervention. If the impaction is not removed, stool will continue to back up through the colon and small intestine, and individuals can even vomit up stool if an impaction goes untreated for too long. This can lead to a tear in the bowel allowing fecal matter to enter the body causing sepsis and death. For this reason, it is important to track bowel movements whenever indicated and notify your individual's nurse immediately if they are showing any signs of constipation.

Some individuals may have chronic constipation requiring regular interventions or medications to help keep bowel movements regular. According to Mayo Clinic, the following interventions can help prevent constipation.

- Include high-fiber foods in your individual's diet such as beans, vegetables, fruits, whole grain cereals, and bran.
- Avoid over consumption of processed foods, dairy, and meat products.
- Encourage plenty of fluids.
- Encourage regular activity and exercise
- Encourage your individual not to ignore the urge to pass stool.
 - Some individuals may have a regular restroom plan to encourage them to sit on the toilet daily to try to have a bowel movement.
 - Try to create a regular schedule and privacy for bowel movements, especially after a meal.
- Track bowel movements as indicated by your agency policy

If an individual is constipated, report this to the nurse immediately and follow your agency protocol for addressing constipation. Some individuals may have medications to be given as needed for constipation. Notify your nurse if the as needed medications do not work. Follow your individual's plan and pass medications as indicated.

Seizures

Seizures are abnormal, increased electrical activity that occur suddenly in the brain. Seizures can cause changes in behaviors and levels of consciousness and can cause a variety of different symptoms depending on the location of the abnormal electrical activity in the brain. People can have one random seizure and then not have another one. This is not considered a seizure disorder and typically does not require daily treatment with medications. Anyone that has recurrent seizures is considered to have epilepsy, which is the most common cause of seizures. According to Mayo Clinic, some common symptoms of seizures can include:

- Uncontrollable jerking movements or twitching; this can be in a part of the body or all over.
- Staring spells
- Loss of consciousness or change of consciousness or awareness
- Cognitive or emotional symptoms such as confusion, fear, etc.
- Some individuals may remain conscious but experience changes in their basic senses or their emotional state
- Stiffening of muscles in arms, legs, back, and neck
- Some individuals may suddenly drop to the ground
- Convulsions or shaking throughout the entire body
 - Biting of their tongue, typically during convulsions
- Individuals may have urinary incontinence
- Individuals may stop breathing and lips may begin to turn blue
- Some people can have abnormal seizures that present with unusual behavior or symptoms that are not typical for a seizure disorder.

If your individual has a known seizure disorder, ensure that you ask how a typical seizure may present for them.

For individuals with known seizure disorders, they may be at an increased risk for seizure activity if they have:

- Fever
- Dehydration
- Vomiting or diarrhea
- High stress
- Lack of adequate sleep
- For women, they may experience increased seizure activity during their menstrual cycle.

Preventing Seizures

The best way to prevent seizures is to ensure that **an individual receives all their prescribed medications as ordered every day!** Even one missed dose can cause a seizure, so it is crucial that you are familiar with their medications and proper administration prior to working with your individual. It is important that you are aware of any known seizure disorders and are trained on your individual's individualized seizure plan as prescribed by their practitioner prior to working with the individual independently. Several interventions can decrease the likelihood of seizures such as:

- Getting adequate sleep

- Staying well hydrated
- Eating a healthy diet
- Staying active and exercising. Make sure to have your individual rest whenever feeling too tired.
- Reduce stress

Basic steps to follow in addition to individual's individualized plan:

- If the individual is not already laying down, safely lower them to a lying position.
- Roll the person on their side and protect their head with a pillow or place their head on your lap
- Do not restrain the person or put anything in their mouth. This can cause further injury.
- Move any objects that are near them that could cause injury.
- Loosen tight neckwear
- Time the seizure and note any observations throughout the seizure
- Stay with the person until medical personnel arrive
- Stay calm

If an individual begins to have a seizure, follow their seizure protocol and follow agency protocol.

- Some individuals may have emergency medications, such as Diastat. Administer these as ordered by the individual's practitioner and ensure that you are trained and comfortable with proper administration of any emergency medications prior to working with the individual independently.
 - If an individual has an order for emergency medication, ensure it is with the individual at all times!

If an individual does not have a known seizure disorder and shows any symptoms of a seizure, call 911 immediately!!

For any individual with a known seizure disorder call 911

- As indicated in their individualized plan
- Any seizure lasting over 5 minutes
- Any major injuries sustained during seizure, especially any suspected head injuries
- If individual stops breathing during seizure, call 911 if individual does not start breathing within two minutes.
- A second seizure begins immediately after the first one
- If consciousness or breathing do not return after seizure stops
- Any time you are concerned for the individual's immediate safety!

After a seizure

Many people will often feel very tired and may remain confused or disoriented for several hours. Continue to monitor individual and allow them to rest in a quiet, dark room. If they do not return to baseline (their normal mental state) per their individualized plan, seek medical attention.

Steps to Avoid Injuries During Seizures

- Be cautious around water. Ensure individual is wearing a life vest if they are around any bodies of water, and make sure they are always in line of sight.
- Take showers instead of baths

- Wear a safety helmet if ordered by practitioner
- Add padding to furniture or sharp corners to help avoid injury

Ensure that you are familiar with your individual's seizure plan of care and any medical orders for your individual's seizure disorder. If you are ever concerned about your individual's immediate safety, do not hesitate to call 911!

Sepsis

Sepsis is an extreme reaction in the body to an infection that could be fatal if not treated immediately. Sepsis occurs when an infection spreads too rapidly or the body's immune system cannot sufficiently fight off the infection causing it to continue to grow and spread. Sepsis is not currently considered part of the fatal four, but due to increased cases of sepsis in this population, it could be considered a fifth fatal, preventable cause of death. According to the CDC, some signs and symptoms of sepsis include:

- Difficulty breathing
- Fast heart rate with low blood pressure
- Fever with shivers or feeling cold
- Extreme pain
- Confusion or disorientation
- Feeling clammy or sweaty

Sepsis can be difficult to diagnose in early stages due to the symptoms often appearing to be similar to many other illnesses or diseases. If you ever suspect your individual has sepsis, they need to be evaluated by a practitioner immediately. Some characteristics or chronic diseases may put people at an increased risk for sepsis. When caring for these individuals, follow their individualized support plan and your agency's protocol for when to report symptoms and when to have your individual assessed by a practitioner. Risk factors for an increased risk for sepsis include:

- Over the age of 65
- Less than one year old
- Have chronic diseases such as
 - Kidney disease
 - Diabetes
 - Cancer
 - Lung Disease
- A weakened immune system

Ways to prevent sepsis

- Wash hands regularly (refer to section in Universal Precautions)
- Get vaccines as recommended by the CDC
- Take good care of chronic diseases. Ensure that you are aware of any chronic diseases your individual may have as well as their individualized support plan for treatment as indicated by the individual's practitioner.
- Clean any cuts immediately and treat as indicated by your agency's protocol. Keep any open sores or wounds covered with bandages to help prevent infection.

If you notice any of the signs or symptoms of sepsis, consult your individual's nurse immediately. Sepsis can progress rapidly and if left untreated, it can be fatal for your individual. If your individual is septic, it is important to get them to a hospital as quickly as possible to be treated. The risk of death increases every time a person gets sepsis.

Developmental Disabilities

Objectives

- Define intellectual disability and explain DSP roles in supporting someone with an intellectual disability
- Demonstrate a basic understanding of medical conditions that are more prevalent in those with cerebral palsy
- Explain characteristics that may be present in those with autism spectrum disorder
- Demonstrate a thorough understanding of the early signs of dementia

General Overview

According to the CDC, developmental disabilities are a group of conditions with impairment in physical, learning, language, or behavior areas. These groups of conditions tend to start during the developmental period and last through a person's life time. Developmental disabilities occur in all races, ethnicities, and socioeconomic statuses. Some developmental disabilities include intellectual disabilities, cerebral palsy, and autism spectrum disorder (ASD).

Intellectual Disability

According to the American Psychiatric Association and the American Association on Intellectual and Developmental Disabilities (AAIDD), intellectual disability is defined as significant limitations in both intellectual functioning (learning, problem solving, and judgement) and adaptive behavior (activities of daily living and independent living). Intellectual disability is diagnosed during the developmental years, or before the age of 22. Intellectual disability is diagnosed as mild, moderate or severe which is determined based on level of ability in intellectual function and adaptive behavior.

According to the American Psychiatric Association, there are three areas of adaptive behavior:

- Conceptual – language, reading, writing, math, reasoning, knowledge, memory
- Social – empathy, social judgment, communication skills, the ability follow rules and the ability to make and keep friendships
- Practical – independence in areas such as personal care, job responsibilities, managing money, recreation and organizing school and work tasks

It is important to emphasize each individual's strengths and areas in which support services can work towards improvement in independent functioning. As a direct support professional, it is important to understand that each individual should have a person-centered individual support plan based on their abilities and requirements for support. Individualized support plans also consider an individual's specific environment and cultural needs to ensure that the best support is provided. The goal of an

individualized support plan is to enable and empower individuals to attain what they have identified as their good or preferred life. Individualized support plans work towards improvement in areas of adaptive behavior or intellectual function as indicated by each individual. Direct support professionals must be trained on each person's individualized support plan prior to working with the individual, and it is important that they understand their role in supporting the individual.

Cerebral Palsy

According to the CDC, cerebral palsy (CP) is a group of disorders that affect mobility and the ability to maintain posture and balance. Symptoms can include stiff muscles, uncontrollable movements and poor balance and coordination. Not all people with cerebral palsy will present with the same symptoms. For example, someone with mild CP may have an awkward gait while ambulating, but not require any mobility devices to ambulate. Someone with more severe CP may not be able to walk at all requiring a wheelchair and some individuals may require 24-hour care for activities of daily living.

Individuals with CP may require various treatments for symptoms such as medications, braces, physical therapy, and occupational therapy. Each individual should have an individualized support plan and direct support professionals should follow practitioners' orders and recommendations for providing support.

People with cerebral palsy may have a higher incidence for other conditions such as:

- **Seizures**- About 1 of 4 people with CP have a seizure disorder. Ensure that you are familiar with your individual's orders and plan of care for those with a seizure disorder. Refer to seizure information in the *Fatal Four* section
- **Hip displacement** – About 1 of 3 people with CP experience hip displacement. This can cause severe pain and may require physical interventions. If your individual reports any hip pain, changes in gait with increased limp, or any abnormalities in hip placement, notify your individual's nurse for further evaluation.
- **Bladder control**- About 1 of 4 people experience issues with bladder control and may require the use of depends. For individuals that require assistance with using the restroom or changing of depends, direct support professionals should monitor skin for any signs of breakdown and report it to the individual's nurse immediately.
- **Reflux or eating difficulties**- People with CP have a higher incidence of issues with reflux putting them at an increased risk for aspiration. About 1 of 15 people are unable to eat by mouth and require the use of a gastrointestinal tube (G-tube) to eat. Refer to the *Aspiration and Dysphagia* section under *Fatal Four* for signs and symptoms and when to report issues to the nurse.
- **Pain**- About 3 out of 4 people experience chronic pain from various causes. Pain may be due to hip displacement, abnormal posturing, contractures, and skin breakdown. Direct support professionals should follow practitioner recommendations for managing pain and report any increases in pain or sudden onset of new pain to your individual's nurse.

Do all people with cerebral palsy have an intellectual disability?

No. Many people with cerebral palsy do not have any cognitive or learning disabilities. According to the Cerebral Palsy Alliance, about 1 out of every 2 people with CP have an intellectual disability. Direct support professionals should be familiar with each person's individualized support plan prior to working with their individual to ensure they provide optimal supports.

Autism Spectrum Disorder (ASD)

According to the American Psychiatric Association, “Autism spectrum disorder (ASD) is a complex developmental condition that involves persistent challenges in social interaction, speech and nonverbal communication, and restricted/repetitive behaviors.” Autism spectrum disorder is diagnosed during developmental years and can vary in level of severity and symptoms exhibited. Some characteristics of autism spectrum disorder include:

- *Social interaction and communication problems.* This can range from an abnormal social approach or deficits in non-verbal communication to complete lack of initiation or response to communication or no facial expressions.
- *Difficulty relating to people things and events.* This can range from difficulty interacting with others or making friends to difficulty maintaining eye contact to lack of interest in peers.
- *Restricted repetitive patterns, behaviors, or activities.* Some examples of repetitive motor movements could include hand flapping or lining up objects repetitively. People may also exhibit repetitive speech or rigid thinking such as a ritualized saying or difficulty transitioning between activities. People can have highly restrictive, fixated interests that are abnormal in intensity or focus.

Individuals on the autism spectrum disorder should have an individualized plan that specifies typical behaviors, social behaviors, and speech patterns. All direct support professionals should ensure they are trained on their individual’s individualized plan prior to working with the individual independently. The individualized plan should specify areas requiring support from staff and the best methods for supporting your individual’s behavioral and social needs.

Do all people with an ASD diagnosis also have an intellectual disability?

No. Although it is more common for people with an ASD diagnosis to also have an intellectual disability, not all people with ASD have a cognitive disability. Some people with an ASD diagnosis can have very high levels of intelligence. It can be difficult to determine intellectual capacity for those with ASD due to difficulties interacting with others or abnormal speech patterns.

Comorbidities

Individuals with a diagnosis on the autism spectrum disorder have an increased risk for certain comorbidities such as:

- Intellectual disability
- Seizure disorders
- Sleep problems
- Mental illness

It is important that direct support professionals are aware of all diagnoses for their individual prior to working with them independently. Direct support professionals should be trained on all individualized support plans prior to working with their individuals.

Common Co-Occurring Conditions:

Attention Deficit/ Hyperactivity Disorder (ADHD)

Attention Deficit/ Hyperactivity Disorder (ADHD) is a mental disorder that causes inattention, or difficulty focusing, hyperactivity, and impulsivity. ADHD can be diagnosed as inattentive, hyperactive, or a combination of both. According to the American Psychiatric Association, some symptoms of the inattentive type include:

- Difficulty paying attention to details at school or work
- Difficulty focusing on long tasks or conversations
- Easily distracted
- Often loses necessary items for school, work, or life
- Difficulty staying organized
- Forgetfulness towards daily tasks

Hyperactivity symptoms include:

- Fidgets, taps hands or feet
- Inability to stay seated for long periods of time
- Interrupts people or blurts out answers in class
- Always is “on the go”

Treatments can include medication, psychotherapy or a combination of both. Direct support professionals should follow their individual’s individualized support plan for their individualized treatment and needed supports.

Dementia

According to the Alzheimer’s Association, *dementia* is a general term for a group of symptoms including memory loss or decline in thinking that is severe enough to inhibit performing daily tasks. The most common cause of dementia is Alzheimer’s, which is a degenerative brain disease. A diagnosis of dementia requires significant impairment in at least two of the following areas:

- Memory
- Communication and language
- Ability to focus and pay attention
- Reasoning and judgment
- Visual perception

Although people can have early onset dementia, most people do not exhibit symptoms until they are 65 or older. In people over the age of 65 in the U.S., about 1 in 10 people are diagnosed with dementia. This is about the same rate of diagnosis for people with developmental disabilities, except those with a diagnosis of down syndrome. According to the National Institute on Aging, about 50% of people with

down syndrome are diagnosed with dementia. People with down syndrome also tend to experience symptoms of dementia at an earlier age in their 50's or 60's.

Unfortunately, there is no treatment or cure for Alzheimer's, but there are some medications that may temporarily improve symptoms. It is important to recognize early symptoms of dementia and see a practitioner right away for a possible treatment plan. According to the Alzheimer's association, the following are 10 early signs of dementia:

1. **Memory loss that disrupts daily living**
 - a. Some examples are forgetting recently learned information, forgetting important dates or events, or asking the same information repeatedly.
2. **Challenges in planning or solving problems**
 - a. This may present as difficulty following a familiar recipe or consistently forgetting to pay bills.
3. **Difficulty completing familiar tasks at home, at work, or at leisure**
4. **Confusion with time and place**
 - a. This may be losing track of dates, seasons, and passage of time.
5. **Trouble Understanding visual images and spatial relationships**
 - a. Some examples include difficulty reading, judging distances or determining between different colors.
6. **New Problems with words in speaking or writing**
 - a. This may present as difficulty following or joining a conversation, stopping mid-conversation and not knowing how to continue, difficulty with vocabulary and remembering the names of things.
7. **Misplacing things and losing the ability to retrace steps**
 - a. People with dementia may put things in unusual places or may accuse others of stealing things that they have misplaced.
8. **Decreased or poor judgement**
 - a. People may make poor judgments in spending money, such as giving large amounts of money to telemarketers, or they may stop grooming themselves.
9. **Withdrawal from Work or Social Activities**
10. **Changes in mood or personality**
 - a. They may become confused, suspicious, depressed, fearful or anxious. People may also become easily upset at home, work, with friends or in new places

If you see any of the above symptoms exhibited in your individuals, notify your nurse. Although there is not a cure, there are some treatments that can improve symptoms. It is also important to discuss the best methods for supporting your individual with dementia with their practitioner.