



Module 1: Today's Dialysis Environment

- Overview of Dialysis
- Quality in Dialysis - National Kidney Foundation - KDOQI
- Certification requirements

Module 2: The Person with Kidney Failure

- Renal Anatomy and Physiology
- Types of Kidney Failure
- Conditions Caused by CKD
- Causes of Chronic Kidney Disease
- Treatment Options
- Hemodialysis Care Team
- Communication
- Patient Education
- Patient Resources

Module 3: Principles of Dialysis

- Scientific Principles
- Solution
- Semipermeable Membrane
- Diffusion
- Osmosis
- Filtration
- Ultrafiltration
- Applying Scientific Principles

Module 4: Hemodialysis Devices

- Dialyzers
- Dialysate
- Hemodialysis Delivery Systems
- Review/Compare clearance specs of dialyzers
- Streamline Bloodline Video
- Bloodlines and explain parts of bloodlines

Module 5: Vascular Access

- Types of Accesses
 - AV Fistula, AV Graft, Dialysis Catheters
- Anesthetics Used for Needle Insertion
- Constant Site Cannulation & Management - Using Buttonhole Technique
- National Vascular Access Improvement Initiative
- Cath Flo Activase

Module 6: Hemodialysis Procedures and Complications

- Patient and Staff Safety
- Body Mechanics
- Transferring Patients
- Emergency Procedures
- Infection Control
- Bloodborne Disease
- Antibiotic-Resistant Bacteria
- Tuberculosis
- Medications and Solutions
- Measuring Dialysis Adequacy
- Monitoring During Dialysis
- Technical Monitoring
- Anticoagulation
- Clinical Complications of Dialysis
- Technical Complications

Module 7: Water Treatment

- Water Supply
- Water Treatment System Components
- Pretreatment Components
- Reverse Osmosis Process and Systems
- Distribution System
- Patient Monitoring

Module 8: Emergency Planning and Response

- Regulation and Oversight
- Types of Emergencies
- Prepare for Emergencies
- Patient Education for Emergencies
- Responding to Emergencies
- Recovering from an Emergency and Quality Improvement

Module 9: Medications Commonly Used for Dialysis Patients

- Erythropoietin Stimulating Agents: Epogen, Aranesp, Mircera, Intravenous Iron Products, Ferrlecit, Venofer, Vitamin D Analogs, Hectorol, Zemplar, Calcijex
- Calcium Sensing Receptor Antagonist: Etelcalcetide (Parsabiv)
- Select Antimicrobial Agents: Ancef, Gentamycin, Rocephin, Vancomycin
- Vaccines: Flu, Pneumovax, Energix, COVID-19