

RENAL DIALYSIS

Dialysis is a process that substitutes for renal function by removing excess fluid and/or accumulated endogenous or exogenous toxins. Dialysis is most often used for patients with ARF and chronic (end-stage) renal disease. The two most common types are hemodialysis and peritoneal dialysis. Dialysis therapies include intermittent hemodialysis (IHD), continuous arteriovenous hemodialysis (CAVHD), continuous venovenous hemodialysis (CVVHD), and peritoneal dialysis.

Patients with ARF are sometimes so hemodynamically unstable that they cannot tolerate conventional hemodialysis. These patients may benefit from continuous renal replacement therapy (CRRT), which more slowly removes plasma water and compensates for the loss of intravascular volume. Ultrafiltration methods include continuous arteriovenous hemofiltration (CAVH) and continuous venovenous hemofiltration (CVVH). The chosen type of fluid and or solute removal depends on the patient's cause for renal failure, current hemodynamic status, vascular access, and healthcare providers' equipment and training.

CARE SETTING

Community level/dialysis center, although inpatient acute stay may be required during initiation of therapy.

RELATED CONCERNS

Anemias (iron deficiency, pernicious, aplastic, hemolytic)

Heart failure: chronic

Peritonitis

Psychosocial aspects of care

Sepsis/septicemia

Total nutritional support: parenteral/enteral feeding

Transplantation: (postoperative and lifelong)

Patient Assessment Database

Refer to CPs: Renal Failure: Acute; Renal Failure: Chronic, for assessment information.

Discharge plan DRG projected mean length of inpatient stay: 2.2 days to initiate therapy

considerations: May require assistance with treatment regimen, transportation, activities of daily living (ADLs), homemaker/maintenance tasks

Refer to section at end of plan for postdischarge considerations.

DIAGNOSTIC STUDIES

Studies and results are variable, depending on reason for dialysis (e.g., removal of excess fluid or toxins/drugs), degree of renal involvement, and patient considerations (e.g., distance from treatment center, cognition, available support).

NURSING PRIORITIES

1. Promote homeostasis.
2. Maintain comfort.
3. Prevent complications.
4. Support patient independence/self-care.
5. Provide information about disease process/prognosis and treatment needs.

DISCHARGE GOALS

1. Fluid and electrolyte balance maximized.
2. Complications prevented/minimized.
3. Discomfort alleviated.
4. Dealing realistically with current situation; independent within limits of condition.
5. Disease process/prognosis and therapeutic regimen understood.
6. Plan in place to meet needs after discharge.

GENERAL CONSIDERATIONS

This section addresses the general nursing management issues of patient receiving some form of dialysis.

NURSING DIAGNOSIS: Nutrition: imbalanced, less than body requirements

May be related to

GI disturbances (result of uremia/medication side effects): anorexia, nausea/vomiting, and stomatitis
Sensation of feeling full (abdominal distension during continuous ambulatory peritoneal dialysis [CAPD])
Dietary restrictions (bland, tasteless food); lack of interest in food
Loss of peptides and amino acids (building blocks for proteins) during dialysis

Possibly evidenced by

Inadequate food intake, aversion to eating, altered taste sensation
Poor muscle tone/weakness
Sore, inflamed buccal cavity; pale conjunctiva/mucous membranes

DESIRED OUTCOMES/EVALUATION CRITERIA—PATIENT WILL:

Nutritional Status (NOC)

Demonstrate stable weight/gain toward goal with normalization of laboratory values and no signs of malnutrition.

ACTIONS/INTERVENTIONS	RATIONALE
Nutrition Therapy (NIC)	
Independent	
Monitor food/fluid ingested and calculate daily caloric intake.	Identifies nutritional deficits/therapy needs.
Recommend patient/SO keep a food diary, including estimation of ingested calories, electrolytes of individual concern (e.g., sodium, potassium, chloride, magnesium), and protein.	Helps patient realize “big picture” and allows opportunity to alter dietary choices to meet individual desires within identified restriction.
Measure muscle mass via triceps skin fold or similar procedure. Determine muscle-to-fat ratio.	Assesses adequacy of nutrient utilization by measuring changes in fat deposits that may suggest presence/absence of tissue catabolism.
Note presence of nausea/anorexia.	Symptoms accompany accumulation of endogenous toxins that can alter/reduce intake and require intervention.
Encourage patient to participate in menu planning.	May enhance oral intake and promote sense of control/responsibility.
Recommend small, frequent meals. Schedule meals according to dialysis needs.	Smaller portions may enhance intake. Type of dialysis influences meal patterns, e.g., patients receiving hemodialysis might not be fed directly before/during procedure because this can alter fluid removal, and patients undergoing peritoneal dialysis may be unable to ingest food while abdomen is distended with dialysate.
Encourage use of herbs/spices, e.g., garlic, onion, pepper, parsley, cilantro, and lemon.	Adds zest to food to help reduce boredom with diet. <i>Note:</i> Some salt substitutes are high in K ⁺ , and regular soy sauce is high in Na ⁺ , and therefore are to be avoided.

ACTIONS/INTERVENTIONS	RATIONALE
<p>Nutrition Therapy (NIC)</p>	
<p>Independent</p>	
<p>Suggest socialization during meals.</p>	<p>Provides diversion and promotes social aspects of eating.</p>
<p>Encourage frequent mouth care.</p>	<p>Reduces discomfort of oral stomatitis and undesirable/metallic taste in mouth, which can interfere with food intake.</p>
<p>Collaborative</p>	
<p>Refer to dietitian.</p>	<p>Necessary to develop complex and highly individual dietary program to meet cultural/lifestyle needs within specific kilocalories and protein restrictions while controlling phosphorus, sodium, potassium. <i>Note:</i> Dietary allowances tend to be somewhat more liberal for patients receiving peritoneal dialysis because of the frequency of exchanges.</p>
<p>Provide a balanced diet of complex carbohydrates and ordered amount of high-quality protein and essential amino acids.</p>	<p>Provides sufficient nutrients to improve energy and prevent muscle wasting (catabolism); promotes tissue regeneration/healing, and electrolyte balance. <i>Note:</i> Fifty percent of protein intake should be derived from protein sources with high biological value, such as red meat, poultry, fish, eggs.</p>
<p>Restrict sodium/potassium as indicated, e.g., avoid bacon, ham, other processed meats and foods, orange juice, tomato soup.</p>	<p>These electrolytes can quickly accumulate, causing fluid retention, weakness, and potentially lethal cardiac dysrhythmias. <i>Note:</i> Peritoneal dialysis is not as effective in lowering elevated Na⁺ level, necessitating tighter control of Na⁺ intake.</p>
<p>Administer multivitamins, including ascorbic acid (vitamin C), folic acid, vitamins B₆ and D, and iron supplements, as indicated.</p>	<p>Replaces vitamin/mineral deficits resulting from malnutrition/anemia or lost during dialysis.</p>
<p>Administer parenteral supplements as indicated.</p>	<p>Hyperalimentation may be needed to enhance renal tubular regeneration/resolution of underlying disease process and to provide nutrients if oral/enteral feeding is contraindicated.</p>
<p>Monitor laboratory studies, e.g.:</p> <p style="padding-left: 20px;">Serum protein, prealbumin/albumin levels;</p> <p style="padding-left: 20px;">Hb, RBC, and iron levels.</p>	<p>Indicators of protein needs. <i>Note:</i> Peritoneal dialysis is associated with significant protein loss.</p> <p>Anemia is the most pervasive complication affecting energy levels in ESRD.</p>
<p>Administer medications as appropriate:</p> <p style="padding-left: 20px;">Antiemetics, e.g., prochlorperazine (Compazine);</p> <p style="padding-left: 20px;">Histamine blockers, e.g., famotidine (Pepcid);</p>	<p>Reduces stimulation of the vomiting center.</p> <p>Gastric distress is common and may be a neuropathy-induced gastric paresis. Hypersecretion can cause persistent gastric distress and digestive dysfunction.</p>

ACTIONS/INTERVENTIONS	RATIONALE
<p>Nutrition Therapy (NIC)</p> <p>Collaborative</p> <p>Hormones and supplements as indicated, e.g., erythropoietin (EPO, Epogen) and iron supplement (Niferex).</p> <p>Insert/maintain nasogastric (NG) tube if indicated.</p>	<p>Although EPO is given to increase numbers of RBCs, it is not effective without iron supplementation. Niferex is preferred because it can be given once daily and has fewer side effects than many iron preparations.</p> <p>May be necessary when persistent vomiting occurs or when enteral feeding is desired.</p>

<p>NURSING DIAGNOSIS: Mobility, impaired physical</p> <p>May be related to</p> <p>Restrictive therapies, e.g., lengthy dialysis procedure Fear of/real danger of dislodging dialysis lines/catheter Decreased strength/endurance; musculoskeletal impairment Perceptual/cognitive impairment</p> <p>Possibly evidenced by</p> <p>Reluctance to attempt movement Inability to move within physical environment Decreased muscle mass/tone and strength Impaired coordination Pain, discomfort</p> <p>DESIRED OUTCOMES/EVALUATION CRITERIA—PATIENT WILL:</p> <p>Mobility Level (NOC) Maintain optimal mobility/function. Display increased strength and be free of associated complications (contractures, decubiti).</p>

ACTIONS/INTERVENTIONS	RATIONALE
<p>Bed Rest Care (NIC)</p> <p>Independent</p> <p>Assess activity limitations, noting presence/degree of restriction/ability.</p> <p>Encourage frequent change of position when on bedrest or chair rest; support affected body parts/joints with pillows, rolls, sheepskin, elbow/heel pads as indicated.</p> <p>Provide gentle massage. Keep skin clean and dry. Keep linens dry and wrinkle-free.</p>	<p>Influences choice of interventions.</p> <p>Decreases discomfort, maintains muscle strength/joint mobility, enhances circulation, and prevents skin breakdown.</p> <p>Stimulates circulation; prevents skin irritation.</p>

ACTIONS/INTERVENTIONS	RATIONALE
<p>Bed Rest Care (NIC)</p> <p>Independent</p> <p>Encourage deep breathing and coughing. Elevate head of bed as appropriate.</p> <p>Suggest/provide diversion as appropriate to patient's condition, e.g., visitors, radio/television, books. Take time to interact with patient, showing interest in his or her life.</p> <p>Instruct in and assist with active/passive ROM exercises.</p>	<p>Mobilizes secretions, improves lung expansion, and reduces risk of respiratory complications, e.g., atelectasis, pneumonia.</p> <p>Decreases boredom; promotes relaxation. <i>Note:</i> Recent studies indicate that patients on dialysis do feel bored and that caregivers/dialysis staff do not tend to talk with them, resulting in patients feeling like they are "just part of the scenery."</p> <p>Maintains joint flexibility, prevents contractures, and aids in reducing muscle tension.</p>
<p>Exercise Promotion (NIC)</p> <p>Institute a planned activity/exercise program as appropriate, with patient's input.</p>	<p>Increases patient's energy and sense of well-being/control. Studies have shown that regular exercise programs have benefited patients with ESRD both physically and emotionally. Stable patients have not been shown to have adverse effects.</p>
<p>Bed Rest Care (NIC)</p> <p>Collaborative</p> <p>Provide foam/flotation mattress or soft chair cushion.</p>	<p>Reduces tissue pressure and may enhance circulation, thereby reducing risk of dermal ischemia/breakdown.</p>

<p>NURSING DIAGNOSIS: Self-Care deficit (specify)</p> <p>May be related to</p> <p>Intolerance to activity; decreased strength and endurance; pain/discomfort Perceptual/cognitive impairment (accumulated toxins)</p> <p>Possibly evidenced by</p> <p>Reported inability to carry out ADLs Disheveled/unkempt appearance, strong body odor</p> <p>DESIRED OUTCOMES/EVALUATION CRITERIA—PATIENT WILL:</p> <p>Self-Care: Activities of Daily Living (ADLs) (NOC)</p> <p>Participate in ADLs within level of own ability/constraints of the illness.</p>
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ACTIONS/INTERVENTIONS	RATIONALE
<p>Self-Care Assistance (NIC)</p> <p>Independent</p> <p>Determine patient's ability to participate in self-care activities (scale of 0–4).</p> <p>Provide assistance with activities as necessary.</p> <p>Encourage/use energy-saving techniques, e.g., sitting, not standing; using shower chair; doing tasks in small increments.</p> <p>Recommend scheduling activities to allow patient sufficient time to accomplish tasks to fullest extent of ability.</p>	<p>Underlying condition dictates level of deficit/needs affecting choice of interventions. <i>Note:</i> Psychological factors (e.g., depression, motivation, and degree of support) also have a major impact on the patient's abilities.</p> <p>Meets needs while supporting patient participation and independence.</p> <p>Conserves energy, reduces fatigue, and enhances patient's ability to perform tasks.</p> <p>Unhurried approach reduces frustration, promotes patient participation, enhancing self-esteem.</p>

<p>NURSING DIAGNOSIS: Constipation, risk for</p> <p>Risk factors may include</p> <p>Decreased fluid intake, altered dietary pattern</p> <p>Reduced intestinal motility, compression of bowel (peritoneal dialysate); electrolyte imbalances; decreased mobility</p> <p>Possibly evidenced by</p> <p>[Not applicable; presence of signs and symptoms establishes an <i>actual</i> diagnosis.]</p> <p>DESIRED OUTCOMES/EVALUATION CRITERIA—PATIENT WILL:</p> <p>Bowel Elimination (NOC)</p> <p>Maintain usual/improved bowel function.</p>

ACTIONS/INTERVENTIONS	RATIONALE
<p>Self-Care Assistance (NIC)</p> <p>Independent</p> <p>Auscultate bowel sounds. Note consistency/frequency of bowel movements (BMs), presence of abdominal distension.</p>	<p>Decreased bowel sounds, passage of hard-formed/dry stools suggests constipation and requires ongoing intervention to manage.</p>

ACTIONS/INTERVENTIONS	RATIONALE

<p>Self-Care Assistance (NIC)</p> <p>Independent</p> <p>Review current medication regimen.</p> <p>Ascertain usual dietary pattern/food choices.</p> <p>Suggest adding fresh fruits, vegetables, and fiber to diet (within restrictions) when indicated.</p> <p>Encourage/assist with ambulation when able.</p> <p>Provide privacy at bedside commode/bathroom.</p> <p>Collaborative</p> <p>Administer stool softeners (e.g., Colace), bulk-forming laxatives (e.g., Metamucil) as appropriate.</p> <p>Keep patient NPO; insert NG tube as indicated.</p>	<p>Side effects of some drugs (e.g., iron products, some antacids) may compound problem.</p> <p>Although restrictions may be present, thoughtful consideration of menu choices can aid in controlling problem.</p> <p>Provides bulk, which improves stool consistency.</p> <p>Activity may stimulate peristalsis, promoting return to normal bowel activity.</p> <p>Promotes psychological comfort needed for elimination.</p> <p>Produces a softer/more easily evacuated stool.</p> <p>Decompresses stomach when recurrent episodes of unrelieved vomiting occur. Large gastric output suggests ileus (common early complication of peritoneal dialysis) with accumulation of gas and intestinal fluid that cannot be passed rectally.</p>
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<p>NURSING DIAGNOSIS: Thought Processes, risk for disturbed</p> <p>Risk factors may include Physiological changes, e.g., presence of uremic toxins, electrolyte imbalances, hypervolemia/fluid shifts; hyperglycemia (infusion of a dialysate with a high glucose concentration)</p> <p>Possibly evidenced by [Not applicable; presence of signs and symptoms establishes an <i>actual</i> diagnosis.]</p> <p>DESIRED OUTCOMES/EVALUATION CRITERIA—PATIENT WILL:</p> <p>Cognitive Ability (NOC) Regain usual/improved level of mentation. Recognize changes in thinking/behavior and demonstrate behaviors to prevent/minimize changes.</p>
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ACTIONS/INTERVENTIONS	RATIONALE
<p>Delirium Management (NIC)</p> <p>Independent</p> <p>Assess for behavioral change/change in level of consciousness, e.g., disorientation to time/place/person, lethargy, decreased concentration/memory, altered sleep patterns.</p> <p>Keep explanations simple, reorient frequently as needed. Provide “normal” day/night lighting patterns, clock, calendar.</p> <p>Provide a safe environment, restrain as indicated, pad side rails during procedure as appropriate.</p> <p>Drain peritoneal dialysate promptly at end of specified equilibration period.</p> <p>Investigate reports of headache, associated with onset of dizziness, nausea/vomiting, confusion/agitation, hypotension, tremors, or seizure activity.</p> <p>Monitor changes in speech pattern, development of dementia, myoclonus activity during hemodialysis.</p> <p>Collaborative</p> <p>Monitor BUN/Cr, serum glucose; alternate/change dialysate concentrations or add insulin as indicated.</p> <p>Administer normal saline IV as appropriate.</p> <p>Administer medication, as indicated, e.g., phenytoin (Dilantin), mannitol (Osmitol), and barbiturates.</p> <p>Obtain aluminum level as indicated.</p>	<p>May indicate level of uremic toxicity, response to or developing complication of dialysis (e.g., “dialysis dementia”), and requires further assessment/intervention.</p> <p>Improves reality orientation.</p> <p>Prevents patient trauma and/or inadvertent removal of dialysis lines/catheter.</p> <p>Prompt outflow will decrease risk of hyperglycemia/hyperosmolar fluid shifts affecting cerebral function.</p> <p>May reflect development of disequilibrium syndrome, which can occur near completion of/following hemodialysis and is thought to be caused by ultrafiltration or by the too-rapid removal of urea from the bloodstream not accompanied by equivalent removal from brain tissue. The hypertonic cerebrospinal fluid (CSF) causes a fluid shift into the brain, resulting in cerebral edema and increased intracranial pressure.</p> <p>Occasionally, accumulation of aluminum may cause dialysis dementia, progressing to death if untreated.</p> <p>Follows progression/resolution of azotemia. Hyperglycemia may develop secondary to glucose crossing peritoneal membrane and entering circulation. May require initiation of insulin therapy.</p> <p>Volume restoration may be sufficient to reverse effects of disequilibrium syndrome.</p> <p>If disequilibrium syndrome occurs during dialysis, medication may be needed to control seizures in addition to a change in dialysis prescription or discontinuation of therapy. Post procedure, an osmotic diuresis may be required to reduce cerebral edema along with anticonvulsant therapy and barbiturates to slow brain metabolism.</p> <p>Elevation may warn of impending cerebral involvement/dialysis dementia.</p>

NURSING DIAGNOSIS: Anxiety [specify level]/Fear

May be related to

Situational crisis, threat to self-concept; change in health status/role functioning, socioeconomic status
Threat of death, unknown consequences/outcome

Possibly evidenced by

Increased tension, apprehension, uncertainty, fear
Expressed concerns
Sympathetic stimulation; focus on self

DESIRED OUTCOMES/EVALUATION CRITERIA—PATIENT WILL:

Anxiety [or] Fear Control (NOC)

Verbalize awareness of feelings and reduction of anxiety/fear to a manageable level.
Demonstrate problem-solving skills and effective use of resources.
Appear relaxed, able to rest/sleep appropriately.

ACTIONS/INTERVENTIONS	RATIONALE
<p>Anxiety Reduction (NIC)</p> <p>Independent</p> <p>Assess level of fear of both patient and SO. Note signs of denial, depression, or narrowed focus of attention.</p> <p>Explain procedures/care as delivered. Repeat explanations frequently/as needed. Provide information in multiple formats, including pamphlets and films.</p> <p>Acknowledge normalcy of feelings in this situation.</p> <p>Provide opportunities for patient/SO to ask questions and verbalize concerns.</p> <p>Encourage SO to participate in care, as able/desired.</p> <p>Acknowledge concerns of patient/SO.</p> <p>Point out positive indicators of treatment, e.g., improvement in laboratory values, stable BP, lessened fatigue.</p>	<p>Helps determine the kind of interventions required.</p> <p>Fear of unknown is lessened by information/knowledge and may enhance acceptance of permanence of ESRD and necessity for dialysis. Alteration in thought processes and high levels of anxiety/fear may reduce comprehension, requiring repetition of important information. <i>Note:</i> Uremia can impair short-term memory, requiring repetition/reinforcement of information provided.</p> <p>Knowing feelings are normal can allay fear that patient is losing control.</p> <p>Creates feeling of openness and cooperation and provides information that will assist in problem identification/solving.</p> <p>Involvement promotes sense of sharing, strengthens feelings of usefulness, provides opportunity to acknowledge individual capabilities, and may lessen fear of the unknown.</p> <p>Prognosis/possibility of need for long-term dialysis and resultant lifestyle changes are a major concern for this patient and those who may be involved in future care.</p> <p>Promotes sense of success/progress in an otherwise chronic process that seems endless while patient still is experiencing physical deterioration and depression.</p>

ACTIONS/INTERVENTIONS	RATIONALE
<p>Anxiety Reduction (NIC)</p> <p>Collaborative</p> <p>Arrange for visit to dialysis center/meeting with another dialysis patient as appropriate.</p>	<p>Interaction with others who have encountered similar problems may assist patient/SO to work toward acceptance of chronic condition/focus on problem-solving activities.</p>

<p>NURSING DIAGNOSIS: Body Image disturbed/Self-Esteem, situational low</p> <p>May be related to Situational crisis, chronic illness with changes in usual roles/body image</p> <p>Possibly evidenced by Verbalization of changes in lifestyle; focus on past function, negative feelings about body; feelings of helplessness, powerlessness Continuous physical deterioration, premature aging, disfigurement Extension of body boundary to incorporate environmental objects (e.g., dialysis equipment) Change in social involvement Overdependence on others for care, not taking responsibility for self-care/lack of follow-through, self-destructive behavior</p> <p>DESIRED OUTCOMES/EVALUATION CRITERIA—PATIENT WILL:</p> <p>Self-Esteem (NOC) Identify feelings and methods for coping with negative perception of self. Verbalize acceptance of self in situation. Demonstrate adaptation to changes/events that have occurred, as evidenced by setting realistic goals and active participation in care/life.</p>
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ACTIONS/INTERVENTIONS	RATIONALE
<p>Body Image [or] Self-Esteem Enhancement (NIC)</p> <p>Independent</p> <p>Assess level of patient’s knowledge about condition and treatment and anxiety related to current situation.</p> <p>Support active information seeking by patient/SO.</p> <p>Discuss meaning of loss/change to patient.</p>	<p>Identifies extent of problem/concern and necessary interventions.</p> <p>Concern/belief that sharing of information may be "controlled" by healthcare providers perpetuates sense of a "power differential," potentiating dependence/mistrust.</p> <p>Some patients may view situation as a challenge, although many have difficulty dealing with changes in life/role performance and loss of ability to control own body.</p>

ACTIONS/INTERVENTIONS	RATIONALE
<p>Body Image [or] Self-Esteem Enhancement (NIC)</p> <p>Independent</p> <p>Note withdrawn behavior, ineffective use of denial, or behaviors indicative of overconcern with body and its functions. Investigate reports of feelings of depersonalization or the bestowing of human-like qualities on machinery.</p> <p>Assess use of addictive substances (e.g., alcohol), self-destructive/suicidal behavior.</p> <p>Determine stage of grieving. Note signs of severe/prolonged depression.</p> <p>Acknowledge normalcy of feelings.</p> <p>Encourage verbalization of personal and work conflicts that may arise. Active-listen concerns.</p> <p>Determine patient's role in family constellation and patient's perception of expectation of self and others.</p> <p>Recommend SO treat patient normally and not as an invalid.</p> <p>Assist patient to incorporate disease management into lifestyle.</p> <p>Identify strengths, past successes, previous methods patient has used to deal with life stressors.</p> <p>Help patient identify areas over which he or she has some measure of control. Provide opportunity to participate in decision-making process.</p>	<p>Indicators of developing difficulty handling stress of what is happening. <i>Note:</i> Some patients may feel tied to/controlled by technology central to their survival, even to the point of extending body boundary to incorporate dialysis equipment.</p> <p>May reflect dysfunctional coping and attempt to handle problems in an ineffective manner.</p> <p>Identification of stage patient is experiencing provides guide to recognizing and dealing appropriately with behavior as patient/SO work to come to terms with loss and limitations associated with condition. Prolonged depression may indicate need for further intervention.</p> <p>Recognition that feelings are to be expected helps patient accept and deal with them more effectively.</p> <p>Helps patient identify problems and problem-solve solutions.</p> <p>Long-term/permanent illness and disability alter patient's ability to fulfill usual role(s) in family/work setting. Unrealistic expectations can undermine self-esteem and affect outcome of illness.</p> <p>Conveys expectation that patient is able to manage situation, and helps maintain sense of self-worth and purpose in life.</p> <p>Necessities of treatment assume a more normal aspect when they are a part of the daily routine.</p> <p>Focusing on these reminders of own ability to deal with problems can help patient deal with current situation.</p> <p>Provides sense of control over seemingly uncontrollable situation, fostering independence.</p>
<p>Collaborative</p> <p>Recommend participation in local support group.</p> <p>Refer to healthcare/community resources, e.g., social service, vocational counselor, psychiatric clinical nurse specialist.</p>	<p>Reduces sense of isolation as patient learns that others have been where patient is now. Provides role models for dealing with situation, problem solving and "getting on with life." Reinforces that therapeutic regimen can be beneficial.</p> <p>Provides additional assistance for long-term management of chronic illness/change in lifestyle.</p>

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<p>NURSING DIAGNOSIS: Knowledge, deficient [Learning Need] regarding condition, prognosis, treatment, self-care, and discharge needs</p> <p>May be related to Lack of exposure/recall Unfamiliarity with information resources Cognitive limitations</p> <p>Possibly evidenced by Questions/request for information; statement of misconception Inaccurate follow-through of instruction, development of preventable complications</p> <p>DESIRED OUTCOMES/EVALUATION CRITERIA—PATIENT WILL:</p> <p>Knowledge: Disease Process (NOC) Verbalize understanding of condition and relationship of signs/symptoms of the disease process, and potential complications.</p> <p>Knowledge: Treatment Regimen (NOC) Verbalize understanding of therapeutic needs. Correctly perform necessary procedures and explain reasons for actions.</p>

ACTIONS/INTERVENTIONS	RATIONALE
<p>Teaching: Disease Process (NIC)</p> <p>Independent</p> <p>Note level of anxiety/fear and alteration of thought processes. Time teaching appropriately.</p> <p>Review particular disease process, prognosis, and potential complications in clear concise terms, periodically repeating and updating information as necessary.</p> <p>Encourage and provide opportunity for questions.</p> <p>Acknowledge that certain feelings/patterns of response are normal during course of therapy.</p> <p>Stress necessity of reading all product labels (food/beverage and OTC drugs) and not taking medications/herbal supplements without prior approval of healthcare provider.</p>	<p>These factors directly affect ability to participate/access and use knowledge. In addition, studies indicate that during the dialysis procedure, patient’s cognitive function may be impaired, and patients themselves state that they feel “fuzzy.” Therefore, learning may not be optimal during this time.</p> <p>Providing information at the level of the patient’s/SO’s understanding will reduce anxiety and misconceptions about what patient is experiencing.</p> <p>Enhances learning process, promotes informed decision making, and reduces anxiety associated with the unknown.</p> <p>Patient/SO may initially be hopeful and positive about the future, but as treatment continues and progress is less dramatic, they can become discouraged/depressed, and conflicts of dependence/independence may develop.</p> <p>It is difficult to maintain electrolyte balance when exogenous intake is not factored into dietary restriction, e.g., hypercalcemia can result from routine supplement use in combination with increased dietary intake of calcium-fortified foods and medicines.</p>

ACTIONS/INTERVENTIONS	RATIONALE
<p>Teaching: Disease Process (NIC)</p> <p>Independent</p> <p>Stress importance of establishing and adhering to medication schedule reflecting the specific form of renal disease, timing of dialysis, and properties of the individual medications.</p> <p>Discuss significance of maintaining nutritious eating habits; preventing wide fluctuation of fluid/electrolyte balance; avoidance of crowds/people with infectious processes.</p> <p>Instruct patient about epoetin (Epogen) when indicated. Have patient/SO demonstrate ability to administer and state adverse side effects and healthcare practices associated with this therapy.</p> <p>Identify healthcare/community resources, e.g., dialysis support group, social services, mental health clinic.</p>	<p>This is necessary to ensure that therapeutic levels of the drugs are reached and that toxic levels are avoided. <i>Note:</i> It is important that patient remember to review/revise schedule as the regimen changes and to share with new providers (e.g., staff physician/RN if hospitalized).</p> <p>Depressed immune system, presence of anemia, invasive procedures, and malnutrition potentiate risk of infection.</p> <p>Epogen is used for the management of the anemia associated with CRF/ESRD. The drug is given to increase and maintain RBC production, which can allow patient to feel better and stronger. Contraindications may include adverse side effects such as polycythemia/ increased clotting, failure to administer correctly or have appropriate follow-up.</p> <p>Knowledge and use of these resources assist patient/SO to manage care more effectively. Interaction with others in similar situation provides opportunity for discussion of options and making informed choices, e.g., stopping dialysis, renal transplantation.</p>
<p>Teaching: Procedure/Treatment (NIC)</p> <p>Discuss procedures and purpose of dialysis in terms understandable to patient. Repeat explanations as required.</p> <p>Instruct patient/SO in home dialysis as indicated:</p> <ul style="list-style-type: none"> Operation and maintenance of equipment (including vascular shunt); sources of supplies; Aseptic/clean technique; Self-monitoring of effectiveness of procedure; Management of potential complications; <p>Contact person.</p>	<p>A clear understanding of the purpose, process, and what is expected of patient/SO facilitates their cooperation with regimen and may enhance outcomes.</p> <p>Information diminishes anxiety of the unknown and provides opportunity for patient to be knowledgeable about own care.</p> <p>Prevents contamination and reduces risk of infection.</p> <p>Provides information necessary to evaluate effects of therapy/need for change.</p> <p>Reduces concerns regarding personal well-being; supports efforts at self-care.</p> <p>Readily available support person can answer questions, troubleshoot problems, and facilitate timely medical intervention when indicated.</p>

(Refer to Renal Dialysis: Peritoneal, following, or Hemodialysis, to complete the plan of care.)

POTENTIAL CONSIDERATIONS following acute hospitalization (dependent on patient's age, physical condition/presence of complications, personal resources, and life responsibilities)

Fatigue—decreased metabolic energy production, states of discomfort, overwhelming psychological or emotional demands, altered body chemistry.

Fluid Volume excess—fluid retention/excessive intake, inadequate therapeutic regimen.

Infection, risk for—invasive procedures, decreased hemoglobin, chronic disease, malnutrition.

Caregiver Role Strain, risk for—severity of illness of care receiver, discharge of family member with significant home care needs, caregiver is spouse, presence of situational stressors.