State of Rhode Island and Providence Plantations
RI Department of Mental Health, Retardation and Hospitals
Division of Developmental Disabilities

DRAFT

Direct Support Professional
Core Curriculum
And
Basic Medication
Administration

Adapted and Edited By:

Department of Mental Health, Retardation and Hospitals
Division of Developmental Disabilities

Ocean State Association of Residential Resources

RI Developmental Disabilities Nurses Association Training Workgroup

GENERAL

- The Direct Support Professional (DSP) will possess a working knowledge of a comprehensive variety of medical principles and procedures and will develop the ability to assist individuals to more fully understand their healthcare needs.

STANDARD PRECAUTIONS

(AND BLOODBORNE PATHOGENS)

- The DSP will demonstrate the ability to apply measures to prevent communicable diseases, to recognize and report the presence or onset of communicable disease, and to carry out the recommended procedures.

WELLNESS/PREVENTION OF ILLNESS

- The DSP will demonstrate an understanding of a comprehensive, holistic approach to healthcare and positive, healthy behaviors which will enhance the individual's overall physical and mental health

S&S OF ILLNESS + INJURY

- The DSP will be able to recognize the signs and symptoms of illness and injury and take appropriate action.

EMERGENCY CARE

- The DSP will demonstrate an understanding of how to identify and respond to emergency situations, and when to seek outside help.

COMMUNICATION

- The DSP will understand and demonstrate the importance of clear communication and the compliance with standard documentation

MEDICATION ADMINISTRATION

- The DSP will safely administer, completely document and communicate appropriately on issues related to medication administration according to acceptable standards.

How Will These Objectives Be Met?

- This training will include the information on the following topics:
  - Standard Precautions and Blood borne Pathogens
  - General Wellness
  - Basic Treatment Administration
  - Signs of Illness and Injury
  - Emergency Medical Care/Basic First Aid
  - Seizures
  - Safe Medication Administration

Let's Start With…

THE BASICS

EFFECTIVE HANDWASHING

- Handwashing is the single most effective way to prevent the spread of germs.
- It is the most important factor in the control of communicable diseases.

EFFECTIVE HANDWASHING…

- Handwashing should be done:
  - Before and after giving direct care
  - Before medication preparation
  - After each contact with blood or body fluids
  - Whenever gloves become contaminated and after glove removal
  - Before eating
  - After toileting
  - When hands are soiled, including after sneezing, coughing, or blowing your nose

EFFECTIVE HANDWASHING…

- When handwashing with soap and water is not feasible
  - Commercially packaged antiseptic hand cleaners or towelettes may be used according to manufacturer's instructions
  - When antiseptic hand cleaners or towelettes are used, hands should still be washed with soap and running water as soon as feasibly possible.

EFFECTIVE HANDWASHING…

- Wet hands under running water
- Apply 1 teaspoon of liquid soap
- Keep hands lower than elbows
- Wash with friction—fingers, palms, back of hands, and wrists for:
- 15 seconds (routine)
- 90 seconds (grossly contaminated)

EFFECTIVE HANDWASHING…

- Rinse thoroughly under running water
- Dry hands thoroughly with disposable paper towel
- Turn off faucets with paper towel
- Dispose of paper towel properly

Communicable Diseases and Standard Precautions

An OSHA Requirement

You should be trained before attempting any task during which you may be exposed to blood or body fluids.

You should be retrained each year.

Communicable Diseases

- A communicable disease is an **illness** caused by a specific microorganism that is capable of producing infection or infectious disease.

Communicable Diseases…

- There are five factors that are essential parts of the process that characterizes communicable disease:

Five Factors

- A causative agent
- A reservoir
- A means of escape from the reservoir
- A means of transmission from the reservoir to a new host
- A means of entry into the new susceptible host

Factor # 1--Causative Agent

- Infection begins with the invasion of the body by a living organism which causes the disease
- The major categories of infection-causing organisms are:
  - Viruses
  - Bacteria
  - Fungi and yeast
  - Ectoparasites
  - Helminthes

Viruses

- These are the smallest agents known. They can only multiply inside a living cell and do not respond to antibiotics.
  - Examples of diseases caused by viruses are the “flu”, the “chicken pox”, the common cold, hepatitis and AIDS.
  - Treatment usually consists of controlling the symptoms until the body’s immune system is able to kill the virus itself. (AIDS, of course, the exception.)

Bacteria

- These agents can multiply easily outside of living cells and respond well to antibiotics.
  - NOTE: A particular bacteria is sensitive to a particular antibiotic. Therefore while penicillin may kill one type of bacteria, another type of bacteria may be resistant to it. If an antibiotic is not taken at prescribed intervals or for the prescribed duration, resistant bacteria may form, making the disease much more difficult to treat.

Bacteria…

- Examples of diseases caused by bacteria are “strep throat”, some pneumonias, salmonella.
- Antibiotics: Keflex, penicillin, Augmentin

Fungi and Yeast

- These agents can multiply outside of living cells and are sensitive to medications. They grow particularly well in warm, moist and dark environments.
  - Examples include vaginal candidiasis ("yeast infection"), ringworm, onchomychosis or fungal infection of toenails, "athlete's foot", and "jock itch". Thorough drying is very effective in preventing fungal infections.
  - Treatment: Anti-fungals-Tinactin

Ectoparasites

- These organisms live superficially on the skin or hair. They are sensitive to chemical treatment
- Examples include lice and scabies mites
- Chemical treatment of all close contacts is necessary (Nix, Kwell)

Helminths

- These organisms enter through the gastrointestinal tract of humans or animals and may migrate to other parts of the body
- Examples include trichinosis (usually acquired by consuming improperly cooked pork), hookworm, round worm
- Treatment consists of medications which are given to all close contacts

Factor # 2—Reservoir

- Infecting organisms must have places where they can live and multiply
- These places are known as reservoirs of infection and are found mainly in human beings and in animals

Reservoir…

- Some reservoirs include persons who are not obviously ill but are capable of transmitting the disease to others.
- Example: Someone who no longer has hepatitis B, but remains a "carrier" and can transmit the virus to others

Factor # 3--Means of Escape From Reservoir

- In order to bring about infection in another body, a causative agent must have a means of escape from the reservoir
- The respiratory tract through the nose, nasal sinuses, trachea, bronchial tree and lungs; the gastrointestinal tract through feces; the urinary tract; an open lesion/sore through discharge on the surface of the body

Factor # 4--Means of Transmission From Reservoir

- Once an agent has escaped from its reservoir, it must have either a direct or indirect mode of transmission to a new host.
- Direct: agent goes from one body to the other with no intermediate source.
  - The transmission of syphilis from one person to another

Means of Transmission From Reservoir…

- Indirect transmission--occurs when a person with a cold sneezes into a tissue and another later uses the tissue.
  - Virus is indirectly transmitted from the tissue to the second host

Factor # 5--Means of Entry Into The Susceptible Host

- Having achieved transmission from a reservoir, an agent must gain entry to a new victim or host
- The main entry points:
  - *The respiratory tract*
  - *The gastrointestinal tract*
  - *The skin and mucous membranes (mouth, nose, eyes, vagina, rectum)*

Susceptible Host

- Even though an agent gains entry into the body, the disease does not necessarily occur
  - The new host must be susceptible or vulnerable to the causing agent

Susceptible Host…

Certain states such as:

- *Stress*
- *Pregnancy*
- *Lack of proper nutrition and rest*
- *Age*
- *Preexisting illness*

Can make a person more susceptible or prone to communicable disease

Symptoms of Infection

- Generalized: fever (temp over 100 F), chills, muscle ache, general malaise
- Ear: pain, drainage
- Respiratory: sneezing, congestion, coughing, sinus pain

Symptoms of Infection…

- Teeth: pain, drainage, swelling
- Skin/mucous membranes: redness, swelling, drainage, pain, heat, itching, rash
- Gastrointestinal: nausea, vomiting, diarrhea
- Genitourinary: itching, pain, burning, frequency of urination

Treatment of Communicable Disease

- Per Physician Orders! PRN Orders as directed by the person's primary care physician!
- Examples of Symptomatic Treatment:
  - Tylenol for fever or muscle ache: 2 tabs every 4-6 hours
  - Robitussin for cough and congestion as directed

Treatment …

- Increase the body's resistance
  - Rest
  - Fluids (6-8 cups daily) unless the person is on fluid restrictions!

STANDARD PRECAUTIONS AND BLOODBORNE PATHOGENS

Standard Precautions

- The Centers for Disease Control (C.D.C.) has recommended that blood and body fluid precautions be consistently used for all persons even though disease is not suspected
- All persons should be considered potentially infectious for the HIV (AIDS) virus, the hepatitis B virus and other blood-borne agents

Standard Precautions…

- Standard precautions apply to blood, semen and vaginal secretions.
- If feces, nasal secretions, sputum, tears, urine, vomitus, or any other bodily fluid may contain blood, it should be treated with standard precautions as well.

Standard Precautions…

- The following guidelines should be followed at all times:
  - Use barrier precautions such as gloves or aprons if a blood or body fluid exposure is anticipated.
  - Change all barrier precautions after contact with each person, if any barrier is torn, if a needle stick or other injury occurs.
  - Hands and other skin surfaces should be washed immediately and thoroughly if contaminated with blood or other body fluids.
  - Hands should also be washed thoroughly after removal of gloves.

Standard Precautions…..

You should ALWAYS use Standard Precautions if it's warm, and wet, and not your own!

Standard Precautions…

- Report any contact with blood or body fluids to an open wound or cut or to mucus membranes so that follow-up measures can be taken.
- Surfaces containing blood or body fluids should be washed with bleach and water in a 1:10 concentration.
- Contaminated clothing should be washed in hot water and dried in the dryer.
- **Bleach and water solution needs to be remixed/remade every 24 hours**

Prevention and Control Measures

- Engineering Controls
- Work Practice Controls
- Good Housekeeping
- Immunizations
- Miscellaneous Controls

Engineering Controls

- Physical or mechanical systems your employer provides to eliminate hazards at their source. Examples are:
  - Self sheathing needles
  - Biosafety cabinets
  - Autoclaves
  - Sharps Containers

Work Practice Controls

- Specific procedures you must follow on the job to reduce your exposure to bloodborne pathogens or infectious materials. Examples are:
  - Do not bend, cap, shear, or break contaminated needles and other sharps
  - Use a mechanical recapping device for contaminated needles
  - Place contaminated sharps in sharps containers
  - Report any sharps containers that are not easily accessible

Work Practice Controls…

- *HANDWASHING*
  - the single most important measure to prevent the spread of communicable diseases is hand-washing. A vigorous rubbing together of all surfaces of lathered hands followed by rinsing under a stream of water is recommended.

Work Practice Controls…

- Handwashing
  - if infectious material gets on your hands, the sooner you wash it off, the less chance you have of becoming infected
  - Helps prevent transmission of contaminated material to other surface

Work Practice Controls…

- Personal hygiene
  - When performing a procedure involving blood or other potentially infectious materials, minimize splashing, spraying, spattering and generation of droplets
  - Do not eat, drink, smoke, apply cosmetics or lip balms, or handle contact lenses where you may be exposed to blood or other potentially infectious materials

Work Practice Controls…

- Avoid petroleum based lubricants that may eat through latex gloves. Applying hand cream is OK if you thoroughly wash your hands first
- Never mouth pipette or suction blood or other potentially infectious materials
- Don't keep food or drink in refrigerators, freezers, cabinets or on shelves, countertops or bench tops where blood or other potentially infectious materials may be present

Work Practice Controls…

- All sharps must be disposed of properly in a "Sharps" container.
  - Containers are usually red in color or have a biohazard label
  - Must be kept within easy reach
  - Sharps containers must be emptied or replaced when they become full
  - Menses pads, soiled bandages and any other disposable object that has been exposed to blood or body fluids containing blood must be sealed, double bagged and disposed of properly

Work Practice Controls…

- Used disposable razors should be disposed of in a coffee can type container (puncture resistant)
- They can be disposed of in the usual trash but be sure the cover is sealed and nothing can fall out of the container

Personal Protective Equipment (PPE)

- Equipment that protects you from contact with potentially infectious materials that may include gloves, masks, gowns, aprons, lab coats, face shields, protective eyewear, mouthpieces, resuscitation bags or other ventilation devices
- It must be provided at NO COST to you
- Your employer is responsible clean, launder, repair, replace or dispose of protective equipment at no cost to you

PPE…

- Resuscitation Devices
  - Mechanical emergency respiratory devices and pocket masks are types of personal protective equipment designed to isolate you from contact with a victim's saliva during resuscitation
  - Required for CPR certification now

PPE…

- Gloves
  - Gloves are the most widely used form of personal protective equipment
    - Act as a primary barrier between your hands and bloodborne pathogens
    - Single use disposable gloves are used for medical, dental, or laboratory procedures
    - Heavy duty utility gloves may be used for housekeeping duties
    - Remember: gloves come in different sizes and types—be sure you request what fits you well, and a material that you are not sensitive too (I.e. latex allergies, powder allergies)

PPE…

- You must wear gloves when you anticipate hand contact with blood, potentially infectious materials, mucous membranes or non-intact skin
- If you are allergic to disposable gloves, your employer will provide hypoallergenic gloves, glove liners, powderless gloves or another alternative
- Since gloves can be torn or punctured by sharps, <u>bandage any cuts</u> before gloving
- <u>Replace</u> single use disposable gloves as soon as possible if contaminated or damaged

PPE…

- Gloves
  - Glove Removal

    1. Take hold of the first glove at the wrist.
    2. Fold it over and peel it back, turning it inside out as it goes. Once the glove is off, hold it with your gloved hand.
    3. To remove the other glove, place your bare fingers inside the cuff without touching the glove exterior. Peel the glove off from the inside, turning it inside out as it goes. Use it to envelope the other glove.

Glove Removal

The key to REMOVING gloves is -

"Dirty to Dirty, Clean to Clean "

PPE…

- Gowns or aprons
  - Must be impervious and worn when there is a potential for blood or body fluid spatters or sprays.
- Eye protection
  - Goggles, protective shields, or glasses must be worn when there is a potential for a splash, spray, splatter, or droplets of blood or body fluids

PPE…

- Masks
  - Should be worn when there is a potential for a splash, spray, or splatter of blood or body fluids, whenever eye protection in used and when the person is on respiratory precautions
- Resuscitation devices
  - One way mouthpiece, resuscitation mask or other ventilation device should be used during all resuscitations

PPE…

- Exception to the rule:
  - If you believe using protective equipment would prevent proper delivery of healthcare or jeopardize your safety or that of a co-workers', you may temporarily and briefly abandon its use in an emergency

Housekeeping

- Good housekeeping protects every Direct Support Professional
  - Be sure to familiarize yourself with your agency's ***Exposure Control Plan*** and know where it is kept. It lists housekeeping specifics and informs you of the steps to take in case of accidental exposure. Here are some general rules:

Housekeeping…

- Clean and decontaminate surfaces at the end of each shift and after being contaminated
- Do not pick up broken glass with gloved or bare hands. Use tongs, forceps, or a brush and a dust pan
- Use sharps containers!
- Handle contaminated laundry as little as possible and with minimal agitation. Place soiled laundry in labeled or color coded leak proof bags or containers. WEAR GLOVES while handling soiled linens!

MRSA and VRE

- Methicillin-Resistant Staphylococcus *aureus* (MRSA)
- Vancomycin-Resistant Enterococcus (VRE)

antibiotic-resistant bacteria

MRSA and VRE…

- *WHEN GIVING DIRECT CARE TO PERSONS WITH MRSA OR VRE:*
  - Wash your hands before and after any treatment given to the consumer
  - Wear gloves and a gown whenever you will have direct contact with the consumer's wound, mouth, or nose (brushing teeth, emptying drainage bags, changing dressings)
  - Keep your hands away from your face and mouth while working

MRSA and VRE…

- Wash your hands before eating
- Wash linens and clothing soiled with bodily fluids in washing machine with hot water and detergent. If bleach can be used, add one cup of bleach
- Use red plastic bags to dispose of soiled tissues, bandages, bandaids, and gloves. Close and secure the bag tightly, double bag, and discard in lined trash container with a lid

Immunizations

- Roll up your sleeve!
  - Immunization is a process by which susceptible hosts are artificially prepared to resist infection by a specific disease agent.
  - Examples of vaccines available for immunization are: measles, mumps, rubella, diphtheria, pertussis, tetanus, polio, influenza and hepatitis B

Immunizations…

- Hepatitis B Vaccination
  - Hepatitis B is a viral infection caused by the Hepatitis B virus (HBV).
  - Most people who get HBV recover completely but 1 – 2 % die and 5 – 10% become carriers and have no symptoms
  - Some may develop chronic active hepatitis and cirrhosis of the liver.
  - Hepatitis B vaccination can prevent acute hepatitis and also reduce illness and death

Immunizations…

- The Vaccine
  - Series of 3 non infectious shots-made of highly purified Hep B antigen
  - 3 doses given over a 6 month period
  - Vaccine is not to be given to persons who are allergic to YEAST
  - Persons who are infected with HBV but get the immunizations may still develop clinical hepatitis in spite of immunization

Immunizations…

- Possible Side Effects—a few persons develop:
  - Tenderness and redness at the site of the injection
  - Low grade fever may develop
  - Headache
  - Dizziness
  - Nausea
  - Mild fatigue

Miscellaneous Controls

- A resident with a fever of 100 F. or more (by mouth) should stay home and avoid contacts with other residents as much as possible until the temperature is normal for 24 hours
- Staff who have fevers of 100 or more (by mouth) should not do direct care with residents or other staff until temperature is normal for 24 hours

Miscellaneous Controls…

- Any resident or staff with any signs of gastrointestinal or respiratory infection (i.e., nausea, vomiting, diarrhea, sneezing, congestion, coughing, etc.) should not be involved in food preparation until the symptoms are absent for 24 hours.

Miscellaneous Controls…

- Any resident or staff with a skin infection should have it covered appropriately unless otherwise advised by the physician or group home nurse.
- Residents should wear shoes or slippers when in common areas and “tongs” in the shower
- New toothbrushes should be used following a respiratory or gastrointestinal illness.

Miscellaneous Controls…

- Utensils, cups and glasses should be washed in the dishwasher, when possible or hot, soapy water when a dishwasher is unavailable
- Only disposable tissues should be used. Handkerchiefs harbor germs and assist in the spread of infection
- Any rash should be treated as potentially infectious and reported to the group home nurse

WELLNESS AND THE PREVENTION OF ILLNESS

Good Hygiene

- Promoting good personal and oral hygiene.
  - Instruct and model

Rest and Relaxation

- Understanding the importance of obtaining adequate rest, relaxation and the avoidance of stress
  - What stress does to the body
    - How do <u>you</u> feel when you are stressed
  - Ways to minimize stress.
    - How do <u>you</u> minimize stress?

Exercise and Stress Reduction

- Understanding the importance and benefits of exercise
  - Basic exercise needs for you and the people you support
    - Does an active life replace exercise?
  - Exercise as a means of strengthening the body's systems and reducing stress
    - Muscle and bone deterioration vs. maintenance of strength

Social Health Risks

- Knowledge of the health risks associated with alcohol, cigarettes, and drugs.
  - What are some common health problems related to alcohol?
  - What are some common health problems related to smoking?
  - What are some common health problems related to illicit drug use?

Social Health Risks…

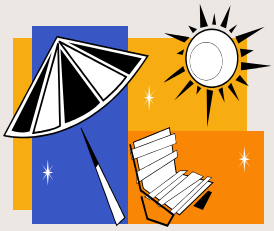
- Helping the people you support understand the potential problems and make decisions for a healthier lifestyle
  - Offering good choices
  - Educating about these choices

Good Nutrition and Adequate Hydration

- Promoting good nutrition and hydration.
  - The new food pyramid
  - Simple techniques for low fat, low cholesterol cooking
  - Assisting the people you support in making better dietary choices.
  - Modeling and encouraging healthy choices

Sun Safety

- Assisting individuals in the use of sunscreen products and in avoiding sun exposure—umbrellas, sunscreen, shade
- Modeling safe sun exposure



Standard Precautions

- Practicing Standard Precautions and prevention of transmission of communicable diseases.

- Hand washing.
- Use of gloves.
- Staying home when sick!

Safe Environment

- Assist individuals to maintain a safe, clean environment
- Living area should:
  - Free from clutter
  - Cleaned on a regular basis according to agency policy
  - Free from electrical hazards
  - Be equipped with smoke and carbon monoxide detectors

Safe Environment…

- Grab bars installed in bathroom if walking or balance is impaired
- Durable medical equipment kept in good repair (wheelchair brakes, walker tips, shower chair safety)

Personal Hygiene

Personal Hygiene…

- Remember: The rinse free soaps, cleaners are not a replacement for good handwashing—they are something to use until you get to soap and water.
- They have been proven to not remove dirt and germs—they will kill <u>some</u> of the bacteria

Personal Hygiene…

- Personal hygiene enhances an individual's physical and emotional well-being. But when a person is dependent on you to keep his/her hair, skin, nails, and mouth clean, they can experience a <u>deep loss of independence and self esteem</u>.

Personal Hygiene…

- Hygiene doesn't just keep a person clean– it can:
  - Help keep the skin intact to fight infection and prevent injuries
  - Remove dirt and germs from the skin's surface, reducing the risk of infection
  - Keep the mouth and gums healthy, which makes eating easier and therefore promotes good nutrition
  - Make the person more comfortable and relaxed
  - Boost the person's morale!

Personal Hygiene…

- In most cases, it is best to assist the person rather than do all the work for them.
  - Keeps the person from becoming totally dependent on you
  - Relieves the workload of the caregiver
  - Helps exercise the motor skills of the individual

Personal Hygiene…

- Gather your supplies ahead of time!
- Avoid drafts
- Wash hands before you start
- Use a light blanket to allow for privacy
  - How else do we allow for privacy??

Personal Hygiene…

- Hair Care
  - Keeping a person's hair clean is difficult if they are confined to a bed or unable to get to a source of running water. You can do it with the aid of a shampoo trough or "No Rinse Shampoo"
  - Gather all equipment ahead of time
  - Absorbent towels and waterproof sheeting are essential
  - Always remember to complete the task by brushing, combing, or styling the hair!

Personal Hygiene…

- Showering
  - Consider installing grab bars to help a person get in and out of a tub/shower safely
  - Apply non slip mats or treads on the shower floor
  - Place of shower bench/chair in the bath so that the person can sit
  - Check and adjust the water temperature PRIOR to the person getting in

Personal Hygiene…

- Mouth Care
  - Soft toothbrushes
  - Small amount of toothpaste, especially for those who do not expel or spit it out well
  - Up and down in small circular motion
  - Change toothbrushes often—definitely following colds and flu

Personal Hygiene…

- Dentures
  - Dentures need to be cleaned at least as often as teeth would normally get brushed
  - *Be careful not to drop them—they break easily*
  - Ensure that they are well fitting and no sores are developing in the person's mouth
  - Paste vs. powder—either one: apply sparingly

Personal Hygiene…

- Feet need to be thoroughly washed and dried daily to prevent infection, cracked skin, and possibly injury
- Nails should be trimmed straight across and filed at the edge
- ***Toenails of a diabetic person should only be trimmed by a Podiatrist!***

Personal Hygiene…

- Foot Care
  - People rely on their feet for a lot! 75% of people have problems with their feet at some point in their lives
    - Ill fitted shoes
    - General wear and tear
    - Bone deformities
    - Illness and injury
- A consumer with diabetes should have their feet checked thoroughly <u>each and every day</u>
  - <u>Report any injury promptly to the consumer's physician!</u>

Personal Hygiene…

- When washing body parts:
  - Work from top to bottom to allow germs/bacteria to run down to floor
  - Work from center to edges—inner to outer body parts
  - Wash genital areas with a separate wash cloth
    - Always wash from front to back—<u>never</u> back to front
  - Always wear gloves
  - Keep YOUR nails trim to avoid scratching a person
- Thorough drying with a patting, not rubbing, gesture to prevent body temperature change and development of fungi type infections

Personal Hygiene…

- Menses Care for Women
  - Ensure frequent hygiene care
  - Encourage the person to be as independent as possible

Personal Hygiene…

- *Always remember*
  - When performing hygiene a person is at risk for injury, their personal space is invaded, and they can be somewhat intimidated. Make the experience as comfortable as possible for the person and it will be easier on both of you!

Skin Care

- The skin is the largest organ in the body
  - *We often take it for granted*

Skin Care…

- To maintain maximal skin health and prevent skin breakdown always remember to:
  - Be aware that pressure areas may develop especially on bony prominences
  - Keep the skin clean and dry
  - Position the body correctly to avoid pressure
  - Keep linens wrinkle free

Skin Care…

- Always remember to:
  - Frequently change a consumer's position if they are unable to do so themselves
  - Avoid direct contact with rubber, plastic, plastic or underpads to avoid irritation
  - Massage the skin gently—never rub very hard
    - Never rub or massage skin that is persistently reddened

Basic HealthCare Treatments

Basic HealthCare Treatments

- The DSP will not initiate the following treatments unless they are included as part of a written nursing plan of care.
- These treatments would not be implemented without person specific training by a qualified medical professional

Only With Person Specific Training…..

- Monitoring and recording body temperature—rectal, oral, tympanic and axillary; vital signs; blood pressure and pulse
- Recording height and weight
- Administering compress and/or soaks for hands, feet and other extremities

Vital Signs

- Blood Pressure—Normal Values
  - In a healthy person 90/50 – 140/90 are considered within normal range
    - Upper limits of normal are 140/90

    Hypotension ?

    Hypertension ?
  - If you are required to perform blood pressure measurements, you will be instructed further at that time.

Vital Signs…

- **Pulse—General**
  - There are 2 basic ways to measure the heart rate and rhythm.
    - Radial—at the wrist
    - Apical—over the heart
  - Heart rate is measured for 1 full minute when taken apically, and a stethoscope must be used
  - Heart rate is measured for 30 seconds and multiplied by 2 when taken radially
  - Unless otherwise noted, it will be assumed the heart rhythm is normal

Vital Signs…

- Pulse—equipment needed
  - Watch with a second hand
  - Stethoscope for apical pulse

Vital Signs…

- Pulse - Radial Procedure
  - Have person in comfortable position, with arm supported
  - Place first two fingers very artery using only enough pressure to feel pulse beat distinctly *(NEVER USE YOUR THUMB—IT HAS ITS OWN PULSE)*
  - Count beat for 30 seconds and multiply by 2
  - Record in space indicated

Vital Signs…

- Pulse - Apical
  - This is a program specific task and if required to do so, you will be further trained in this area.

Vital Signs…

- Pulse—Normal Values
  - 60-80 (100) bpm Beats per minute
  - Tachycardia—fast heart rate
  - Bradycardia—slow heart rate

Vital Signs…

- Respirations—Procedure
  - Since people will become conscious of their breathing if stared at and measurement will not be accurate, always be subtle in counting breaths. Count respirations while still feeling pulse.
  - Watch the rise and fall of the person's chest for 30 seconds and multiply by 2. If breathing abnormal/irregular, count for 60 seconds—a full minute.
  - Record rate, depth and any irregularities of respirations in appropriate place
  - Normal Values—12-18 breaths per minute

Vital Signs…

- *Always remember: a complete breath consists of breathing in **and** out. You should count the series of the chest rising and falling as one breath.*

Vital Signs…

- Temperature—Equipment
  - Oral Temperature—use oral thermometer--long silver bulb end or digital with sheath
  - Axillary—use rectal thermometer or digital with sheath
  - Rectal Temperature—use rectal thermometer—round silver bulb end—do not perform this procedure without specific instruction
  - Tympanic—requires and electronic measuring device

Vital Signs…

- Temperature—Procedure—Oral
  - Shake thermometer down to 95F by quickly snapping the wrist
  - Rinse any alcohol off with cool water
  - Place bulb end under person's tongue for 3 minutes (lips should be firmly closed)
  - Record Reading
  - For digital: always refer to specific manufacturer instructions
  - Normal 98.6 oral

Vital Signs…

- Temperature—Procedure—Axillary
  - Prepare as # 1 under oral
  - Have individual lie down, place bulb end of thermometer in axilla. Bring arm forward (like hugging) and hold thermometer in place for 5 full minutes
  - Record 97.6 (A) axillary—(notice the lower norm)

Vital Signs…

- Temperature—Rectal
  - The truest most accurate of temps but the most invasive
  - Only done per nurses instruction
    - 99.6 (R) note the higher normal)

Vital Signs…

- Temperature—Tympanic
  - Because each tympanic device is slightly different, be sure to read the specific manufacturer instructions for the device that you are using.
  - Generally, for adults, pull ear up and back to allow the ear canal to open up fully
  - Generally, for children, pull the ear down and to the back
  - Be sure to implant the end of the device firmly in the ear in order to get an accurate temperature

Compression Stockings

- Life with "elastic" compression stockings:
  - Put stockings on prior to walking around to help prevent fluid accumulation in the legs
  - If ordered, the stockings should be worn whenever a person is out of bed—not just when just walking around

Compression Stockings…

- Leg elevation still needs to take place to help avoid edema
- Walking may be beneficial
- Can increase circulation when used properly
- Should NEVER be used on a person with a history of DEEP VEIN THROMBOSIS

Compression Stockings…

- Don't get discouraged: Applying compression stockings takes some practice!!

Durable Medical Equipment

- DME often plays a major part in our lives:
  - Wheelchairs, walkers, shower benches, canes, crutches, oxygen, CPAP, BiPap
  - Each piece needs to be cleaned on a regular basis with an approved cleaner (soap and water usually)
  - Must be kept in good repair and adjusted properly
  - Call the DME company for repairs—do not attempt to repair it on your own!!
  - ***Always*** read any and all instructions that are included!

Intake and Output

- I & O's must be kept for many reasons. Just a few things that might indicate the monitoring of I & O's are:
  - Diabetes
  - Congestive heart failure
  - Fluid volume overload
  - Dehydration
- Use your agency's approved format
- Record everything that is taken in—including food and fluid given with meds
- Record all output—if a person in incontinent, you may need to weight incontinence briefs

Specimen Collection

- At times it is important to obtain a clean urine or feces specimen
  - You will be provided with a container to do a “clean catch”
  - A “clean catch” is not sterile, but it should be clean to an antiseptic wipe may be necessary
  - Do NOT touch the inner edge of the specimen container!
  - Label the container appropriately: name, date, etc.

Height and Weight

- Height and weight may be needed routinely to assess an individual’s health and nutritional status
  - A decrease in height can be a sign of osteoporosis in both women AND men
  - An increase or decrease in weight can signal depression, diabetes, CHF, and many other medical illnesses

Compression and Soaks

- There may be times when you are required to do compression therapy and soaks:
  - Compression for extremities must only be done with a physician's order
  - Always follow the exact temperature for soaks and length of time
  - Soaks can include Epsom salt soaks, wax treatments, oil treatments and many can cause harm if done incorrectly

Documentation

- Document all treatments according to your agency's policy.
  - Do NOT forget to document
  - Watch for changes
  - Communicate your findings!
- Remember, treatments are as much a part of a person's treatment plan as medications!

Signs and Symptoms of Illness and Injury

Observing and Reporting: When and How

- Observing and reporting physical, emotional, and behavioral changes is very important for understanding an individual's health condition and how a condition is, or is not, changing.
- You, as a Direct Support Professional are particularly important. No one else has as much close day to day contact with the people.

Responsibilities

- You **are** responsible for reporting changes in an individual's condition to your supervisor or the health care professional.
- You **are not** responsible for interpreting or explaining changes in an individual's condition

Responsibilities…

- Quality of information
- Clear and speedy reporting/communication

Observation

- Careful observation takes practice.
- Changes can be sudden and dramatic (I.e. a sudden collapse)
- Changes may be subtle and harder to detect (I.e. drowsiness or confusion)

Observation…

- When an individual has limited communication skills, we must watch even more closely for signs of behavioral, emotional or physical change.
- Pain or discomfort is often a reason for grouchy, overly sensitive, non-cooperative, or agitated behavior.

Observation…

- It is important to remember that the Direct Support Professional observe, record, and report ONLY. They do not interpret, diagnose or attempt to explain the changes.

Reporting

- No clinical assessment or medical decisions or judgments related to medication administration.
- Direct Support Professionals report changes to the appropriate clinicians

Recognizing Signs of Illness

- When illness occurs, there are often physical changes that you will notice. These changes that YOU can see, hear, smell or feels are called SIGNS of illness.
- Changes that an INDIVIDUAL can feel inside his or her own body are called SYMPTOMS of illness.

Recognizing Signs of Illness…

- You often can't see the SYMPTOMS of illness that an individual is feeling.
- If you learn to recognize the signs and symptoms of illness in the people you work with, you can help prevent a small or minor health issue from becoming a major health concern.

SIGNS OF INFECTIONS

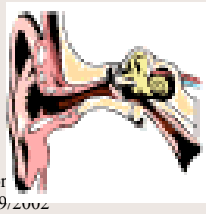
- Elevated body temperature
- Swelling
- Redness
- Changes in skin temperature, appetite or sleep patterns

SKIN AND MUCOUS MEMBRANES

- Changes in color
- Changes in feel
- Change in temperature
- Increased sweating
- Wrinkles
- Rashes
- Itchy
- Scrapes
- Bruises
- Swelling
- Cuts/lacerations
- Sores
- Oily feeling
- Complaints of pain or discomfort

EARS

- Painful
- Swollen
- Reddened
- Rubbing
- Hitting



- Complaints of:
  - **Ringing**
  - **Buzzing**
  - **Itching**
  - **Pain**

GUMS

- Swollen
- Blistered
- Bleeding
- Sores

- "Juicy Fruit" smelling breath
- Foul smelling breath

EYES

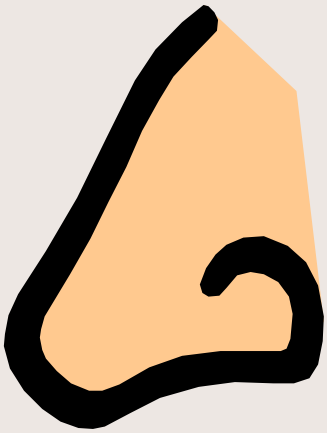
- Dull
- Cloudy
- Reddened
- Bloodshot
- Yellow
- Dry
- Yellow drainage
- Crusty
- Puffy
- Reddened
- Bruised
- Watery

EYES…

- Complaints of these problems:
- Burning
- Blurring
- Double vision
- Seeing spots
- Headaches

NOSE

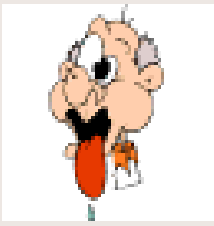
- Red
- Swollen
- Running
- Bleeding
- Rubbing



LIPS

- Pale
- Blue
- Dry
- Cracked
- Swollen
- Blisters

TONGUE



- Dry
- Cracked
- Coated (white)
- Raw
- Swollen

ABDOMEN

- Gas
- Nausea (sick stomach)
- Burping
- Vomiting
- Extended
- Pain
- Hard

URINE

- Changes in usual amount
- Frequency
- Dribbling or scant amount
- Change in color
- Unusual odor
- Smells sweet like "Juice Fruit" gum
- Complaints of burning

BOWEL MOVEMENTS

Small amount	Light	Green
Dark red	Black	Hard
"Accidents"	Frequent	Watery

No bowel movement for 3 days
(remember to document BM's if charting is required)

WALKING

- Change in walking style
- Limping
- Refusal to walk

SLEEPING

- Sleeping more often or for longer periods of time
- Sleeping less often
- Waking up often during the night
- Taking many naps in the day
- Snoring

BREATHING

- Difficulty breathing
- Noisy
- Cough
- Gasping
- Congestion
- Changes in quality or character of sputum

•Difficulty breathing is always an indicator to call 911

CHOKING HAZARDS

- Difficulty swallowing
- Drooling
- Double gulping

NEUROLOGICAL

- Increased seizure activity
- Changes in mental status (confusion, lethargy)
- Changes in gait
- Changes in behavior
- Weakness in extremities
- Tingling/numbness in extremities

MENTAL HEALTH

- More active
- Less active
- Self abusive
- Crying
- Drowsy
- Shouting/yelling
- Unusually angry
- Unusually inattentive
- Unusual restlessness

ENDOCRINE

- Increases in thirst, urination, or weight loss
- Loss of appetite
- Sweating
- Change in sleeping pattern

REPRODUCTIVE

- Change in menses
- Increased discharge
- Change in color or odor of discharge
- Complaints of pain, itching, or burning

GASTROINTESTINAL

- "Upset" stomach
- Nausea
- Vomiting
- Diarrhea
- Bloated

NOTE!

- This is by no means a complete list of all the possible signs and symptoms of illness.

Objective vs. Subjective

- Objective reporting is a statement of the facts—no opinions, no fluff, strictly the facts
- Subjective reporting a statement of your opinions, your feelings.

Objective vs. Subjective

- Which type of reporting is more likely to help a person who is ill?
- Why?

FIRST AID AND EMERGENCY MEDICAL PROCEDURES

EMERGENCY SITUATIONS

- Call 911 for the following:
  - Difficulty breathing or cessation of breathing
  - Uncontrolled seizure activity
  - Severe injury
  - Severe bleeding
  - Chest pain or pressure
  - No pulse

EMERGENCY SITUATIONS

- Calling 911 will activate the Emergency Response System
- While waiting for help to arrive, provide emergency first aid treatment as you have been trained.
- After the individual is out of immediate danger, be sure to notify the nurse, health care practitioner, and/or your supervisor.

Non Emergency Situations

- Non life threatening situations are where the health or safety of the individual may be at risk but the situation is not life threatening and there is no risk of serious or lasting injury. These situations include, but are not limited to:
  - Mild diarrhea, nausea, occasional vomiting, sleep disturbances, changes in appetite, increased irritability, low grade fever

ACCIDENTS AND ILLNESSES

Accidents and Illnesses

- First aid, as outlined in this manual, is not a substitute for care from a medical professional.
- Your agency nurse or other trained professional should be contacted when seeking further treatment.

Accidents and Illnesses

- The purpose of first aid it to prevent further serious injury following an event.
- It is immediate and temporary treatment given in case of an accident or sudden illness.

Calling 911

- Because many of the folks we provide service for have a high tolerance for pain and an impaired ability to communicate, we emphasize the availability of the 911 Emergency Response System.

Calling 911

- Remember: you are trained in performing *basic first aid*—most of you are not trained ***medical*** professionals
- ALWAYS call 911 when you feel a situation is beyond what you, as an individual, can safely handle

When should I call 911?

- Knowing when to call 911
  - No hard and fast rules
  - If you feel that a situation is beyond your control or level of training, then 911 is always the best option
  - ***"When in doubt, call 911"***

Call 911 if the person:

- Is or becomes unconscious
- Has trouble breathing or is breathing in a strange way
- Has chest pain or pressure
- Is bleeding severely
- Has pressure or pain in the abdomen that does not go away

Call 911 if the person:

- Is vomiting or passing blood rectally
- Has seizures, severe headache, or slurred speech (if this is UNUSUAL for the person)
- Appears to have been poisoned
- Has injuries to the head, back or neck
- Has possible broken bones

Emergency Medical Procedures

- CHECK—check the person for injuries
- CALL—call for help or call 911
- CARE—care for the injuries until help arrives

First Aid

- Dial 911 for Medical, Fire, or Police Emergency
  - Give complete address with directions(if night time, turn on outside lights)
  - Give telephone number
  - Give brief but distinct description of accident and injury
  - Do NOT hang up the telephone prematurely. Allow time to be questioned if possible. Hang up telephone after they do

CPR

- This curriculum will not include a training on CPR.
  - You are required to be trained in CPR by a specially trained professional

General First Aid

- Check breathing and pulse
- Control heavy bleeding
- Prevent further injury-Move only if in danger
- Treat for shock in any major emergency
- Do NOT attempt any first aid that are not familiar with

Breathing

- If a person is not breathing:
  - Establish an airway
  - Initiate CPR

Bleeding

- Apply direct pressure to site using some type of barrier such as:
  - gloves
  - sterile compress
  - maxi pad
  - clean cloth
  - plastic shopping bag
  - bare hand (as a last resort)
- Do not remove the original layer---put layer on top of layer if necessary

Bleeding…

- Always remember that when blood or body fluids are involved you are required to follow Standard Precautions!
- If gloves are not available, attempt to find some type of barrier such as a plastic bag or other leak proof material

Bleeding…

- Elevate injured part above level of heart (unless broken bone suspected)
- If direct pressure fails, continue pressure with one hand and apply the free hand to the pressure point
- Continuously reassure the victim
- Treat for shock

Shock

- Shock is a major emergency . During shock, the circulation is disturbed causing:
  - Weak, rapid pulse
  - Lowered blood pressure
  - Pale, clammy skin
- All accident victims are prone to shock
- Keep the victim lying down
- Keep the victim's body temperature warm
- Elevate the legs 18" if no chest or head injury or complaints of pain upon elevation

Shock…

- Loosen tight clothing
- Monitor consciousness, vomiting, breathing
- Monitor rate of respirations and pulse

Bites

- Infection, rabies, and tetanus are all possible dangers, depending on the source of the bite
- All bites that break the skin should be considered dangerous (human and animal)
  - Wash the area thoroughly with soap and water
  - Apply triple antibiotic ointment and cover with a sterile dressing
  - Transport to medical professional with TETANUS information if possible

Blisters

- Cleanse carefully with soap and water
- Do NOT break blisters
- Apply sterile bandage (Bandaids)
- Avoid further pressure to the area (change shoes!)
- Administer prn pain medication if needed (and ordered)

Burns

- First Degree-redness, mild swelling, pain, no blisters
  - Place under running cold water or apply cold compress to affected area immediately

Burns…

- Second Degree-Redness, blotching, pain, may have blisters, increased swelling
  - Treat as first degree burn
  - Do not break blisters
  - Cover with sterile dressing
  - *Always seek further medical attention*

Burns…

- Third Degree-Charred skin, deep tissue damage, little pain, shock
  - Check breathing
  - Cover affected area loosely with sterile dressing
  - Treat for shock
  - Do not remove clothing stuck to burn area
  - ***Always call 911!!***

Burns (chemical)

- Quickly, but gently, flush with running water for 20 minutes
- Read label of chemical for instructions
- Apply clean, dry dressing
- *Seek further medical attention*

Burns (electrical)

- Do not treat electrical burns with water!
- Cover burn injuries with a dry sterile, or clean, dressing.
- Give care to minimize shock
- If lightening victim, look and care for life threatening conditions
- *Always seek further medical attention*

Choking

- ***Risk Factors***
  - Large, poorly chewed pieces of food
  - Ill fitted dentures
  - Increased activity with food or foreign objects in mouth
  - Various physiological anomalies that interfere with the ability to chew food and swallow effectively
- ***Focus On Prevention***
  - Cut food pieces small, especially for those wearing dentures
  - Discourage laughing and talking during chewing and swallowing
  - Discourage small foreign objects from being placed in the mouth

Choking…

- Perform Heimlich if person is showing signs of choking
- Do not perform Heimlich if person can speak—if speaking is present; it means that air is being exchanged
- Do not do a "blind finger sweep"
- Do not slap on back to help clear airway

Convulsions

(refer to "seizure disorders" material)

- ***Always contact 911 if a person has a seizure with no known seizure disorder or if their seizure status is unknown***

Eye Injuries-Foreign Bodies

- Keep from rubbing eye
- Have person blink frequently to create tears
- Wash your hands
- Wash eye with eye cup
- If not successful, bring upper lid down over lower lid
- Try to lift object off with corner of clean wet handkerchief
- Seek further medical attention if not successful

Falls

- Based on your agency's policy, look for the symptoms of head injury, contact the nurse, attempt to inquire if there is a spinal cord injury based on evidence of tingling or numbness of any of the extremities
- If a head injury is apparent, call 911 immediately
- If there appears to be injury beyond routine first aid, call 911 immediately

Falls…

- Examine person before moving
- Do not move any limb which is in an awkward position
- Prevent movement of head and neck (roll person if he has to be moved to prevent further injury)

Falls…

- Prevention:
  - Remove scatter rugs
  - Encourage use of ambulation aids (walkers, canes, hemi walkers)
  - Maintain well lit walkways
  - Landscape lighting for night
  - Slippers on feet!
  - Grab bar installation!

Fainting

- Sudden loss of consciousness due to insufficient blood to the brain.
- Usually gains consciousness after being in prone position.
- Observe for breathing, loosen clothing
- Ensure privacy—keep onlookers away
- If vomiting, roll to side
- Call 911 if not conscious after one minute

Frost Bite

- Always seek further medical attention for the treatment of frost bite
- Focus on prevention!

Head Injuries

- ***Minor***
  - Keep person lying down
  - Ice to reduce swelling
  - Tylenol, or other prn medication, for pain if a physician's order is in place
  - Seek further medical attention if there is:
    - Severe headache
    - Vomiting
    - Bleeding from nose, mouth, ears
    - Increased sedation within 2 hours

Head Injuries

- ***Major-loss of consciousness***
  - Call 911
  - Check breathing
  - Treat severe bleeding
  - Do not move unless in imminent danger
  - Keep warm

Heart Attack

- Delay of treatment spells DANGER, minutes count, know the signals!
  - CHEST DISCOMFORT AND DENIAL ARE THE TWO MOST COMMON SIGNS
- ***What***: pressure, fullness, squeezing, tightness or pain of chest
- ***Where:*** Center of chest, behind breast bone
- ***How long:*** Usually longer than 2 minutes and may come and go

Heart Attack…

- ***Other symptoms include:***
  - Sweating
  - Nausea
  - Shortness of breath
  - Weakness
- Note: Pain may not be severe and the person may not look poorly.

Heart Attack…

- ***If you believe someone may be having a heart attack, call 911!***

Heat Cramps

- Includes muscular pains and spasms due to loss of salt via sweating (may be associated with heat exhaustion)
  - Legs
    - extend in straight position with foot flexed (toes up)
    - exert firm pressure with palm of hand to cramped muscle, gently massaging to help relieve spasm

Heat Cramps…

- Legs and abdomen
  - Give **sips** of salt water (1 tsp. salt/8 oz. Water) or sports drink every 15 minutes for one hour
    - Have person rest in cool place for one hour.
    - Encourage fluids
    - *If no improvement after one hour, seek professional medical attention*

Heat Exhaustion

- Symptoms include:
  - Fatigue Weakness Possible collapse
- *ALWAYS CALL 911!*

Heat Stroke

- May be fatal since body has lost it's ability to cool itself through perspiration
- Symptoms include:
  - Temp over 104 F.
  - Skin hot, dry, red
  - Strong, rapid pulse
  - May become irrational
  - May be unable to move
  - May progress to unconsciousness

Heat Stroke

- *ALWAYS Call 911*

Insect Bites

- Bees
  - Remove stinger with outward scraping motion of fingernails
  - Do not pinch area of stinger (will release venom into surrounding tissue)
  - Apply ice or paste of baking soda and alcohol
  - Monitor for allergic reaction, I.e. swelling of throat, shortness of breath
    - Treat above symptoms as medical emergencies

Insect Bites…

- Wash the area with soap and water
- Pain and itch is often relieved by he application of:
  - ice cold water
  - baking soda paste
  - Adolph's Meat Tenderizer
- If the individual has a **Bee Sting Allergy**:
  - Follow instructions in Bee Sting Kit
  - Call 911 or transport to ER

Nose Bleeds

- Sit person down with head leaned forward (do not lie down or tilt head back)
- Keep person calm
- Pinch nose closed for 10 minutes
- Release slowly
- Ice applied to the bridge of the nose can help to stop bleeding
- Do not blow or touch nose
- If bleeding persists, pinch closed for 5 additional minutes

Abrasions and Cuts

- Wash with soap and water
- Apply triple antibiotic ointment
- Cover with sterile bandage
- Use pressure over the bandage by the palm of your hand on the dressing directly over the entire area of the wound and pressing lightly

Important Things To Remember About Cuts

- If the edges of the skin do not fall together or when the cut is over 1 inch long, it may need stitches (sutures)
- If you are caring for a wound and you think it may need stitches, it probably does
- Stitches need to be placed within the first few hours after the injury
- It is NEVER wrong to have a deep, long or other serious cut checked out by a doctor

Puncture Wounds

- Deep Cuts
- Do NOT remove an impaled object
- Wash thoroughly with soap and water followed with peroxide
- Apply triple antibiotic ointment
- Cover with sterile dressing
- Check date of tetanus. Repeat if longer than 10 years

Splinters

- Remove with tweezers if protruding, then cleanse with soap and water
- Apply band aid
- If imbedded, seek medical attention.
- *If there are any signs of infection, seek further medical attention*

Stroke

- Cerebrovascular Disease (attack) CVA
- Symptoms:
  - Sudden weakness or numbness of face, arm, leg on one side of body
  - Loss of speech, trouble speaking, or understanding spoken language
  - Unexplained dizziness, unsteadiness or sudden falls
  - Dimness or loss of vision, particularly one eye
  - Loss of consciousness

Stroke…

- Warning signs may be temporary, lasting 24 hours or just a few minutes
  - ***When any of these symptoms occur, CALL 911!***

Teeth-Trauma

- Knocked out
  - Keep person comfortable
  - Raise head slightly
  - Apply ice packs to face
  - Follow emergency procedure
  - Contact dentist for emergency appt or transport to ER
  - Keep tooth in glass or cup of milk and transport with the person!

Unconsciousness

- Cause may be obvious or difficult to determine
  - Check breathing and treat any bleeding
  - Initiate CPR if necessary
  - Call 911
  - Do not move unless in imminent danger
  - Give NOTHING BY MOUTH—NOTHING
  - Turn head to side for possibility of vomiting
  - Keep person warm, but not hot

Communications

- Alert others to the happenings via an accurate entry into the Daily Communication Log
- Always complete a Health Concern or Accident/Injury form for any incidents of injury prior to the end of your shift
- Provide an accurate account of the details—<u>objective vs. subjective reporting</u>

- ***Remember—these forms become a part of the permanent records—accuracy is a MUST***

Emergency Rooms

- When arriving at the ER it is important to give an accurate description of the incident
- Contact the Residential Director, Assistant Residential Director, Nurse or Coordinator as soon as possible

Emergency Rooms…

- Bring an interagency with current medication list with you
- Bring an emergency medical fact sheet (or other agency form) with you for reference of other medical conditions, medications, allergies, MD's and other contact persons

Summary

- Swift attention to emergency situations is the best that you can do for any resident
- Try to stay calm and follow these guidelines as best as possible
- If you are not sure that you can handle the situation safely, call for help immediately
- It is never wrong to call 911 in an emergency
- *Whenever an emergency situation happens, notify your immediate supervisor immediately and the nurse to ensure that any follow up treatment is planned as needed*

Seizure Disorders

Introduction

- A good understanding of seizure disorders is important
- Learning the proper response to a person having a seizure is very important
- It *is especially* important for anyone responsible for the care of persons with developmental disabilities

Introduction…

- Approximately 1-3 % of the general population has a seizure disorder.
- People with developmental disabilities, seizure disorders range from 30 to 60%.

Introduction…

- Seizure disorders have been found to be more difficult to control in people with developmental disabilities.
- Often the individual has more than one type of seizure requiring multiple anti-convulsant medications.
- This in turn increases the risk of adverse side effects including lethargy and mental clouding.

Introduction…

- A delicate balance often needs to be made between optimum seizure control and the person's mental and physical alertness
- Staff play a key role in this process

Definition

- A seizure is defined as a brief misfiring or abnormal discharge of electrical impulses in the brain causing distinctive changes in behavior and body function
- The person has no control or memory of the abnormal behavior exhibited during a seizure

Definition…

- A seizure disorder is defined as a condition characterized by having recurrent seizures
- It is important to remember that we are dealing with a symptom not a disease

Causes

- There are many possible causes of a convulsive seizure
  - Head injuries
  - Rapid rise in body temperature
  - Structural brain lesions (such as brain tumor
  - Stroke
  - Arteriovenous malformations or cyst
  - Metabolic disorders (such as those caused by kidney or liver dysfunction)
  - Central nervous system infections
  - A possible genetic component (epilepsy)

Causes…

– In about 50% of those with a seizure disorder, the cause is unknown.

Types Of Seizures

- Seizures can be divided into two main classifications:
  - Generalized seizures
  - Partial seizures

Generalized Seizures

- If the abnormal electrical activity spreads throughout the entire brain, all brain functions will be affected and the outcome is a generalized seizure
- The person will become unconscious for varying lengths of time depending on the type of seizure
- Tonic-clonic (grand mal)
- Absence seizures (petit mal)

Partial Seizures

- If the abnormal activity remains localized, it will affect the brain function only in that area and is, therefore, a partial seizure
- A partial seizure may or may not involve unconsciousness
- Examples of partial seizures include simple partial (Jacksonian) and complex partial (temporal **lobe or psychomotor)**

Common Types

- There can be as many types of seizures as there are different functions or areas of the brain
- However, they can be categorized with the most common type of seizures being briefly described below:

Generalized Tonic Clonic

- Sequence:
  - Aura: for a few seconds before the seizure, the person usually experiences an "aura"
  - This is a brief sensory experience directly related to the point of origin of the seizure
  - Examples of an "aura" could be a feeling of weakness, dizziness, strange sensations in an arm or leg, numbness or smelling an unpleasant odor

Generalized…

- Epileptic cry: this is a cry or scream which precedes the loss of consciousness and falling down
  - This noise is caused by a thoracic and abdominal spasm which expels air through the narrowed vocal cords

Generalized…

- Tonic phase: the person can make no effort to protect himself from a fall and can easily become injured
  - In the tonic phase, the entire body becomes rigid or stiff, breathing may temporarily stop and the person may appear cyanotic (blue skin tone). The jaws are fixed, the hands clenched and eyes are wide open
  - This stage lasts **only a few seconds**

Generalized…

- *Clonic phase*: jerking movements begin slight at first then increasingly more severe involving the entire body
- There may be frothing of saliva around the mouth, lips and inside cheek may be bitten, and stools and urine may be passed involuntarily
- The clonic phase may last a minute or more

Generalized…

- *After the seizure or Postictal phase:* this phase often follows a tonic-clonic seizure and is characterized by confusion and agitation
- These symptoms are caused by the person regaining consciousness from the seizure; However, the recovering brain is not yet able to process it
- The person may not recognize others or understand what is being said to him.
- Most violence or agitation is exhibited during the postictal phase, rarely during the seizure itself

Absence Seizures

- This type of seizure is characterized by a blanking out or a loss of consciousness for ten seconds or less
- This seizure is usually seen only in children
- The person may be observed staring, eyelid fluttering, or eyes dilated and will not be able to respond to your voice
- The previous activity will be able to be resumed immediately afterwards

Simple Partial Seizures

- This seizure is characterized by only one body function being disturbed

Simple Partial Seizures…

- For example, there could be transient hand twitching or abnormal sensations like numbness or tingling in a specific area of the body
- With simple partial seizures, there are no behavior changes
- Generally no impairment of consciousness

Complex Partial Seizures

- This is the most common type of seizure disorder and the most difficult to control
- Complex partial seizures, as well, are not easily recognizable with its main characteristic being a clouding of consciousness

Complex Partial…

- This type of seizure is somewhat similar to petit mal seizure except that
  - The seizure lasts longer, from 30 seconds to two minutes
  - The range of muscular movements is greater
  - Clouding of consciousness is deeper
  - Clouding of consciousness may continue for a brief period following the attack

Complex Partial…

- A variety of symptoms are possible depending on the area of the brain affected
- The more common symptoms are
  - Lip smacking
  - Dazed look
  - Picking at clothes
  - Wandering
  - Confused speech
  - Exhibiting odd behavior such as putting an ashtray in the refrigerator

First Aid

- *Call 911 for any signs of respiratory distress*
- Do remove sharp objects out of the way
- Do loosen any tight clothing and wipe away any saliva around the mouth
- Do turn person on his side in case there is vomiting

First Aid…

- Do not try to hold the person down or restrain his movements in any way
- Do not try to give any medicine or any other substance during the seizure
- Do not put anything hard in the person's mouth to prevent biting of lips or tongue

First Aid…

- Re-orient individual when he regains consciousness. Tell him he has had a seizure and reassure that he will be okay. Suggest that he lay down and take a nap

First Aid…

- If person is confused and agitated during the postictal phase, do not restrain him unless there is danger to himself or someone else.
  - Restraint usually causes the person to become more agitated. Have one person talk to him in a slow soft reassuring voice
- Call 911 if an individual does not regain consciousness between seizures or if one seizure lasts more than five minutes.
  - This is status epilepticus and is a medical emergency
- *Call 911 for respiratory distress*

Role of The Direct Support Professional

- *Learn the type, characteristic pattern, and any behavioral guidelines to follow for people we support. It is possible then to anticipate and more quickly identify future seizures*

Role of The Direct Support Professional…

- Accurate observations and recording of seizures on the seizure report form. What observations did you make to cause you to believe the person was having a seizure. Try to keep track of the duration. Include what the individual did before the seizure, any "aura", and his condition afterwards

Role of The Direct Support Professional…

- If you are not sure whether a person is having a seizure, try speaking to him and ask an open question. If no response, you may also give him a special word or sign to remember. For example, "Joe, remember the word house". If the person is not able to remember this word or sign afterwards, then the chances are greater that it was a seizure

Role of The Direct Support Professional…

- Help an individual with a seizure disorder to maintain a healthy self-concept and as much independence as possible
- Be a positive role model for others, remaining cool and calm while dealing with the emotional impact of observing a seizure. Keep area clear of extra people as individual does not wake up to the embarrassment of many people stating at him

Role of The Direct Support Professional…

- Be aware of and observe for side effects of anticonvulsant medications administered. Document any suspect observations

Treatment

- The most effective method of controlling seizures is the use of medications called anticonvulsants
- There are a wide variety of medications available. Some have been proven to be more effective with certain types of seizures than others

Treatment…

- Each medication also has varying degrees of side effects
- Our goal is to provide sufficient control of seizure activity with the least possible side effects

Treatment…

- It is not an exact science and many times medical treatment requires weeks or months of trial and error, and adjustments
- It is not uncommon for 2 or more medications to be given for effective seizure control

Treatment…

- The decision on the best medication to administer by the physician is greatly enhanced by staff correctly identifying the nature of the seizure as well as accurate reporting of possible side effects

Treatment…

- Anticonvulsants
  - Some of the medications used to help control seizure activity
    - Depakote—valproic acid
    - Dilantin—phenytoin
    - Neurontin—gabapentin
    - Klonopin—clonazepam
    - Phenobarbital
    - Tegretol—carbamazepine

Depakote (valproic acid)

- Treatment of:
  - Generalized tonic clonic, absence, myoclonic. and partial seizures
- Toxicity:
  - Coma

Dilantin (phenytoin)

- Treatment of:
  - Generalized tonic clonic and partial seizures
- Toxicity
  - Rash, increased uncoordination and rapid eye movement, slurring of speech, unresponsive pupils, hypotension, coma

Neurontin (Gabapentin)

- Treatment of:
  - Adjunct treatment of partial seizures with or without generalization in adults
- Toxicity
  - Leukopenia

Klonopin (clonazepam)

- Treatment of:
  - Absence and myoclonic
- Toxicity:
  - Extreme drowsiness, confusion, coma, diminished reflexes

Phenobarbital

- Treatment of:
  - Generalized tonic clonic, myoclonic, partial
- Toxicity:
- Toxicity is rare

Tegretol (carbamazepine)

- Treatment of:
  - Generalized seizures, partial, partial seizures that become generalized
- Toxicity:
  - Irregular breathing, depressed respirations, rapid heartbeat, restlessness, tremor, increased drowsiness and dizziness, coma

Documentation

- A few things to remember when documenting any/all of your findings
  - ALWAYS write in blue or black ink
  - ALWAYS be sure the document is dated accurately
  - Whenever signing a document, make sure you sign in full
  - If you make a mistake in your documentation, make a single line through the error, initial it, and communicate the correction.

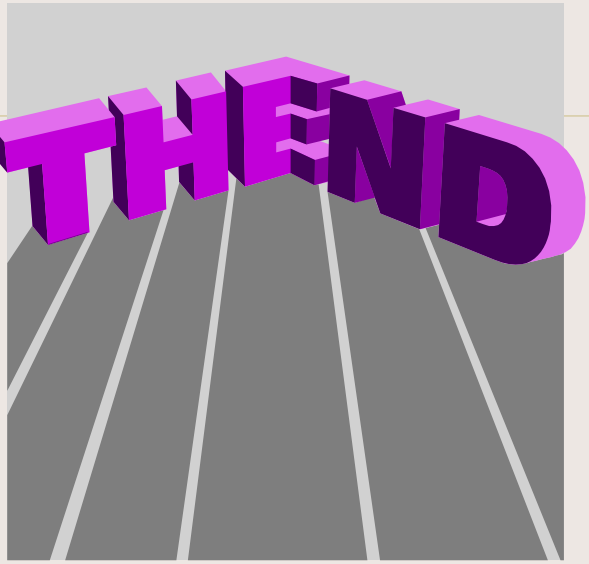
Documentation…

- Some of the things you will need to document:
  - Accidents/injuries
  - Medication errors
  - Communication logs
  - Administration of medications and treatments
  - Records of seizures

Medication Administration

Medication Administration

- ALWAYS FOLLOW YOUR AGENCY'S SPECIFIC INSTRUCTIONS FOR MEDICATION ADMINISTRATION
- Most agencies follow a "triple check procedure"
- You will receive detailed instruction per your agency's policy on the administration of medications.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