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Applicability UNC Medical Center

## Infection Prevention Guidelines for the Advanced Care @ Home Program

### I. Description

Describes the infection prevention program for the Advanced Care @ Home Program

### II. Rationale

Persons receiving advanced care at home are at risk of a health care-associated infection due to debilitating diseases or injuries. By following the practices described in this policy the risk of infection can be minimized.

### III. Policy

#### A. Responsibilities

It is the responsibility of the Director of Advanced Care @ Home or his/her designee to implement and enforce this policy.

#### B. Personnel

1. UNC Healthcare personnel (HCP) assigned to work in Advanced Care @ Home are orientated to infection prevention during the hospital orientation provided to all new personnel. Additional yearly training for UNC HCP is via Learning Made Simple (LMS). Non-UNC HCP may utilize education from UNC LMS modules or training provided by their employer.
2. HCP should adhere to UNC Medical Center/Rex Infection Prevention specific policies

where applicable (available in PolicyStat located on the UNC intranet).

3. OSHA-required training for bloodborne pathogens and TB must be completed initially upon employment and annually (via LMS) for all UNC HCP. Non-UNC HCP may utilize education from UNC LMS materials or training provided by their employer.
4. Needlestick/sharps, mucous membrane, and non-intact skin exposures from blood and other potentially infectious materials should be reported immediately for appropriate follow-up with Employee Health/Occupational Health Services. Non-UNC HCP must follow-up with their own designated provider according to their company policy.
5. In accordance with N.C. Public Health Law, the patient's physician of record must report certain suspected or confirmed communicable disease to the local health department as described in the Infection Prevention policy: [Reporting of Communicable Diseases](#).
6. Periodic review/rounds will be performed by a representative of the Infection Prevention department and area management or designee(s).

## C. Standard Precautions

1. Healthcare personnel (HCP) providing services in a patient's home must adhere to Standard Precautions guidelines found in UNC Medical Center/Rex infection prevention policies (e.g., PolicyStat). Standard Precautions are designed to reduce the risk of transmission of organisms from recognized and unrecognized sources and must be applied to all residents/patients regardless of their diagnosis or presumed infection status. Standard Precautions must be practiced when in contact with blood, all body fluids, secretions, excretions (except sweat), non-intact skin, and mucous membranes. In addition:
  - a. Personal protective equipment (PPE) such as protective eyewear, mask, gloves, shoe covers, gown and CPR resuscitation masks must be available and used to prevent exposure to blood or other potentially infectious materials (OPIM) per Standard Precautions.
  - b. Properly store personal protective equipment (PPE) within vehicles at all times and carry PPE into the patient's residence based on planned tasks and potential complications. Carefully remove PPE after use and dispose of in the household trash. If heavily soiled, place the PPE in a plastic bag prior to placing in the trash.
  - c. Specimens: Place the primary specimen container in a plastic biohazard labeled bag. Seal the plastic bag and place in the rigid, leak-proof specimen transport container. This container should also display a biohazard symbol.

## D. Transmission-Based Precautions

1. Transmission-Based Precautions (e.g., Contact, Enteric, Droplet, Airborne) are used in addition to Standard Precautions for patients who are known or suspected to be infected or colonized with infectious agents, including multi-drug resistant organisms (MDROs). Precautions are selected based on a patient's symptoms. The following guidelines are provided to assist the home care provider when working with a patient who may require transmission-based precautions. Consultation with an Infection Preventionist is recommended for any questions or problems with the application of transmission-based precautions in the home setting.
  - a. Airborne Precautions will be followed for all patients with a known or suspected airborne disease such as tuberculosis, measles, or chickenpox. All visiting personnel should have a medical evaluation and be fit-tested and trained for NIOSH approved respirators prior to assignment to such patients. Respirators should be worn in the home of a patient with an airborne disease. The respirator should be donned prior to entering the home and not removed until outside the home. All UNC HCP are immune to chickenpox (varicella) if all employment vaccines/immunity criteria are met and thus are not required to wear a respirator in the presence of chickenpox or shingles. Non-immune personnel should wear a respirator if the patient has chickenpox or shingles.
  - b. Droplet Precautions are designed to reduce transmission involving contact of the conjunctiva (eye) or mucous membranes of the nose or mouth with large droplets generated by the patient during coughing, sneezing, talking, or during the performance of invasive procedures. Examples of disease requiring Droplet Precautions include pertussis and influenza. A surgical mask is worn when caring for a patient with signs and symptoms of a respiratory illness (i.e. coughing, sneezing). The mask should be donned when entering the room of the patient or when within 6 feet of a patient with symptoms and removed when exiting the room.
  - c. Contact Precautions should be followed as closely as possible in the home setting. They are used to prevent the transmission of multiple-drug resistant bacteria (e.g., MRSA, VRE, CRE) and certain enteric pathogens (e.g., *C. difficile*, norovirus). Gloves and gown must be worn for all contact with the patient and the patient's environment. Hand hygiene must be performed before donning gloves and immediately after glove removal (soap and water must be used for *C. difficile* and norovirus). Remove PPE just before leaving the home. Care should be taken not to contact potentially contaminated surfaces and perform hand hygiene after leaving the home.
    - i. Supplies: Leave the nursing bag in the car and take only those supplies that will be needed for the patient into the home. Supplies

- may be carried into the home in a clean plastic bag and the bag disposed of after use in the patient's trash.
- ii. Any reusable equipment such as blood pressure cuffs, stethoscopes, and sharps containers should be thoroughly cleaned with an EPA-registered disinfectant (i.e., Metriguard, SaniCloths, etc.) after use and before returning to the nursing bag or vehicle. Equipment used for patients with *C. difficile* and norovirus should be cleaned with a bleach wipe, 1:10 bleach solution, or other approved disinfectant able to kill *C. difficile* spores. Leave equipment in the home for subsequent use when possible.
  - iii. Special handling of wound dressings and linen is not indicated.
- d. Universal Pandemic Precautions should be followed as closely as possible in the home setting. They are used to prevent the transmission of COVID-19. HCP working in home environments located in areas with community transmission of COVID-19 should:
- i. Wear a UNC approved medical facemask and eye protection in addition to their facemask to ensure the eyes, nose, and mouth are all protected from exposure to respiratory secretions during all patient care encounters.
  - ii. Wear an N95 or equivalent or higher-level respirator, instead of a facemask, for aerosol generating procedures or with patients suspected or confirmed COVID-19 infection.
  - iii. The patient and household members should be encouraged to wear a facemask while the HCP is in the house.
- e. The immunocompromised patient requires Protective Precautions. Strict hand hygiene prior to care is always indicated. It is especially important that personnel/volunteers not visit if ill or incubating a potentially communicable infection such as an upper respiratory infections. Consultation with the patient's physician may be needed to determine if any additional precautions should be taken.
- f. In the home care setting, it is not necessary for the family/household members to wear personal protective equipment because they have likely already been exposed to the patient; however, in home environments located in areas with community transmission of COVID-19, the patient and family/household members are also encouraged to wear masks during HCP visits.

## E. Vehicle

### 1. Personal Vehicle Use

- a. Must use their personal vehicle for transportation of clean and contaminated patient care articles. It is prudent to employ basic infection control principles of separation and appropriate storage of clean and dirty items within the vehicle.
- b. Patient care items and personal items belonging to the employee should be stored in separate areas of the vehicle.
- c. All clean patient supplies including the nursing bag should be stored in an area of the vehicle that is clean and not likely to become wet or soiled. The nursing bag should be on a barrier or plastic container.
- d. Clean supplies should not be placed on the floor of the vehicle and should be stored in plastic containers with tops that close securely.
- e. Items considered contaminated (sharps containers, equipment needing cleaning prior to reuse) should be stored and transported so that spilling or contamination of other items is avoided.
- f. Any contamination of the vehicle with blood and or other body fluids should be removed with disposable towels and cleaned with an approved EPA-registered disinfectant. Soiled towels should be placed in a plastic bag and disposed of in the household waste.

### 2. Designated Work Vehicles

- a. Should segregate clean and dirty items within the body of the van. Clean and dirty side should be clearly labeled and a visible indicator (red line) should be placed on the floor clearly separating the sides.
- b. Maintain an infection control kit in each vehicle. Each kit contains face mask, gloves, gowns, eye protection, red biohazard bags, EPA-registered disinfecting solution, eye wash kit, and chemotherapy spill kit.

## F. Patient Care Supplies

1. Sterile and clean supplies must be stored in clean designated locations for Advanced Care @ Home patients. Patient care items should be stored at least 8 inches from the floor. No clean patient care supplies should be stored on the floor or in a cabinet underneath a sink.
2. Supplies with an expiration date should have the date routinely checked (e.g., monthly) and the supply discarded if expired.

3. A box of gloves may be carried in the clean section of a supply bag/fanny pack. A plastic bag containing several pairs of gloves may be taken into the home and left for future use when appropriate.
4. The clinical bag is issued by the home office and used for transport of medical supplies. The following guidelines must be used for managing the bag and supplies:
  - a. Hand hygiene must be performed before each entry into the bag/pack, before donning gloves, and after removing gloves.
  - b. The bag and any equipment/supplies should be placed on a clean barrier (e.g., disposable chux), on a dry surface away from small children and pets.
  - c. If the home environment is heavily infested with insects or rodents, the bag should be left in the car and clean supplies carried into the home inside a disposable bag.
  - d. The clinician should only take the equipment he or she will need for that visit and also his/her PPE and alcohol-based hand rub or liquid soap and paper towels.
  - e. Only supplies necessary to provide care for each patient are removed from the bag.
  - f. The bag may be replaced as needed. If contaminated with blood/body fluids, it must be decontaminated using an EPA-registered disinfectant or discarded.
5. Any supply that is left in the patient's home must remain with that patient. Unused patient supplies should be discarded when:
  - a. The item is visibly soiled.
  - b. The item was opened or the integrity of the package has been compromised.
  - c. The manufacturer's expiration date has been reached.
  - d. The item is removed from the nursing or supply bag and the patient is being cared for under Transmission-based Precautions and cannot be disinfected.

## G. Wound Care

1. Aseptic technique is used for wound care.
2. Sterile irrigation solutions (e.g., normal saline or sterile water) used for wound care should be used per manufacturer's instructions for use. If using aerosol solutions, discard per manufacturer's instructions.
3. Soiled dressings should be contained within a closed plastic bag and disposed of in

the patient's trash if in the home. Soiled dressings should not be transported to the home office. Wound-VACs: Follow the manufacturer's guidelines for changing the wound-VAC. To dispose of the dressing and canister, carefully place the items in a plastic bag and seal. Deposit in a waste can in the patient's home if in the home.

## H. Irrigation Solutions and Equipment

1. Sterile solutions used for irrigation are used per manufacturer's recommendations. If labeled as single-dose, any unused solution is discarded immediately after use.
2. Irrigation equipment is single patient use and discarded when no longer needed.
3. The patient's physician must order any solution used to irrigate a body cavity.

## I. Phlebotomy

1. All venous access should be done using a safety-engineered device and the sharp disposed of at the point of use.
2. Aseptic technique must be followed for any blood drawing procedure.
3. A new tourniquet should be used for each phlebotomy event and discarded after use.
4. When accessing implanted catheters or central lines for obtaining blood specimens, carefully follow the guidelines provided in UNC Medical Center/Rex Infection Prevention policies (found in PolicyStat).

## J. IV Therapy

1. The use and maintenance of IV catheters must comply with guidelines within UNC Medical Center/Rex Infection Prevention policies (found in PolicyStat) and guidelines for IV catheterization are provided under home care policies and procedures manuals.

## K. Urinary Catheterization

1. Guidelines for urinary catheterization are provided in PolicyStat and under home care policies and procedures manuals.

## L. Respiratory Care for Home Care

1. Personnel providing services in a patient's home must adhere to Infection Prevention policies in addition to the following home care guidance:
  - a. Humidifiers and nebulizers should be refilled using sterile water or commercially prepared distilled water per manufacturer instructions. Tap water should not be used.
  - b. Humidifier reservoirs should be cleaned per manufacturer instructions for

use.

- c. Reusable nebulizers should be cleaned by the patient or caregiver or replaced per manufacturer instructions for use.
- d. CPAP/BiPAP machines/supplies should be maintained and cleaned/disinfected per manufacturer instructions for use.
- e. Suctioning:
  - i. Clean technique is used for oral or tracheal suctioning unless sterile suctioning is ordered.
  - ii. Suction catheters are disposed of after each use.
  - iii. The Yankauer suction device and tubing is replaced every 24 hours.
  - iv. Suction canisters and the collection tubing are used for one patient only and discarded when necessary.
  - v. Suction canisters should be emptied, rinsed, and cleaned with warm, soapy water daily.
- f. Tracheostomy tubes should be cleaned per manufacturer's instructions.

## **M. Enteral Feeds**

1. Aseptic technique must be used while pouring formula into bag. Bags must be labeled with date and time.
2. Once prepared, formula may keep for 24 hours.
3. The entire administration system must be discarded every 24 hours.
4. Closed system tube feeding formula bags may hang for up to 48 hours.

## **N. Animals in the Home**

1. Animals should be removed from the room in which the visit occurs if a dressing change or other procedure requiring aseptic technique is planned.
2. Patients should be instructed not to allow animals to touch open wounds.
3. Staff should report to their Employee Health/Occupational Health Services any scratches or bites they receive from animals in the home.

## **O. Equipment**

1. Equipment cleaning, disinfection and maintenance in all settings must be performed according to manufacturer instructions for use and in compliance with Infection



Prevention policy. In addition:

- a. Telemonitoring equipment (BP cuff, pulse oximetry, scale, and technology equipment) should be boxed and removed from the patient's home, and terminally cleaned and disinfected after leaving the home in accordance with the manufacturer instructions for use. Clean equipment should be stored in a clean manner.
- b. Home Medical Equipment leased (Hospital Beds/Frames, Wheelchairs, infusion pumps/poles, CPMs) should be cleaned with an EPA-registered disinfectant and inspected after each patient use.
- c. Reusable items (i.e., blood pressure cuffs, pulse oximeters, stethoscopes, flashlights) will be cleaned with an EPA-registered disinfectant (i.e., SaniCloths) - after use on each patient, and when visibly soiled. Bandage scissors will be cleaned before and after use with an EPA-registered disinfectant. If the item becomes heavily soiled with dirt or blood and body fluids, wash with soap and water followed by an EPA-registered disinfectant. For patients with known or suspected *C. difficile* or norovirus infection, clean reusable equipment using a bleach wipe or 1:10 bleach solution.
- d. Washing machines and dryers used to clean equipment bags and cases (e.g., nylon bags holding CPAP equipment and supplies):
  - i. Should be operated using commercially-prepared detergents.
  - ii. No special wash cycle is required for patients colonized or infected with multidrug resistant organisms (e.g., VRE, MRSA, CRE), as the normal wash cycle has been found effective in eliminating such organisms from the clothes and washing machines.
  - iii. An alcohol-based hand hygiene product will be provided with written instructions to clean before and after using the machines.
  - iv. An EPA-registered disinfectant (e.g., MetriGuard, SaniCloths) will be available and written instructions for cleaning the contact surfaces of the machines after use.
- e. Medical devices that are labeled by the manufacturer, as single-use may not be reused.
- f. Before and after use, the scales must be cleaned using an EPA-registered disinfectant.

## P. Medical Waste Disposal

1. Sharps should be disposed of at the point of use by placing in a rigid, puncture-proof,

leak proof container. Sharps include such devices as needles, syringes with needles attached, blood collection devices, and other sharp edged items such as razors, glass vials and glass capillary tubes.

2. Home care setting:

- a. Solid waste, including wound dressings, empty blood transfusion bags, IV bags and tubing sets shall be disposed of within the patient's home. Wound dressings should first be placed in a closed plastic bag prior to placing in the trash.
- b. Regulated medical waste – except sharps disposal boxes which are addressed below – should be disposed of in the home trash and not transported back to the home office.
- c. The sharps container must be of a design or stored in the vehicle in such a manner that it cannot tip over and the contents spill. The sharps container should be transported in the "dirty" section of the vehicle away from clean items.
- d. When the sharps container is three quarters filled, close securely and lock for transport for proper waste disposal by a contracted 3<sup>rd</sup> party vendor.
- e. Patients should be instructed on the proper disposal of sharps used by themselves or other personal care givers. Sharps can be placed in a heavy-gauge plastic or metal container that can be sealed (e.g., laundry detergent bottle, bleach bottle, coffee can). When the container is full, it should be sealed and disposed of in the household waste.

## IV. References

Centers for Disease Control and Prevention (CDC). 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings (last update: July 2019). <https://www.cdc.gov/infectioncontrol/pdf/guidelines/isolation-guidelines-H.pdf>. Accessed September 15, 2020.

## Approval Signatures

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