

Adult Peritoneal Dialysis Patients Standing Orders

1. Target Weight

Target Weight Evaluations to be performed during peritoneal home dialysis training and four times yearly (Jan-Apr-July-Oct).

2. Peritoneal Access

a. NEW PERITONEAL ACCESS CARE

Begin 3 to 10 days post PD access placement or externalization. Scheduling beyond 10 days delays exit site care treatment and increases exit site infection risk

i. PERITONEAL ACCESS FLUSH

1. Select correct flush template for documentation (see Peritoneal Dialysis Access Flushes procedure).
2. Access flush and dressing change before dialysis, at the nurse's discretion. Outcome to be faxed to MD.
3. Flush access with 1.5% dextrose or normal saline; leave 300 ml in peritoneal cavity. (Refer to Peritoneal Access Flushes procedure.)
4. If effluent is bloody, flush access with 1.5% dextrose, 1000 ml up to 3 times until clear. Notify MD if fluid does not clear after 3 flushes.
5. Fill access with 6 ml heparin (1:1000 u/ml) following every flush procedure.
6. Catheter Flush is done Weekly for 3 weeks and then Monthly.

b. ESTABLISHED PD EXIT SITE CARE

Nurse to inspect exit site at each monthly clinic visit and perform Daily Peritoneal Catheter Exit Site Care procedure if indicated.

c. PERITONEAL ACCESS INFLOW PROBLEMS

d. PERITONEAL ACCESS OUTFLOW PROBLEMS

In the absence of signs and symptoms of peritonitis; i.e., abdominal pain, fever, cloudy outflow, absent bowel sounds:

- i. Irrigate access to check patency and function.
- ii. Consider changing transfer set
- iii. Administer Lactulose 15-30 ml orally as needed for constipation.
- iv. For slow drains or fibrin present, add heparin 500 u/L to overnight CAPD bag or to each APD bag – until drain problem resolves or fibrin no longer present. (Always use 1:1000 u/ml heparin.)
- v. As indicated, request an order from the attending physician's

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office for a KUB to evaluate for constipation and catheter position.

- vi. Initiate the NKC protocol Using Tissue Plasminogen Activator (tPA) for Peritoneal Access Obstruction as indicated in established PD patients who have started PD treatments. (ICD10 = D68.9)

3. Peritoneal Dialysis Orders

- a. Low Calcium dialysate (2.5 mEq/L) is used unless otherwise specified by the nephrologist.
- b. Icodextrin use requires specific MD order.
- c. PD is performed daily.
- d. Adjust PD prescription to maintain DW and PD adequacy:
 - Fill volume – 1.5 to 3L
 - Exchanges – 3 to 7 per 24 hours
 - % Dextrose – 1.5 to 4.25
- e. Add heparin 500 u/L to the dialysate prn fibrin. (Always use 1:1000 u/ml heparin.) (ICD10 = D68.9)
- f. All Patients will first be trained to CAPD prior to starting APD unless otherwise ordered.
- g. CAPD may be used as backup for APD at the nurse's discretion.

4. Infection

Follow peritonitis & PD access exit site infection protocols.

5. Routine Diet (daily allowance)

- a. 1500 - 2000 mg sodium and drink to thirst
- b. 3-4 gm potassium.
- c. 0.8 – 1.2 gm phosphorus.
- d. 1.2 – 1.5 gm/kg protein.

6. Laboratory Tests

a. New Patient Lab Draws:

- i. Chem panel (ICD10 = N18.6)
 - Repeat Ca prn if result ≥ 10.2
- ii. CBC with platelets (ICD10 = N18.6)
- iii. PTH Intact (ICD10 = N25.81)
- iv. Ferritin, Iron, TIBC, % Saturation (ICD10 = E83.0)
- v. Aluminum (ICD10 = N18.6)
 - 1. Patients with aluminum levels greater than 30 (ICD10 = N18.6 initial draw; N18.6D subsequent draws)
 - 2. Or those on aluminum containing phosphate binders (ICD10 = N18.6 initial draw; N18.6 subsequent draws)
- vi. Hemoglobin A1c (ICD10 = E11.9) values will be obtained on each new patient. If no diagnosis of diabetes, N18.6
- vii. Initial adequacy of dialysis testing is done within the first 30 days following initiation of treatment (ICD10 = N18.6)

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- viii. Anti-HBc (ICD10 = N18.6) on admission if not previously obtained.
- ix. Hepatitis C Antibody (ICD10 = N18.6) on admit to NKC if not previously obtained.
- x. HBsAg (ICD10 = N18.6)
- xi. Anti-HBsAb (ICD10 = N18.6)
- xii. Initial PET (ICD10 = N18.6) is done within first 4 to 6 weeks following completion of training.

b. Routine Draws

- i. Chemistries: monthly (ICD10 = N18.6)
- ii. CBC with platelets: monthly (ICD10 = N18.6)
- iii. HBsAg: (ICD10 = N18.6)
 - 1. Monthly if patient is HBsAg negative and Anti-HBs negative unless patient is receiving the Hepatitis vaccination series. If receiving the vaccination series draw HBsAg one month after series complete.
 - 2. Annually (Jan) if patient is Anti HBs positive or if HBsAg positive.
- iv. Anti HBs: (ICD10 = N18.6) Per vaccination protocol
- v. Modified or Modified Fast PET: as clinically indicated (ICD10 = N18.6)
- vi. Anti-HBc: (ICD10 = N18.6) On admission (if not previously obtained)
- vii. Hepatitis C Antibody: (ICD10 = N18.6) On admission (if not previously obtained) and semi-annually.
- viii. Iron labs: quarterly (ICD10 = E83.10) Jan– Apr–July–Oct.
- ix. iPTH: Quarterly (Jan-Apr-July-Oct) when patient schedules with clinic visit
 - 1. Hyperparathyroidism (ICD10 = N25.81)
- x. Aluminum: (ICD10 = N18.6) Annually and then quarterly for patients with aluminums >30 or on aluminum binders (Jan– Apr–July–Oct.)
- xi. Magnesium: quarterly for patients on magnesium based binders N18.6
- xii. Hemoglobin A1c: values will be obtained quarterly on patients who have a diagnosis of diabetes mellitus in EMR and annually (ICD10= E11.9).

c. Adequacy Testing

Routine adequacy testing is performed quarterly, following Dialysis prescription changes, and as clinically indicated. (ICD10 = N18.6).

d. PRN Draws

- i. Potassium (Hyperkalemia ICD10 = E87.5, or Hypokalemia ICD10 = E87.6).
 - 1. If K+ is <3.0 notify MD, notify RD, repeat K+ weekly until result is ≥3.0

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2. For K+ 3.0 to 3.4 notify MD, notify RD, repeat K+ q 2 wks until >3.4
- ii. Hypercalcemia: Repeat Ca prn if result => 10.2 (ICD10= Hypercalcemia) E83.52
- iii. Aluminum binders
 1. Patients with aluminum levels greater than 30 (ICD10 = N18.6 initial draw; N18.6D subsequent draws)
 2. Or those on aluminum containing phosphate binders (ICD10 = N18.6 initial draw; N18.6 subsequent draws)
 3. For K+ 3.5 to 3.9 notify MD
 4. For K 5.5-5.9 notify MD, notify RD
 5. For K+ \geq 6.0, repeat K+, notify MD, notify RD
- iv. Effluent cell count with gram stain, culture + sensitivity and fungal culture as needed (ICD10 = K65.9)
- v. Access site culture as needed (ICD10 = T85.71XA)

7. Laboratory Tests requests for patients who travel

Patients traveling to other facilities may have their labs drawn prior to travel at the discretion and request of the unit to be visited as long as correct ICD10 codes are provided.

8. Medications

a. ROUTINE (Individual prescriptions required Page 7)

- i. **Colace** or equivalent 100 mg p.o. twice daily as indicated.
- ii. **Lactulose 15ml (10gm/5ml) po prn constipation** (ICD10 = K59.00)
- iii. **Gentamicin** 0.1% cream topically to PD access exit site daily.
- iv. **Water soluble vitamin** one p.o. daily.

b. PRN

- i. **Diphenhydramine; Epinephrine, Methylprednisolone are to be used only for Drug Reaction** (ICD10 = T50.995A) Notify MD and pharmacy of any drug reaction.
 1. **Diphenhydramine (Benadryl)** 25 mg po or IV PRN drug reaction may repeat x 1. Do not give if hypotensive. Patients should be reminded not to drive after receiving IV diphenhydramine.
 2. **Epinephrine** 0.3 mg IM
 3. Methylprednisolone 125mg IV push over 5-10 minutes
- ii. **Glucose Paste** (ICD10 = E16.2)
 1. Obtain glucose meter result.
 2. For symptomatic hypoglycemia glucose meter result 50-79, administer approximately ½ to 1 tube (12 – 24 gm) glucose paste PO if patient is alert, may repeat as needed.

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iv. Heparin

1. Use if fibrin or bloody effluent present (ICD10 = D68.9)
2. Add heparin 500 u/L to overnight CAPD bag or to each APD bag until effluent is clear or fibrin is resolved.
3. Always use 1:1000 u/ml heparin.

v. Nitroglycerin – Anginal Chest Pain (ICD10 = I20.9)

1. Give Nitroglycerin 0.4 mg SL.
2. May repeat every 5 minutes x 2.
3. Notify MD by phone.
4. Do not give if systolic BP is <100 mmHg.

vi. Normal Saline – Hypotension

1. Normal Saline IV may be given in 200 ml boluses up to 1000 ml.
2. Notify MD.

vii. Oxygen – Dyspnea, Chest Pain, Hypotension, Arrhythmia (ICD10 = R09.02 Hypoxemia)

1. Oxygen may be administered per nasal cannula at 2 L/min or mask at 5 L/min.
2. Do not exceed 2 L/min in patient with COPD.
3. Notify MD.

viii. Seizures

Initiate Seizure Management protocol.

ix. tPA – Clotted PD Access

Administer per Using Tissue Plasminogen Activator (tPA) for Peritoneal Access Obstruction protocol.

x. Acetaminophen (Tylenol) – Pain (ICD10 = R52)

Give acetaminophen 325 mg 1 to 2 tablets po every 4 hours PRN during dialysis for mild pain or fever (R50.9).

c. OTHER:

i. Hepatitis B Vaccine (ICD10 = Z23) per protocol

ii. Influenza vaccine (ICD10 = Z23) per protocol

Influenza vaccine should be administered to all patients during the flu season (October - April) except those with egg allergy, those for whom the patient's physician has stated it is contraindicated, and those who refuse.

iii. Pneumococcal vaccine (ICD10 = Z23) per protocol

iv. Covid Vaccine (ICD10 =Z23) per protocol

9. Miscellaneous

a. Emergency Dialysis Orders

Provision of dialysis services in an emergency depends on the degree of social isolation of both patients and staff, availability of patient transportation for access to care, and the availability of caregivers to provide care.

- b. During emergencies (earthquake, fire, flood, power outage, pandemic, etc.), the following procedure will be implemented:

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- i. In a declared emergency in which the NKC Emergency Operations Center (EOC) is convened, standing orders specific to the emergency at hand will be communicated to facilities, staff and medical staff.
- ii. They are subject to change depending on changes in conditions.
- iii. Nursing services may exercise discretion and clinical judgment in their application. This may vary from facility to facility
- c. Baseline provision of care should include:
 - i. Sodium Polystyrene Sulfonate (Kayexalate) (ICD10 = E87.5): provide patient with Sodium Polystyrene Sulfonate as needed from disaster supplies (30 gm).
 - ii. Implementation of emergency diet plan.
- d. Initiate TB screening per TB Testing Surveillance for Patients policy

Matthew Rivara, MD
Physician Name (Please Print)

Physician signature
(**See Initial Orders**)

Date

1. Medication Prescription

e. ROUTINE

- i. **Colace** or equivalent, 100 mg p.o. twice daily hold for diarrhea. #60 with 11 refills
- ii. **Lactulose 15ml (10gm/5ml)** po daily prn constipation #473ml with 1 refill
- iii. **Gentamicin** 0.1% cream topically to PD access exit site daily. #15g tube with 11 refills



f. PD Emergency Kit may be prescribed at physician request

AS DIRECTED-The PD department no longer recommends this for each patient, but it may be appropriate for patients who live remotely

- i. Ceftazadime 1 gram IP Daily per peritonitis emergency protocol #3 no refills
- ii. Cephalexin 500mg PO BID per exit site infection protocol when inst#14 no refills
- iii. Vancomycin 1000mg IP Once per peritonitis emergency protocol #2 no refills
- iv. Sterile Water 10ml vial for reconstitution per peritonitis emergency protocol #4 no refills
- v. Heparin 1:1000 units 10 ml vial, administer 0.5ml per liter of PD Fluid prn fibrin no refills

Matthew Rivara, MD

Physician Name (Please Print)

RN Name (Please Print)

Physician signature

RN signature

Date

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