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SUPERIOR HEALTH
Quality Alliance

Managing Nursing Home Residents Receiving Dialysis

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Poll Questions

Poll Questions:

1. Who has dialysis patients at their facility?

- Yes
- No
- Preparing to take in residents on dialysis
- Preparing to get certified/trained to open our facility to dialysis patients

2. What kind of dialysis do your patient's participate in?

- In-center Hemodialysis
- Peritoneal Dialysis (PD)

Content

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- What is dialysis?
- Side effects
- Nutritional education
- Medication management
- Fluid measurements
- Vaccinations
- Staff training
 - PD catheters
 - Access care
 - Blood pressure checks
- Emergencies
- Special considerations

Objectives

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- Understand what dialysis is and the two types.
- Recognize important nutritional components of dialysis.
- Understand importance of medication management.
- Understand importance of fluid measurements.
- Discuss vaccinations important for dialysis patients.
- Understand important staff training needed relating to PD catheters, access site and cares and BPs.
- Understanding common side effects of dialysis.
- Recognizing emergency situations to notify dialysis centers.
- Understand expectations for patients from dialysis centers.

What is Dialysis?

Dialysis Definition

- Per the National Kidney Foundation:
 - “Dialysis is a type of treatment that helps your body remove extra fluid and waste products from your blood when the kidneys are not able to.”
- Keeping safe levels of potassium, sodium, calcium and bicarbonate.
- Helping to regulate blood pressure.

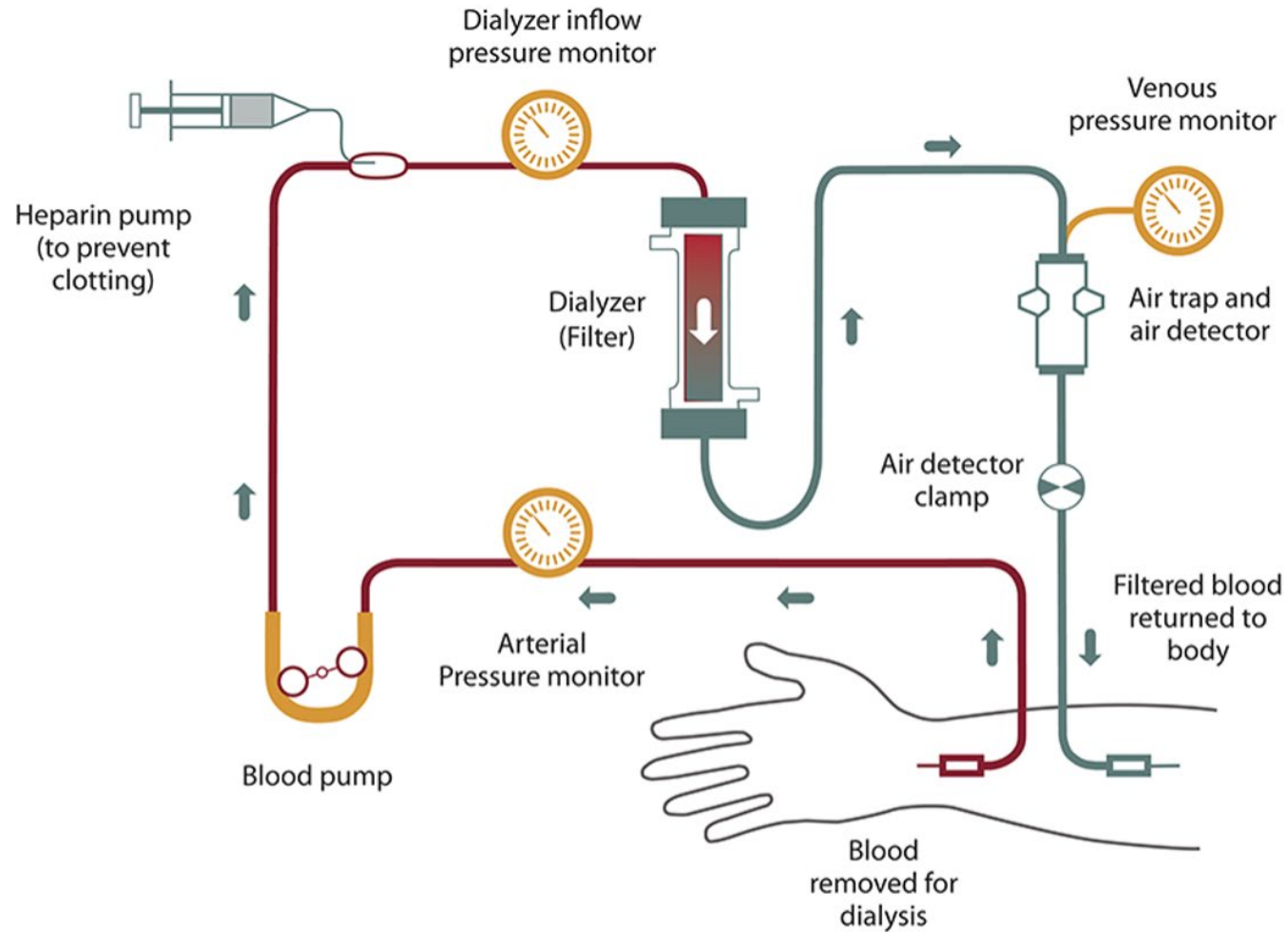
Types of Dialysis

- Hemodialysis (HD/HHD)
- Peritoneal Dialysis (PD)

Hemodialysis (HD)

- Through a vascular access (central venous catheter [CVC], fistula, graft), blood is removed through to dialyzer to remove waste and extra fluid and then returns the blood into body.
- Done in-center about four hours, three times a week or home (HHD) for four-five times a week

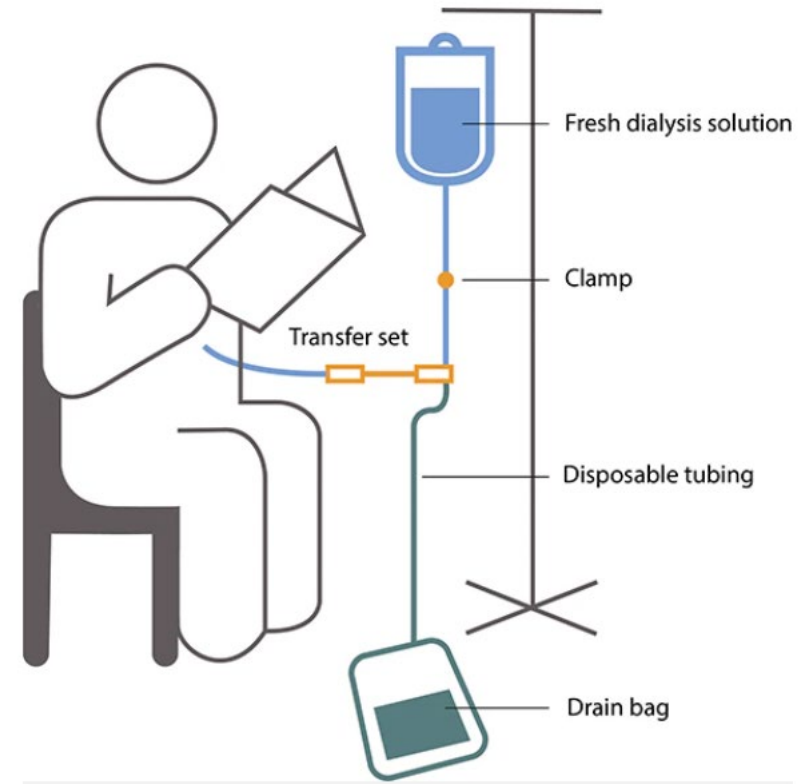
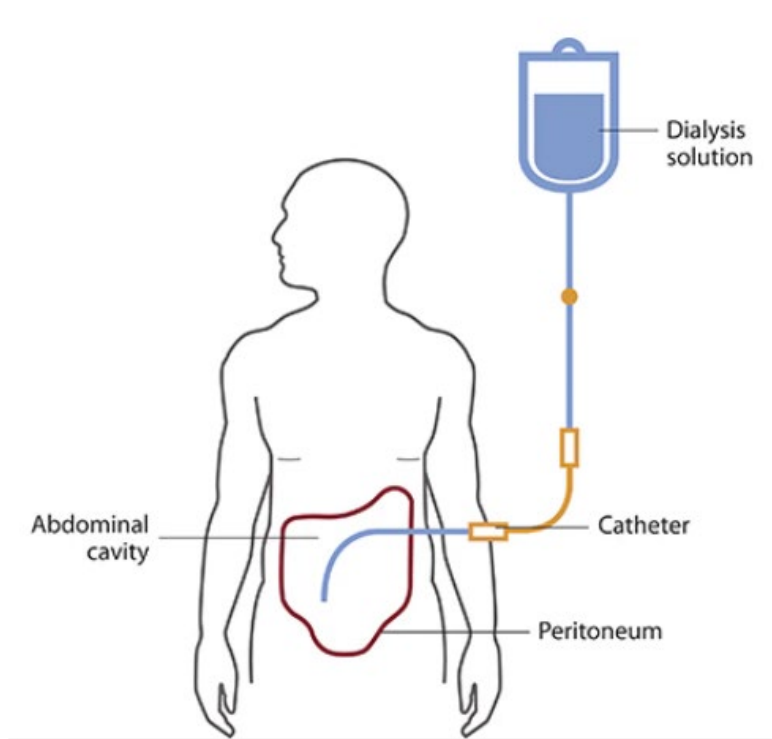
Diagram of HD



Peritoneal Dialysis (PD)

- Through catheter access, dialysate is filled into peritoneum, dwells to allow for filtration of dialysate and drained to remove the extra fluid and waste products pulled out of blood vessels.
- Completed daily or per prescription.
- Completed at home or certified nursing home.

Diagrams of PD



Side Effects

Side Effects

HD

- Muscle cramps
- Hypotension
- Weakness, dizziness, nausea
- Blood loss

PD

- Hernia
- Weight gain

Both

- Skin, blood or peritoneum infection
- Fatigue (should improve with duration on dialysis)
- Pruritis

Nutritional Education

Nutritional Education

- DASH diet helps to decrease BP.
- Plant-based diet like whole grains, nuts, fruits and vegetables helps keep kidneys healthy
- Managing Nutrients:
 - Phosphorus
 - Potassium
 - Protein
 - Sodium

Nutritional Education: Phosphorus

	High Phosphorus Food to Limit or Avoid	Lower Phosphorus Alternatives to Enjoy
Beverages	beer/ale, cocoa, drinks made with milk, canned iced teas, bottled beverages with phosphate additives, chocolate drinks, dark colas, pepper type soda (Dr Pepper)	Water, coffee, tea, rice milk (unenriched), apple juice, cranberry juice, grape juice, lemonade, ginger ale, lemon lime soda, orange soda, root beer
Dairy Products	cheese, custard, milk, cream soups, ice cream, pudding, yogurt (Greek type acceptable)	rice milk, almond milk, cottage cheese, vegan cheese, sherbet, popsicles
Protein	oysters, beef liver, fish roe, sardines, chicken liver, organ meats	chicken, turkey, fish, beef, veal, eggs, lamb, pork
Other Foods	chocolate candy, caramels, oat bran muffin, most processed/prepared foods/deli meats/hot dogs/bacon/sausage, pizza, brewer's yeast, chocolate	apples, berries, grapes, carrot sticks, cucumber, rice cakes, unsalted pretzels, unsalted popcorn, unsalted crackers, pound cake, sugar cookies

Nutritional Education: Potassium

Foods Higher in Potassium (More than 200 mg of potassium per serving)	Foods Lower in Potassium (Less than 200 mg of potassium per serving)
Fruits	
apricots, avocado, banana, cantaloupe, dates, dried figs, dried fruits, grapefruit juice, honeydew melon, kiwi, mango, nectarine, orange/juice, papaya, pomegranate/juice, prunes/juice, raisins	apple, applesauce/juice, apricots (canned) blackberries, blue berries, cherries, cranberries, fruit cocktail, grapes/juice, grapefruit, mandarin oranges, peaches, pears, pineapple/juice, plum, raspberries, strawberries, tangerine, watermelon
Vegetables	
acorn squash, artichoke, bamboo shoots, beans (baked, black, dried or refried), butternut squash, beets, broccoli, brussels sprouts, carrots (raw), Chinese cabbage, greens (except kale), hubbard squash, kohlrabi, lentils, legumes, white mushrooms (cooked), okra, parsnips, peas (dried), potatoes (white and sweet), pumpkin, rutabagas, seaweed, spinach (cooked), tomatoes and tomato products, vegetable juices	alfalfa sprouts, asparagus, beans, broccoli, cabbage, cauliflower, celery, corn, cucumber, eggplant, kale, lettuce, mixed vegetables, white mushrooms, onion, parsley, peas, peppers, radish, rhubarb, water chestnuts, watercress, yellow squash, zucchini squash
Other	
beef, brand/bran products, chicken, chocolate, granola, milk, molasses, nuts and seeds, peanut butter, salmon, salt substitutes/lite salt, salt-free broth, yogurt, snuff/chewing tobacco, wheat germ	bread/bread products (not whole grains), cake, coffee, pie, cookies, noodles, pasta, rice, tea
Additional details about these foods, including serving sizes, available from the National Kidney Foundation.	

Nutritional Education: Protein

Animal sources:

- Meat, poultry, fish
- Dairy

Plant Sources:

- Beans, lentils, nuts, peanut butter, seeds, whole grains

Nutritional Education: Sodium

Limit Amounts	Food to Limit Due to High Sodium Content	Acceptable Substitutes
Salt and Salt Seasonings	table salt, seasoning salt, garlic salt, onion salt, celery salt, lemon pepper, lite salt, meat tenderizer	Fresh garlic, fresh onion, garlic powder, onion powder, black pepper, lemon juice, low- sodium/salt-free seasoning blends, vinegar
Salty Foods	High sodium sauces such as: barbecue sauce, steak sauce, soy sauce, teriyaki sauce, oyster sauce Salted snacks such as: crackers, potato chips, corn chips, pretzels, tortilla chips, nuts, popcorn, sunflower seeds.	Homemade or low-sodium sauces and salad dressings; vinegar; dry mustard; unsalted crackers, popcorn, pretzels, tortilla, or corn chips
Cured Foods	ham, salt pork, bacon, sauerkraut, pickles, pickle relish, lox and herring, olives	Fresh beef, veal, pork, poultry, fish, eggs
Luncheon Meats	hot dogs, cold cuts, deli meats, pastrami, sausage, corned beef, SPAM	Low-salt deli meats (if you need to limit phosphorus, these are likely high in phosphorus)
Processed Foods	Buttermilk, cheese, <i>Canned: soups, tomato products, vegetable juices, vegetables</i> Convenience foods such as: TV dinners, canned raviolis, canned chili, packaged macaroni and cheese, canned spaghetti, commercial mixes, frozen prepared foods, fast foods	Natural cheese Homemade or reduced-sodium soups, canned food without added salt Homemade casseroles without added salt, made with fresh or raw vegetables, fresh meat, rice, pasta, or no added salt canned vegetables

Medication Management

Medication Management

- Phosphorus control
 - Phosphate binder taken with meals and snacks.
- BP control
- Iron
- Consult with dialysis team on appropriate times to be giving medications.
 - Not too soon after dialysis or just prior to treatment.
 - Ex: BP meds, binders, etc.

Fluid Measurements

Fluid Measurements

- Some individuals may be on fluid restrictions.
- Monitor strictly.
- Give gum for dry mouth.
- If a food turns to liquid in warmth, it will count as fluid.

Vaccinations

Vaccines Recommended for Dialysis and CKD Patients

Vaccines		
The Centers for Disease Control and Prevention (CDC) Recommended for Dialysis/CKD Patients		
Hepatitis B	annual testing	3 dose schedule
Pneumococcal	5 year f/u second dose	consult doctor
COVID-19 Bivalent (SARS-CoV-2)		1 – 3 doses + bivalent booster
Recommended for All Adults		
Dtap/Tdap/TD	1 dose	Booster every 10 years
Influenza (TIV)	Live, Attenuated Influenza Vaccine (LAIV) Contraindicated	Annual
Varicella	Are not immune, have not gotten vaccine	2 doses, 4 – 8 weeks apart

Staff Training

Staff Training

- PD catheters
- Access care
 - Fistula, graft, CVC
- BP checks

PD Catheters

- Cares are performed by trained/certified staff at clinic unless staff trained by dialysis clinic staff.
- Ensure catheter is secured.
- Notify clinic nurse with any signs of infection (redness, tenderness, drainage) or leaking.
- No baths, hot tubs, swimming pools.
- Do not get wet until healed.

Access Care

- **Fistula, graft, CVC**
 - Cares are performed by trained/certified staff at clinic or center unless staff trained by dialysis clinic staff.
 - Ensure no bleeding.
 - Tape should not be on 24 hours to prevent occlusion or stenosis.
 - Dressing on CVC at all times and do not get wet.
 - No BPs or lab draws to ever be taken on fistula or graft.

BP Checks

- Are all staff familiar with taking BPs correctly?
 - Good in-service review, practicing on each other and recording for consistency.
- BP checks should be taken at consistent time of day and prior to medications administered.
- Document BP and notify clinic of any outside personal ranges set by nephrologist.
- Administer BP medications timely.

Emergencies

Emergencies

When should you contact the dialysis clinic/center?

- Any hospitalization.
- Any change in condition (fever, s/s infection).
- Any change to medications from outside providers.
- Extreme BPs.
- Extreme weight gain.
- Excessive swelling or edema.

Special Considerations

Special Considerations

- Arrive early for all appointments.
- Arrange ride for residents.
- Walking with ambulatory residents after HD treatments.
- Fall risks.
- Call clinic/center if resident too sick to get out of bed.
 - Can decline quickly with missed treatments
 - May need to reschedule if open time

Questions?

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Resources

- CDC, [Guidelines for Vaccinating Kidney Dialysis Patients and Patients with CKD](#)
- [National Kidney Foundation](#)



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Quality Alliance

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