

## Dialysis Critical Element Pathway

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Use this pathway for a resident identified as receiving hemodialysis (HD), home hemodialysis (HHD) or peritoneal dialysis (PD) at any location.

### Review the following in Advance to Guide Observations and Interviews:

- The most current comprehensive and most recent quarterly (if the comprehensive isn't the most recent) MDS/CAAs for Sections C, GG, H, J, K, M, N, O.
- Physician's orders (dialysis access care, dialysis schedule, individualized dialysis prescription such as the number of treatments per week; length of treatment time, type of dialyzer, specific parameters of the dialysis delivery system [electrolyte composition of the dialysate, blood flow rate, and dialysate flow rate], anticoagulation; fluid restrictions, target weight, blood pressure monitoring).
- Pertinent diagnoses.
- Care Plan – Has staff evaluated the resident's response to dialysis and developed/revised the care plan in collaboration with the dialysis facility:
  - Monitoring vital signs, weights, nutritional, and fluid needs or any restrictions, lab results, and who to notify with concerns;
  - Specific type and location of dialysis services, transportation arrangements, and the interventions and goals based upon the type of dialysis;
  - If the resident receives Erythropoiesis-Stimulating Agent (ESA) therapy, what to monitor and when and to whom to report results;
  - For HD/HHD, which arm to use for blood pressure monitoring;
  - For HHD, the number of treatments, length of treatment time, dialyzer, and specific parameters of the dialysis delivery system (e.g., electrolyte composition of the dialysate, blood flow rate, and dialysate flow rate), anticoagulation, the resident's target pre- and post-weights, vital signs, or other monitoring required during the provision of the dialysis treatment and that the trained staff should remain with the resident throughout the treatment and have visual observation of the access site;
  - For PD, the number of exchanges or cycles to be done during each dialysis session, the volume of fluid with each exchange, duration of fluid in the peritoneal cavity, the concentration of glucose or other osmotic agent to be used for fluid removal, and the use of an automated, manual, or a combination of the techniques, the target pre- and post-weights, vital signs, or other monitoring required during the provision of the dialysis treatment;
  - Who to contact, such as the attending practitioner(s), nephrologist, and dialysis staff, for dialysis-related emergencies, concerns or complications;
  - Equipment needed to provide dialysis such as a peritoneal pump and alarm, access catheters, and equipment necessary to address a potential medical complication, and who to contact for equipment problems;
  - Monitoring for risk factors and managing complications such as hemorrhage, access site infection, hypotension, and to whom to report concerns;
  - Assessment and care of the access site, including the use of PPE as necessary, and other infection control measures;
  - Approach to administering medications before, during, or after dialysis according to practitioner's orders; and
  - Advance directives, if any, as allowed by State Law.

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### Observations:

- Does staff use appropriate infection control practices such as hand hygiene and PPE when caring for dialysis devices and access sites, and during dialysis and other high-contact care activities?*
  - Is soap, water, and a sink readily accessible in locations where dialysis care is provided?
  - Are qualified personnel accessing and providing maintenance of central venous catheters (CVCs), shunts, fistulas, or other vascular access catheters using aseptic technique:
    - The access insertion date is documented and the indication for use is documented and assessed regularly;
  - Dialysis access site dressings are clean, dry, and intact and the dressing is changed with clean (aseptic) technique using clean gloves or sterile gloves;
  - Only sterile devices are used for dialysis vascular access.
  - Does the resident require injections related to dialysis care:
    - Injections are prepared using aseptic technique in an area that has been cleaned and is free of contamination (e.g., visible blood, or body fluids);
    - The rubber septum on any med vial, whether unopened or previously accessed, is disinfected with alcohol prior to piercing;
    - Med vials are entered with a new needle and a new syringe; and
    - Med administration tubing, connectors, and bags of IV solutions are used for only one resident (and not as a source of flush solution for multiple residents).
  - Are care-planned and ordered interventions in place and followed?
    - Provide direct visual monitoring of the access site before and after dialysis; and
    - Provide ongoing monitoring and care of the resident's vascular access (fistula, graft, or central venous catheter) for HD, catheter for PD as ordered, and provide ongoing monitoring for dialysis related complications (e.g., bleeding, access site infection, or hypotension).
  - For a resident receiving dialysis **at a certified dialysis facility**, did the nursing home:
    - Assess and document vital signs, including the blood pressure in the arm where the access site is not located, weights if ordered and communicate the information including the resident's status with the dialysis facility prior to and post dialysis;
    - Provide assistance and safe transportation to and from dialysis;
    - Administer meds or meals before or after dialysis as ordered;
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For a resident receiving **HHD or PD in the nursing home provided by staff or other qualified individuals, observe if:**

- There are dialysis trained and qualified staff providing the treatment;
  - Staff use appropriate cleaning procedures for furnishings, equipment contaminated with blood or other bodily substances, spills and splashes of blood and effluent based on current standards of infection control practices, and are cleaned after each treatment;
  - If there is a roommate, whether access to his/her room or possessions is restricted or if there are concerns related to potential communicable diseases;
  - Emergency supplies or equipment are readily available;
  - Observe the resident's room and/or designated area for HHD/PD to determine whether it is equipped to afford privacy, has sufficient space, functioning call system within reach; and based upon professional standards of practice, the maintenance of effective infection control practices and measures. This includes ensuring that a resident who is hepatitis B+ is not dialyzed in the same location as resident who is not hepatitis B+.
  - Staff respond appropriately in the event of an emergency, a power outage, or other situations in which dialysis may need to be interrupted;
  - Safe, secure, and sanitary storage, handling and access of dialysis equipment and supplies; and
  - Bio-hazardous waste disposal is available and used.
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During the provision of **HHD treatments, the nursing home should ensure that:**

- The HHD treatment is provided according to practitioner and dialysis facility orders and only by trained/qualified caregivers (as allowed by State law and nursing home policy) who received direct training by the dialysis facility trainer;
- Direct observation of the vascular access site and bloodline connection is provided by the dialysis trained caregiver who should be physically present throughout the HHD;
- Infection control practices are implemented, including the use of gloves, masks, and other personal protective equipment, methods for hand hygiene, vascular access and dressing changes;
- The dialysis treatment follows the dialysis prescription;
- Staff recognize, manage, and report vascular access problems, difficulty with cannulation, a change in bruit or thrill;
- Blood pressure (not taken on arm with access site) is taken and monitored prior to, during and after the dialysis treatment and action is taken to address excessively high or low blood pressures during treatment;
- Ongoing assessment and monitoring occurs during the treatment, including vital signs, monitoring level of consciousness, muscle
- Medications are administered as ordered, (if an Erythropoiesis-Stimulating Agent (ESA) is ordered, it is provided, in accordance with State laws and State scope of practice);
- Medical emergencies such as cardiac arrest, air embolism, drug reactions, suspected pyrogen reactions, profound hypotension or hypertension, significant blood loss, hyperkalemia, changes in level of consciousness or pain are recognized, immediately reported, and interventions/actions are provided as ordered;
- After the treatment, staff obtain vital signs, assess the resident's stability and monitor for post-dialysis complications and symptoms such as dizziness, nausea, vomiting, fatigue, or hypotension and symptoms that may be associated with water and dialysate contamination that cannot be readily attributed to other causes (e.g., chills, shaking, fever, vomiting, headache, dizziness, muscle weakness, skin flushing, itching, diarrhea, hyper/hypotension, hemolysis and anemia). If such symptoms are present, determine whether the symptoms are immediately reported to the attending practitioner and nephrologist or dialysis team to determine appropriate action;

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cramping, itching, comfort or distress and should report identified or suspected complications to the attending practitioner and dialysis staff to enable timely interventions;

- As ordered, the weight is taken prior to and post-treatment;
- Recognize, manage and immediately report to the dialysis facility, power outages, failure of the HD machine, failure of water treatment components (e.g., chlorine/chloramine breakthrough), clotting of the hemodialysis circuit, dialyzer blood leaks, line disconnection, water supply problems or leaks, and problems with supply delivery;

- Staff use appropriate infection control cleaning and disinfecting procedures for furnishings, equipment contaminated with blood, or other bodily substances, for spills and splashes of blood or effluent; and
- Staff properly dispose of needles, effluents, disposable items, and tubing and to minimize risks of infection or injury to self and others and to prevent environmental contamination (e.g., using impervious puncture resistant containers for disposal of sharps, placing empty dialysate bags and tubing in intact plastic bags before discarding).

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During the provision of **PD treatments, the nursing home should ensure that:**

- Individuals performing PD, receive dialysis training from the certified dialysis training staff(as allowed by State law and nursing home policy);
- The PD treatment follows the prescription;
- Before, during, and after receiving the PD, obtain and document vital signs and weights based on practitioner and dialysis orders, assess the resident's stability and monitor for emergencies or complications such as dizziness, nausea, fatigue, or hypotension;
- Staff recognize, document, manage, and report dialysis complications, including catheter, tunnel or exit site infection, symptoms of peritonitis, catheter dislodgement, hypotension, hypokalemia, or failure of sufficient dialysate to drain from the peritoneal space;

- Recognize, manage, and report power outages, failure of the PD cyclor to the dialysis facility;
- Provide peritoneal catheter care and dressing changes according to the treatment plan and orders;
- The resident's record should include documentation of ongoing evaluation of the peritoneal catheter, including assessment of catheter related infections (e.g., exit site acute and chronic infections) and tunnel for condition, monitoring for patency, leaks, infection, and bleeding at the site. In addition, staff should be monitoring for complications such as peritonitis (e.g., abdominal pain/tenderness/distention, cloudy PD fluid, fever, nausea and vomiting);
- Staff properly dispose of needles, effluents, disposable items, and tubing and to minimize risks of infection or injury to self and others and to prevent environmental contamination (e.g. using impervious puncture resistant containers for disposal of sharps, placing empty dialysate bags and tubing in intact plastic bags before discarding; and
- Use appropriate cleaning procedures for furnishings, equipment contaminated with bodily substances, spills and splashes of effluent based on current standards of infection prevention and control practices.

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### Resident, Resident Representative, or Family Interview:

- How were you involved in the development of the care plan and goals specific to dialysis?
- Do the interventions reflect your choices and preferences?
- Do you have any concerns with your dialysis treatment? Do you know who to discuss the concerns with? Were your concerns addressed? If not, why not?
- Are you on fluid or food restrictions? If so, how does staff monitor your intake? Do you follow your restricted diet and fluids? If not, has staff provided education about the risks and tried to provide alternatives?
- Are you allowed to have meals or snacks during your dialysis treatments? If so, how are meals or snacks provided? If not, how and when do you receive meals on dialysis days?
- When do you take your medications on dialysis treatment days? Have you missed any medications on dialysis treatment days?
- How often do you receive treatments? Have treatments been cancelled or missed? If so, why? Were they rescheduled and by whom?

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### Staff Interviews (As appropriate, Nurse Aides, Nurse, DON, Practitioner, Dietitian, Pharmacist, Nephrologist, Dialysis Staff, Medical Director):

- What type of staff training for dialysis care and services did you receive and who provided the training?
- What type of dialysis is the resident receiving? How do you care for the access sites and dressing changes? When do you monitor vital signs and weights? Are there any restrictions for food or fluids and how is it tracked?
- What do you do if the resident declines a dialysis treatment, is ill, or if treatments are cancelled?
- Has the resident had any dialysis-related complications (e.g., dizziness, falls, bleeding)? To whom do you report possible complications or changes in condition?
- What do you do if there is an emergency or complication including equipment failure?
- How is care coordinated and communicated between dialysis staff and the facility, including documentation of the resident's status, nutrition, adequate hydration, psychosocial and nursing needs, current dialysis treatment, and the possible need to modify the current interventions?
- Has the resident had a change in mood or behavior? Has the resident refused to participate in activities that he/she had previously shown interest, expressed feelings of hopelessness or anger over health and need for dialysis treatments? How is this addressed and by whom?
- Has the resident had pain or anxiety related to dialysis treatments? How is this being addressed?
- If care plan concerns are noted, interview staff responsible for care planning as to the rationale for the current care plan.
- How is medication administration monitored to assure meds are administered timely or held according to orders?
- How and when are diagnostic tests obtained and who is responsible for collecting, reporting, and reviewing the results?
- If the resident is receiving an ESA, how has the dialysis and facility coordinated obtaining and reporting test results (i.e., hemoglobin and hematocrit) to the practitioner?
- If the pharmacist reports irregularities of ESA prescribing and potential medication-related adverse consequences, how have the recommendations been coordinated with dialysis?
- Has the facility established policies and protocols for the dispensing, administration, and storage of ESA?
- If the interventions or care provided do not appear to be consistent with standards of practice, ask the medical director:
  - How are you involved in developing or implementing policies and procedures regarding HD/HHD/PD, including emergency procedures, medication administration, procedures for use of ESAs, and emergency medications; and
  - Were you asked to address concerns regarding dialysis-related care with the attending practitioner and ESRD practitioners?
- Ask about identified concerns.

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### Record Review:

- If facility staff provide the HHD or PD treatments, request documentation to assure that training meets the current standards of practice, State law and practice acts, and is provided directly by dialysis facility staff to the individual providing the treatment;
- Did the record reflect the resident's dialysis needs, such as:
  - Identification of individualized risk factors and potential complications related to dialysis (e.g., bleeding, infection, skin integrity, and the effects of dialysis on medication therapy);
  - Choices or preferences including advance directives, if any;
  - Medical status including status of comorbid conditions, frequency of vital signs, weights, and monitoring fluids as ordered;
  - Identification of the type of dialysis, where provided and by whom, how often and if the treatment is in accordance with the dialysis prescription;
  - Supervision and monitoring during HHD or PD, including direct observation of the access site during HHD;
  - Identification of appropriate PPE for type of dialysis treatments and care provided, identification of specific infection control practices to use prior to, during and/or after the treatments, including care of equipment and supplies;
- Laboratory tests needed to manage and monitor dialysis;
- Pneumococcal and influenza immunizations, hepatitis immunization, and screening for tuberculosis (per CDC);
- Communication and coordination with the dialysis team to meet nutrition and hydration needs;
- Psychosocial needs such as anxiety, depression, confusion or behavioral symptoms that might interfere with treatments and interventions to address the identified needs;
- Does the record reflect the coordination and collaboration with the dialysis facility including exchange of pertinent information before, during (if HHD provided by the nursing home), and post dialysis?
- Was there a "significant change" in the resident's condition? If so, was a significant change comprehensive assessment conducted within 14 days?
- If concerns are identified related to the provision of dialysis care, review the appropriate facility policies regarding dialysis.

### Critical Element Decisions:

NOTE: If at any time during the survey, a concern or issue arises regarding the dialysis services provided by the dialysis facility, the survey team should report this as a complaint to the State Agency survey unit responsible for oversight of the Medicare certified ESRD entity. Identify the specific resident(s) involved and the concerns identified.

- 1) Did the facility provide dialysis care and services to meet the needs of the resident?  
If No, cite F698
- 2) Did the facility use appropriate *infection control practices, such as* hand hygiene and PPE *when caring for dialysis devices and access sites, and during dialysis and other high-contact care activities?*  
If No, cite F880

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- 3) For newly admitted residents and if applicable based on the concern under investigation, did the facility develop and implement a baseline care plan within 48 hours of admission that included the minimum healthcare information necessary to properly care for the immediate needs of the resident? Did the resident and resident representative receive a written summary of the baseline care plan that he/she was able to understand?  
If No, cite F655  
NA, the resident did not have an admission since the previous survey OR the care or service was not necessary to be included in a baseline care plan.
- 4) If the condition or risks were present at the time of the required comprehensive assessment, did the facility comprehensively assess the resident's physical, mental, and psychosocial needs to identify the risks and/or to determine underlying causes, to the extent possible, and the impact upon the resident's function, mood, and cognition?  
If No, cite F636  
NA, condition/risks were identified after completion of the required comprehensive assessment and did not meet the criteria for a significant change MDS OR the resident was recently admitted and the comprehensive assessment was not yet required.
- 5) If there was a significant change in the resident's status, did the facility complete a significant change assessment within 14 days of determining the status change was significant?  
If No, cite F637  
NA, the initial comprehensive assessment had not yet been completed; therefore, a significant change in status assessment is not required OR the resident did not have a significant change in status.
- 6) Did staff who have the skills and qualifications to assess relevant care areas and who are knowledgeable about the resident's status, needs, strengths and areas of decline, accurately complete the resident assessment (i.e., comprehensive, quarterly, significant change in status)?  
If No, cite F641
- 7) Did the facility develop and implement a comprehensive person-centered care plan that includes measurable objectives and timeframes to meet a resident's medical, nursing, mental, and psychosocial needs and includes the resident's goals, desired outcomes, and preferences?  
If No, cite F656  
NA, the comprehensive assessment was not completed.
- 8) Did the facility reassess the effectiveness of the interventions and review and revise the resident's care plan (with input from the resident or resident representative, to the extent possible), if necessary to meet the resident's needs?  
If No, cite F657  
NA, the comprehensive assessment was not completed OR the care plan was not developed OR the care plan did not have to be revised.

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**Other Tags, Care Areas (CA), and Tasks (Task) to Consider:** Dignity (CA), Right to be Informed F552, Right to Refuse F578, Advance Directives (CA), Notification of Change F580, Accommodation of Needs, Call System (Environment Task), Qualified Persons F659, Pressure Ulcer (CA), Nutrition (CA), Hydration (CA), Sufficient and Competent Staffing (Task), Unnecessary Medications (CA), Other Infection Control Concerns (Task), Facility Assessment F838, Medical Director F841, Resident Records F842, QAA/QAPI (Task).