

Nephrology Nursing Management

A

ACE Inhibitors – Angiotensin-Converting Enzyme inhibitors; related terms: captopril, enalapril, blood pressure control, proteinuria reduction. These medications block conversion of angiotensin I to angiotensin II, lowering systemic vascular resistance and intraglomerular pressure. In nephrology nursing, monitor for cough, hyperkalemia, and renal function changes; educate patients on timing of doses relative to meals.

Acute Kidney Injury (AKI) – sudden decline in renal function; related terms: oliguria, creatinine rise, RIFLE criteria. AKI is staged by changes in serum creatinine and urine output. Nursing responsibilities include fluid balance assessment, avoidance of nephrotoxic drugs, and early detection of electrolyte disturbances such as hyperkalemia.

Albumin – major plasma protein; related terms: hypoalbuminemia, oncotic pressure. Low albumin contributes to edema and influences drug dosing. Nurses track serum albumin to gauge nutritional status and adjust diuretic therapy.

Arteriovenous Fistula (AVF) – surgically created connection between an artery and vein for hemodialysis; related terms: vascular access, maturation, cannulation. Nursing care includes regular inspection for thrill, bruit, infection signs, and patient education on limb protection.

Arteriovenous Graft (AVG) – synthetic conduit linking artery to vein; related terms: PTFE graft, infection risk. Compared with AVF, AVG matures faster but has higher infection rates. Nurses assess for erythema, warmth, and audible bruits.

Arterial Blood Gas (ABG) – test measuring pH, PaO₂, PaCO₂, HCO₃⁻; related terms: respiratory acidosis, metabolic alkalosis. In renal patients, ABG helps evaluate acid-base balance, especially during dialysis. Nurses ensure proper specimen handling and interpret results in collaboration with physicians.

Autoimmune Glomerulonephritis – immune-mediated inflammation of glomeruli; related terms: lupus nephritis, ANCA-associated vasculitis. Management includes immunosuppressive therapy and monitoring for infection. Nursing focus is on patient education about medication adherence and infection precautions.

B

Beta-Blockers – class of antihypertensives; related terms: metoprolol, carvedilol. Useful for controlling heart rate in patients with hypertension and left ventricular hypertrophy. In renal impairment, dose adjustment may be required; nurses monitor for bradycardia and fatigue.

Blood Urea Nitrogen (BUN) – waste product measured in blood; related terms: urea, azotemia. Elevated BUN can indicate reduced GFR or high protein intake. Nursing assessment includes correlating BUN with

creatinine to evaluate renal clearance.

Biopsy – Renal – percutaneous sampling of kidney tissue; related terms: core needle, histopathology. Indicated for unexplained proteinuria or hematuria. Post-procedure nursing care includes bed rest, monitoring for hematuria, and pain control.

Bone-Mineral Disorder – abnormalities in calcium, phosphate, PTH; related terms: renal osteodystrophy, calciphylaxis. Chronic kidney disease (CKD) disrupts mineral metabolism. Nursing tasks involve dietary counseling, medication administration (e.G., Phosphate binders), and monitoring serum levels.

Bowman’s Capsule – cup-shaped structure surrounding glomerulus; related terms: glomerular filtration, filtration barrier. Understanding its anatomy helps nurses explain disease mechanisms such as glomerulonephritis.

Bradykinin – vasoactive peptide increased by ACE inhibitors; related terms: cough, angioedema. Nurses should assess for swelling of lips, tongue, or airway, especially after initiating ACE therapy.

Bronchial Asthma – chronic airway disease; related terms: beta-agonists, corticosteroids. Certain renal drugs (e.G., NSAIDs) can exacerbate asthma; nurses coordinate medication reviews.

C

Calcium-Sensing Receptor (CaSR) – regulates PTH secretion; related terms: cinacalcet, hyperparathyroidism. Modulation of CaSR is therapeutic in secondary hyperparathyroidism. Nursing considerations include monitoring calcium levels and patient education on hypocalcemia symptoms.

Capillary Refill Time – quick assessment of peripheral perfusion; related terms: shock, hypovolemia. In dialysis patients, prolonged refill may signal volume depletion.

Cardiovascular Disease (CVD) – leading cause of mortality in CKD; related terms: atherosclerosis, left ventricular hypertrophy. Nurses integrate cardiovascular risk reduction through lipid management, blood pressure control, and lifestyle counseling.

Carnitine Deficiency – occurs with long-term dialysis; related terms: muscle weakness, fatigue. Supplementation may be ordered; nurses monitor for improvement and adverse effects.

Catheter-Related Bloodstream Infection (CRBSI) – infection via vascular access; related terms: central line, septicemia. For tunneled dialysis catheters, strict aseptic technique during dressing changes is essential.

CEPHOSPORIN-Resistant Bacteria – multidrug-resistant organisms; related terms: ESBL, carbapenemase. In renal units, infection control measures and antimicrobial stewardship are critical.

CKD – Chronic Kidney Disease – progressive loss of renal function; related terms: stage 1–5, eGFR. Nursing management includes education on diet, medication adherence, and early detection of complications.

Clearance – Dialysis – volume of plasma cleared of a solute per minute; related terms: Kt/V, urea reduction ratio. Nurses assist with calculating treatment adequacy and ensuring prescribed clearance is achieved.

Clotting Time – Heparin – anticoagulation monitoring; related terms: aPTT, protamine reversal. During hemodialysis, nurses adjust heparin infusion based on clotting parameters to prevent circuit clotting.

Coagulopathy – impaired clot formation; related terms: bleeding tendency, INR. CKD patients may develop platelet dysfunction; nursing vigilance for bruising and bleeding at access sites is required.

Cortical Necrosis – severe ischemic injury to renal cortex; related terms: ischemia, dialysis dependence. Occurs after prolonged hypotension; nurses provide supportive care and monitor for renal recovery.

Creatinine Clearance (CrCl) – estimate of GFR; related terms: 24-hour urine, MDRD equation. Important for drug dosing; nurses may assist in collecting timed urine specimens.

CRRT – Continuous Renal Replacement Therapy – prolonged extracorporeal blood purification; related terms: hemofiltration, hemoconcentration. Used in ICU for hemodynamically unstable patients. Nursing duties include circuit monitoring, anticoagulation management, and fluid balance documentation.

D

Dialysis Adequacy – measure of treatment effectiveness; related terms: Kt/V, URR. Nurses ensure prescribed treatment time, blood flow rates, and ultrafiltration goals are met.

Dialysis Access Infection – infection at AVF/AVG or catheter; related terms: exit site infection, septic thrombosis. Prompt identification and treatment prevent systemic sepsis.

Dialysis Membrane – semipermeable barrier; related terms: high-flux, biocompatibility. Choice influences solute clearance and inflammatory response. Nurses observe for allergic reactions during treatment.

Dialysis Modality – method of renal replacement; related terms: hemodialysis (HD), peritoneal dialysis (PD), home dialysis. Understanding each modality enables nurses to support patient choice and education.

Dialysis Prescription – individualized treatment plan; related terms: blood flow rate, dialysate composition. Nurses verify prescription accuracy before each session.

Diuretic Therapy – promotes urine output; related terms: furosemide, loop diuretics. In CKD, dosing must consider reduced renal clearance; nurses monitor electrolytes and volume status.

Dry Weight – target post-dialysis weight; related terms: euvolemia, interdialytic weight gain. Determined by clinical assessment; nurses adjust ultrafiltration to achieve this goal without causing hypotension.

Dyspnea – shortness of breath; related terms: fluid overload, pulmonary edema. In renal patients, dyspnea may signal inadequate fluid removal; nursing assessment includes lung auscultation and oxygen saturation.

E

EPO – Erythropoietin Stimulating Agents – stimulate red cell production; related terms: epoetin alfa, iron supplementation. Used to treat anemia of CKD. Nurses monitor hemoglobin trends, blood pressure, and iron status.

Electrolyte Imbalance – deviation from normal serum levels; related terms: hyperkalemia, hypophosphatemia. CKD predisposes to multiple imbalances; nursing interventions include dietary counseling, medication adjustment, and ECG monitoring when potassium is high.

End-Stage Renal Disease (ESRD) – kidney failure requiring renal replacement; related terms: dialysis, transplantation. Nursing care shifts to long-term management, psychosocial support, and coordination of multidisciplinary services.

Enteral Nutrition – feeding via gastrointestinal tract; related terms: tube feeding, renal diet. For patients unable to meet nutritional needs orally, nurses collaborate with dietitians to ensure protein and electrolyte targets.

Epstein-Barr Virus (EBV) Reactivation – potential complication after transplantation; related terms: post-transplant lymphoproliferative disorder. Nurses screen for symptoms and coordinate antiviral therapy if needed.

ESRD – Preemptive Transplantation – transplant before dialysis initiation; related terms: living donor, wait-list. Nurses educate patients on eligibility criteria and post-operative care.

Fluid Overload – excess extracellular fluid; related terms: edema, hypertension. Assessment includes daily weights, lung sounds, and jugular venous pressure. Nursing interventions focus on ultrafiltration, dietary sodium restriction, and medication titration.

Furosemide – loop diuretic; related terms: high-dose therapy, resistance. In CKD, higher doses may be required; nurses monitor for ototoxicity and electrolyte disturbances.

G

GFR – Glomerular Filtration Rate – estimate of kidney filtering capacity; related terms: eGFR, CKD staging. Calculated from serum creatinine, age, sex, and race. Nurses use GFR to guide medication dosing and referral timing.

Glomerulonephritis – inflammation of glomeruli; related terms: nephritic syndrome, proteinuria. Management includes immunosuppression and blood pressure control. Nursing role includes monitoring urine output and signs of hematuria.

Hemodialysis (HD) – extracorporeal blood purification using a dialyzer; related terms: dialyzer, vascular access. Nurses prepare the circuit, monitor vitals, and manage complications such as hypotension or cramps.

Hemofiltration – convection-based dialysis modality; related terms: ultrafiltration, replacement fluid. Often used in CRRT. Nursing duties include ensuring appropriate fluid balance and filter life.

Hemodialysis Access – point of entry for blood; related terms: AVF, tunneled catheter. Regular assessment for thrill, bruit, and infection is essential.

Hemodialysis Complication – Hypotension – drop in blood pressure during treatment; related terms: cramping, ischemic injury. Nursing interventions: Adjust ultrafiltration rate, position patient Trendelenburg, administer saline bolus if needed.

Hemodialysis Complication – Muscle Cramps – painful involuntary contractions; related terms: hypocalcemia, rapid ultrafiltration. Nurses may reduce ultrafiltration speed, administer calcium gluconate, or provide massage.

Hemodialysis Machine – device that controls blood and dialysate flow; related terms: monitor alarms, dialysate temperature. Nurses must be familiar with set-up, priming, and troubleshooting.

Hemodialysis Prescription – Kt/V – dimensionless measure of dialysis dose; related terms: target ≥ 1.2 , dialysis time. Nurses verify blood flow, dialysate flow, and treatment duration to achieve prescribed Kt/V.

Hemoperfusion – blood passed through adsorbent cartridge; related terms: toxin removal, charcoal filter. Occasionally used for drug overdose; nursing monitoring includes hemodynamic stability.

Hemostasis – process stopping bleeding; related terms: coagulation cascade, platelet plug. In patients on anticoagulation for dialysis, nurses balance bleeding risk with clot prevention.

Hypercalcemia – elevated serum calcium; related terms: bone pain, arrhythmias. May result from excess calcium supplements or vitamin D therapy. Nursing actions: Assess for neuromuscular symptoms, review medication, and notify prescriber.

Hyperkalemia – serum potassium >5.5 Mmol/L; related terms: ECG changes, cardiac arrest. Common in CKD. Nursing interventions include dietary restriction, potassium-binding resins, and emergency measures such as calcium gluconate, insulin-glucose infusion, and dialysis.

Hyperphosphatemia – serum phosphate >4.5 Mg/dL; related terms: vascular calcification, phosphate binders. Nurses educate on phosphate-restricted diet and proper timing of binders with meals.

Hypertension – elevated blood pressure; related terms: renin-angiotensin system, target . In CKD, strict BP control slows progression. Nursing duties include regular measurement, medication titration, and lifestyle counseling.

I

ICU – Intensive Care Unit – specialized hospital area; related terms: CRRT, mechanical ventilation. Renal patients may require CRRT; nursing staff must be proficient in circuit management and hemodynamic monitoring.

Immunosuppression – Post-Transplant – regimen to prevent graft rejection; related terms: tacrolimus, mycophenolate mofetil. Nurses monitor drug levels, renal function, and signs of infection.

Infection Control – practices to prevent spread of pathogens; related terms: hand hygiene, contact precautions. Critical in dialysis units to reduce CRBSI and multidrug-resistant organism transmission.

Intradialytic Hypotension (IDH) – blood pressure drop >20 mmHg systolic during HD; related terms: sympathetic dysfunction, autonomic neuropathy. Nursing response: Lower ultrafiltration rate, use cooler dialysate, administer isotonic fluids.

Iron Deficiency Anemia – insufficient iron for erythropoiesis; related terms: ferritin, IV iron therapy. CKD patients often require IV iron; nurses monitor for hypersensitivity reactions.

K

Kt/V – ratio of dialyzer clearance (K) × treatment time (t) to volume of distribution of urea (V); related terms: adequacy, URR. Target values differ by modality; nurses ensure treatment parameters meet prescribed Kt/V.

Kidney Transplant – surgical placement of donor kidney; related terms: living donor, immunosuppression. Nursing care includes pre-operative education, post-operative monitoring for rejection, and infection surveillance.

Kidney-Pancreas Transplant – combined organ transplant for diabetic ESRD; related terms: simultaneous pancreas-kidney (SPK). Nursing considerations include glucose monitoring and dual-organ rejection signs.

L

Lactate – metabolic by-product; related terms: metabolic acidosis, lactate clearance. Elevated lactate may indicate tissue hypoperfusion; nurses assess perfusion and oxygen delivery.

Laser-Induced Kidney Injury – rare iatrogenic injury; related terms: thermal damage. Awareness helps nurses recognize atypical hematuria after procedures.

Lead Toxicity – accumulation of lead; related terms: nephropathy. Although uncommon, chronic exposure can exacerbate CKD; nursing assessment includes occupational history.

Leukocyte-Reduced Blood Products – blood components with minimized white cells; related terms: transfusion reactions. Used in dialysis patients to reduce febrile reactions.

Lipid Management – control of cholesterol; related terms: statins, LDL target. CKD patients benefit from statin therapy; nurses monitor liver enzymes and educate on adherence.

Low-Flux Dialyzer – membrane with smaller pores; related terms: urea clearance, less middle-molecule removal. May be selected for patients with low infection risk.

Low-Molecular-Weight Heparin (LMWH) – anticoagulant; related terms: enoxaparin, protamine reversal. Used during HD to prevent clotting; nursing dose calculations consider weight and renal function.

M

Magnesium – essential electrolyte; related terms: hypermagnesemia, hypomagnesemia. Dialysis patients can develop abnormalities; nurses monitor serum levels and adjust dialysate concentration.

Malnutrition-Inflammation Complex Syndrome (MICS) – combined protein-energy wasting and inflammation; related terms: albumin, CRP. Nursing interventions include nutritional assessment, supplementation, and inflammation control.

Metabolic Acidosis – low serum bicarbonate; related terms: buffer therapy, dialysate bicarbonate. CKD reduces acid excretion; nurses may administer oral sodium bicarbonate and adjust dialysate.

Mid-Week Dialysis – additional session for fluid-overloaded patients; related terms: extra ultrafiltration. Nursing scheduling ensures adequate staffing and supplies.

Mineral Bone Disorder (MBD) – disturbances in calcium, phosphorus, PTH; related terms: vascular calcification. Nurses educate on phosphate binders, vitamin D analogues, and dietary restrictions.

Mitral Valve Prolapse – cardiac valve abnormality; related terms: regurgitation. May coexist with CKD; nurses assess for murmurs and coordinate cardiology referral.

Modality Choice – Peritoneal Dialysis (PD) – home-based therapy using peritoneal membrane; related terms: CAPD, APD. Nursing education includes catheter care, exchange technique, and infection prevention.

Modality Choice – Hemodialysis (HD) – in-center or home extracorporeal therapy; related terms: AVF, dialyzer. Nursing responsibilities differ by setting; competence in machine operation is essential.

Monoclonal Antibody Therapy – targeted biologic agents; related terms: rituximab, membranous nephropathy. Nurses monitor for infusion reactions and infection risk.

Multidisciplinary Team (MDT) – collaborative group; related terms: nephrologist, dietitian, social worker. Effective communication ensures comprehensive renal care.

N

Nephrolithiasis – kidney stones; related terms: calcium oxalate, uric acid. In CKD, stone formation may accelerate obstruction; nurses provide dietary advice on oxalate and fluid intake.

Nephrotic Syndrome – heavy proteinuria >3.5 G/day, hypoalbuminemia, edema; related terms: membranous glomerulonephritis. Nursing care includes monitoring protein loss, edema management, and infection prophylaxis.

Nephrotoxic Drugs – agents harmful to kidneys; related terms: aminoglycosides, NSAIDs. Nurses assess medication lists, educate patients on avoidance, and monitor renal function.

New-Onset Diabetes After Transplant (NODAT) – post-transplant hyperglycemia; related terms: steroid-induced. Nursing monitoring includes glucose checks, dietary counseling, and coordination with endocrinology.

Non-Dialysis CKD Management – care for patients not yet on RRT; related terms: ACE inhibitors, dietary protein restriction. Nurses focus on slowing progression, managing complications, and preparing for future RRT.

Nutrition – Renal Diet – diet tailored to renal impairment; related terms: low-sodium, protein restriction, potassium control. Nursing role includes teaching portion sizes, reading labels, and coordinating with dietitians.

Obstructive Uropathy – blockage of urine flow; related terms: hydronephrosis. May require catheterization; nurses monitor for pain, infection, and renal function decline.

Oncotic Pressure – pressure exerted by plasma proteins; related terms: albumin, edema formation. Low oncotic pressure contributes to fluid shifts; nursing assessment includes skin turgor and weight changes.

Oral Anticoagulants – warfarin, DOACs; related terms: INR monitoring. In CKD, dose adjustments are required; nurses educate on dietary vitamin K interactions and bleeding signs.

P

Palliative Care in Renal Disease – focus on comfort and quality of life; related terms: end-of-life planning, symptom management. Nurses provide support, advance-care discussions, and coordinate hospice services when appropriate.

Parathyroid Hormone (PTH) – regulator of calcium/phosphate; related terms: secondary hyperparathyroidism. Elevated PTH is common in CKD; nursing tasks include monitoring levels and administering calcimimetics.

Peritoneal Dialysis (PD) Catheter – flexible tube placed in abdomen; related terms: exit-site infection, burkitt's technique. Nurses teach patients sterile handling and regularly inspect for leaks.

Peritoneal Equilibration Test (PET) – assesses peritoneal membrane transport; related terms: high-transport, low-transport. Results guide prescription; nursing documentation of dwell times is essential.

Phosphate Binders – medications that bind dietary phosphate; related terms: sevelamer, calcium acetate. Nurses ensure patients take binders with meals and monitor serum phosphate.

Plasma Exchange (PLEX) – removal of plasma components; related terms: autoimmune nephritis. Nursing responsibilities include vascular access management, monitoring vitals, and replacing plasma volume.

Polycystic Kidney Disease (PKD) – hereditary cystic disease; related terms: ADPKD, renal cysts. Nurses provide education on blood pressure control and screening for intracranial aneurysms.

Potassium-Binding Resins – agents that exchange potassium for sodium; related terms: sodium polystyrene sulfonate. Nursing administration must consider timing with meals and risk of intestinal necrosis.

Predialysis Education – information provided before initiating RRT; related terms: modality selection, vascular access planning. Nurses play a central role in delivering content and answering patient queries.

Protein-Energy Wasting (PEW) – loss of body protein and fat stores; related terms: malnutrition, inflammation. Nursing interventions include nutritional assessment, supplementation, and monitoring weight trends.

Prophylactic Antibiotics – given to prevent infection; related terms: pre-operative, catheter insertion. In dialysis access procedures, appropriate timing reduces infection rates.

Proteinuria – excess protein in urine; related terms: albumin-to-creatinine ratio. Indicates glomerular damage; nurses educate on ACE/ARB therapy and monitor urine dipstick results.

Prosthetic Valve – artificial heart valve; related terms: anticoagulation. CKD patients with prosthetic valves require careful anticoagulation monitoring due to altered drug clearance.

PTFE Graft – polytetrafluoroethylene vascular conduit; related terms: AVG. Nursing assessment focuses on infection signs and graft patency.

Q

Q-dialysis – quality-focused dialysis program; related terms: clinical audit. Nurses participate in data collection to improve outcomes.

Quinine Therapy – used for nocturnal muscle cramps; related terms: hypoglycemia. Nursing monitoring includes serum quinine levels and cardiac rhythm.

R

RRT – Renal Replacement Therapy – includes HD, PD, CRRT, and transplantation; related terms: dialysis, kidney transplant. Nursing competence across modalities ensures continuity of care.

Rhabdomyolysis – muscle breakdown releasing myoglobin; related terms: acute tubular necrosis. CKD patients are at risk; nurses monitor CK levels and ensure aggressive hydration.

Renal Anemia – anemia due to reduced erythropoietin; related terms: EPO therapy. Nursing tasks include administering ESA, checking hemoglobin, and managing iron status.

Renal Biopsy – Indications – unexplained hematuria, proteinuria, rapid decline in GFR; related terms: coagulation status. Nurses ensure pre-procedure labs are within acceptable ranges.

Renal Diet – Sodium Restriction – limit to fluid balance. Nurses teach label reading, use of herbs for flavor, and monitor for hypertension.

Renin–Angiotensin–Aldosterone System (RAAS) – hormonal pathway regulating BP and fluid; related terms: ACE inhibitors, ARBs. Nursing assessment includes blood pressure trends and electrolyte monitoring.

Resistant Hypertension – uncontrolled BP despite three agents; related terms: secondary causes. Nurses may coordinate secondary work-up and consider adding mineralocorticoid receptor antagonists.

Reverse Osmosis (RO) Water – purified water for dialysis; related terms: dialysate preparation. Nursing responsibility includes confirming water quality before use.

RRT Prescription – Ultrafiltration Rate – volume removed per hour; related terms: fluid overload. Nurses

calculate based on interdialytic weight gain and patient tolerance.

S

Sodium Bicarbonate Therapy – corrects metabolic acidosis; related terms: oral supplementation, dialysate bicarbonate. Nurses monitor serum bicarbonate and watch for volume overload.

Sodium-Glucose Co-Transporter-2 (SGLT2) Inhibitors – glucose-lowering agents with renal protective effects; related terms: dapagliflozin. In CKD, dosing is limited; nurses educate on infection risk (e.G., Genital mycotic infections).

Secondary Hyperparathyroidism – overproduction of PTH due to CKD; related terms: calcimimetics, vitamin D analogues. Nursing tasks include medication administration and monitoring calcium/phosphate.

Sepsis in CKD – systemic infection with heightened mortality; related terms: early goal-directed therapy. Nurses initiate rapid antibiotics, source control, and monitor renal function for further decline.

Serum Creatinine – waste product reflecting GFR; related terms: eGFR calculation. Nurses interpret trends rather than single values.

Shear Stress – force of blood flow on vascular endothelium; related terms: AVF maturation. Proper cannulation technique minimizes shear-induced injury.

Shunt Thrombosis – clot formation within AVF/AVG; related terms: thrombolysis. Nursing signs include loss of thrill, pain, and swelling; immediate referral required.

Sodium Polystyrene Sulfonate (SPS) – potassium binder; related terms: Kayexalate. Nursing administration must avoid concurrent sorbitol in patients at risk for colitis.

Staphylococcus aureus – common pathogen in access infections; related terms: MSSA, MRSA. Nurses implement screening and decolonization protocols.

Statins – lipid-lowering agents; related terms: atorvastatin, CK elevation. CKD patients benefit from cardiovascular risk reduction; nurses monitor liver enzymes and muscle symptoms.

Stewart Approach – method of acid-base analysis focusing on strong ion difference; related terms: SID. Nurses may use this framework when interpreting ABG in complex cases.

Subclinical Hyperparathyroidism – elevated PTH without overt symptoms; related terms: early intervention. Nursing role includes patient education on dietary phosphate control.

Symptom Management – Pruritus – common in ESRD; related terms: cholestyramine, phototherapy. Nurses assess severity, provide skin care, and evaluate treatment efficacy.

T

Tapered Dialysis Sessions – gradual reduction of treatment time; related terms: weaning. Used when residual

kidney function improves; nursing documentation tracks patient tolerance.

Thrombolytic Therapy – clot-dissolving medication; related terms: alteplase. Employed for access thrombosis; nurses monitor for bleeding complications.

Thrombocytopenia – low platelet count; related terms: bleeding risk. Common in uremia; nursing care includes minimizing invasive procedures.

Transplant Rejection – Acute – immune-mediated graft injury; related terms: creatinine rise, biopsy. Nurses monitor for pain, decreased urine output, and adjust immunosuppression.

Transplant Rejection – Chronic – progressive loss of graft function; related terms: interstitial fibrosis. Nursing focus shifts to preparing for retransplant or return to dialysis.

U

Uremic Pruritus – itching due to toxin accumulation; related terms: antihistamines. Nurses assess impact on sleep and quality of life.

Uremic Frost – crystalline deposits on skin of severely uremic patients; related terms: advanced CKD. Nursing care includes meticulous skin hygiene.

Urea Reduction Ratio (URR) – percentage reduction of urea during a dialysis session; related terms: target $\geq 65\%$. Nurses calculate using pre- and post-dialysis BUN values.

Uremic Encephalopathy – neurological dysfunction from toxin buildup; related terms: confusion, seizures. Nursing interventions include ensuring adequate dialysis and monitoring mental status.

Ureteric Stent – device to maintain urinary flow; related terms: obstructive uropathy. Nurses educate on signs of infection and schedule removal.

Urine Output Monitoring – essential for AKI and CKD; related terms: fluid balance chart. Accurate measurement guides diuretic therapy and dialysis timing.

Urticaria – allergic skin reaction; related terms: ACE inhibitor cough. Nurses assess for airway involvement and administer antihistamines.

V

Vascular Access Surveillance – routine monitoring for dysfunction; related terms: flow measurement. Nurses perform monthly assessments to detect early stenosis.

Vascular Access – Cannulation Technique – method of needle insertion; related terms: rope-ladder, buttonhole. Proper technique reduces aneurysm formation and infection.

Vasculitis – inflammation of blood vessels; related terms: ANCA-associated. Can cause rapidly progressive glomerulonephritis; nursing care includes monitoring for systemic signs.

Vitamin D Analogue – active forms used in CKD; related terms: calcitriol. Nurses monitor calcium, phosphate, and PTH while administering.