



**Commission of Dietetic Registration
Board Certified Specialist in Renal Nutrition
Certification Examination Content Outline**

I. Nutrition Assessment and Re-assessment (36%)

A. Food/Nutrition-Related History

1. Evaluate current nutrition intake, losses, and nutrient adequacy.
2. Assess nutritional needs related to ethnic and cultural diversity.
3. Assess patient for situations where advocacy is needed (e.g., food security).
4. Identify need for transitional or combination feedings.
5. Evaluate history of previous nutrition care services/MNT.
6. Evaluate information regarding use of complimentary alternative medicine. (CAM) (e.g., herbal products, botanical medicine, and over-the-counter dietary supplements).
7. Evaluate patient's comprehension and acceptance of education recommendations and interventions.
8. Obtain information regarding:
 - a. adherence to and satisfaction with current nutrition prescription.
 - b. feeding skills.
 - c. fluid status, intake and output.
 - d. hypersensitivities, food intolerances or food allergies.
 - e. ingestion of non-food items, (e.g., pica).
 - f. tolerance to current diet.
 - g. use of complimentary alternative medicine (CAM) (e.g., herbal products, botanical medicine, and over-the-counter dietary supplements).
 - h. usual dietary patterns and nutrient intake.
9. Assess need for enteral/parenteral nutrition.
10. Identify causes of inadequate or excessive mineral intake (e.g., sodium, phosphorous, potassium, calcium, magnesium).
11. Reassess medical nutrition therapy plan.

B. Anthropometric Measures

1. Obtain data regarding:
 - a. BMI.
 - b. frame size.
 - c. height.
 - d. ideal/standard BW.
 - e. weight/weight history.
2. Evaluate body weight and composition.

C. Biochemical Data, Medications, Medical Tests, and Procedures

1. Determine CKD stage.
2. Evaluate adequacy of dialysis and impact of dialysis prescription.
3. Evaluate blood chemistries.
4. Evaluate Chronic Kidney Disease-Mineral Bone Disorder (CKD-MBD) status.
5. Evaluate diabetes status.



**Commission of Dietetic Registration
Board Certified Specialist in Renal Nutrition
Certification Examination Content Outline**

6. Evaluate drug-drug, and drug-nutrient interactions.
7. Evaluate effect of infection, inflammation, and metabolic insult on biomedical parameters and nutrition status.
8. Evaluate for long term glycemic control (e.g., A1c, estimated average glucose (EAG)).
9. Evaluate for presence of cardiac disease and dyslipidemia.
10. Evaluate impact of drug and nutrient interactions.
11. Evaluate medication and dietary supplement regimen (i.e., calorie protein supplements, complementary alternative medicine (CAM), vitamin/mineral supplements).
12. Evaluate nutrition implications of diagnostic tests and therapeutic procedures.
13. Evaluate prescribed and delivered dose of dialysis.
14. Evaluate presence of anemia.
15. Evaluate residual renal function.
16. Evaluate short term glycemic control (2-3 weeks).
17. Interpret biochemical profile for acid/base status.
18. Obtain blood chemistries related to metabolic status.
19. Obtain information regarding:
 - a. dialysis prescription.
 - b. infection, inflammation, and metabolic insult.
 - c. use of over-the-counter medications.
 - d. use of over-the-counter vitamins and/or minerals.
 - e. use of prescription medications and prescribed nutrition supplements.
20. Obtain results of urine chemistries related to metabolic status.
21. Perform relevant calculations using available laboratory data (e.g., BUN:Cr, FENa, creatinine clearance, corrected calcium).

D. Nutrition Focused Physical Findings

1. Evaluate blood pressure and fluid status.
2. Evaluate gastrointestinal function.
3. Evaluate interdialytic weight changes and fluid status.
4. Evaluate physical and functional status.
5. Examine patient for integrity of tissue stores and fluid status.
6. Examine patient for physical signs and symptoms of nutrient deficiencies/excesses.
7. Obtain information regarding:
 - a. activities of daily living that could impact nutrition status.
 - b. amputation(s).
 - c. oral health.
 - d. chewing and swallowing problems.
8. Evaluate nutrition focused physical exam that includes:
 - a. alterations in smell.
 - b. alterations in taste.
 - c. dentition.
 - d. perioral structures.
 - e. skin and related structures.



**Commission of Dietetic Registration
Board Certified Specialist in Renal Nutrition
Certification Examination Content Outline**

E. Patient History

1. Determine patient's activity level, exercise program, and sleep patterns.
2. Evaluate the effect of co-morbid conditions of the patient.
3. Identify psychosocial issues that may impact nutrition status.
4. Identify socioeconomic, religious and ethnic considerations that may impact nutrition status.
5. Identify the need to tailor data collection based on health condition history and present state.
6. Obtain information regarding:
 - a. alcohol, drug, or tobacco use.
 - b. gastrointestinal function.
 - c. patients' medical history.
 - d. weight history data.

II. Nutrition Diagnosis (15%)

A. Intake

1. Write nutrition diagnostic statements and establish patient outcomes related to the following:
 - a. excessive intake and associated factors.
 - b. insufficient intake and associated factors.
 - c. intake different than recommended.
 - d. food and nutrient intolerance.
 - e. nutrition and health awareness.
 - f. food and nutrient knowledge.
 - g. physical activity diagnosis.
 - h. food availability.
 - i. food/medication interactions.

B. Clinical

1. Write nutrition diagnostic statements and establish patient outcomes related to the following:
 - a. anthropometric data/changes.
 - b. biochemical data.
 - c. medical tests and procedures.
 - d. head and neck.
 - e. gastrointestinal system.
 - f. neurologic system.
 - g. cardiovascular/pulmonary system.
 - h. spine/limbs/extremities.
 - i. skin integrity.
 - j. vital signs.
 - k. unintentional weight gain/loss.



**Commission of Dietetic Registration
Board Certified Specialist in Renal Nutrition
Certification Examination Content Outline**

C. Behavioral-Environmental

1. Identify problems that relate to knowledge, attitudes/beliefs, physical environment, access to food, or food safety.
2. Write nutrition diagnostic statements and establish patient outcomes related to the following:
 - a. social history.
 - b. personal/family history.
 - c. medical/health history.
 - d. mental status.
 - e. signs and symptoms.
 - f. treatments.
 - g. medications and supplements.
 - h. disordered eating patterns.
 - i. food and nutrition related knowledge deficits.
 - j. limited access to food and water.
 - k. limited ability to prepare foods/meals.
 - l. limited adherence to nutrition related recommendations.

III. Nutrition Intervention (25%)

A. Food and/or Nutrient Delivery

1. Collaborate with patient to develop goals and individualize nutrition prescription.
2. Determine long-term goals of enteral/parenteral nutrition.
3. Develop safety alert systems to monitor key indicators of medical conditions for nephrology clients (e.g., starfruit, diabetes, medications).
4. Educate on adequate fluid and fiber intake to normalize bowel function.
5. Estimate calories absorbed from peritoneal dialysate.
6. Implement goals for:
 - a. macronutrient recommendations for stage of chronic kidney disease and treatment modality.
 - b. micronutrient recommendations for stage of chronic kidney disease and treatment modality.
7. Implement plan for feeding difficulties, feeding alterations, and disordered eating.
8. Educate on fluid status, intake and output.
9. Address mineral content of dialysate.
10. Recommend initiation of nutrition supplements.
11. Recommend plan for:
 - a. enteral/parenteral nutrition therapy.
 - b. management of gastrointestinal dysfunction.



**Commission of Dietetic Registration
Board Certified Specialist in Renal Nutrition
Certification Examination Content Outline**

B. Nutrition Education

1. Determine readiness to learn and learning style.
2. Develop individual and group education programs in compliance with national guidelines and standards (e.g., ADA, KDOQI, KDIGO).
3. Educate patient regarding:
 - a. biochemical parameters and their relationship to dietary intake.
 - b. difference between dry weight and fluid weight.
 - c. importance of maintaining or achieving healthy weight.
 - d. issues pertaining to enteral/parenteral nutrition.
 - e. prevention and treatment of cardiovascular disease.
 - f. treatment for anemia.
 - g. treatment of CKD-MBD.
 - h. treatment for diabetes.
 - i. treatment for hypoalbuminemia.
4. Encourage PD patient to reserve fluid intake for between meals to minimize stomach distention and decrease early satiety.
5. Explain consequences of non-adherence to treatment plan.
6. Explain the effects of nutrition modifications on health status.
7. Explain treatment modalities and their nutrition implications.
8. Select appropriate educational materials for enriching the knowledge base of patient.

C. Nutrition Counseling

1. Counsel patient on appropriate self-management behaviors for identified nutritional goals.
2. Identify underlying or non-apparent barriers or failures that relate to nutrition therapy.

D. Coordination of Nutrition Care

1. Collaborate with the Interdisciplinary Team (IDT) and other agencies to coordinate nutritional care (e.g., bariatric, long-term care residents, home-bound patients).
2. Collaborate with the IDT regarding:
 - a. additional medical/nutrition evaluation.
 - b. fluid management.
 - c. dialysis prescription.
 - d. medication regimen or protocol.
 - e. modifications to nutrition care plan.
 - f. nutrition prescription and care plan.
 - g. treatment modalities.
3. Educate family and/or caretaker as needed, with patient's permission.
4. Educate patient about appropriate dialysis access.
5. Educate patient regarding adequacy of dialysis treatment.
6. Encourage patient to discuss exercise options with primary care provider.
7. Establish goals for fluid balance.
8. Identify causes of inadequate delivered dose of dialysis.



**Commission of Dietetic Registration
Board Certified Specialist in Renal Nutrition
Certification Examination Content Outline**

9. Identify referral sources (e.g., financial, psychosocial, functional status) to assist with CKD-related issues.
10. Identify resources to assist with CKD within education services and community programs (e.g., support groups, health care services, meal programs, web sites).
11. Interact with appropriate facility (e.g., extended care, adult day care) regarding nutrition care upon transfer or discharge.
12. Recommend evaluation of dry and/or target weight.
13. Recommend plan for:
 - a. anemia management.
 - b. mineral and bone management.
 - c. diabetes management.
 - d. dyslipidemia management.
 - e. hypoalbuminemia management.
 - f. obesity and underweight.

E. Medications

1. Educate patient about relationships between medications and diet.
2. Encourage adherence to stool softener or laxative to reduce constipation.
3. Evaluate dosage and timing of medications.
4. Evaluate medication regimen and adherence.
5. Facilitate the use of protocols/algorithms used in medication management.
6. Identify strategies to improve medication compliance.
7. Recommend additional medications as needed.
8. Recommend wound healing vitamins, minerals, and/or amino acids as needed.

IV. Nutrition Monitoring and Evaluation Based on Outcomes Measurement (18%)

A. Food/Nutrition-Related History

1. Monitor and reevaluate adequacy of oral intake.
2. Monitor and reevaluate adequacy and tolerance to enteral/parenteral nutrition.

B. Anthropometric Measures

1. Evaluate body weight and composition impacted by:
 - a. nutritional interventions.
 - b. renal replacement therapy.
2. Evaluate BMI.
3. Measure height annually.
4. Evaluate change in fat and/or muscle stores.



**Commission of Dietetic Registration
Board Certified Specialist in Renal Nutrition
Certification Examination Content Outline**

C. Biochemical Data, Medications, Medical Tests, and Procedures

1. Assess compliance with prescribed medications.
2. Evaluate hypo-response to erythropoietin (EPO) dosing to identify cause, (e.g., increased PTH, infection).
3. Evaluate metabolic status based on biochemical parameters.
4. Evaluate patient adjustment to disease state and adherence to treatment regimen.
5. Evaluate possible causes for certain combinations of abnormal blood test results.
6. Identify causes of poor medication compliance.
7. Monitor biochemical parameters relevant to enteral/parenteral nutrition.
8. Recommend additional blood and/or urine chemistries.

D. Nutrition Focused Physical Findings

1. Monitor blood pressure and interdialytic weight changes and fluid status.
2. Monitor gastrointestinal function.
3. Monitor physical and functional status.
4. Monitor patient for integrity of tissue stores and fluid status.
5. Monitor patient for physical signs and symptoms of nutrient deficiencies/excesses.

V. Quality Management and Evidence-Based Practice (6%)

1. Collaborate with the IDT to:
 - a. establish renal dietitian driven medical and nutrition protocols.
 - b. identify, prevent, and reduce medical errors (e.g., risk management).
2. Collect data for documenting outcomes and used for trending and assessment.
3. Complete a corrective action plan when goals are not met.
4. Comply with the Centers for Medicare and Medicaid Services (CMS) guidelines for writing assessments and care plans.
5. Establish outcome indicators (goals/objectives) for nutrition interventions in observable, measurable terms.
6. Evaluate whether established goals are being met.
7. Identify potential errors and hazards in nutrition care and foodservice systems (e.g., risk management).
8. Research appropriateness of nutrient content of food/supplements and products.
9. Integrate best available research for clinical practice.
10. Maintain tracking mechanism for scheduled completion of Comprehensive Interdisciplinary Assessment/Plan of Care (CIA/POC) document per CMS guidelines.
11. Manage systematic processes to identify, track, and monitor utilization of resources.
12. Participate with the IDT to identify areas that need improvement as well as developing, implementing, and evaluating the plan to achieve that improvement (e.g., quality assessment and performance improvement (QAPI)).
13. Utilize evidenced-based protocols and guidelines to deliver standardized care (e.g., ADA, CMS, ESRD networks, KDOQI, KDIGO, NKF, TJC).