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Memorandum

TO: Out-of-Hospital Dialysis Unit Chief Executive Officers
FROM: Teryl Smith, RN, MPH, Director, Bureau Health Care Safety & Quality
SUBJECT: Dialysis Services at Long-Term Care Facilities
DATE: July 7, 2025

The purpose of this memorandum is to provide clarity and greater detail on the requirements for both Out-of-Hospital Dialysis Units and nursing homes when dialysis services are provided to residents at a nursing home.

In addition, this memorandum sets forth best practices that Out-of-Hospital Dialysis Units and nursing homes are strongly encouraged to implement when providing "den dialysis" within a nursing home.

The Department of Public Health (DPH or Department) allows nursing homes and Out-of-Hospital Dialysis Units to provide hemodialysis in a nursing home, including in a "dialysis den" setting within the nursing home.[1] In order to provide hemodialysis in a nursing home, both the nursing home and out of hospital dialysis unit must:

1. Submit the Nursing Home Hemodialysis Special Project Form developed by the Department, and
2. Receive approval from the Department.

Responsibilities of Nursing Homes

- The nursing home is responsible for providing a safe environment for the dialysis treatments; monitoring the resident before, during, and after dialysis treatments for complications related to, or possibly related to dialysis; and for providing all non-dialysis related care.
- Nursing home staff must be prepared to appropriately address and respond to dialysis-related complications and provide emergency interventions as needed.

[1] The Department considers proposals for the delivery of hemodialysis services in a nursing home under the "special project" section of the long term care licensure regulation, 105 CMR 153.031(A) and the "special project" section of the out-of-hospital dialysis licensure regulation, 105 CMR 145.025.

Responsibilities of Out-of-Hospital Dialysis Units

- An out-of-hospital dialysis unit providing dialysis services to nursing home residents must do so under a written agreement with the nursing home.
- The out-of-hospital dialysis unit must maintain direct responsibility for the dialysis-related care and services provided to the nursing home residents.
- An out-of-hospital dialysis unit seeking an initial license must complete the health care facility initial licensure process, including suitability review, in order to obtain special project approval.

Staffing: The out-of-hospital dialysis unit is required to maintain the following staffing requirements:

- An administrator must be physically present in the unit, including at the long-term care facility where dialysis services are provided, at least once per week and more frequently as needed (see 105 CMR 145.110).
- A dialysis nurse manager must direct the nursing staff in the provision of dialysis nursing services to patients. The nurse manager must be physically present in the dialysis unit within the long-term care facility where dialysis services are provided at least once per week to direct and oversee dialysis nursing staff and ensure resident care is coordinated with long-term care leadership (see 105 CMR 145.140).
- Sufficient direct care nursing personnel to ensure all patients undergoing dialysis have nursing care, provided by registered nurses or licensed practical nurses, available at all times at a ratio of at least one direct care staff member to every three patients (105 CMR145.150).

Monitoring and Reporting Infections and Adverse Events: The out-of-hospital dialysis unit is required to:

- Adhere to the Massachusetts Department of Public Health Communicable disease reporting requirements described in 105 CMR 300.000.
- Develop and maintain a record-keeping system (e.g., logbook or electronic file) to record the results of residents' HBV vaccination status, serologic testing results for viral hepatitis (including ALT), infections and adverse events (e.g., blood leaks and spills, dialysis machine malfunctions) (105 CMR 145.440)
- Ensure a system is in place to communicate infection or colonization with multi-drug-resistant organisms (MDROs) and ensure that communication between the dialysis den providers and nursing home leadership is provided both verbally and in writing (105 CMR 145.290).
- Monitor for blood stream infections (BSIs) and other dialysis events using the Centers for Disease Control and Prevention's (CDC) National Healthcare Safety Network (NHSN) and actively share the results with dialysis and LTCF staff (105 CMR 145.440).

Physical Space: The out-of-hospital dialysis unit is required to:

- Clearly delineate each dialysis station (105 CMR 145.210).
- Ensure there is sufficient space between and surrounding resident treatment areas (dialysis machine, chair/bed/water treatment equipment) to prevent cross-contamination, provide personal privacy, or provide emergency care (105 CMR 145.210).

- Identify defined spaces for storage of clean medical supplies, medical gases and medical equipment. Resident care items and supplies must not be stored in sink splash zones or the designated resident care areas (105 CMR 145.230).
- With coordination from the nursing home, ensure a room is provided for isolation of potentially infectious patients (105 CMR 145.220).
- If dialysis services are provided in a room without direct access to the outside, there must be satisfactory mechanical exhaust ventilation (105 CMR 145.245).
- Ensure that toilet and handwashing facilities for patients and staff are in conveniently accessible locations (105 CMR 145.230).
- Provide a soiled workroom or area equipped with flushing rim sink, handwashing facilities, storage cabinets, waste receptacles and soiled linen receptables (105 CMR 145.230).

The following are best practices that the Department strongly recommends the out-of-hospital dialysis unit implement:

- Ensure each dialysis station is separated by at least four feet.
- Ensure a location is dedicated for staff to store personal belongings away from dialysis stations, resident supplies and equipment.
- Provide a clearly defined space outside of the dialysis treatment area where dialysis staff are able to have breaks and meals.
- If a common supply cart is used to store clean supplies in the resident treatment area, this cart should remain in a designated area at a sufficient distance from resident stations to avoid contamination with blood. To mitigate the risk of infection transmission, carts should not be moved between stations to distribute supplies.

Hand Hygiene: The out-of-hospital dialysis unit is required to:

- Ensure that supplies necessary for adherence to hand hygiene are readily accessible in all areas where resident dialysis care is being delivered (105 CMR 145.240).
- Dedicate sinks only for handwashing purposes and avoid placing, cleaning, or draining used items in handwashing sinks (105 CMR 145.240).
- Ensure gloves and additional supplies are not stored in the sink splash zone (105 CMR 145.240).
- Ensure a sink is available for residents to wash their access sites prior to treatment and their hands after treatment (105 CMR 145.240).

The following are best practices that the Department strongly recommends the out-of-hospital dialysis unit implement:

- Promote the use of an alcohol-based hand rub (ABHR) containing at least 60% alcohol preferentially over soap and water in most clinical situations unless hands are visibly soiled.
- Ensure ABHR dispensers and glove boxes are available at critical access points.
- Assign individuals with responsibility for maintaining hand hygiene supplies including ensuring ABHR is not expired.
- Perform routine observations of hand hygiene opportunities, share results with frontline staff and leadership and use data to promote improvement.

Personal Protective Equipment (PPE): The out-of-hospital dialysis unit is required to:

- Ensure supplies necessary for adherence to PPE recommendations including gowns, gloves and face shield, eye protection and masks are available and strategically located in resident care areas, and are worn according to anticipated exposures. The facility must develop protocols for donning and doffing and discarding PPE. Gloves must be removed and hand hygiene performed between each resident or resident station. Gloves must also be changed and hand hygiene performed during the care of a single patient when moving from dirty to clean. (105 CMR 145.290)
- Gloves must be worn anytime contact with blood or body fluids is anticipated. To facilitate glove use, a supply of clean nonsterile gloves and a glove discard container should be placed near each dialysis station (105 CMR 145.290).
- Separate PPE (gown, gloves, face shield, eye protection, masks) should be used in the isolation area/room and removed before leaving the isolation area/room (105 CMR 145.220).

Medication Administration The out-of-hospital dialysis unit is required to:

- Have designated areas where medications are prepared that are separate from the resident treatment areas and that are clearly designated only for medications (105 CMR 145.230).
- Not store or prepare medications near contaminated and/or used supplies, equipment, blood samples or biohazard containers. Splash guards must be installed on sinks next to medication preparation areas (105 CMR 145.230).
- Clean and disinfect the medication preparation area on a regular basis and any time there is evidence the area has become dirty (105 CMR 145.230).

The following are best practices that the Department strongly recommends the out-of-hospital dialysis unit implement:

- Unused medications or supplies (e.g. syringes, alcohol wipes) taken to the resident's station should not be returned to a common clean area or used on other residents.
- Dedicate multi-dose vials to a single resident whenever possible. Reused multi-dose vials should be kept and accessed in a designated clean medication preparation area, away from the immediate resident treatment areas. If a multi-dose vial enters an immediate patient treatment area, it should be dedicated for single patient use only and discarded after use.
- Medications should be prepared as close as possible to the time of administration.

Water: The out-of-hospital dialysis unit is required to:

- Ensure the quality of water used in hemodialysis is tested for chemical, bacterial, and endotoxin contaminants in accordance with professional standards and the results of testing are documented and available for review by DPH upon request (105 CMR 145.270).
- Develop policies and procedures for cleaning and disinfecting sinks using an EPA registered product according to the manufacturer’s instructions for use (105 CMR 145.250).
- Prohibit staff from discarding patient waste, liquid nutritional supplements or other beverages down sinks or toilets (105 CMR 145.280).

The following are best practices that the Department strongly recommends the out-of-hospital dialysis unit implement:

- Store patient care items at a location at least 3 feet from sinks or install a splash guard to prevent items from becoming wet, including in medication preparation areas.

Hepatitis B Virus (HBV): The out-of-hospital dialysis unit is required to:

- Obtain the HBV serological status (i.e. HBsAg, total anti-HBc and anti-HBs) of all residents before admission to the dialysis den (105 CMR 145.400).
- Promptly report HBsAg-positive seroconversions to the Massachusetts Department of Public Health Bureau of Infectious Diseases and Laboratory Sciences (105 CMR 300.133).
- If a seroconversion occurs, the dialysis den is required to review all residents' laboratory tests to identify additional cases and perform additional testing as indicated. (105 CMR 300.133). The dialysis den must also investigate potential sources of infection to determine if transmission occurred within the dialysis unit (105 CMR 145.290).
- Have the capacity to treat one or more HBsAg-positive residents in an isolation room or isolation area (105 CMR 145.220).
- Provide care for HBsAg-positive residents in an isolated location, away from other residents by a nurse or technician who has been vaccinated and demonstrated antibody immunity (105 CMR 145.220). Dialysis machines, equipment, instruments, supplies and medications must be dedicated for the HBsAg-positive resident and not be used when caring for HBV susceptible residents. (105 CMR 145.290)
- Staff caring for HBsAg- positive residents must only care for HBV immune patients during the same shift. (105 CMR 145.220)
- If the HBV status of a resident is unknown, the machine must be isolated and not used for other residents requiring dialysis after use until the status is determined.

The following are best practices that the Department strongly recommends the out-of-hospital dialysis unit implement:

- Provide susceptible residents with the first of the hepatitis B vaccine series immediately upon admission and complete the series according to the recommended schedule.
- Test susceptible residents including those who have not yet received hepatitis B vaccine, those in the process of being vaccinated or those that have not adequately responded to vaccination monthly for HBsAg.
- Have systems in place for communicating verbally and in writing HBV test results and vaccination status within the dialysis den as well as to the nursing home and to other healthcare facilities when residents are transferred.

Hepatitis C Virus (HCV): The out-of-hospital dialysis unit is required to:

- Screen chronic hemodialysis residents for HCV antibody (anti-HCV) upon admission to the out-of-hospital dialysis unit and every six months thereafter, if the resident is susceptible to HCV. (105 CMR 145.290)
- Conduct monthly ALT testing of HCV negative residents to facilitate timely detection of new infections and provide a pattern from which to determine when exposure or infection might have occurred (105 CMR 145.290).

- Promptly report acute HCV infections to the Massachusetts Department of Public Health Bureau of Infectious Diseases and Laboratory Sciences (105 CMR 300.133).
- If a seroconversion occurs, the out-of-hospital dialysis unit is required to review all residents' laboratory tests to identify additional cases and perform additional testing as indicated. (105 CMR 300. 133). The out-of-hospital dialysis unit is also required to investigate potential sources for infection to determine if transmission occurred within the dialysis unit (105 CMR 145.290).

Education: The following are best practices that the Department strongly recommends the out-of-hospital dialysis unit implement:

- Provide job specific training for dialysis staff including adherence to standards and precautions, and infection prevention and control policies, procedures and practices. The training should include Standard and Transmission-based Precautions, PPE selection and use, hand hygiene, catheter/vascular access care, routine environmental cleaning and disinfection, cleaning and disinfection following blood spills and reusable medical devices. Education should be provided upon hire, prior to provision of care and at least annually.
- Assess and document dialysis staff competency with the job specific policies, procedure and practices described above upon hire, prior to provision of care and at least annually.
- Provide job specific education and training for nursing home staff on the care of the dialysis patient including performing hand hygiene, glove use, Standard and Transmission-based precautions, and cleaning and disinfection of medical equipment. The out-of-hospital dialysis unit staff should collaborate with the nursing home educator to coordinate education and training activities.
- Educate nursing home staff on how to care for residents with hemodialysis catheters including showering (if allowed), and what to do if the catheter dressing becomes wet or loose between treatments. Nursing home staff should be instructed to notify the dialysis staff if signs and symptoms of infection (e.g., fever, pain at the catheter site, discharge) are present. Dressing changes and inspection of the access site are the responsibility of the trained dialysis staff. All dressings should be changed immediately if contaminated or wet to minimize risk of infection.
- Educate nursing home staff that a sign should be placed above the head of the bed, for residents with grafts or fistulas, defining that the involved arm should not be used for blood pressures, phlebotomy, or intravenous catheter.
- Provide resident education to reduce catheters by identifying and addressing barriers to permanent vascular access placement and catheter removal.

Cleaning and Disinfection: The following are best practices that the Department strongly recommends the out-of-hospital dialysis unit implement:

- Ensure there are written policies and procedures for cleaning and disinfection of environmental surfaces including clearly defining responsible staff.
- Reduce the risk of infections associated with medical devices and supplies by ensuring optimal cleaning, disinfection, and storage including implementing a process for managing expired supplies.
- Use only Environmental Protection Agency (EPA) registered hospital disinfectants. The EPA has lists of products that are registered against common pathogens. Due to the

increase in the number of cases of *Candida auris*, DPH recommends use of List P products registered with the EPA for claims against *Candida auris*.

- Assign responsibility for routine cleaning and disinfection of equipment and environmental surfaces including wall boxes and prime waste buckets to appropriately trained healthcare personnel.
- Ensure staff have been properly trained on:
    - The dialysis station cleaning and disinfection protocol,
    - How to prepare the appropriate "use-dilution" of the disinfectant,
    - Application of sufficient disinfectant to achieve visibly wet surfaces per the product label for the required contact time for the product being used,
    - Proper use of PPE (e.g., gloves, gown),
    - Management of routine cleaning and disinfection;
    - Management of cleaning surfaces with visible soil or blood.
- Ensure the resident has left the dialysis station before initiating cleaning and disinfection of the station and equipment.
- Establish a process for identifying clean versus dirty equipment (i.e. blood pressure cuffs, scales. stethoscopes, wheelchairs, etc.).
- Establish a system for cleaning and disinfecting the bed or wheelchair used to transport residents to and from dialysis care.
- Routinely audit cleaning and disinfection procedures to ensure that they are consistently and correctly performed. The results of audits should be shared with front line staff and leadership and used to promote improvement.
- Develop policies and procedures to identify and document the specific machine used to provide dialysis for each resident during each dialysis treatment.
- Ensure preventive maintenance schedules and logs of all equipment are available for staff to review.

Communication: The following are best practices that the Department strongly recommends the out-of-hospital dialysis unit implement:

- Include a member of the nursing home leadership team in the out-of-hospital dialysis unit Quality Assessment and Performance Improvement (QAPI) Program.
- Educate and prepare the nursing home staff to address and respond to all potential complications and emergencies related to the dialysis needs of the resident receiving treatments in the nursing home.
- Develop policies and procedures to ensure timely communication and collaboration between the out-of-hospital dialysis unit and nursing home leadership and staff, including policies for written communication between the nursing home and the out-of-hospital dialysis unit on dialysis treatment orders, medication orders, resident assessment and any changes in the resident condition.
- Ensure all infection prevention and control activities are coordinated and communicated with the nursing home infection preventionist.
- Develop policies and procedures to define monitoring responsibilities between dialysis staff and nursing home staff before, during and after each treatment (i.e. monitoring resident weight, dietary/fluid intake, conditions related to fluid).

For any questions regarding this memorandum, please email: DPH.BHCSQ@mass.gov