NURSING CARE OF THE CLIENT HAVING A KIDNEY TRANSPLANT

PREOPERATIVE CARE
- Provide routine preoperative care as outlined in Chapter 7.
- Assess knowledge and feelings about the procedure, answering questions and clarifying information as needed. Listen and address concerns about surgery, the source of the donor organ, and possible complications. Addressing concerns and reducing preoperative anxiety improve postoperative recovery.
- Continue dialysis as ordered. Continued renal replacement therapy is necessary to manage fluid and electrolyte balance and prevent uremia prior to surgery.
- Administer immunosuppressive drugs as ordered before surgery. Immunosuppression is initiated before transplantation to prevent immediate graft rejection.

POSTOPERATIVE CARE
- Provide routine postoperative care as outlined in Chapter 7.
- Maintain urinary catheter patency and a closed system. Catheter patency is vital to keep the bladder decompressed and prevent pressure on suture lines. A closed drainage system minimizes the risk for urinary tract infection.
- Measure urine output every 30 to 60 minutes initially. Careful assessment of urine output helps determine fluid balance and transplant function. Acute tubular necrosis (ATN) is a common early complication, usually due to tissue ischemia during the period between removal of the kidney from the donor and transplantation. Oliguria is an early sign.
- Monitor vital signs and hemodynamic pressures closely. Diuresis may occur immediately, resulting in hypovolemia, low cardiac output, and impaired perfusion of the transplanted kidney.
- Maintain fluid replacement, generally calculated to replace urine output over the previous 30 or 60 minutes, milliliter for milliliter. Fluid replacement is vital to maintain vascular volume and tissue perfusion.
- Administer diuretics as ordered. Loop and/or osmotic diuretics such as furosemide or mannitol may be used to promote postoperative diuresis.
- Remove the catheter within 2 to 3 days or as ordered. Encourage voiding every 1 to 2 hours and assess frequently for signs of urinary retention following catheter removal. The bladder may have atrophied prior to surgery, reducing its capacity. Urinary retention places stress on suture lines and increases the risk of infection.
- Monitor serum electrolytes and renal function tests. These tests are used to monitor graft function and fluid and electrolyte status. Electrolyte imbalances may develop as the transplanted kidney begins to function and diuresis occurs. Elevated serum creatinine and BUN levels may be early signs of rejection or graft failure.

- Monitor for possible complications:
  a. Hemorrhage from an arterial or venous anastomosis can be either acute or insidious. Indicators include swelling at the operative site, increased abdominal girth, and signs of shock, including changes in vital signs and level of consciousness. Hemorrhage is a surgical emergency, requiring prompt recognition and treatment to preserve the graft.
  b. Ureteral anastomosis failure causes urine leakage into the peritoneal cavity. It may be marked by decreased urine output with abdominal swelling and tenderness. Failure of the ureteral anastomosis requires surgical intervention.
  c. Renal artery thrombosis is characterized by an abrupt onset of hypertension and reduced GFR. Renal artery thrombosis can result in transplant failure.
  d. Infection due to immunosuppression is an immediate and continuing risk. The inflammatory response is blunted, and infection may not significantly elevate the temperature. Monitor for signs such as change in level of consciousness, cloudy or malodorous urine, or purulent drainage from the incision. Prevention and prompt treatment of infections is particularly important in the immunosuppressed client.
- Include the following in predischarge teaching for the client and family:
  a. The use and effects of prescribed medications, including antihypertensive medications, immunosuppressive agents, prophylactic antibiotics, and others as ordered.
  b. Monitoring vital signs (including temperature) and weight.
  c. Manifestations of organ rejection, such as swelling and tenderness over the graft site, fever, joint aching, weight gain, and decreased urinary output. Stress the importance of promptly reporting signs and symptoms to the physician.
  d. Ordered or recommended dietary restrictions such as restricted carbohydrate and sodium intake, and increased protein intake.
  e. Measures to prevent infection, such as avoiding crowds and obviously ill individuals.

The client and family will manage care after discharge, and therefore need a good understanding of what to expect, how to monitor graft status, and measures to reduce the adverse effects of medications.
- Provide psychologic support, address concerns, and provide information as needed. The client knows that transplant success is not guaranteed. In addition, the client has often been managing a chronic disease independently and is used to having a degree of control. Providing information and allowing the client to retain control relieves anxiety and improves recovery.

nally, encourage the client with ESRD to investigate options for early transplantation to avoid long-term dialysis.

Assessment
Both subjective and objective data are used to assess the client with chronic renal failure.

- Subjective: complaints of anorexia, nausea, weight gain, or edema; current treatment (if any), including type and frequency of dialysis or previous kidney transplant; chronic diseases such as diabetes, heart failure, or kidney disease
- Objective: mental status; vital signs including temperature, heart and lung sounds, and peripheral pulses; urine output (if