

Academy of Nutrition and Dietetics and National Kidney Foundation: Revised 2014 Standards of Practice and Standards of Professional Performance for Registered Dietitian Nutritionists (Competent, Proficient, and Expert) in Nephrology Nutrition

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Compelling evidence indicates that the incidence of chronic kidney disease (CKD) is increasing because of an aging population and a higher prevalence of cardiovascular disease, diabetes, and hypertension. Nutrition management of patients with CKD requires early disease recognition, appropriate interpretation of the markers and stages of CKD, and collaboration with other health care practitioners. Better management of CKD can slow its progression, prevent metabolic complications, and reduce cardiovascular related outcomes. Caring for patients with CKD necessitates specialized knowledge and skills to meet the challenges associated with this growing epidemic. The Academy of Nutrition and Dietetics Renal Dietitians Practice Group and the National Kidney Foundation Council on Renal Nutrition, with guidance from the Academy of Nutrition and Dietetics Quality Management Committee, have updated the 2009 Standards of Practice in Nutrition Care and Standards of Professional Performance as a tool for registered dietitian nutritionists working in nephrology nutrition to assess their current skill levels and to identify areas for additional professional development in this practice area. The Standards of Practice apply to the care of patients/clients with kidney disease. The Standards of Professional Performance consist of six domains of professionalism, including: Quality in Practice, Competence and Accountability, Provision of Services, Application of Research, Communication and Application of Knowledge, and Utilization and Management of Resources. Within each standard, specific indicators provide measurable action statements that illustrate how nephrology nutrition principles can be applied to

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STATEMENT OF POTENTIAL CONFLICT OF INTEREST

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practice. The indicators describe three skill levels (ie, competent, proficient, and expert) for registered dietitian nutritionists working in nephrology nutrition.

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Editor's note: Figures 1, 2, and 3 that accompany this article are available online at www.jrnjournal.org.

THE ACADEMY OF Nutrition and Dietetics (Academy) Renal Dietitians Practice Group and the National Kidney Foundation Council on Renal Nutrition (NKF-CRN), under the guidance of the Academy Quality Management Committee, have revised the Standards of Practice (SOP) and Standards of Professional Performance (SOPP) for Registered Dietitians in Nephrology Care, originally published in September 2009.^{1,2} The revised document, Academy of Nutrition and Dietetics and National Kidney Foundation: Revised 2014 Standards of Practice and Standards of Professional Performance for Registered Dietitian Nutritionists (Competent, Proficient, and Expert) in Nephrology Nutrition, reflects changes in nephrology practice and replace the 2009 standards. These documents build on the Academy of Nutrition and Dietetics Revised 2012 SOP in Nutrition Care and SOPP for Registered Dietitians (RDs).³ The Academy of Nutrition and Dietetics/Commission on Dietetic Registration's (CDR) Code of Ethics,⁴ along with the Academy of Nutrition and Dietetics Revised 2012 SOP in Nutrition Care and SOPP for RDs³ are tools within the Scope of Practice in Nutrition and Dietetics⁵ and Scope of Practice for the RD,⁶ that guide the practice and performance of registered dietitian nutritionists (RDNs) in all settings.

The scope of practice in nutrition and dietetics is composed of statutory and individual components, includes the Code of Ethics, and encompasses the range of roles, activities, and regulations within which RDNs perform. For credentialed practitioners, scope of practice is typically established within the practice act, and interpreted and controlled by the agency or board that regulates the practice of the profession in a given state.⁵ An RDN's statutory scope of practice may delineate the services an RDN is authorized to perform in a state where a practice act or certification exists.

The RDN's individual scope of practice is determined by education, training, credentialing, and demonstrated and documented competence to practice. Individual scope of practice in nutrition and dietetics has flexible boundaries to capture the breadth of the individual's professional practice. The Scope of Practice Decision Tool, which is an online, interactive tool, permits an RDN to answer a series of questions to determine whether a particular activity is within his or her scope of practice. The tool is designed to assist an RDN in critically evaluating personal knowledge, skill, and demonstrated competence with criteria resources.⁷

All registered dietitians are nutritionists—but not all nutritionists are registered dietitians. The Academy's Board of Directors and Commission on Dietetic Registration have determined that those who hold the credential Registered Dietitian (RD) may optionally use "Registered Dietitian Nutritionist" (RDN) instead. The two credentials have identical meanings. In this document, the expert working group has chosen to use the term RDN to refer to both the registered dietitian and the registered dietitian nutritionist.

*Approved April 2014 by the Quality Management Committee of the Academy of Nutrition and Dietetics (Academy), the Executive Committee of the Renal Dietitians Dietetic Practice Group of the Academy and the National Kidney Foundation Council on Renal Nutrition. **Scheduled review date: October 2018.** Questions regarding the Standards of Practice and Standards of Professional Performance for Registered Dietitian Nutritionists in Nephrology Nutrition may be addressed to Academy quality management staff: Sharon McCauley, MS, MBA, RDN, LDN, FADA, FAND, director, Quality Management, at quality@eatright.org.*

The Academy's Revised 2012 SOP in Nutrition Care and SOPP for RDs³ reflect the minimum competent level of nutrition and dietetics practice and professional performance for RDNs. These standards serve as blueprints for the development of focus area SOP and SOPP for RDNs in competent, proficient, and expert levels of practice. The SOP in Nutrition Care is composed of four standards, representing the four steps of the Nutrition Care Process (NCP) as applied to the care of patients/clients.⁸ The SOPP consist of standards representing six domains of professionalism: Quality in Practice, Competence and Accountability, Provision of Services, Application of Research, Communication and Application of Knowledge, and Utilization and Management of Resources. The SOP and SOPP for RDNs are designed to promote the provision of safe, effective, and efficient food and nutrition services; facilitate evidence-based practice; and serve as a professional evaluation resource.

These focus area standards for RDNs in nephrology nutrition provide a guide for self-evaluation and expanding practice, a means of identifying areas for professional development, and a tool for demonstrating competence in delivering nephrology nutrition care. They are used by RDNs to assess their current level of practice and to determine the education and training required to maintain currency in their focus area and advancement to a higher level of practice. In addition, the standards may be used to assist RDNs in transitioning their knowledge and skills to a new focus area of practice. Like the SOP in Nutrition Care and SOPP for RDs,³ the indicators (ie, measureable action statements that illustrate how each standard can be

applied in practice) (see [Figures 1, 2, and 3](#), available online at www.jrnjournal.org) for the SOP and SOPP for RDNs in Nephrology Nutrition were revised with input and consensus of content experts representing diverse practice and geographic perspectives. The SOP and SOPP for RDNs in Nephrology Nutrition were reviewed and approved by the Executive Committee of the Renal Dietitians Practice Group, the Executive Committee of the NKF Council on Renal Nutrition, and the Academy Quality Management Committee.

Three Levels of Practice

The Dreyfus model⁹ identifies levels of proficiency (novice, advanced beginner, competent, proficient, and expert) (refer to [Figure 3](#), available online at www.jrnjournal.org) during the acquisition and development of knowledge and skills. This model is helpful in understanding the levels of practice described in the SOP and SOPP for RDNs in Nephrology Nutrition. In Academy focus areas, the levels are represented as competent, proficient, and expert practice levels.

Competent Practitioner

In nutrition and dietetics, a competent practitioner is an RDN who is either just starting practice after having obtained RDN registration by the Commission on Dietetic Registration, or an experienced RDN who has recently assumed responsibility to provide nutrition and dietetics services in a new focus area. A focus area is defined as an area of nutrition and dietetics practice that requires focused knowledge, skills, and experience.¹⁰ A competent practitioner who has obtained RDN status and is starting in professional employment acquires additional on-the-job skills and engages in tailored continuing education to further enhance knowledge and skills obtained in formal education. An RDN starts with technical training and professional interaction for advancement and expanding breadth of competence. A general practice RDN may include responsibilities across several areas of practice, including, but not limited to: community, clinical, consultation and business, research, education, and food and nutrition management.¹⁰ The competent RDN could complete the Academy's online Certificate of Training Program in Chronic Kidney Disease Nutrition Management to gain more knowledge in nephrology nutrition (<http://www.eatright.org/cpd/online/>).

Proficient Practitioner

A proficient practitioner is an RDN who is generally 3 or more years beyond entry into the profession, who has obtained operational job performance skills, and who is successful in the RDN's chosen focus area of practice.¹⁰ The proficient practitioner demonstrates additional knowledge, skills, and experience in a focus area of nutrition and dietetics practice. An RDN may acquire CDR's Board Certification as a Specialist in Renal Nutrition (CSR) as

an option to demonstrate proficiency in nephrology nutrition.

Expert Practitioner

An expert practitioner is an RDN who is recognized within the profession and has mastered the highest degree of skill or knowledge related to a certain focus or generalized area of nutrition and dietetics through additional knowledge, experience, or training.¹⁰ An expert practitioner exhibits a set of characteristics that includes leadership and vision, and demonstrates effectiveness in planning, achieving, evaluating, and communicating targeted outcomes. An expert practitioner may have an expanded or specialist role, and may possess an advanced credential, if available, in a focus area of practice. Generally, the level of practice is more complex, and the practitioner has a high degree of professional autonomy and responsibility.

These Standards, along with the Academy/CDR Code of Ethics,⁴ answer the questions: Why is an RDN uniquely qualified to provide nephrology nutrition care? What knowledge, skills, and competencies does an RDN need to demonstrate for the provision of safe, effective, and quality nutrition care in the nephrology setting at the competent, proficient, and expert levels?

Overview

Chronic kidney disease (CKD) is a condition characterized by a gradual loss of kidney function over time. In the general population, aging, the rising prevalence of obesity, hypertension, and type 2 diabetes are the major risk factors for CKD. In 2002, the Kidney Disease Outcomes Quality Initiative published guidelines that defined CKD as either kidney damage (eg, pathologic abnormalities or laboratory/imaging study markers of damage) regardless of glomerular filtration rate (GFR), or a GFR of ≤ 60 mL/min/1.73 m² that is documented for 3 or more months.¹¹ Later analyses have shown that albuminuria also has an important effect on outcomes, which prompted the Kidney Disease: Improving Global Outcomes Work Group on Evaluation and Management of Chronic Kidney Disease to include albuminuria in the revised 2012 classification.¹² The NKF nomenclature system stratifies patients with CKD into five stages according to the level of GFR. Patients with CKD stages 3 to 5 are at increased risk of progressing to end-stage renal disease (ESRD) or dying before the development of ESRD compared with patients with less-severe CKD. The magnitude of these risks may vary by stage, which has important implications for therapy. Using this staging classification, a 2003 analysis of data from the Third National Health and Nutrition Examination Survey (NHANES III) reported that CKD affects 19.2 million of the US adult population.¹³ The prevalence of CKD in the NHANES 2005–2010 survey increased 1.7% from NHANES III.¹⁴ Currently, 615,899 dialysis

and transplantation patients receive treatment for ESRD, which is a 3.2% increase from 2010. There were 115,643 new cases of ESRD reported, which is the first decline in incident patients.¹⁴

The care of patients with ESRD is associated with substantial costs to society, much of which is accounted for by a high rate of hospitalization. Overall, CKD patients are hospitalized at a rate of 0.43 admissions per patient year for cardiovascular disease, diabetes complications, and infections. In 2011, hospital admissions for stage 4 to 5 CKD patients with both diabetes and cardiovascular disease reached 851 per 1,000 patient years, which is twice the rate among patients with neither diagnosis. All-cause hospitalizations are 54% higher among Medicare patients with stages 4 to 5 than among patients with stages 1 to 2 disease. There is considerable concern about readmissions within 30 days post-discharge, which reached 24% in 2011. Risk of cardiovascular events and death is increased substantially by the presence of CKD. Adjusted mortality rates for all-cause mortality are 6.5 to 7.9 times greater for dialysis patients than for individuals in the general population. For kidney transplantation patients, the rates approach those of the general population, yet remain 1.0 to 1.5 times higher.¹⁴

CKD, due to its high morbidity and mortality, is a major public health issue. However, awareness of CKD remains unacceptably low with both patients and providers, despite dissemination of clinical practice guidelines.¹¹ Based on findings from the NHANES 1999–2008, only 45% of individuals with CKD stage 4 were aware of having CKD.¹⁵ In a large managed-care cohort, provider documentation of kidney patients with CKD stages 3 to 5, was only 14.4%.¹⁶ Levels of awareness and knowledge among patients and providers must be improved to prevent CKD progression and its many consequences. Identification of CKD at earlier points in its trajectory, with appropriate management, should lead to improved outcomes.

Caring for patients with CKD necessitates specialized knowledge and skills to meet the challenges associated with this growing epidemic. RDNs practicing in nephrology nutrition are an integral part of the interdisciplinary team (IDT), which consists of a nephrologist, registered nurse, social worker, RD (or RDN), and other needed health care practitioners.¹⁷ RDNs provide nutrition and clinical expertise that contributes to optimal outcomes. In the Centers for Medicare and Medicaid Services 2008 Final Rule of the Conditions for Coverage, the qualifications of the RD (or RDN) were designated as a “minimum of one year’s professional work experience in clinical nutrition as a registered dietitian.”¹⁷ This rule affirms that clinical nutrition and dietetics experience is required for today’s RDNs practicing in nephrology nutrition.

RDNs work in a variety of settings to manage nutrition care for nephrology patients, including, but not limited to, dialysis centers, transplantation centers, hospitals, long-

term care facilities, CKD clinics, diabetes clinics, ambulatory care facilities, and private practice settings. Managing the nutrition needs of patients as they progress through the stages of CKD involves comprehensive and ongoing medical nutrition therapy (MNT) to address nutrition issues, such as protein energy malnutrition, protein energy wasting, electrolyte imbalances, anemia, vitamin deficiencies, fluid imbalance, and mineral and bone disorders. MNT is indicated for adults with a GFR <50 mL/min (this includes CKD stages 3, 4, and 5), even when clinical disease signs are not obvious.¹⁸ For this reason, Centers for Medicare and Medicaid Services has covered MNT for Medicare-eligible individuals with GFR <50 mL/min since 2002.¹⁹

In addition to nutrition assessment and counseling, RDNs working with patients who are receiving renal replacement therapy (eg, hemodialysis, peritoneal dialysis) assess adequacy of dialysis and skillfully manage other issues, such as mineral and bone disorders and anemia. Additional job responsibilities of the RDN in the dialysis setting include quality assessment and performance improvement (QAPI), outcomes research, and development and monitoring of protocols and similar documents for patient care. Multiple comorbidities in the dialysis population (eg, diabetes and cardiovascular disease) require aggressive nutrition intervention and counseling to decrease risk of morbidity and mortality.²⁰ To provide adequate nutrition services, widespread consensus (based on practical experience) indicates that the RDN-to-patient ratio should be approximately 1:100 maintenance dialysis patients, not to exceed 1:150.²¹ To our knowledge, there is only one state in the United States—Texas—where the Department of State Health Services currently mandates a staffing ratio of one full-time equivalent of RDN time for up to 100 patients for all renal replacement therapy (RRT) modalities.²² In dialysis facilities where the RDN has broader responsibilities, including quality improvement, development and monitoring of protocols and similar documents for patient care, and research, the caseload ratio should be adjusted downward.

The Centers for Medicare and Medicaid Services released the Final Rule of the Conditions for Coverage on April 15, 2008.¹⁷ These are requirements that dialysis facilities must follow to be Medicare-certified in the United States. The Conditions for Coverage have added requirements for the RD (or RDN), leading to increased time demands. The regulations require RD (or RDN) participation in QAPI programs, as well as in IDT patient care planning. Requirements for follow-up nutrition assessment have also been added. However, clinical trials are still needed to validate the maximum caseload at which RDNs can be effective in the provision of MNT without compromising optimal patient care. Acute kidney injury (AKI) and kidney transplantation are additional areas of nephrology nutrition requiring active implementation of

MNT. Patients with AKI undergoing RRT present a unique set of nutrition support challenges. These patients must be appropriately nourished without further exacerbating kidney injury.²³ Nutrition assessment is a key component of evaluation for kidney transplantation. Nutrition issues post-renal transplantation, many of which are influenced by the immunosuppression regimen, may include new-onset diabetes after transplant, hypertension, infections, mineral and bone disorders (including fractures), cardiovascular disease, dyslipidemia, obesity, and malignancies.^{24,25} The pediatric CKD population poses unique challenges to RDNs, reflecting not only the primary renal disorder, but also the many extrarenal manifestations that affect growth and development.²⁶

Early referral to a nephrologist and an RDN is paramount in delaying kidney disease progression and managing related comorbidities. There are many hurdles to early referral and intervention, beyond the scope of this article. Nevertheless, it will be important to determine whether changes in the awareness, treatment, and control of major risk factors translate into reduced rates of cardiovascular events, death, and progression of CKD to ESRD.

Academy and NKF: Revised 2014 Standards of Practice and Standards of Professional Performance for RDNs (Competent, Proficient, and Expert) in Nephrology Nutrition

An RDN can use the Academy NKF Revised 2014 SOP and SOPP for RDNs (Competent, Proficient, and Expert) in Nephrology Nutrition (see the website-exclusive [Figures 1, 2, and 3](#), available online at www.jrnjournal.org) to:

- identify the competencies needed to provide nutrition care and services in the nephrology setting;
- self-assess whether she or he has the appropriate knowledge base and skills to provide safe, effective, and optimal nutrition care for the level of practice in nephrology nutrition;
- identify the areas in which additional knowledge and skills are needed to practice at the competent, proficient, or expert level of nephrology nutrition;
- provide a foundation for public and professional accountability in nephrology nutrition;
- support efforts for strategic planning and assist management in the planning of nutrition care, services, and resources in the nephrology setting;
- enhance professional identity and communicate the nature of nephrology nutrition care and services;
- guide the development of nephrology-related curriculum, continuing education programs, job descriptions, and career pathways; and
- assist educators and preceptors in teaching students and interns the knowledge, skills, and competencies

needed to work in nephrology nutrition and to understand the full scope of this focus area of practice.

Application to Practice

All RDNs, even those with significant experience in other practice areas, must begin at the competent level when practicing in a new setting or new focus area of practice. At the competent level, an RDN in nephrology nutrition is learning principles that underpin this focus area and is developing skills for safe and effective nephrology practice. This RDN, who may be an experienced RDN or may be new to the profession, has a breadth of knowledge in nutrition and dietetics and may have proficient or expert knowledge/practice in another focus area. However, the RDN new to the focus area of nephrology nutrition may experience a steep learning curve because of the complexity of kidney disease, the impact that kidney disease has on many other organ systems, and the added areas of responsibility in nephrology settings.

At the proficient level, an RDN has developed a deeper understanding of nephrology nutrition and is better equipped to apply evidence-based guidelines and best practices than at the competent level. This RDN is also able to modify practice according to unique situations, such as counseling patients/clients regarding nutrition considerations with different options of RRT, providing nutrition input regarding complex issues of patient/client compliance in IDT discussions, and assessing patient/client readiness for possible kidney transplant recipient status. The RDN with a CSR designation is an example of an RDN who has demonstrated, at a minimum, proficient-level skills, as presented in this document. The specialty examination is optional and eligibility criteria for the credential, application forms, and other information are available from CDR (www.cdrnet.org). Indicators described as proficient level of practice designations in this document are not equivalent to the CSR certification. Rather, the CSR designation refers to an RDN who has developed and demonstrated, through successful completion of the certification examination, nephrology nutrition knowledge, skill, and application beyond the competent practitioner and demonstrates, at a minimum, proficient-level skills.

At the expert level, the RDN thinks critically and demonstrates a more intuitive understanding about nephrology nutrition, displays a range of highly developed clinical and technical skills, and formulates judgments acquired through a combination of education, experience, and critical thinking. Essentially, practice at the expert level requires the application of composite nutrition and dietetics knowledge, with practitioners drawing not only on their clinical experience, but also on the experience of nephrology practitioners in various disciplines and practice settings. Expert RDNs, with their extensive experience and ability to see the significance and meaning of nephrology nutrition

within a contextual whole, are fluid and flexible and, to some degree, autonomous in practice. They not only apply principles of nephrology nutrition, but also manage, drive, and direct clinical care; conduct and collaborate in research; assume leadership roles in scholarly work; collaborate with the IDT and other health care practitioners; and lead the advancement of nephrology nutrition.

Indicators for the SOP (Figure 1, available online at www.jrnjournal.org) and SOPP (Figure 2, available online at www.jrnjournal.org) for RDNs in Nephrology Nutrition are measurable action statements that illustrate how each standard can be applied in practice. Within the SOP and SOPP for RDNs in Nephrology Nutrition, an “X” in the competent column indicates that an RDN who is caring for patients/clients is expected to complete this activity and/or seek assistance to learn how to perform at the level of the standard. A competent RDN in nephrology nutrition could be an RDN starting practice after registration or an experienced RDN who has recently assumed care of patients with CKD. RDNs working in dialysis must have a minimum of 1 year of professional work experience in clinical nutrition as an RDN after successful completion of the registration examination. Experience in clinical nutrition as an intern (before registration) would not count toward this requirement, nor would foodservice experience after registration as an RDN meet this requirement.

An “X” in the proficient column indicates that an RDN who performs at this level has a deeper understanding of nephrology nutrition and has the ability to modify therapy to meet the needs of patients/clients in various stages of CKD. An “X” in the expert column indicates that the RDN who performs at this level possesses a comprehensive understanding of nephrology care and has a highly developed range of skills and judgments acquired through a combination of experience and education. The expert RDN builds and maintains the highest level of knowledge, skills, and behaviors including leadership, vision, and credentials.

Standards and indicators presented in Figure 1 and Figure 2 (available at www.jrnjournal.org) in boldface type originate from the Academy’s Revised 2012 SOP in Nutrition Care and SOPP for RDs³ and should apply to RDNs in all three levels. Several indicators developed for this focus area not in boldface type are identified as applicable to all levels of practice. Where an “X” is placed in all three levels of practice, it is understood that all RDNs in nephrology nutrition are accountable for practice within each of these indicators. However, the depth with which an RDN performs each activity will increase as the individual moves beyond the competent level. Several levels of practice are considered in this document; thus, taking a holistic view of the SOP and SOPP for RDNs in Nephrology Nutrition is warranted. It is the totality of individual

| How to Use the Standards of Practice (SOP) and Standards of Professional Performance (SOPP) for Registered Dietitian Nutritionists (RDNs) (Competent, Proficient, Expert) in Nephrology Nutrition as part of the Professional Development Portfolio Process ^a | |
|--|--|
| 1. Reflect | Assess your current level of practice and whether your goals are to expand your practice or maintain your current level of practice. Review the SOP and SOPP for RDNs in Nephrology Nutrition document to determine what you want your future practice to be, and assess your strengths and areas for improvement. These documents can help you set short- and long-term professional goals. |
| 2. Conduct learning needs assessment | Once you have identified your future practice goals, you can review the SOP and SOPP for RDNs in Nephrology Nutrition document to assess your current knowledge, skills, behaviors, and define what continuing professional education is required to achieve the desired level of practice. |
| 3. Develop learning plan | Based on your review of the SOP and SOPP for RDNs in Nephrology Nutrition, you can develop a plan to address your learning needs as they relate to your desired level of practice. |
| 4. Implement learning plan | As you implement your learning plan, keep reviewing the SOP and SOPP for RDNs in Nephrology Nutrition document to reassess knowledge, skills, and behaviors and your desired level of practice. |
| 5. Evaluate learning plan process | Once you achieve your goals and reach or maintain your desired level of practice, it is important to continue to review the SOP and SOPP for RDNs in Nephrology Nutrition document to reassess knowledge, skills, and behaviors and your desired level of practice. |
| ^a The Commission on Dietetic Registration Professional Development Portfolio process is divided into five interdependent steps that build sequentially on the previous step during each 5-year recertification cycle and succeeding cycles. | |

Figure 4. Application of the Commission on Dietetic Registration Professional Development Portfolio Process.

practice that defines the level of practice and not any one indicator or standard.

RDNs should review the SOP and SOPP in Nephrology Nutrition at regular intervals to evaluate their individual

focus area knowledge, skill, and competence. Regular self-evaluation is important because it helps identify opportunities to improve and/or enhance practice and professional performance. This self-appraisal also enables

| Role | Examples of use of Standards of Practice and Standards of Professional Performance documents by registered dietitian nutritionists in different practice roles |
|---|--|
| Clinical practitioner inpatient care | The hospital employing a registered dietitian nutritionist (RDN) in general clinical practice has changed the coverage assignment for the RDN to inpatient nephrology services. The RDN reviews available resources regarding medical nutrition therapy for patients/clients with acute kidney injury (AKI) who may require continuous renal replacement therapy. The RDN recognizes a need for specific knowledge and/or skills that are not familiar. The RDN reviews the Standards of Practice (SOP) and Standards of Professional Performance (SOPP) for RDNs in Nephrology Nutrition to evaluate individual skills and competencies for providing care to individuals with AKI and sets goals to improve competency in this area of practice before beginning to provide care to this population independently. |
| Clinical practitioner ambulatory care | An RDN working in a diabetes clinic notices an increase in the number of clients with diabetic nephropathy. The RDN uses the SOP and SOPP to evaluate the level of competence needed to provide quality nephrology nutrition care to these individuals and determine what level of practitioner to whom to refer individuals who require a level of care higher than that RDN can competently provide. |
| Manager/director | A manager/director who oversees a number of RDNs providing nutrition care to patients/clients with chronic kidney disease (CKD) considers the SOP and SOPP when determining expertise needed at the program level, work assignments, and when assisting staff in evaluating competency and needs for additional knowledge and/or skills in nephrology nutrition. The manager/director recognizes the SOP and SOPP as important tools for staff to use to assess competence in nephrology nutrition and to use when identifying personal performance plans. |
| Individual not currently employed | After several years out of clinical practice, an RDN decides to re-establish active practice. The RDN plans to start a private practice and would like one of the focus areas to be patients/clients with CKD. Before accepting referrals, the RDN uses the SOP and SOPP as an evaluation tool to determine what is needed to practice competently to provide quality nephrology nutrition therapy and patient/client education. The RDN contacts an RDN experienced in the care of individuals with CKD to arrange mentoring as needed. |
| Long-term care/skilled nursing facility | An RDN working part-time in a skilled nursing facility notices an increase in the number of new residents who are on peritoneal dialysis. The RDN uses the SOP and SOPP to evaluate the level of competence needed to provide quality nephrology nutrition care to these individuals. The RDN refers to the resources identified in the SOP and SOPP article and indicators to increase knowledge and contacts the dialysis center caring for these residents to review the care plans, diet orders, and adjustments that may be needed for menus and snacks offered to these residents. |
| Researcher | An RDN working in a research setting is awarded a grant to demonstrate the role of the RDN and the impact of nutrition interventions provided by an RDN on health outcomes of patients/clients with CKD stage 3. The RDN uses the SOP and SOPP as a resource in designing the research protocol. |
| Nutrition and dietetics educator | The educator designing continuing education materials for the RDN in nephrology nutrition develops tools to support implementation of the SOP and SOPP. |
| Nontraditional health care practitioner | A health plan has Disease Management Certification for its Nephrology Clinic through the National Committee for Quality Assurance. The RDN uses the SOP and SOPP for RDNs in Nephrology Nutrition as an evaluation tool to demonstrate that the program uses a continuous quality improvement approach to continuing competence of the RDN providing care. |

Figure 5. Case examples of Standards of Practice and Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) (Competent, Proficient, and Expert) in Nephrology Nutrition

nephrology RDNs to better utilize these Standards in CDR's *Professional Development Portfolio* process and each of its five steps for self-assessment, planning, improvement, and commitment to lifelong learning²⁷ (see Figure 4). RDNs are encouraged to pursue additional training, regardless of practice setting, to maintain currency and to expand individual scope of practice within the limitations of the legal scope of practice, as defined by State law. RDNs are expected to practice only at the level at which they are competent, and this will vary depending on education, training, and experience.²⁸ RDNs are encouraged to pursue additional knowledge and skill training as well as collaborate with other RDNs in nephrology nutrition to promote consistency in practice and performance and continuous quality improvement. See Figure 5 for case examples of how RDNs in different roles, at different levels of practice, can use the SOP and SOPP in Nephrology Nutrition.

In some instances, components of the SOP and SOPP for RDNs in Nephrology Nutrition do not specifically differentiate between proficient-level and expert-level practice. In these areas, it was the consensus of the content experts that the distinctions are subtle, captured in the knowledge, experience, and intuition demonstrated in the context of practice at the expert level, which combines dimensions of understanding, performance, and value as an integrated whole.²⁹ A wealth of knowledge is embedded in the experience, discernment, and practice of expert-level RDN practitioners. The knowledge and skills acquired through practice will continually expand and mature. The indicators will be refined as expert-level RDNs systematically record and document their experience using the concept of clinical exemplars. The experienced practitioner observes clinical events, analyzes them to make new connections between events and ideas, and produces a synthesized whole. Clinical exemplars provide outstanding models of the actions of individual nephrology nutrition RDNs in clinical settings and the professional activities that have enhanced patient/client care.

Future Directions

The SOP and SOPP for RDNs in Nephrology Nutrition are innovative and dynamic documents. Future revisions will reflect changes and advances in practice, nutrition and dietetics education programs, and outcomes of practice audits. The authors acknowledge that the three practice levels may require more clarity and differentiation in content and role delineation, and competency statements that better characterize differences among the practice levels is a goal with each revision. Creation of this clarity, differentiation, and definition are the challenges of today's nephrology RDNs to better serve tomorrow's patients/clients and health care practitioners.

Conclusions

RDNs face complex situations every day. Addressing the unique needs of each situation and applying standards appropriately is essential to providing safe, timely, person-centered quality care and service. All RDNs are advised to conduct their practice based on the most current edition of the Scope of Practice in Nutrition and Dietetics, the Scope of Practice for RDs and the SOP in Nutrition Care and SOPP for RDs, and the Code of Ethics. The SOP and SOPP for RDNs in Nephrology Nutrition are complementary documents and are key resources for RDNs at all knowledge and performance levels in nephrology nutrition. These standards can and should be used by nephrology RDNs in daily practice to consistently improve and appropriately demonstrate competence and value as providers of safe and effective nutrition and dietetics care and services. These standards also serve as a professional resource for self-evaluation and professional development for RDNs specializing in nephrology nutrition. Just as a professional's self-evaluation and continuing education process is an ongoing cycle, these standards are also a work in progress and will be reviewed and updated every 5 years. These focus area standards should not be directly compared with other focus area standards and indicators, as they are not alike; however, individual indicators and resource materials in other focus area SOP and SOPPs may be very helpful, depending on the individualized needs of a patient/client. Current and future initiatives of the Academy, as well as advances in nephrology nutrition, will provide information to use in these updates and in further clarification and documentation of specific roles and responsibilities of RDNs at each level of practice. As a quality initiative of the Academy, the Renal Dietitians Practice Group, and the NKF Council on Renal Nutrition, these standards are an application of continuous quality improvement and represent an important collaborative endeavor.

These standards have been formulated to be used for individual self-evaluation and the development of practice guidelines, but not disciplinary actions, or determinations of negligence or misconduct. These standards do not constitute medical or other professional advice, and should not be taken as such. The information presented in these standards is not a substitute for the exercise of professional judgment by the health care professional. The use of the standards for any other purpose than that for which they were formulated must be undertaken within the sole authority and discretion of the user.

Acknowledgments

Special acknowledgement to Sara Erickson RD, CSR, LDN, CNSC, for her contributions for pediatric nephrology practice.

Glossary of Terms

Calcific uremic arteriolopathy—also referred to as “calciphylaxis”: A syndrome of vascular calcification, thrombosis, and skin necrosis. Systemic factors promoting this vascular condition include elevated serum calcium, parathyroid hormone, and phosphorus with consequent increases in the calcium \times phosphate product.³⁰

Chronic care model: A comprehensive evidence-based model used in chronic disease prevention and management.³¹

Complementary and alternative medicine (CAM): A group of diverse medical and health care systems, practices, and products that are not presently considered to be part of conventional medicine. Complementary medicine is used together with conventional medicine and alternative medicine is used in place of conventional medicine.³²

Chronic kidney disease mineral bone disorder (CKD-MBD): A systemic disorder of mineral and bone metabolism due to CKD manifested by one or more of the following: abnormalities of calcium, phosphorus, parathyroid hormone, or vitamin D metabolism; abnormalities in bone turnover, mineralization, volume, linear growth, or strength; and vascular or other soft-tissue calcification.³³

Dialysis outcomes and practice patterns study (DOPPS): A multi-national prospective cohort study of medical practices in managing hemodialysis (HD) patients. Its goal is to improve patient outcomes, life expectancy on HD, and quality of life.³⁴

Dietetics practice-based research network (DPBRN): A network of registered dietitian nutritionists within the Academy of Nutrition and Dietetics that is organized to promote dietetics research. Goals are to identify, design, and implement projects to address current issues in nutrition and dietetics practice, and to allow individual practitioners to contribute to these research projects in their current practice settings.

Disordered eating: This term is used to describe characteristics common to individuals who feel their eating is somewhat out of control, but not associated with the regular use of inappropriate behaviors that would indicate the diagnoses of anorexia or bulimia nervosa, or eating disorders not otherwise specified.³⁵

End-stage renal disease (ESRD): The last of 5 stages of chronic kidney disease. As ESRD progresses, individuals require some form of renal replacement therapy to sustain life.

Estimated glomerular filtration rate (eGFR): The estimated quantity of glomerular filtrate formed per unit of time in all nephrons of both kidneys; used as a marker of kidney function.

Equilibrated Kt/V (eKt/V)—also referred to as “double pool Kt/V”: Dose of dialysis that considers the rebound in urea concentration at the end of dialysis. This rebound occurs when urea is released into the bloodstream from the tissues where it has been sequestered, 30 to 60 minutes after dialysis. eKt/V is usually 0.2 units less than single pool Kt/V (spKt/V).³⁶

Healthy People 2020 (HP2020): A document developed by the US Department of Health and Human Services that provides science-based, 10-year national objectives for improving the health of all Americans. HP2020 continues to devote a full chapter to chronic kidney disease.³⁷

Improving Healthcare for the Common Good (IPRO): A national not-for-profit organization providing a full spectrum of health care assessment and improvement services that foster more efficient use of resources and enhance health care quality to achieve better patient outcomes.³⁸

Institute for Safe Medication Practices (ISMP): A nonprofit organization educating the health care community and consumers about safe medication practices.³⁹

Interdisciplinary team (IDT): A professional team consisting of at least the nephrologist, a registered nurse, a social worker, and a registered dietitian.¹⁷

Intradialytic parenteral nutrition (IDPN): Parenteral nutrition infusion delivered during hemodialysis treatments.

Intraperitoneal nutrition (IPN): Parenteral nutrition provided by an amino acid solution in a standard peritoneal dialysate bag, infused into the peritoneal cavity in the same manner that a typical dextrose-based peritoneal dialysis solution would be administered.

Kidney Disease: Improving Global Outcomes (KDIGO): An independently incorporated nonprofit foundation established in 2003, whose mission is to improve the care and outcomes of kidney disease patients worldwide through the development and implementation of global clinical practice guidelines. The National Kidney Foundation participated in the founding of KDIGO, which is governed by an international board of directors.⁴⁰

Kidney Disease Outcomes Quality Initiative (KDOQI): Provided evidence-based clinical practice guidelines for all stages of chronic kidney disease and related complications since 1997. It is recognized throughout the world for improving the diagnosis and treatment of kidney disease. The National Kidney Foundation actively participates in developing and promoting KDOQI and its guidelines.⁴¹

Kt/V—also referred to as spKt/V: A unitless parameter used to quantify adequacy of the hemodialysis and peritoneal dialysis treatments. K stands for dialyzer clearance of urea, the rate at which blood passes through the dialyzer; t stands for time; V stands for volume of urea distribution—volume of water a patient’s body contains.⁴² The National Kidney Foundation and Kidney Disease Outcomes Quality Initiative Work Groups recommend a target dose of hemodialysis of 1.4 in order to deliver a Kt/V of at least 1.2 and a minimum Kt/V of 1.7 per week for peritoneal dialysis adequacy.⁴³

Malnutrition Inflammation Score (MIS): A comprehensive and quantitative assessment tool that combines subjective global assessment, body mass index, and laboratory data to assess malnutrition and inflammation in dialysis patients.⁴⁴

North American Pediatric Renal Trials and Collaborative Studies (NAPRTCS): Its goal is to follow the natural history and the clinical course of chronic kidney disease in children in North America. This includes children who undergo chronic hemodialysis, peritoneal dialysis, and who receive kidney transplants.⁴⁵

National Institute of Diabetes, Digestive and Kidney Diseases (NIDDK): A part of the National Institutes of Health dedicated to basic and clinical research in diabetes, digestive diseases, and kidney disease.⁴⁶

Scientific Registry of Transplant Recipients (SRTR): Established to support solid organ transplantations within the United States. Gathers data from transplantation centers on many aspects of care, including wait lists, etiologies of end-stage disease, types of transplantations performed, and outcomes.⁴⁷

United Network for Organ Sharing (UNOS): A private, nonprofit organization that manages the nation’s organ transplantation system under contract with the federal government.⁴⁸

US Pharmacopeial Convention (USP): A scientific nonprofit organization that sets standards for the identity, strength, quality, and purity of medicines, food ingredients, and dietary supplements manufactured, distributed, and consumed worldwide.⁴⁹

US Renal Data System (USRDS): Funded by the National Institute of Diabetes, Digestive and Kidney Diseases in conjunction with Centers for Medicare and Medicaid services (CMS). The USRDS collects, analyzes, and distributes information about end-stage renal disease (ESRD) in the United States. It works with CMS, the United Network for Organ Sharing, and the ESRD networks to gather data and to provide access to accurate information about ESRD care in the United States.⁵⁰

Urea kinetic modeling (UKM): A tool used in the measurement of dialysis delivery and, therefore, for the assessment of dialysis adequacy.

Uremic symptoms: Uremia is a disorder characterized by a buildup of nitrogenous waste products in the blood. Symptoms include but are not limited to anorexia, lethargy, headaches, fatigue, nausea, vomiting, altered taste, loss of concentration, and loss of appetite.

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Standard 1: Nutrition Assessment

The registered dietitian nutritionist (RDN) uses accurate and relevant data and information to identify nutrition-related problems.

Rationale:

Nutrition assessment is the first of four steps of the Nutrition Care Process. Nutrition assessment is a systematic process of obtaining, verifying, and interpreting data in order to make decisions about the nature and cause of nutrition-related problems. It is initiated by referral and screening of individuals or groups for nutrition risk factors.

Nutrition assessment is conducted using validated tools, the five domains of nutrition assessment, and comparative standards as documented in the Nutrition Care Process Terminology, eNCPT available as an online resource (formerly the *International Dietetics & Nutrition Terminology Reference Manual* [IDNT]). Nutrition assessment is an ongoing, dynamic process that involves not only initial data collection, but also reassessment and analysis of patient/client or community needs. It provides the foundation for nutrition diagnosis, the second step of the Nutrition Care Process.

Refer to the eNCPT online at <https://andevidencelibrary.com/store.cfm?category=8>.

| Indicators for Standard 1: Nutrition Assessment | | | | | | | |
|--|--|---|--|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Practice Indicators | | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | | Competent | Proficient | Expert |
| 1.1 | Anthropometric assessment: Assesses anthropometric measures that may include: height, weight, body mass index (BMI ^a), waist circumference, growth pattern indices/percentile ranks, and weight history | | | | X | X | X |
| | 1.1A | Identifies appropriate adult and pediatric reference standards for comparison | | | X | X | X |
| | 1.1B | Estimates and modifies anthropometric measurements, as appropriate, for amputations | | | X | X | X |
| | 1.1C | Identifies and interprets trends in anthropometric indices | | | X | X | X |
| 1.2 | Biochemical data, medical tests, and procedure assessment: Assesses laboratory profiles, medical tests, and procedures, which may include: acid–base balance, electrolyte, renal, essential fatty acid, Gl ^b , glucose/endocrine, inflammatory, lipid, metabolic rate, mineral, nutritional anemia, protein, urine, and vitamin/mineral profiles | | | | X | X | X |
| | 1.2A | Evaluates nutrition implications of diagnostic tests and therapeutic procedures (eg, dietary modifications and/or nutrition therapy) | | | X | X | X |
| | 1.2B | Utilizes biochemical data (including appropriate eGFR ^c) to evaluate nutritional status in relation to the stages of kidney disease | | | X | X | X |
| | 1.2C | Evaluates adequacy of dialysis (eg, UKM ^d or eKt/V ^e) and viability of dialysis access and prescription | | | | X | X |
| | | 1.2C1 | Evaluates issues related to dialysis access and dialysis prescription that have potential to affect nutritional status | | | X | X |
| | 1.2.D | Applies complex decision making to interpret tests, procedures, and evaluations | | | | | X |
| (continued on next page) | | | | | | | |

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Figure 1. Standards of Practice for Registered Dietitian Nutritionists (RDNs) in Nephrology Nutrition.

| Indicators for Standard 1: Nutrition Assessment | | | | | | |
|--|--|---|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Practice Indicators | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| 1.3 | Nutrition-focused physical findings assessment (often referred to as clinical assessment): Assesses findings from evaluation of body systems, muscle and subcutaneous fat wasting, oral health, hair, skin and nails, signs of edema, suck/swallow/breathe ability, appetite, and affect | | | X | X | X |
| | 1.3A | Uses nutrition assessment tools that include age-appropriate weight and growth charts (Centers for Disease Control and Prevention Growth Charts, SGA ^f), GI symptoms, functional capacity, metabolic stress | | X | X | X |
| | 1.3B | Evaluates body composition measures (eg, fat and muscle stores, anthropometrics, SGA) | | X | X | X |
| | 1.3C | Uses nutrition-focused physical examination that includes, but is not limited to, oral and perioral structures; skin and related structures; alterations in taste, smell, and dentition/ chewing ability | | | X | X |
| 1.4 | Food and nutrition—related history assessment (often referred to as dietary assessment): Assesses the following: | | | X | X | X |
| | 1.4A | Food and nutrient intake including the composition and adequacy of food and nutrient intake, meal and snack patterns, and food allergies and intolerances | | X | X | X |
| | | 1.4A1 | Evaluates changes in appetite or usual dietary intake patterns (eg, as a result of uremia, oral aversion, taste changes, drug—nutrient interactions, pica behavior, adequacy of dialysis treatment, GI problems, comorbid conditions, or dialysis schedule/modality) | X | X | X |
| | | 1.4A2 | Analyzes nutrient intake using appropriate tools (eg, food databases, exchange lists), and compares to goals for stage/treatment of CKD ^g | X | X | X |
| | | 1.4A3 | Evaluates meal-planning issues | X | X | X |
| | | 1.4A4 | Evaluates access to appropriate types/amounts of food | X | X | X |
| | | 1.4A5 | Assesses patient’s/client’s understanding of kidney disease dietary modifications, particularly when superimposed on comorbidities (eg, diabetes, HTN ^h) | | X | X |
| | | 1.4A6 | Ensures patient/client understanding of CKD treatment options and their effects on nutrient needs and food choices | | X | X |
| | 1.4B | Food and nutrient administration, including current and previous diets and diet prescriptions and food modifications, eating environment, and enteral and parenteral nutrition administration | | X | X | X |
| | | 1.4B1 | Evaluates need for nutrition therapy changes based on laboratory and physical indices and comorbidities | | X | X |
| (continued on next page) | | | | | | |

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Figure 1. (Continued)

| Indicators for Standard 1: Nutrition Assessment | | | | | | |
|--|------|---|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Practice Indicators | | | | The "X" signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| | | 1.4B2 | Differentiates data-collection parameters based on current and historical health status | | X | X |
| | | 1.4B3 | Identifies need and timing for modification of nutrition plan (eg, transition feeding) | | X | X |
| | 1.4C | Medication and dietary and herbal supplement use, including prescription and over-the-counter medications, herbal preparations, and complementary medicine products used | | X | X | X |
| | | 1.4C1 | Evaluates all medications and supplements for impact on nutrition status and safety | X | X | X |
| | | 1.4C2 | Evaluates dose and timing of medications in relation to effect on nutrition status, kidney disease, and comorbid conditions | | X | X |
| | | 1.4C3 | Evaluates drug–nutrient and drug–drug interactions, including the mode of administration | | X | X |
| | | 1.4C4 | Evaluates use, safety, and efficacy of complementary and alternative medicines | | X | X |
| | | 1.4C5 | Evaluates frequency and severity of changes in health status that require dietary supplements and/or medication adjustment (eg, hyperkalemia, hyperphosphatemia) | | X | X |
| | | 1.4C6 | Analyzes current guidelines to establish recommendations for use of medications, supplements, herbals | | X | X |
| | | 1.4C7 | Evaluates overall medication management in the context of integrated disease state management | | | X |
| | | 1.4C8 | Investigates drug–drug/botanical and drug–nutrient interactions in context of integrated disease-state management | | | X |
| | | 1.4C9 | Develops and supervises protocols or similar documents used in medication management in collaboration with IDT ⁱ | | | X |
| | 1.4D | Knowledge, beliefs, and attitudes including understanding of nutrition-related concepts, conviction/feelings/emotions toward some nutrition-related statements or phenomenon, body image and preoccupation with food and weight, and readiness to change nutrition-related behaviors | | X | X | X |
| | | 1.4D1 | Engages the patient/client to identify individualized, short- and long-term goals for nutrition intervention | X | X | X |
| | | 1.4D2 | Analyzes learning style/interactive abilities to facilitate successful MNT ^j | X | X | X |
| (continued on next page) | | | | | | |

Figure 1. (Continued)

| Indicators for Standard 1: Nutrition Assessment | | | | | | |
|--|--|--|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Practice Indicators | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| | | 1.4D3 | Distinguishes underlying or nonapparent barriers or failures that hinder adherence to nutrition therapy | | X | X |
| | 1.4E | Behavior including patient/client activities and actions that influence achievement of nutrition-related goals | | X | X | X |
| | | 1.4E1 | Evaluates self-care skills/behaviors, other lifestyle factors, and patient/client-centered goals for living with kidney disease | X | X | X |
| | | 1.4E2 | Evaluates behavioral mediators (or antecedents) related to dietary intake patterns (eg, attitudes, self-efficacy, knowledge, intentions, readiness and willingness to change, perceived social support, social and psychological issues affecting adherence, developmental issues) | | X | X |
| | 1.4F | Factors affecting access to food that influences intake and availability of a sufficient quantity of safe, healthful food and water, as well as food/nutrition-related supplies | | X | X | X |
| | | 1.4F1 | Uses appropriate family/community support resources | X | X | X |
| | | 1.4F2 | Evaluates history of substance abuse (eg, alcohol, tobacco, drugs, pica) | X | X | X |
| | | 1.4F3 | Collaborates with IDT or other health care practitioners to assess risk for depression | | X | X |
| | | 1.4F4 | Evaluates risk/history of disordered eating and related factors (eg, medication adjustments, food issues, physical activity) | | X | X |
| | | 1.4F5 | Investigates nonapparent barriers or conflicts that would interfere with food access, selection, preparation | | X | X |
| | 1.4G | Physical activity, cognitive and physical ability to engage in specific tasks, such as self-feeding, activities of daily living (ADLs), instrumental activities of daily living (IADLs) and breastfeeding | | X | X | X |
| | | 1.4G1 | Interprets changes in cognitive and/or physical functioning that affects ability to meet nutrition goals | | X | X |
| | 1.4H | Nutrition-related patient/client-centered measures including quality of life, and patient/client perception of his or her nutrition interventions, cultural, ethnic, religious, and lifestyle factors and their impact on life | | X | X | X |
| 1.5 | Patient/client history: Assesses current and past information related to personal, medical, family, and social history | | | X | X | X |
| | 1.5A | Evaluates medical history, etiology of kidney disease, and access to health care | | X | X | X |
| (continued on next page) | | | | | | |

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Figure 1. (Continued)

| Indicators for Standard 1: Nutrition Assessment | | | | | | | |
|--|---|---|---|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Practice Indicators | | | | | The "X" signifies the indicators for the level of practice | | |
| Each RDN: | | | | | Competent | Proficient | Expert |
| | 1.5B | Evaluates risk factors for kidney disease (eg, family history, CVD ^k , ethnicity, UTI, ^l urolithiasis, AKI ^m) | | | X | X | X |
| | 1.5C | Evaluates age-related nutrition issues and comorbidities (eg, diabetes, obesity, CHF, ⁿ HTN, dyslipidemia, depression, GI diseases, oral aversion, ability to chew/swallow foods) | | | X | X | X |
| | 1.5D | Evaluates for evidence of malnutrition (eg, weight change, abnormal rate of growth and weight gain, prolonged poor intake, abnormal laboratory trends) | | | X | X | X |
| | 1.5E | Identifies potential nutrition complications related to chronic or acute conditions | | | | X | X |
| | 1.5F | Distinguishes underlying potential for coexisting disease or nutrition conditions related to present nutrition/disease state | | | | | X |
| 1.6 | Comparative standards: Identifies and uses comparative standards to estimate energy, fat, protein, carbohydrate, fiber, fluid, vitamin, and mineral needs, as well as recommended body weight, BMI, and desired growth patterns | | | | X | X | X |
| | 1.6A | Identifies the most appropriate reference standards (eg, national, state, institutional, and regulatory) based on practice setting, patient/client age, and disease/injury state and compares nutrition assessment data to appropriate criteria, relevant norms, population-based surveys and standards | | | X | X | X |
| | 1.6B | Employs population-based surveys to assess population-specific nutrition-related issues (eg, DOPPS, ^o NHANES ^p) | | | | X | X |
| | | 1.6B1 | Evaluates/applies appropriate standards in practice setting (eg, KDOQI, ^q KDIGO ^r) | | | X | X |
| | | 1.6B2 | Integrates nephrology practice with other advanced specialty practice areas (eg, diabetes, nutrition support) | | | | X |
| 1.7 | Physical activity habits and restrictions: Assesses physical activity, history of physical activity, and exercise training | | | | X | X | X |
| | 1.7A | Assesses effect of planned treatment on usual activity level, ability to perform ADLs, and achievement of developmental milestones for pediatrics | | | X | X | X |
| | 1.7B | Assesses ability to participate in current age-appropriate physical activities to facilitate rehabilitation, promote wellness, and improve QOL ^s | | | X | X | X |
| 1.8 | Reviews collected data for factors that affect nutrition and health status | | | | X | X | X |
| | 1.8A | Utilizes nutrition assessment data documented by other health care practitioners | | | X | X | X |
| | | 1.8A1 | Obtains and integrates data from members of the IDT and other health care practitioners | | | X | X |
| (continued on next page) | | | | | | | |

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Figure 1. (Continued)

| Indicators for Standard 1: Nutrition Assessment | | | | | | |
|--|--|---|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Practice Indicators | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| 1.9 | Organizes and clusters nutrition risk factors, complications, and assessment data to identify possible problem areas for determining nutrition diagnoses | | | X | X | X |
| | 1.9A | Reviews evidence-based nutrition indicators of nephrology complications (eg, BUN, ^t creatinine, CO ₂ , ^u albumin, prealbumin, hemoglobin, ferritin, iron saturation, calcium, phosphorus, parathyroid hormone, vitamin D level [25-hydroxyvitamin D level, when indicated], electrolytes, lipids, glucose, blood pressure) | | X | X | X |
| | 1.9B | Assesses actual or risk for acute issues (eg, uremic symptoms, protein depletion, calorie depletion, hyper/hypokalemia, hyper/hypoglycemia, anorexia, dysgeusia, inflammation, anemia, calcium/phosphorus imbalance) | | X | X | X |
| | 1.9C | Assesses actual or risk for chronic issues and late effects of CKD (eg, malnutrition, mineral and bone disorder, calcific uremic arteriopathy, dyslipidemia, neuropathy, cardiac damage, inflammation, growth failure) | | | X | X |
| | 1.9D | Employs in-depth assessment strategies to identify long-term complications (eg, diabetes, skin ulcers, infection, gastroparesis, loss of vision, neuropathy) | | | X | X |
| | 1.9E | Synthesizes findings into recommendations for nutrient replacement/nutrition care plan | | | | X |
| 1.10 | Documents and communicates: | | | X | X | X |
| | 1.10A | Date and time of assessment | | X | X | X |
| | 1.10B | Pertinent data (eg, medical, social, behavioral) | | X | X | X |
| | 1.10C | Comparison with appropriate standards | | X | X | X |
| | 1.10D | Patient/client perceptions, values, and motivation related to presenting problems | | X | X | X |
| | 1.10E | Changes in patient/client perceptions, values, and motivation related to presenting problems | | X | X | X |
| | | 1.10E1 | Changes in patient/client level of understanding, food-related behaviors, readiness for change, other outcomes that dictate appropriate follow-up timing and effort | X | X | X |
| | 1.10F | Patient/client adherence as evidenced by biochemical/nutrition parameters and other indicators | | X | X | X |
| | 1.10G | Reason for discharge/discontinuation or referral if appropriate | | X | X | X |
| | | 1.10G1 | Provides pertinent nutrition information to coordinate care when status changes or patient/client transfers between settings (eg, discharge, transfer to another clinic, extended care, day care/school) | X | X | X |
| (continued on next page) | | | | | | |

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Figure 1. (Continued)

Examples of Outcomes for Standard 1: Nutrition Assessment

- Appropriate assessment tools and procedures (matching assessment method to situation) are implemented
- Assessment tools are applied in valid and reliable ways
- Appropriate and pertinent data are collected
- Effective interviewing methods are utilized
- Data are organized and categorized in a meaningful framework that relates to nutrition problems
- Data are validated
- Use of assessment data leads to the determination that a nutrition diagnosis/problem does or does not exist
- Problems that require consultation with or referral to another provider are recognized
- Documentation and communication of assessment are complete, relevant, accurate, and timely

Standard 2: Nutrition Diagnosis

The registered dietitian nutritionist (RDN) identifies and labels specific nutrition problem(s)/diagnosis (es) that the RDN is responsible for treating.

Rationale:

Nutrition diagnosis is the second of four steps of the Nutrition Care Process. At the end of the nutrition assessment step, data are clustered analyzed and synthesized. This will reveal a nutrition diagnosis category from which to formulate a specific nutrition diagnosis statement.

The nutrition diagnosis demonstrates a link to goals for outcomes, selecting appropriate interventions and tracking progress in attaining expected outcomes. Diagnosing nutrition problems is the responsibility of the RDN.

Refer to the eNCPT online at <https://andevidencelibrary.com/store.cfm?category=8>.

Indicators for Standard 2: Nutrition Diagnosis

| Bold Font Indicators are Academy Core RDN Standards of Practice Indicators | | | | The “X” signifies the indicators for the level of practice | | |
|--|--|--|---|--|------------|--------|
| Each RDN: | | | | Competent | Proficient | Expert |
| 2.1 | Derives the nutrition diagnosis(es) from the assessment data | | | X | X | X |
| | 2.1A | Identifies and labels the problem(s) | | X | X | X |
| | 2.1B | Determines etiology (cause/contributing risk factors) | | X | X | X |
| | | 2.1B1 | Evaluates multiple factors that impact nutrition diagnosis(es) to identify the major cause(s) likely to respond to intervention | | X | X |
| | 2.1C | Clusters signs and symptoms (defining characteristics) | | X | X | X |
| | 2.1D | Compiles complex assessment data, including pre-existing factors, complex comorbidities, and impact of other therapies and interventions | | | X | X |
| 2.2 | Clusters and classifies the nutrition diagnosis(es) | | | X | X | X |
| | 2.2A | Uses evidence-based protocols and guidelines to rank nutrition diagnoses in order of urgency | | X | X | X |
| | 2.2B | Uses critical thinking skills and clinical experience to rank nutrition diagnoses in order of importance and urgency (eg, recognizes nutrition-related complications of kidney disease, such as poor appetite, anorexia, hyperkalemia, fluid imbalance, severe hypo/hypertension, mineral and bone disorders, anemia, CVD, altered nutritional status, altered weight status or growth velocity, micro/macrovacular disease) | | | X | X |

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Figure 1. (Continued)

| Indicators for Standard 2: Nutrition Diagnosis | | | | | | |
|--|--|--|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Practice Indicators | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| 2.3 | Validates the nutrition diagnosis(es) with clients/community family members or other health care professionals when possible and appropriate; corroborates right patient/client to right diagnosis | | | X | X | X |
| 2.4 | Documents the nutrition diagnosis(es) using standardized terminology ^f and written statement(s) that include problem (p), etiology (e), and signs and symptoms (s) (PES statement[s]) | | | X | X | X |
| 2.5 | Re-evaluates and revises nutrition diagnosis(es) when additional assessment data become available | | | X | X | X |
| | 2.5A | Uses most current information that may impact nutrition diagnosis(es) and revises if needed in a timely manner (eg, changes in living arrangement, laboratory/diagnostic tests, evaluations) | | X | X | X |
| | 2.5B | Communicates new information with nutrition implications with the patient/client and with the IDT and other health care practitioners (eg, behavioral, medical, other therapy assessments) | | X | X | X |

| Examples of Outcomes for Standard 2: Nutrition Diagnosis | | |
|---|--|--|
| <ul style="list-style-type: none"> Nutrition Diagnostic Statements that are: <ul style="list-style-type: none"> Clear and concise Specific—patient/client or community centered Accurate Based on reliable and accurate assessment data Includes date and time Documentation of nutrition diagnosis(es) is relevant, accurate, and timely Documentation of nutrition diagnosis(es) is revised and updated as additional assessment data become available | | |

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Figure 1. (Continued)

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| <p>Standard 3: Nutrition Intervention</p> <p>The registered dietitian nutritionist (RDN) identifies and implements appropriate, strategically planned interventions designed with the intent of changing a nutrition-related behavior, risk factor, environmental condition, or aspect of health status for an individual, target group, or the community at large.</p> <p>Rationale:</p> <p>Nutrition intervention is the third of four steps of the Nutrition Care Process. It consists of two inter-related components—planning and implementation. Planning involves prioritizing the nutrition diagnoses, conferring with the patient/client and others, reviewing practice guidelines and policies, and setting goals and defining the specific nutrition intervention strategy. Implementation of the nutrition intervention/plan of care is the action phase that includes carrying out and communicating the intervention/plan of care, ongoing data collection, and updating/revising the nutrition intervention/plan of care strategy, as warranted, based on the patient/client response to intervention. An RDN implements and directs the interventions or assigns components of nutrition intervention/plan of care to support staff in accordance with applicable laws and regulations. Nutrition intervention/plan of care is ultimately the responsibility of the RDN.</p> <p>Refer to the eNCPT online at https://andevidencelibrary.com/store.cfm?category=8.</p> |
|---|

| Indicators for Standard 3: Nutrition Intervention | | | | | | |
|--|---|--|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Practice Indicators | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| Plans the Nutrition Intervention/Plan of Care: | | | | | | |
| 3.1 | Prioritizes the nutrition diagnosis(es) based on problem severity, safety, patient/client needs, likelihood that nutrition intervention/plan of care will influence problem and patient/client perception of importance | | | X | X | X |
| | Prioritization considerations may include: | | | | | |
| | 3.1A | Urgency of the issue/evidence of abnormal nutrition (eg, history of unhealthy weight/loss/gain/growth rate, prolonged poor nutritional intake or appetite, laboratory trends, physical signs and symptoms) | | X | X | X |
| | 3.1B | Comorbid diseases or conditions (eg, prediabetes and diabetes, CVD, anemia, mineral and bone disorders, GI disorders, and altered weight/growth status) | | X | X | X |
| | 3.1C | Actual or risk of acute complications (eg, altered nutritional status, hyperkalemia, fluid imbalance, severe hypo/hypertension, pica) | | X | X | X |
| | 3.1D | Patient’s/client’s ability and willingness to implement and adhere to nutrition care plan | | X | X | X |
| | 3.1E | Actual or risk for chronic complications (eg, mineral and bone disorders, anemia, CVD, altered nutritional status, altered weight status or growth velocity, micro/macrovacular disease) | | | X | X |
| | 3.1F | Existence of or access to emerging and novel therapies | | | | X |
| | 3.1G | Nontraditional intervention(s) to achieve intended outcome with complementary/alternative therapies and/or behavior modification (eg, management strategies not typically used in the CKD population) | | | | X |
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Figure 1. (Continued)

| Indicators for Standard 3: Nutrition Intervention | | | | | | |
|--|--|--|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Practice Indicators | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| 3.2 | Bases intervention/plan of care on best-available research/evidence, evidence-based guidelines, and best practices | | | X | X | X |
| | 3.2A | Evaluates and applies appropriate national/international evidence-based practice guidelines (eg, KDOQI, KDIGO, Academy’s EAL ^v Nutrition Practice Guidelines) | | X | X | X |
| | | 3.2A1 | Tailors plan of care based on the individual needs and response to intervention | | X | X |
| | | 3.2A2 | Recognizes when it is appropriate and safe to deviate from established guidelines | | X | X |
| | | 3.2A3 | Contributes to or directs the development of intervention guidelines | | X | X |
| | | 3.2A4 | Leads the development and/or identification of intervention guidelines and outcomes measures on a state, regional, or national level | | | X |
| 3.3 | Refers to policies and program standards | | | X | X | X |
| | 3.3A | Adheres to federal, state, and local laws and regulations | | X | X | X |
| | 3.3B | Adheres to departmental/organizational program policies, procedures, guidelines, and protocols or similar documents | | X | X | X |
| 3.4 | Confers with patient/client, caregivers, interdisciplinary team, and other health care professionals | | | X | X | X |
| | 3.4A | Considers individual and family, caregiver knowledge, self-management skills, behavior/habits, and willingness to implement nutrition intervention to achieve goals | | X | X | X |
| | 3.4B | Collaborates with the patient/client, including family, caregiver, IDT, other health care practitioners as needed in all aspects of nutrition care and patient/client-centered intervention and planning | | X | X | X |
| | 3.4C | Organizes and leads communication with the patient/client, caregiver, family or designee, and acts as case manager to coordinate and organize care, in collaboration with IDT | | | | X |
| 3.5 | Determines patient/client-centered plan, goals, and expected outcomes | | | X | X | X |
| | 3.5A | Develops expected outcomes in observable and measurable terms that are clear, concise, and reasonable for patient/client-centered care and specific in relation to treatments and outcomes | | X | X | X |
| | 3.5B | Anticipates how nutrition intervention may impact treatment-related side effects, treatment delays, and the need for hospital readmission | | | X | X |
| | 3.5C | Directs integrated care interventions for actual or potential acute and chronic issues | | | | X |
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Figure 1. (Continued)

| Indicators for Standard 3: Nutrition Intervention | | | | | | |
|--|-------------------------------------|---|---|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Practice Indicators | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| | 3.5D | Directs nutrition management of long-term complications within the context of integrated care (eg, diabetes) | | | | X |
| 3.6 | Develops the nutrition prescription | | | X | X | X |
| | 3.6A | Collaborates with patient/client, family, caregiver, or designee to individualize the nutrition prescription | | X | X | X |
| | 3.6B | Considers nutrient/dietary intake to establish nutrition goals, including other factors (eg, psychosocial, home situation, transportation, meals eaten away from home, cultural, or religious influences) | | X | X | X |
| | 3.6C | Considers physical activity, functional status, and psychomotor development | | X | X | X |
| | 3.6D | Considers pharmacotherapy | | X | X | X |
| | | 3.6D1 | Reviews medications commonly used in CKD (eg, mineral bone disorder, anemia management, growth failure) | X | X | X |
| | | 3.6D2 | Recognizes the impact and interactions of pharmacotherapy | | X | X |
| | | 3.6D3 | Recognizes the need for adjustment of pharmacotherapy based on integration of nutrition, physical activity, treatment schedule, medication side effects, and ongoing laboratory monitoring and response, personal routine | | | X |
| | 3.6E | Implements goals based on macronutrient recommendations for stage of CKD and treatment modality | | X | X | X |
| | 3.6F | Implements goals based on micronutrient recommendations for stage of CKD and treatment modality | | X | X | X |
| | 3.6G | Recommends plan for enteral/parenteral nutrition prescription | | X | X | X |
| | | 3.6G1 | Selects appropriate formula for enteral/parenteral feedings based on nutritional status, laboratory data, age | X | X | X |
| | | 3.6G2 | Determines rate/volume of enteral/parenteral feedings based on response to therapy, tolerance, medical condition, and treatment modality | X | X | X |
| | | 3.6G3 | Recommends modular components for feedings as needed to meet nutritional needs and maintain biochemical control | X | X | X |
| | | 3.6G4 | Recommends specialized nutrition support therapy (eg, parenteral, intraperitoneal, or intradialytic nutrition and composition of formula) if unable to meet needs orally and/or enterally | | X | X |
| | 3.6H | Adapts nutrition prescription for modality changes | | | X | X |
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Figure 1. (Continued)

| Indicators for Standard 3: Nutrition Intervention | | | | | | |
|--|--|--|---|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Practice Indicators | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| 3.7 | Defines time and frequency of care, including intensity, duration, and follow-up | | | X | X | X |
| | 3.7A | Identifies time and frequency of care based on individual needs, established goals and outcomes, and expected response to intervention(s) | | X | X | X |
| | | 3.7A1 | Considers expected changes in nutritional status and progress toward nutrition outcomes (eg, growth/developmental changes, changes in feeding mode) | | X | X |
| | | 3.7A2 | Considers severity of nutritional issues, and/or pending medical interventions that are influenced by or may influence nutrition status | | X | X |
| | | 3.7A3 | Develops guidelines for timing of intervention and follow-up | | | X |
| 3.8 | Utilizes standardized terminology for describing interventions | | | X | X | X |
| | 3.8A | Utilizes the standardized terminology in the online eNCPT (formerly the IDNT Reference Manual) or facility/program requirements | | X | X | X |
| 3.9 | Identifies resources and referrals needed | | | X | X | X |
| | 3.9A | Identifies resources to assist patients/clients with CKD in using education services and community programs appropriately (eg, support groups, health care services, meal programs, community outreach programs, recommended websites) | | X | X | X |
| | 3.9B | Identifies and facilitates referrals as needed to assist patient/client with CKD-related issues (eg, financial, psychosocial, and functional status) | | X | X | X |
| | 3.9C | Contributes to development of patient/client education materials/classes | | | X | X |
| | 3.9D | Leads the development of patient/client education materials/classes | | | | X |
| Implements the Nutrition Intervention/Plan of Care: | | | | | | |
| 3.10 | Collaborates with colleagues, interdisciplinary team and other health care professionals | | | X | X | X |
| | 3.10A | Facilitates and fosters active communication, learning, partnerships, and collaboration with the nephrology team and other health care practitioners | | X | X | X |
| | 3.10B | Collaborates with physician and IDT to utilize approved protocols or similar documents consistent with facility policies to recommend medication therapies to treat nutrition-related conditions, such as anemia, mineral and bone disorders | | | X | X |
| | 3.10C | Collaborates with physician and IDT to utilize physician-approved protocols or similar documents consistent with facility policies to manage nutrition support therapies | | | X | X |
| (continued on next page) | | | | | | |

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Figure 1. (Continued)

| Indicators for Standard 3: Nutrition Intervention | | | | | | |
|--|--|---|---|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Practice Indicators | | | | The "X" signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| 3.11 | Communicates and coordinates the nutrition intervention/plan of care | | | X | X | X |
| | 3.11A | Collaborate with the IDT and other agencies to coordinate nutrition care (eg, feeding therapy programs, bariatric programs, long-term care facilities, home health, and acute care centers) | | X | X | X |
| | 3.11B | Reviews nutrition goals, interventions, and referrals/resources needed to meet goals in nutrition plan of care and communicates with patient/client, caregivers, IDT, other health care settings, including long-term care | | X | X | X |
| | 3.11C | Ensures communication of nutrition plan of care and transfer of nutrition-related data between care settings (eg, home health, acute care, ambulatory care, and/or long-term care facilities) as needed | | X | X | X |
| 3.12 | Initiates and individualizes the nutrition intervention/plan of care | | | X | X | X |
| | 3.12A | Utilizes physician/referring practitioner-driven protocols or other facility-specific processes to implement, initiate, or modify order for diet or nutrition-related actions (eg, nutrition supplements, dietary supplements, food texture modifications for dentition or individual preferences, enteral and parenteral nutrition, nutrition-related laboratory tests and medications, and nutrition education and counseling); actions are consistent with specialized training where required, competence, approved clinical privileges for order writing and organizational policy | | X | X | X |
| | 3.12B | Utilizes physician/referring practitioner-driven protocols or other facility-specific processes to manage nutrition support therapies (eg, formula selection, rate adjustments based on energy needs or laboratory results, addition of designated medications and vitamin/mineral supplements to parenteral nutrition solutions or supplemental water for enteral nutrition); actions are consistent with specialized training where required, competence, approved clinical privileges for order writing and organizational policy | | X | X | X |
| | | 3.12B1 | Manages enteral/parenteral nutrition and specialized nutrition support therapy, including formula selection and adjustment based on patient/client laboratory results, using physician-approved protocols, clinical privileges for order writing, or similar documents consistent with facility organization policies | | X | X |
| | 3.12C | Utilizes appropriate behavior change theories (eg, motivational interviewing, behavior modification, modeling) to facilitate and promote self-management strategies | | | X | X |
| | 3.12D | Incorporates stages of behavior change as a guide to assess the patient's/client's readiness to learn and adjusts counseling style accordingly | | | X | X |
| | 3.12E | Integrates critical thinking and synthesis skills to guide decision making in complicated, unpredictable, and dynamic situations | | | | X |
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Figure 1. (Continued)

| Indicators for Standard 3: Nutrition Intervention | | | | | | |
|--|--|---|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Practice Indicators | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| 3.13 | Assigns activities to dietetic technician, registered and other administrative support and technical personnel in accordance with qualifications, organization policies, and applicable laws and regulations | | | X | X | X |
| | 3.13A | Supervises support personnel | | X | X | X |
| 3.14 | Continues data collection | | | X | X | X |
| | 3.14A | Uses measurable, standardized indicators based on goals and outcomes | | X | X | X |
| | 3.14B | Uses established protocols or similar documents for consistent and cohesive recording of data | | X | X | X |
| | 3.14C | Conducts comprehensive data analysis to identify trends and update the plan of care accordingly | | | X | X |
| 3.15 | Follows up and verifies that nutrition intervention/plan of care is occurring | | | X | X | X |
| | 3.15A | Communicates and collaborates with IDT to verify progress and re-evaluate nutrition plan of care strategies | | X | X | X |
| | 3.15B | Addresses potential barriers to adherence with plan of care | | X | X | X |
| | 3.15C | Directs the integration of the patient’s/client’s progress within the IDT | | | X | X |
| 3.16 | Adjusts nutrition intervention/plan of care strategies, if needed, as response occurs | | | X | X | X |
| | 3.16A | Adjusts intervention strategies as needed (eg, change in living/care situation, progress/change in goal, change in health status); seeks assistance as needed | | X | X | X |
| | 3.16B | Collaborates with IDT to make adjustment in supportive services, as needed (eg, training of direct providers, home-delivered meals) | | | X | X |
| 3.17 | Documents: | | | | | |
| | 3.17A | Date and time of intervention and individuals involved | | X | X | X |
| | 3.17B | Specific treatment goals and expected outcomes addressed per the established plan of care | | X | X | X |
| | 3.17C | Recommended and implemented interventions, as applicable, as developed by the RDN and IDT | | X | X | X |
| | 3.17D | Adjustments to the plan and justification, reflecting involvement of IDT | | X | X | X |
| | 3.17E | Patient/client/community receptivity | | X | X | X |
| | 3.17F | Referrals made and resources used | | X | X | X |
| | 3.17G | Patient/client/caregiver comprehension | | X | X | X |
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Figure 1. (Continued)

| Indicators for Standard 3: Nutrition Intervention | | | | | | |
|--|-------|--|---|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Practice Indicators | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| | 3.17H | Barriers to change | | X | X | X |
| | | 3.17H1 | Influencing factors or barriers affecting ability and/or willingness to implement and adhere to nutrition care plan (eg, living environment, psychosocial factors, emotional intelligence, cognitive development, change in mental or physical ability, financial status) | X | X | X |
| | 3.17I | Other information relevant to providing care and monitoring progress over time | | X | X | X |
| | 3.17J | Plans for follow-up and frequency of care | | X | X | X |
| | 3.17K | Rationale for discharge or referral if applicable | | X | X | X |

| Examples of Outcomes for Standard 3: Nutrition Intervention | |
|---|--|
| <ul style="list-style-type: none"> • Appropriate prioritizing and setting of goals/expected outcomes • Involves patient/client, caregivers, and interdisciplinary team, as appropriate, in developing nutrition intervention/plan of care • Appropriate individualized patient/client-centered nutrition intervention/plan of care, including nutrition prescription, is developed • Interdisciplinary collaborations are utilized • Nutrition interventions/plan of care are delivered and actions are carried out • Documentation of nutrition intervention/plan of care is: <ul style="list-style-type: none"> ◦ Comprehensive ◦ Specific ◦ Accurate ◦ Relevant ◦ Timely ◦ Dated and timed • Documentation of nutrition intervention/plan of care is revised and updated | |

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Figure 1. (Continued)

Standard 4: Nutrition Monitoring and Evaluation

The registered dietitian nutritionist (RDN) monitors and evaluates indicators and outcomes data directly related to the nutrition diagnosis, goals, and intervention strategies to determine the progress made in achieving desired outcomes of nutrition care and whether planned interventions should be continued or revised.

Rationale:

Nutrition monitoring and evaluation is the fourth step in the Nutrition Care Process. Through monitoring and evaluation, the RDN identifies important measures of change or patient/client outcomes relevant to the nutrition diagnosis and nutrition intervention and describes how best to measure these outcomes.

Nutrition monitoring and evaluation are essential components of an outcomes management system. The aim is to promote uniformity within the profession in evaluating the efficacy of nutrition interventions/plans of care.

Refer to the eNCPT online at <https://andevidencelibrary.com/store.cfm?category=8>.

| Indicators for Standard 4: Nutrition Monitoring and Evaluation | | | | | | |
|--|--------------------|---|---|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Practice Indicators | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| 4.1 | Monitors progress: | | | X | X | X |
| | 4.1A | Assesses patient/client understanding and adherence with nutrition intervention/plan of care | | X | X | X |
| | | 4.1A1 | Verifies patient’s/client’s understanding of nutrition intervention by having the patient/client verbalize and/or demonstrate understanding as evidenced by selection of appropriate foods, menus, or food preparation techniques consistent with prescribed nutrition intervention | X | X | X |
| | | 4.1A2 | Ensures nutrition intervention includes patient/client-centered goals | X | X | X |
| | | 4.1A3 | Ensures patient/client-centered nutrition intervention based on patient’s/client’s stage of behavior change and learning style | | X | X |
| | 4.1B | Determines whether the nutrition intervention/plan of care is being implemented as prescribed | | X | X | X |
| | | 4.1B1 | Identifies barriers to nutrition intervention | X | X | X |
| | | 4.1B2 | Modifies intervention as appropriate to address individual patient/client needs | X | X | X |
| | | 4.1B3 | Arranges for additional resources, or more intensive resources, to fulfill the nutrition prescription | | X | X |
| | | 4.1B4 | Tailors tools and methods to ensure desired outcome reflecting the patient’s/client’s social, physical, and environmental factors | | | X |
| | 4.1C | Evaluates progress or reasons for lack of progress related to problems and interventions | | X | X | X |
| | | 4.1C1 | Consults with the IDT and other health care practitioners | X | X | X |
| | | 4.1C2 | Identifies any potential changes to patient’s/client’s cognitive, physical, environmental status that could interfere with plan of care | | X | X |
| (continued on next page) | | | | | | |

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Figure 1. (Continued)

| Indicators for Standard 4: Nutrition Monitoring and Evaluation | | | | | | |
|--|--------------------|--|---|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Practice Indicators | | | | The "X" signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| | | 4.1C3 | Uses critical thinking skills to develop individualized questions and approach to identify stage of behavior change | | X | X |
| | | 4.1C4 | Identifies problems beyond the scope of nutrition that are interfering with the intervention and recommends appropriate adjustments | | | X |
| | 4.1D | Evaluates evidence that the nutrition intervention/plan of care is influencing a desirable change in the patient/client behavior or status | | X | X | X |
| | | 4.1D1 | Accesses appropriate sources for evidence of adherence (eg, food choices, food logs, 24-hour food recall, laboratory results, objective data, nutrition-focused physical examination) | X | X | X |
| | | 4.1D2 | Utilizes direct observation, interviews, and/or other identifiers specific to the patient/client (eg, social, cognitive, environmental factors) that may influence response to nutrition intervention | X | X | X |
| | 4.1E | Identifies positive or negative outcomes | | X | X | X |
| | | 4.1E1 | Evaluates intended effects and actual or potential adverse effects related to complex problems and interventions | | X | X |
| | 4.1F | Supports conclusions with evidence | | X | X | X |
| | | 4.1F1 | Clearly identifies subjective and objective patient/client-centered evidence to support conclusions | X | X | X |
| | | 4.1F2 | Utilizes current evidence-based literature to support conclusions | | X | X |
| | 4.1G | Monitors intended effects and potential adverse effects of pharmacological and nonpharmacological treatment | | X | X | X |
| | | 4.1G1 | Completes an in-depth analysis of intended effects and potential adverse effects related to complex problems and interventions | | X | X |
| | | 4.1G2 | Utilizes laboratory trends to help identify individual patient/client responses to pharmacological therapies and botanical medicines | | X | X |
| | 4.1H | Evaluates patterns, trends, and unintended variation related to problems and interventions | | | X | X |
| 4.2 | Measures outcomes: | | | X | X | X |
| | 4.2A | Selects the nutrition care outcome indicator(s) to measure | | X | X | X |
| | | 4.2A1 | Considers comorbidities as related to CKD (eg, glycemic control, blood pressure, dyslipidemias) | X | X | X |
| (continued on next page) | | | | | | |

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Figure 1. (Continued)

| Indicators for Standard 4: Nutrition Monitoring and Evaluation | | | | | | |
|--|---------------------|--|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Practice Indicators | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| | | 4.2A2 | Considers patient/client-centered outcomes (eg, quality of life, functional status, socialization, patient/client satisfaction) | X | X | X |
| | | 4.2A3 | Considers health care utilization (eg, consistent, adequate delivery of dialysis treatment; infection and hospitalizations; attention to resource utilization; IDT participation) | X | X | X |
| | | 4.2A4 | Considers clinical and health status/nutrition outcomes (eg, SGA, MIS, ^w physical well-being; weight patterns; fluid and electrolyte balance; MBD ^x ; hematological profile; dialysis adequacy; treatment-related side effects) | | X | X |
| | 4.2B | Uses standardized nutrition care outcome indicator(s) | | X | X | X |
| | | 4.2B1 | Evaluates patient’s/client’s response to nutrition plan and progress toward achieving and maintaining goals | X | X | X |
| | | 4.2B2 | Completes a comprehensive analysis of the indicators for each identified problem area using proficient level clinical judgment skills | | X | X |
| | | 4.2B3 | Completes a detailed analysis and trending of the indicators to evaluate the complexity of problems and correlates one problem to another using advanced clinical judgment skills | | | X |
| | 4.2C | Explores patient/client and caregiver perception of success related to the designated outcome indicators | | | X | X |
| 4.3 | Evaluates outcomes: | | | X | X | X |
| | 4.3A | Compares monitoring data with nutrition prescription/goals or reference standard | | X | X | X |
| | | 4.3A1 | Compares individual patient/client data with accepted targets based on national, state, and local public health and population-based data (eg, ESRD ^y Networks, USRDS, ^z DOPPS, NAPRTCS, ^{aa} MAT, ^{bb} HP2020 ^{cc}) | | X | X |
| | | 4.3A2 | Utilizes historical data and trends to evaluate against reference standards | | X | X |
| | 4.3B | Evaluates impact of the sum of all interventions on overall patient/client health outcomes | | X | X | X |
| | | 4.3B1 | Designs interventions to meet and exceed benchmarks | | X | X |
| | | 4.3B2 | Develops action plan based on the impact of the sum of all interventions on overall patient/client health outcomes in complex cases | | | X |
| 4.4 | Documents | | | X | X | X |
| | 4.4A | Date and time | | X | X | X |
| | 4.4B | Indicators measured, results, and the method for obtaining measurement | | X | X | X |
| (continued on next page) | | | | | | |

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Figure 1. (Continued)

| Indicators for Standard 4: Nutrition Monitoring and Evaluation | | | | | | |
|--|-------------|--|---|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Practice Indicators | | | | The "X" signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| | | 4.4B1 | Utilizes indicators that are specific, measurable, attainable, realistic, and timely (S.M.A.R.T.) | X | X | X |
| | 4.4C | Criteria to which the indicator is compared (eg, nutrition prescription/goal or a reference standard) | | X | X | X |
| | | 4.4C1 | Reviews, understands, and documents criteria to which the indicator is compared (eg, nutrition prescription/goal, reference standard, or clinical judgment) | | X | X |
| | 4.4D | Factors facilitating or hampering progress | | X | X | X |
| | 4.4E | Other positive or negative outcomes | | X | X | X |
| | 4.4F | Future plans for nutrition care, nutrition monitoring and evaluation, follow-up, referral, or discharge | | X | X | X |

Examples of Outcomes for Standard 4: Nutrition Monitoring and Evaluation

- The patient/client/community outcome(s) directly relate to the nutrition diagnosis and the goals established in the nutrition intervention/plan of care. Examples include, but are not limited to:
 - Nutrition outcomes (eg, change in knowledge, behavior, food, or nutrient intake)
 - Clinical and health status outcomes (eg, change in laboratory values, body weight, blood pressure, risk factors, signs and symptoms, clinical status, infections, complications, morbidity, and mortality)
 - Patient/client-centered outcomes (eg, quality of life, satisfaction, self-efficacy, self-management, functional ability)
 - Health care utilization and cost-effectiveness outcomes (eg, change in medication, special procedures, planned/unplanned clinic visits, preventable hospital admissions, length of hospitalizations, prevented or delayed nursing home admissions, morbidity, and mortality)
- Documentation of nutrition monitoring and evaluation is:
 - Comprehensive
 - Specific
 - Accurate
 - Relevant
 - Timely
 - Dated and timed

^aBMI=body mass index.

^bGI=gastrointestinal.

^ceGFR=estimated glomerular filtration rate.

^dUKM=urea kinetic modeling.

^eeKt/V=equilibrated Kt/V.

^fSGA=subjective global assessment.

^gCKD=chronic kidney disease.

^hHTN=hypertension.

ⁱIDT=interdisciplinary team.

^jMNT=medical nutrition therapy.

(continued on next page)

Figure 1. (Continued)

^kCVD=cardiovascular disease.

^lUTI=urinary tract infection.

^mAKI=acute kidney injury.

ⁿCHF=congestive heart failure.

^oDOPPS=Dialysis Outcomes and Practice Patterns Study.

^pNHANES=National Health and Nutrition Examination Survey.

^qKDOQI=Kidney Disease Outcomes Quality Initiative.

^rKDIGO=Kidney Disease: Improving Global Outcomes.

^sQOL=quality of life.

^tBUN=blood urea nitrogen.

^uCO₂=carbon dioxide.

^vEAL=Evidence Analysis Library.

^wMIS=malnutrition inflammation syndrome.

^xMBD=mineral bone disorder.

^yESRD=end-stage renal disease.

^zUSRDS=US Renal Data System.

^{aa}NAPRTCS=North America Pediatric Renal Trials and Collaboration Studies.

^{bb}MAT=measurement assessment tool.

^{cc}HP2020=Healthy People 2020.

Figure 1. (Continued)

| |
|--|
| <p>Standard 1: Quality in Practice</p> <p>The registered dietitian nutritionist (RDN) provides quality services using a systematic process with identified leadership, accountability, and dedicated resources.</p> <p>Rationale:</p> <p>Quality practice in nutrition and dietetics is built on a solid foundation of education, credentialing, evidence-based practice, demonstrated competence, and adherence to established professional standards. Quality practice requires systematic measurement of outcomes, regular performance evaluations, and continuous improvement.</p> |
|--|

| Indicators for Standard 1: Quality in Practice | | | | | |
|--|--|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | The "X" signifies the indicators for the level of practice | | |
| Each RDN: | | | Competent | Proficient | Expert |
| 1.1 | Complies with applicable laws and regulations as related to his/her area(s) of practice | | X | X | X |
| | 1.1A | Recognizes and complies with relevant laws, regulations, accreditation programs and standards (eg, HIPAA, ^a local, state, and federal regulations) for programs/services for patients/clients with kidney disease | X | X | X |
| 1.2 | Performs within individual and statutory scope of practice | | X | X | X |
| | 1.2A | Adheres to state regulations and licensure | X | X | X |
| | 1.2B | Attains and maintains state licensure/certification as appropriate to practice setting | X | X | X |
| 1.3 | Adheres to sound business and ethical billing practices applicable to the setting | | X | X | X |
| 1.4 | Utilizes national quality and safety data (eg, Institute of Medicine, National Quality Forum, Institute for Healthcare Improvement, NIH,^b KDIGO,^c KDOQI,^d HP2020^e) to improve the quality of services provided and to enhance customer-centered service | | X | X | X |
| | 1.4A | Uses national standardized and consensus-based nephrology guidelines in policies and procedures and other programs (eg, MNT, ^f CMS, ^g KDOQI, KDIGO) | X | X | X |
| | 1.4B | Participates in facility/agency/institution quality issues and identifies need for changes related to nephrology nutrition concerns | | X | X |
| | 1.4C | Anticipates changes to local, state, and national quality initiatives | | X | X |
| | 1.4D | Leads local, state, and national quality initiatives efforts to support nephrology nutrition and related services | | | X |
| 1.5 | Utilizes a systematic performance improvement model that is based on practice knowledge, evidence, research, and science for delivery of the highest quality services | | X | X | X |
| | 1.5A | Participates in implementation of policies and procedures for providing and monitoring nutrition services and delivery | X | X | X |
| (continued on next page) | | | | | |

Figure 2. Standards of Professional Performance for Registered Dietitian Nutritionists (RDNs) in Nephrology Nutrition. The term *customer* is used in this evaluation resource as a universal term. Customer could also mean client/patient, client/patient/customer, participant, consumer, or any individual, group, or organization to which the RDN provides services.

| Indicators for Standard 1: Quality in Practice | | | | | | |
|--|--|--|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| | 1.5B | Establishes and implements standardized protocols or similar documents for nephrology nutrition services | | | X | X |
| | 1.5C | Reviews, develops, and evaluates standardized protocols or similar documents for nephrology nutrition services | | | X | X |
| | 1.5D | Develops implementation strategies for quality improvement activities (eg, identification/adaptation of evidence-based practice protocols and similar documents, skills training/reinforcement, organizational incentives and support) relevant to nephrology nutrition | | | | X |
| 1.6 | Participates in or designs an outcomes-based management system to evaluate safety, effectiveness, and efficiency of practice | | | X | X | X |
| | 1.6A | Involves colleagues and others, as applicable, in systematic outcomes management | | X | X | X |
| | | 1.6A1 | Collects and trends data as part of a quality management process to improve outcomes and quality of care and services | X | X | X |
| | 1.6B | Utilizes indicators that are specific, measurable, attainable, realistic, and timely (S.M.A.R.T.) | | X | X | X |
| | 1.6C | Defines expected outcomes | | X | X | X |
| | | 1.6C1 | Assembles and organizes the key nutrition-specific outcomes and related processes as part of the institutional outcomes management program | | X | X |
| | | 1.6C2 | Determines and distinguishes the key nutrition-specific outcomes managed within the program through direct evaluation, benchmarking, and evaluating environmental trends | | X | X |
| | 1.6D | Measures quality of services in terms of process and outcomes | | X | X | X |
| | 1.6E | Documents outcomes | | X | X | X |
| | 1.6F | Serves in leadership role to assess benchmarks of community/ prevention programs compared with public health and nephrology-based indicators to positively impact program planning and development (eg, HP2020 Leading Health Indicators and national nephrology quality improvement measure sets) | | | X | X |
| | 1.6G | Advocates for and leads in the development of clinical, operational, and financial measures from which nephology nutrition care-related outcomes can be derived, reported, and used for improvement | | | | X |
| 1.7 | Identifies and addresses potential and actual errors and hazards in provision of services | | | X | X | X |
| | 1.7A | Evaluates and ensures safe nutrition care delivery | | X | X | X |
| (continued on next page) | | | | | | |

Figure 2. (Continued)

| Indicators for Standard 1: Quality in Practice | | | | | |
|--|---|---|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | The "X" signifies the indicators for the level of practice | | |
| Each RDN: | | | Competent | Proficient | Expert |
| | 1.7B | Maintains awareness of problematic product names and error-prevention recommendations provided by ISMP, ^h FDA, ⁱ and USP ^j | X | X | X |
| | 1.7C | Recognizes potential drug–nutrient interactions and potential interactions between prescribed treatments and complementary alternative medicine | X | X | X |
| | 1.7D | Develops safety alert systems to monitor key indicators of medical conditions for nephrology patients/clients (eg, drug–nutrient interactions, CAM ^k) | | X | X |
| | 1.7E | Leads in development of protocols and similar documents to identify, address, and prevent errors and hazards | | | X |
| | 1.7F | Integrates and implements improvements in processes in the delivery of food and nutrition services to individuals with kidney disease | | | X |
| 1.8 | Compares actual performance to performance goals (eg, Gap Analysis, SWOT Analysis [Strengths, Weaknesses, Opportunities, and Threats], PDCA Cycle [Plan-Do-Check-Act]) | | X | X | X |
| | 1.8A | Reports and documents action plan to address identified gaps in performance | X | X | X |
| | 1.8B | Compares performance to established goals and expected outcomes | X | X | X |
| | 1.8C | Evaluates departmental/organizational performance in comparison to goals and expected outcomes | | X | X |
| | 1.8D | Benchmarks departmental/organizational performance with national programs and standards | | X | X |
| 1.9 | Evaluates interventions to improve processes and services | | X | X | X |
| | 1.9A | Participates in and/or uses collected data as part of a quality improvement process relative to outcomes, quality of care, and services rendered | X | X | X |
| | 1.9B | Conducts data analysis as part of a quality assurance performance improvement process, develops report of outcomes and provides recommendations | X | X | X |
| | 1.9C | Develops and evaluates clinical, operational, and financial processes that support institutional and nephrology nutrition programs | | X | X |
| | 1.9D | Directs the development, monitoring, and evaluation of practice-specific benchmarks (eg, bone management strategies) relevant to national initiatives (eg KDOQI, KDIGO, IPRO, ^l HP2020) and to impact program planning and development | | | X |
| | 1.9E | Develops tools for analyzing processes and outcomes | | | X |

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Figure 2. (Continued)

| Indicators for Standard 1: Quality in Practice | | | | | | | | |
|--|--|--|---|--|--|------------|--------|---|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | | | The “X” signifies the indicators for the level of practice | | | |
| Each RDN: | | | | | Competent | Proficient | Expert | |
| 1.10 | Improves or enhances services based on measured outcomes | | | | | X | X | X |
| | 1.10A | Identifies performance criteria to monitor effectiveness of services | | | | X | X | X |
| | | 1.10A1 | Routinely assesses current services in accordance with established performance criteria and makes changes in practice patterns to improve nephrology nutrition care | | | | X | X |
| | | 1.10A2 | Develops and investigates systems processes and programs that support best practices in nephrology nutrition | | | | | X |

Examples of Outcomes for Standard 1: Quality in Practice

- Actions are within scope of practice and applicable laws and regulations
- Use of national quality standards and best practices are evident in customer-centered services
- Performance indicators are specific, measurable, attainable, realistic, and timely (S.M.A.R.T.)
- Aggregate outcomes results meet pre-established criteria
- Results of quality improvement activities direct refinement and advancement of practice

Standard 2: Competence and Accountability

The registered dietitian nutritionist (RDN) demonstrates competence in and accepts accountability and responsibility for ensuring safety and quality in the services provided.

Rationale:

Competence and accountability in practice includes continuous acquisition of knowledge, skills, and experience in the provision of safe, quality customer-centered service.

| Indicators for Standard 2: Competence and Accountability | | | | | | |
|--|--|--|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| 2.1 | Adheres to the Code of Ethics | | | X | X | X |
| 2.2 | Integrates the Standards of Practice (SOP) and Standards of Professional Performance (SOPP) into practice, self-assessment, and professional development | | | X | X | X |
| | 2.2A | Utilizes the Standards to assess performance at the appropriate level of practice | | X | X | X |
| | 2.2B | Utilizes the Standards to develop and implement a professional development plan to enhance, as well as advance, practice and performance | | X | X | X |
| (continued on next page) | | | | | | |

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Figure 2. (Continued)

| Indicators for Standard 2: Competence and Accountability | | | | | | |
|--|---|---|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| | 2.2C | Uses the Nephrology Nutrition SOP/SOPP to assist in developing corporate/institutional policies, guidelines, and human resource material (eg, career ladders, acceptable performance level) when in a management role | | | X | X |
| | 2.2D | Assigns actions to levels of performance (competent, proficient, expert) or practice as outlined in SOP/SOPP | | | | X |
| 2.3 | Demonstrates and documents competence in practice and delivery of customer-centered service | | | X | X | X |
| | 2.3A | Documents examples of expanded professional responsibility reflective of a proficient practice role | | | X | X |
| | 2.3B | Documents examples of expanded professional responsibility reflective of an expert practice role | | | | X |
| 2.4 | Assumes accountability and responsibility for actions and behaviors | | | X | X | X |
| | 2.4A | Acknowledges and corrects errors | | X | X | X |
| | 2.4B | Strives for improvement in practice with self and others | | X | X | X |
| | 2.4C | Ensures actions and behaviors of staff are accountable to policies as applicable to a management role | | | X | X |
| | 2.4D | Is active in promoting the specialty of nephrology nutrition | | | X | X |
| | 2.4E | Leads by example; exemplifies professional integrity as a leader of nephrology nutrition | | | X | X |
| | 2.4F | Directs and develops policies that ensure accountability as applicable to a management role | | | | X |
| 2.5 | Conducts self-assessment at regular intervals | | | X | X | X |
| | 2.5A | Identifies needs for professional development | | X | X | X |
| | 2.5B | Seeks opportunities for professional development, including mentoring programs | | X | X | X |
| 2.6 | Designs and implements plans for professional development | | | X | X | X |
| | 2.6A | Documents professional development activities in career portfolio | | X | X | X |
| | | 2.6A1 | In the professional development portfolio, designs and implements a continuing education plan reflective of a proficient practice role | | X | X |
| | | 2.6A2 | In the professional development portfolio, designs and implements a continuing education plan reflective of an expert practice role | | | X |
| (continued on next page) | | | | | | |

Figure 2. (Continued)

| Indicators for Standard 2: Competence and Accountability | | | | | | |
|--|--|---|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| | 2.6B | Documents professional development activities in accordance with organization guidelines | | X | X | X |
| | 2.6C | Seeks opportunities to participate in continuing education—in local, regional, national, or international settings | | X | X | X |
| | 2.6D | Seeks opportunities to develop and lead in nephrology nutrition continuing education nationally and/or internationally | | | X | X |
| | 2.6E | Develops and manages nephrology nutrition continuing education programs consistent with national guidelines and standards (eg, MNT, EAL, ^m KDOQI, KDIGO) | | | X | X |
| 2.7 | Engages in evidence-based practice and utilizes best practices | | | X | X | X |
| | 2.7A | Recognizes and utilizes major nephrology nutrition-related publications and continuing education opportunities | | X | X | X |
| | 2.7B | Serves as an author of nephrology nutrition-related publications for consumers and/or health care practitioners | | | X | X |
| | 2.7C | Serves as a presenter for consumers and/or health care practitioners on nephrology nutrition-related topics | | | X | X |
| | 2.7D | Uses planned change principles to integrate research and practice | | | | X |
| 2.8 | Participates in peer review of self and others | | | X | X | X |
| | 2.8A | Participates in peer evaluation, including but not limited to, peer supervision, clinical chart review, professional practice, or performance evaluations | | X | X | X |
| | 2.8B | Participates in scholarly review, including but not limited to, professional articles, chapters, or books | | X | X | X |
| | 2.8C | Serves as a reviewer or editorial board associate for professional organizations, journals, or books | | | X | X |
| | 2.8D | Leads an editorial board for scholarly review, including but not limited to, professional articles, chapters, or books | | | | X |
| 2.9 | Mentors others | | | X | X | X |
| | 2.9A | Participates in mentoring peers and health care practitioners of other disciplines | | X | X | X |
| | | 2.9A1 | Seeks opportunities to develop mentor/protégé programs with peers and health care practitioners of other disciplines | | X | X |
| | 2.9B | Functions as nephrology nutrition preceptor for RDNs and dietetic interns for activities consistent with level of practice | | X | X | X |
| | 2.9C | Functions as nephrology nutrition preceptor for aspiring proficient- and expert-level RDNs | | | | X |
| (continued on next page) | | | | | | |

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Figure 2. (Continued)

| Indicators for Standard 2: Competence and Accountability | | | | | |
|--|--|---|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | The "X" signifies the indicators for the level of practice | | |
| Each RDN: | | | Competent | Proficient | Expert |
| | 2.9D | Directs and guides professional development through implementation of supervised practice in nephrology nutrition and mentoring programs | | | X |
| 2.10 | Pursues opportunities (education, training, credentials) to advance practice in accordance with laws and regulations and requirements of practice setting | | X | X | X |
| | 2.10A | Completes the Academy Certificate of Training Program: Chronic Kidney Disease Nutrition Management and other pertinent nephrology nutrition-related education and skill development to enhance and advance practice | X | X | X |
| | 2.10B | Obtains and maintains specialty certification (eg, CSR, ⁿ CDE ^o) | | X | X |
| | 2.10C | Develops programs, tools, and resources in support of assisting RDNs in obtaining specialty certification in nephrology nutrition | | | X |

| Examples of Outcomes for Standard 2: Competence and Accountability | |
|---|--|
| <ul style="list-style-type: none"> Practice reflects the Code of Ethics Practice reflects the Standards of Practice and Standards of Professional Performance Competence is demonstrated and documented Safe, quality, customer-centered service is provided Self-assessments are conducted regularly Professional development needs are identified Directed learning is demonstrated Practice reflects evidence-based practice and best practices Relevant opportunities (education, training, credentials, certifications) are pursued to advance practice Commission on Dietetic Registration recertification requirements are met | |

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Figure 2. (Continued)

Standard 3: Provision of Services

The registered dietitian nutritionist (RDN) provides safe, quality service based on customer expectations and needs, and the mission and vision of the organization/business.

Rationale:

Quality programs and services are designed, executed, and promoted based on the RDN's knowledge, experience, and competence in addressing the needs and expectations of the organization/business and its customers.

| Indicators for Standard 3: Provision of Services | | | | | | |
|--|---|---|---|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| 3.1 | Contributes to or leads in development and maintenance of programs/ services that address needs of the patient/client or target population(s) | | | X | X | X |
| | 3.1A | Aligns program/service development with the mission, vision, and service expectations and outputs of the organization/business | | X | X | X |
| | | 3.1A1 | Applies nephrology-specific considerations to the organization/business program/service development | | X | X |
| | 3.1B | Utilizes the needs, expectations, and desired outcomes of the customer (eg, patient/client, administrator, client organization[s]) in program/service development | | X | X | X |
| | | 3.1B1 | Ensures that program/service development is appropriate for nephrology nutrition | | X | X |
| | | 3.1B2 | Develops programs/services to meet the needs of the customer and reflects best nephrology nutrition practice | | | X |
| | 3.1C | Makes decisions and recommendations that reflect stewardship of time, talent, finances, and environment | | X | X | X |
| | | 3.1C1 | Applies general nephrology nutrition knowledge and skills | X | X | X |
| | | 3.1C2 | Applies functional working knowledge of specialty area, demonstrated by an understanding and use of the general principle, theories, and practices pertinent to nephrology nutrition to determine the most appropriate action plan | | X | X |
| | | 3.1C3 | Defines knowledge and skills to help determine the most appropriate action plan using advanced principles, theories, and practices of nephrology nutrition (eg, develops protocols and similar documents related to nephrology nutrition services within an institution/organization) | | | X |
| | 3.1D | Proposes programs and services that are customer-centered, culturally appropriate, and minimize health disparities | | X | X | X |
| | | 3.1D1 | Develops programs and services that are tailored to patient/ client characteristics and health status | | X | X |
| | | 3.1D2 | Evaluates effectiveness and recommends changes to programs/services for continuous improvement of outcomes | | X | X |
| (continued on next page) | | | | | | |

Figure 2. (Continued)

| Indicators for Standard 3: Provision of Services | | | | | | | |
|--|--|--|---|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | | | The "X" signifies the indicators for the level of practice | | |
| Each RDN: | | | | | Competent | Proficient | Expert |
| 3.2 | Promotes public access and referral to credentialed dietetics practitioners for quality food and nutrition programs and services | | | | X | X | X |
| | 3.2A | Contributes to or designs referral systems that promote access to qualified, credentialed dietetics practitioners | | | X | X | X |
| | | 3.2A1 | Receives referrals for services from, and makes referrals to, other health care practitioners | | X | X | X |
| | | 3.2A2 | Evaluates the effectiveness of nephrology nutrition referral processes and tools | | | X | X |
| | | 3.2A3 | Revises referral tools and processes in collaboration with the IDT ^P and other health care practitioners | | | X | X |
| | | 3.2A4 | Directs and manages referral processes and systems | | | | X |
| | 3.2B | Refers patients/clients to appropriate providers when requested services or identified needs exceed the RDN's individual scope of practice | | | X | X | X |
| | | 3.2B1 | Builds relationships with other health care practitioners to facilitate collaboration that meets patient/client needs | | X | X | X |
| | | 3.2B2 | Establishes and maintains networks to support the overall care of the patient/client | | | X | X |
| | | 3.2B3 | Supports referral resources with curriculum and training regarding the complex needs of nephrology patients/clients | | | | X |
| | 3.2C | Monitors effectiveness of referral systems and modifies as needed to achieve desirable outcomes | | | X | X | X |
| | | 3.2C1 | Audits nutrition referral processes for efficiency and effectiveness | | | X | X |
| | | 3.2C2 | Manages and updates the nutrition referral process | | | X | X |
| 3.3 | Contributes to or designs customer-centered services | | | | X | X | X |
| | 3.3A | Assesses needs, beliefs/values, goals, and resources of the customer | | | X | X | X |
| | | 3.3A1 | Understands behavior change and counseling theories and is able to apply theories in practice | | X | X | X |
| | | 3.3A2 | Recognizes the influences that culture, health literacy, and socioeconomic status have on health/illness experiences and the patient's/client's use of health care services | | X | X | X |
| | | 3.3A3 | Adapts practice to meet the needs of an ethnically and culturally diverse population (eg, selecting and using interpreters, conducting culturally relevant assessments, selecting culturally appropriate interventions, education materials, and counseling approaches) | | X | X | X |
| (continued on next page) | | | | | | | |

Figure 2. (Continued)

| Indicators for Standard 3: Provision of Services | | | | | | |
|--|-------------|--|---|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | | The "X" signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| | | 3.3A4 | Leads in utilizing, evaluating, and communicating the effectiveness of different theoretical frameworks for interventions (eg, health belief model, social cognitive theory/social learning theory, stages of change [transtheoretical theory]) | | | X |
| | 3.3B | Utilizes knowledge of the target population's health conditions and cultural beliefs, and organization's goals to guide design and delivery of customer-centered services | | X | X | X |
| | | 3.3B1 | Adapts practice to meet the specific needs of the population (health conditions, ethnic/cultural characteristics) | X | X | X |
| | | 3.3B2 | Connects patients/clients and support networks with established resources and services within the specific ethnic/cultural community | | X | X |
| | | 3.3B3 | Pursues and collaborates with additional resources to positively influence health-related decision making within the patient's/client's specific ethnic/cultural community | | X | X |
| | | 3.3B4 | Directs, manages, and updates systematic processes to identify, track, and monitor utilization of patient/client resources | | | X |
| | 3.3C | Communicates principles of disease prevention and behavioral change appropriate to the patient/client or target population | | X | X | X |
| | | 3.3C1 | Identifies and considers patient/client-specific characteristics that influence delivery of nephrology nutrition education and care | X | X | X |
| | | 3.3C2 | Designs tools to communicate disease prevention and behavioral change principles | | X | X |
| | 3.3D | Collaborates with patients/clients to set priorities, establish goals, and create customer-centered action plans to achieve desirable outcomes | | X | X | X |
| | | 3.3D1 | Designs nephrology nutrition plan of care according to patients'/clients' care needs, with consideration of and input from caregivers and other health care practitioners when appropriate | X | X | X |
| | | 3.3D2 | Guides patients/clients and/or their support networks (eg, caregivers, family) in health-related decision making and goal setting to maximize outcomes | | X | X |

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Figure 2. (Continued)

| Indicators for Standard 3: Provision of Services | | | | | | | |
|--|---|---|---|---|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | | | The "X" signifies the indicators for the level of practice | | |
| Each RDN: | | | | | Competent | Proficient | Expert |
| | 3.3E | Involves patients/clients in decision making | | | X | X | X |
| | | 3.3E1 | Utilizes appropriate tools such as motivational interviewing to involve patients/clients in directing their nephrology nutrition care | | | X | X |
| 3.4 | Executes programs/services in an organized, collaborative, and customer-centered manner | | | | X | X | X |
| | 3.4A | Collaborates and coordinates with peers, colleagues, and within interdisciplinary teams | | | X | X | X |
| | | 3.4A1 | Works with the IDT and other health care practitioners to provide education, services, and/or programs | | X | X | X |
| | | 3.4A2 | Plans and develops community-based health promotion/prevention programs based on population health risks/needs using evidence-based strategies, and available resources | | | X | X |
| | | | 3.3A2I | Plans and develops population-based nephrology health promotion/prevention programs using evidence-based strategies and available resources | | | X |
| | | 3.4A3 | Serves as consultant for nutrition management of CKD ^a and comorbidities | | | X | X |
| | | 3.4A4 | Plans, develops, and implements systems of care and services based on the chronic care model | | | X | X |
| | | 3.4A5 | Originates and directs systematic processes to identify, monitor, and trend utilization of health resources | | | | X |
| | 3.4B | Participates in or leads in the design, execution, and evaluation of programs and services (eg, nutrition screening system, medical and retail foodservice, electronic health records, interdisciplinary programs, community education) for customers | | | X | X | X |
| | | 3.4B1 | Develops screening guidelines, indicators, and recommendations relevant to patient/client population | | | X | X |
| | | 3.4B2 | Evaluates patient/client-specific guidelines, indicators, and recommendations to identify and implement changes that have the potential to improve outcomes | | | X | X |
| | 3.4C | Develops or contributes to design and maintenance of policies, procedures, protocols, standards of care, technology resources, and training materials that reflect evidence-based practice in accordance with applicable laws and regulations | | | X | X | X |
| | | 3.4C1 | Collaborates/participates in the development and revision of policies and procedures, quality improvement, and evidence-based practice tools | | | X | X |
| | | 3.4C2 | Leads process of monitoring, evaluating, and improving the protocols, guidelines, and practice tools | | | | X |
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Figure 2. (Continued)

| Indicators for Standard 3: Provision of Services | | | | | | |
|--|--|--|---|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | | The "X" signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| | | 3.4C3 | Initiates and leads IDT efforts to develop and revise protocols and similar documents and practice tools | | | X |
| | 3.4D | Participates in or develops process for clinical privileges required for enhanced activities and expanded roles consistent with state practice acts, federal and state regulations, organization policies, and medical staff rules, regulations, and bylaws; enhanced activities include but not limited to implementing physician-driven protocols or facility-specific processes, initiating or modifying orders for therapeutic diets, nutrition supplements, dietary supplements, enteral and parenteral nutrition, nutrition-related laboratory tests and medications, and adjustments to fluid therapies or electrolyte replacements; expanded roles and nutrition-related actions include but not limited to initiating and performing bedside swallow evaluations, insertion and monitoring of nasogastric or nasoenteric feeding tubes, and indirect calorimetry measurements | | X | X | X |
| | | 3.4D1 | Utilizes evidence- and/or consensus-based guidelines, best practices, and national and international guidelines (eg, Academy, ¹ NKF, ⁵ KDOQI, KDIGO) in the delivery of nephrology nutrition services | X | X | X |
| | | 3.4D2 | Develops programs, protocols, and policies based on evidence- or consensus-based guidelines, best practices, trends, and national and international guidelines | | X | X |
| | | 3.4D3 | Directs the development of programs, protocols, and policies based on evidence- or consensus-based guidelines, best practices, trends, and national and international guidelines | | | X |
| | 3.4E | Complies with established billing regulations and adheres to ethical billing practices | | X | X | X |
| | | 3.4E1 | Develops tools to monitor adherence to billing regulations and ethical billing practices | | | X |
| | 3.4F | Communicates with the interdisciplinary team and referring party consistent with the Health Insurance Portability and Accountability Act (HIPAA) rules for use and disclosure of patient's/client's personal health information (PHI) | | X | X | X |
| | | 3.4F1 | Develops tools to monitor adherence to HIPAA rules and/or address breaches in the protection of PHI | | X | X |
| 3.5 | Utilizes support personnel appropriately in the delivery of patient/client-centered care in accordance with laws, regulations, and organization policies | | | X | X | X |
| | 3.5A | Assigns activities, including direct care to patients/clients, consistent with the qualifications, experience, and competence of support personnel | | X | X | X |
| (continued on next page) | | | | | | |

Figure 2. (Continued)

| Indicators for Standard 3: Provision of Services | | | | | | |
|--|---|--|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | | The "X" signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| | | 3.5A1 | Determines capabilities/expertise of support staff in working with patients/clients with CKD to determine tasks that may be delegated | | X | X |
| | 3.5B | Supervises support personnel | | X | X | X |
| | | 3.5B1 | Trains support personnel and evaluates their competence/skills | | X | X |
| 3.6 | Designs and implements food delivery systems to meet needs of patients/clients | | | X | X | X |
| | 3.6A | Collaborates on or designs food delivery systems to address nutrition status, health care needs, and outcomes, and to satisfy the cultural preferences and desires of target populations (eg, health care patients/clients, employee groups, visitors to retail venues) | | X | X | X |
| | | 3.6A1 | Develops nephrology nutrition-related guidelines to direct food delivery systems when appropriate | | X | X |
| | 3.6B | Participates in, consults with others, or leads in developing menus to address health and nutrition needs of target population(s) | | X | X | X |
| | | 3.6B1 | Participates in foodservice planning and delivery for health care and community settings (eg, hospital, nursing home, senior center, home delivery) | X | X | X |
| | | 3.6B2 | Evaluates effectiveness of foodservice planning and delivery for patients/clients with CKD to identify areas for improvement | | X | X |
| | 3.6C | Participates in, consults, or leads interdisciplinary process for determining nutritional supplements, dietary supplements, enteral and parenteral nutrition formularies, and delivery systems for target population(s) | | X | X | X |
| | | 3.6C1 | Recommends enteral supplements/feedings, PN, ^t and IDPN ^u /IPN ^v products in accordance with best practices for the spectrum of CKD (eg, Academy, A.S.P.E.N., ^w NKF) | X | X | X |
| | | 3.6C2 | Designs structured programs to fund and provide nutrition support to help define best practice | | | X |
| 3.7 | Maintains records of services provided | | | X | X | X |
| | 3.7A | Documents according to organization policy, standards, and system including electronic health records | | X | X | X |
| | | 3.7A1 | Promotes use of standardized terminology and documentation format | X | X | X |
| | | 3.7A2 | Participates in the development and refinement of standardized terminology and documentation format | | X | X |
| | 3.7B | Implements data management systems to support data collection, maintenance, and utilization | | X | X | X |
| | | 3.7B1 | Collects clinically relevant data | X | X | X |

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Figure 2. (Continued)

| Indicators for Standard 3: Provision of Services | | | | | | |
|--|--|---|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | | The "X" signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| | | 3.7B2 | Identifies appropriate parameters for data analysis | | X | X |
| | | 3.7B3 | Pursues research opportunities and guides data collection and analysis | | | X |
| | | 3.7B4 | Designs tools and reports for communication of data analysis efforts | | | X |
| | | 3.7B5 | Develops policies for data analysis process | | | X |
| | 3.7C | Uses data to document outcomes of services (eg, staff productivity, cost/benefit, budget compliance, quality of services) and provide justification for maintenance or expansion of services | | X | X | X |
| | | 3.7C1 | Analyzes and communicates value of nutrition services in relation to patient and organizational outcomes/goals | | X | X |
| | 3.7D | Uses data to demonstrate compliance with accreditation standards, laws, and regulations | | X | X | X |
| | | 3.7D1 | Documents nutrition care data and compares with standards, laws, and regulations | X | X | X |
| | | 3.7D2 | Presents analysis of nutrition care service and outcomes data compared with standards, laws, and regulations | | X | X |
| 3.8 | Advocates for provision of quality food and nutrition services as part of public policy | | | X | X | X |
| | 3.8A | Communicates with policy makers regarding the benefit/cost of quality food and nutrition services | | X | X | X |
| | | 3.8A1 | Participates in patient advocacy activities | X | X | X |
| | | 3.8A2 | Identifies needs and opportunities for patient/client advocacy | | X | X |
| | | 3.8A3 | Initiates advocacy activities/issues; recruits/coordinates others to promote advocacy in support of food and nutrition programs and services | | X | X |
| | | 3.8A4 | Influences policy and lawmakers for nephrology nutrition issues | | | X |
| | | 3.8A5 | Reviews, revises, and/or introduces policy, statutes, administrative rules/regulations impacting the population with kidney disease | | | X |
| | 3.8B | Advocates in support of food and nutrition programs and services for populations with special needs | | X | X | X |
| | | 3.8B1 | Promotes health-related public policy by participating in legislative and policy-making activities that influence health care services and practices | X | X | X |

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Figure 2. (Continued)

| Indicators for Standard 3: Provision of Services | | | | | | |
|--|---|--|---|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | | The "X" signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| | | 3.8B2 | Participates in regional or national activities related to nephrology and/or nutrition policy and services; seeks opportunities for collaboration | | X | X |
| | | 3.8B3 | Leads advocacy activities/issues (eg, authors articles, delivers presentations on topics, networks with other interested parties) | | X | X |
| | | 3.8B4 | Leads in the development of public policy related to nephrology nutrition services, at the regional or national level | | | X |
| 3.9 | Fosters excellence and exhibits professionalism in practice | | | X | X | X |
| | 3.9A | Manages change effectively, demonstrating knowledge of the change process | | X | X | X |
| | 3.9B | Demonstrates attributes such as assertiveness, enhanced listening, and conflict resolution skills | | X | X | X |
| | 3.9C | Demonstrates knowledge and skill in consensus building | | | X | X |
| | 3.9D | Participates in regional and/or national activities related to nephrology nutrition policy and services; seeks opportunities for collaboration | | | X | X |
| | 3.9E | Serves as an expert for nephrology nutrition-related issues | | | | X |

Examples of Outcomes for Standard 3: Provision of Services

- Program/service design and systems reflect organization/business and customer needs and expectations
- Patients/clients participate in establishing goals and patient/client-focused action plans
- Patients'/clients' needs are met
- Patients/clients are satisfied with services and products
- Evaluations reflect expected outcomes
- Effective screening and referral services are established
- Patients/clients have access to food assistance
- Patients/clients have access to food and nutrition services
- Support personnel are supervised when providing nutrition care to patients/clients
- Ethical billing practices are utilized

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Figure 2. (Continued)

Standard 4: Application of Research

The registered dietitian nutritionist (RDN) applies, participates in, or generates research to enhance practice. Evidence-based practice incorporates the best available research/evidence in the delivery of nutrition and dietetics services.

Rationale:

Application, participation, and generation of research promote improved safety and quality of nutrition and dietetics practice and services.

| Indicators for Standard 4: Application of Research | | | | | | |
|--|---|---|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| 4.1 | Accesses and reviews best available research/evidence for application to practice | | | X | X | X |
| | 4.1A | Evaluates research design and methodology to determine application and reliability | | X | X | X |
| | 4.1B | Demonstrates understanding of study outcomes and how to interpret and apply the results to clinical practice | | X | X | X |
| | 4.1C | Promotes the use of evidence-based tools/resources (eg, EAL, practice guidelines) as a basis for stimulating awareness and integration of current evidence | | X | X | X |
| | 4.1D | Describes key clinical and management questions and utilizes systematic methods to extract evidence-based research to answer questions | | | X | X |
| 4.2 | Utilizes best available research/evidence as the foundation for evidence-based practice | | | X | X | X |
| | 4.2A | Demonstrates adherence to evidence-based practice (eg, considers research on nutrition-related management of complex disease states and comorbidities) in an effort to establish best practices and reduce variation in practice patterns | | X | X | X |
| | 4.2B | Critically evaluates the best available research reflecting complex disease processes, and efficiently applies this research to clinical practice | | | X | X |
| | 4.2C | Mentors others in applying evidence-based practice (eg, considers the full breadth of research and other literature about best practices to recognize kidney disease as a complex disease state affecting multiple body systems) | | | | X |
| 4.3 | Integrates best available research/evidence with best practices, clinical and managerial expertise, and patient/client values | | | X | X | X |
| | 4.3A | Accesses evidence-based sources of information (eg, KDOQI, KDIGO) in identifying applicable courses of action for patient/client care | | X | X | X |
| | 4.3B | Designs evidence-based policies, procedures, and clinical pathways to guide nephrology nutrition practice | | | X | X |
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Figure 2. (Continued)

| Indicators for Standard 4: Application of Research | | | | | | |
|--|---|--|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| 4.4 | Contributes to development of new knowledge and research in nephrology, nutrition, and dietetics | | | X | X | X |
| | 4.4A | Participates in practice-based research networks (eg, DPBRN, ^x NKF-CRN ^y) | | X | X | X |
| | 4.4.B | Participates in research activities related to nephrology nutrition (eg, data collection and/or analysis, research design, publication) | | | X | X |
| | 4.4C | Identifies, initiates, and participates in research, including pilot studies, to evaluate and improve practice and provide a foundation for future research | | | X | X |
| | 4.4D | Functions as the primary investigator or as a collaborator with other members of the health care team to identify and initiate research studies relevant to practice | | | X | X |
| | 4.4E | Functions as a co-author or co-investigator of research and position and/or practice papers | | | X | X |
| | 4.4F | Serves as a primary or senior investigator in collaborative research team(s) that examines relationships related to nutrition and kidney disease | | | | X |
| | 4.4G | Functions as a primary or senior author of research and position and/or practice papers | | | | X |
| 4.5 | Promotes research through alliances and collaboration with food and nutrition and other professionals and organizations | | | X | X | X |
| | 4.5A | Develops research questions | | X | X | X |
| | 4.5B | Collaborates with interdisciplinary and/or interorganizational colleagues to perform and disseminate nephrology nutrition research | | | X | X |
| | 4.5C | Leads interdisciplinary and/or interorganizational research activities | | | | X |

Examples of Outcomes for Standard 4: Application of Research

- Patients/clients receive appropriate services based on the effective application of best available research/evidence
- Best available research/evidence is used as the foundation of evidence-based practice
- Evidence-based practice, best practices, clinical and managerial expertise, and customer values are integrated in the delivery of nutrition and dietetic services

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Figure 2. (Continued)

Standard 5: Communication and Application of Knowledge

The registered dietitian nutritionist (RDN) effectively applies knowledge and clinical expertise in effective communication dissemination.

Rationale:

The RDN works with and through others to achieve common goals by effective sharing and application of their unique knowledge, skills and expertise in food, nutrition, dietetics, and management services.

| Indicators for Standard 5: Communication and Application of Knowledge | | | | | | |
|--|--|--|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| 5.1 | Communicates current, evidence-based knowledge related to a particular aspect of the profession of nutrition and dietetics | | | X | X | X |
| | 5.1A | Identifies and uses relevant CKD nutrition and education publications and resources | | X | X | X |
| | 5.1B | Contributes to and advocates for the advancement of the body of knowledge for the profession (eg, research, presentations, publications, patient/client education) | | X | X | X |
| | 5.1C | Interprets regulatory, accreditation, and reimbursement programs and standards for institutions and providers that are specific to nephrology care and education (eg, CMS, TJC, ^z MNT) | | X | X | X |
| | 5.1D | Evaluates nephrology-related public health trends and epidemiological reports related to CKD prevention and treatment (eg, USRDS, ^{aa} HP2020, SRTR ^{bb}), as well as underlying etiologies | | | X | X |
| | 5.1E | Applies data about public health trends and the epidemiology of CKD in clinical practice, in professional activities, and in regulatory settings | | | X | X |
| | 5.1F | Reviews current research and practice guidelines (eg, institutional policies, national and international guidelines) related to preventing/ delaying progression of disease to develop accurate patient/client education about CKD | | | X | X |
| | 5.1G | Serves as an expert for other health care practitioners, the community, and outside agencies, related to nephrology nutrition | | | | X |
| 5.2 | Communicates and applies best available research/evidence | | | X | X | X |
| | 5.2A | Demonstrates critical thinking and problem-solving skills when communicating with others | | X | X | X |
| | | 5.2A1 | Demonstrates critical thinking and problem-solving skills at the proficient level (eg, review and application of evidence-based guidelines in local practice) when communicating and disseminating information | | X | X |
| | | 5.2A2 | Demonstrates critical thinking and problem-solving skills at the expert practice level (eg, able to convey complex concepts to the IDT and other health care practitioners) when communicating and disseminating information | | | X |
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Figure 2. (Continued)

| Indicators for Standard 5: Communication and Application of Knowledge | | | | | | |
|--|--|--|---|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| | 5.2B | Utilizes problem-solving skills to communicate and apply scientific principles, research, and theory into practice | | X | X | X |
| 5.3 | Selects appropriate information and most effective method or format when communicating information and conducting nutrition education and counseling | | | X | X | X |
| | 5.3A | Utilizes communication methods (eg, oral, print, one-on-one, group, visual, electronic, and social media) targeted to the audience | | X | X | X |
| | | 5.3A1 | Determines the most appropriate information and best educational method to present/disseminate content based on level of understanding and cognition of the individual and/or target audience (eg, family, care providers, professional colleagues, administrators, or the community) | X | X | X |
| | | 5.3A2 | Identifies and utilizes the most appropriate means of conveying/disseminating information based on literacy level, numeracy level, and communication skills pertaining to individuals | | X | X |
| | 5.3B | Uses information technology to communicate, expand knowledge, and support decision making | | X | X | X |
| | | 5.3B1 | Uses local, national, and international registries (eg, local health department data, UNOS, ^{cc} ESRD ^{dd} Networks data, USRDS, DOPPS, ^{ee} SRTR, corporate regional/national database when appropriate) | X | X | X |
| | | 5.3B2 | Utilizes and/or participates in the development/revision of electronic medical records | | X | X |
| | | 5.3B3 | Develops web-based CKD and nephrology nutrition and patient/client education tools and resources | | X | X |
| | | 5.3B4 | Leads in the design and development of individual- and system-specific approaches that effectively convey nutrition information to diverse audiences addressing a variety of CKD-related conditions | | | X |
| | | 5.3B5 | Contributes nutrition expertise to nephrology-related bioinformatics/medical informatics projects as needed | | | X |
| 5.4 | Integrates knowledge of food and nutrition with knowledge of health, social sciences, communication, and management in new and varied contexts | | | X | X | X |
| | 5.4A | Applies and utilizes current and emerging knowledge of nephrology nutrition, when considering the individual’s health status, behavior barriers, communication skills, IDT involvement, and seeks collaborative guidance as needed | | | X | X |
| (continued on next page) | | | | | | |

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Figure 2. (Continued)

| Indicators for Standard 5: Communication and Application of Knowledge | | | | | | |
|--|--|---|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| | 5.4B | Leads the integration of current and emerging knowledge based on research findings from clinical experience, consultation, and professional supervision in the management and resolution of complex problems in nephrology | | | | X |
| 5.5 | Shares current, evidence-based knowledge, information with patients/clients, colleagues, and the public | | | X | X | X |
| | 5.5A | Guides patients/clients, students, and interns in the application of knowledge and skills | | X | X | X |
| | | 5.5A1 | Manages patients/clients, students, and interns in the application of knowledge and skills and seeks collaborative guidance as needed | X | X | X |
| | 5.5B | Contributes to and/or coordinates the educational and professional development of RDNs, students, and health care practitioners in other fields, through formal and informal teaching activities, preceptorship, and mentorship | | | X | X |
| | 5.5C | Builds and maintains collaboration between researchers and decision makers to facilitate effective knowledge transfer | | | | X |
| | 5.5D | Assists individuals and groups to identify and secure appropriate and available resources and services | | X | X | X |
| | | 5.5D1 | Leads individuals and groups in efforts to identify and secure appropriate and available resources and services | | X | X |
| | 5.5E | Utilizes professional writing and verbal skills in communications | | X | X | X |
| | | 5.5E1 | Contributes to dissemination of nephrology nutrition, utilizing a variety of presentation methods (eg, author or reviewer, and/or presenter at local, regional, national, international meetings, and media outlets) applicable to the target audience | | X | X |
| | | 5.5E2 | Serves as a content expert or key opinion leader | | | X |
| 5.6 | Establishes credibility and contributes as a resource within the IDT and within the management team promoting food and nutrition strategies that enhance health and quality of life outcomes of target populations | | | X | X | X |
| | 5.6A | Serves as the nephrology nutrition professional with the IDT and other health care practitioners | | X | X | X |
| | 5.6B | Communicates and leads the IDT regarding behavior, lifestyle, and nutrition strategies to promote interventions that will enhance and optimize outcomes | | | X | X |
| | 5.6C | Participates in and leads interdisciplinary collaborations at a systems level (eg, incorporating nephrology nutrition with programs aimed at optimizing outcomes) | | | X | X |
| (continued on next page) | | | | | | |

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Figure 2. (Continued)

| Indicators for Standard 5: Communication and Application of Knowledge | | | | | |
|--|---|---|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | The "X" signifies the indicators for the level of practice | | |
| Each RDN: | | | Competent | Proficient | Expert |
| | 5.6D | Contributes nutrition-related expertise and serves as lead collaborator for national projects and professional organizations as needed (eg, NKF, Academy/RPG, ^{ff} KDOQI, KDIGO, AKF, ^{gg} AAKP, ^{hh} ANNA ⁱⁱ) | | | X |
| | 5.6E | Advocates, negotiates, leads, and/or establishes privileges at a system level for new advances in practice | | | X |
| 5.7 | Communicates performance improvement and research results through publications and presentations | | X | X | X |
| 5.8 | Seeks opportunities to participate in and assume leadership roles in local, state, and national professional and community-based organizations | | X | X | X |
| | 5.8A | Serves on local and regional nephrology-related planning committees/task forces for health care practitioners, industry, and institutions | X | X | X |
| | 5.8B | Serves on national and international nephrology-related planning committees/task forces for health care practitioners, industry, and institutions | | X | X |
| | 5.8C | Advocates for the advancement of nephrology-related nutrition practice to external stakeholders (CMS, state licensure boards, ESRD Networks, the Academy's Policy Initiative and Advocacy office) | | X | X |
| | 5.8D | Proactively seeks opportunities at the local, regional, national, and international level to demonstrate the integration of national standards/guidelines established by nephrology-related organizations into clinical practice and programs | | X | X |
| | 5.8E | Serves and advocates in leadership role on committees and/or for publications (eg, editor, editorial advisory board member, column editor), or within business/industry-related and other national CKD programs | | | X |
| | 5.8F | Identifies new opportunities for leadership and crosses discipline boundaries to promote nutrition and dietetics practice in a broader context | | | X |
| | 5.8G | Proactively seeks opportunities for leadership development and positions, and is identified as an expert related to nephrology nutrition issues | | | X |

| Examples of Outcomes for Standard 5: Communication and Application of Knowledge | |
|--|--|
| <ul style="list-style-type: none"> • Expertise in food, nutrition, and management is demonstrated and shared • Information technology is used to support and expand the clinical practice • Individuals and groups: <ul style="list-style-type: none"> ◦ Receive current and appropriate individualized information and customer-centered service ◦ Demonstrate understanding of information received and behavioral strategies ◦ Know how to obtain additional guidance from the RDN • Leadership is demonstrated through active professional and community involvement | |

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Figure 2. (Continued)

Standard 6: Utilization and Management of Resources

The registered dietitian nutritionist (RDN) uses resources effectively and efficiently.

Rationale:

The RDN demonstrates leadership through strategic management of time, finances, facilities, supplies, technology, and human resources.

| Indicators for Standard 6: Utilization and Management of Resources | | | | | | |
|--|--|---|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | | The “X” signifies the indicators for the level of practice | | |
| Each RDN: | | | | Competent | Proficient | Expert |
| 6.1 | Uses a systematic approach to manage resources and improve operational outcomes | | | X | X | X |
| | 6.1A | Recognizes and utilizes existing resources (eg, educational/training tools and materials and staff time) as needed in the provision of nephrology nutrition services | | X | X | X |
| | 6.1B | Participates in strategic and operational planning for the acquisition and utilization of internal and external resources for the facility/ institution; collaborates with local and regional programs that support and optimize provision of nephrology services (eg, health departments, volunteer organizations, networks) | | | X | X |
| | 6.1C | Evaluates current nephrology practices at the systems level in relation to current research findings | | | | X |
| 6.2 | Quantifies management of resources in the provision of nephrology nutrition and dietetic services with the use of standardized performance measures and benchmarking as applicable | | | X | X | X |
| | 6.2A | Participates in data collection regarding the population served (demographics, including acuity, recognized clinical risk factors, morbidity and mortality data), services provided, and outcomes | | X | X | X |
| | 6.2B | Regularly assesses and prioritizes utilization and management of current and applicable service resources to achieve desired outcomes | | X | X | X |
| | 6.2C | Participates in managing resources, such as personnel, finances, equipment and supplies, and utilization of time | | | X | X |
| | 6.2D | Leads in management of data and resources and strategic planning in nephrology nutrition | | | | X |
| 6.3 | Evaluates safety, effectiveness, productivity, and value while planning and delivering services and products | | | X | X | X |
| | 6.3A | Evaluates safety, effectiveness, costs of planning, and delivering services and products at the systems level | | X | X | X |
| | 6.3B | Participates in planning and delivery of appropriate products and services in collaboration with IDT and other health care practitioners (eg, nutrition supplements, referrals to specialists, utilization of community resources) | | X | X | X |
| (continued on next page) | | | | | | |

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Figure 2. (Continued)

| Indicators for Standard 6: Utilization and Management of Resources | | | | | |
|--|---|--|--|------------|--------|
| Bold Font Indicators are Academy Core RDN Standards of Professional Performance Indicators | | | The "X" signifies the indicators for the level of practice | | |
| Each RDN: | | | Competent | Proficient | Expert |
| | 6.3C | Advocates for staffing that supports caseload, related responsibilities (eg, quality assessment and performance improvement [QAPI]), and other required duties (eg, as defined by institutional policy, government regulations). | | X | X |
| | 6.3D | Designs, promotes, and seeks executive commitment to services that will meet organizational goals and support desired nutrition outcomes | | X | X |
| | 6.3E | Leads in the evaluation, development or modification, and dissemination of appropriate products and services to meet patient/client needs (and modification of existing products) | | | X |
| 6.4 | Participates in quality assurance and performance improvement (eg, QAPI) and documents outcomes and best practices relative to resource management | | X | X | X |
| | 6.4A | Participates actively in quality assessment, including collecting, documenting, and analyzing relevant data to assure continued assessment of resource utilization (eg, fiscal, personnel, services, materials) | X | X | X |
| | 6.4B | Uses quality assurance principles to analyze and identify necessary modifications to protocols and similar documents | X | X | X |
| | 6.4C | Utilizes data as part of a systems approach to management of nutrition outcomes and resources | X | X | X |
| | 6.4D | Stays up-to-date regarding best practices in similar nephrology settings and collaborates with IDT to apply them | X | X | X |
| | 6.4E | Proactively and systematically recognizes needs, anticipates outcomes and consequences of various approaches, and modifies plan as necessary to achieve desired outcomes | | X | X |
| | 6.4F | Leads IDT in quality assurance activities and/or in applying best practices | | X | X |
| 6.5 | Measures and tracks trends regarding patient/client, employee, and stakeholder satisfaction in the delivery of products and services | | X | X | X |
| | 6.5A | Gathers and assesses data regarding patient/client satisfaction related to nutrition services; seeks assistance as needed | X | X | X |
| | 6.5B | Applies data regarding patient/client satisfaction to the development/improvement of nephrology nutrition services, as well as the full services of the facility/institution/corporation | | X | X |

Examples of Outcomes for Standard 6: Utilization and Management of Resources

- Documentation of resource use is consistent with operation
- Data are used to promote, improve, and validate services
- Desired outcomes are achieved and documented
- Resources are effectively and efficiently managed

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Figure 2. (Continued)

^aHIPAA=Health Insurance Portability and Accountability Act.

^bNIH=National Institutes of Health.

^cKDIGO=Kidney Disease: Improving Global Outcomes.

^dKDOQI=Kidney Disease Outcome Quality Initiative.

^eHP2020=Healthy People 2020.

^fMNT=medical nutrition therapy.

^gCMS=Centers for Medicare and Medicaid Services.

^hISMP=Institute for Safe Medicine Practices.

ⁱFDA=Food and Drug Administration.

^jUSP=US Pharmacopeial Convention.

^kCAM=complementary alternative medicine.

^lIPRO=Improving Healthcare for the Common Good.

^mEAL=Evidence Analysis Library.

ⁿCSR=Certified Specialist in Renal Nutrition.

^oCDE=Certified Diabetes Educator.

^pIDT=interdisciplinary team.

^qCKD=chronic kidney disease.

^rAcademy=Academy of Nutrition and Dietetics.

^sNKF=National Kidney Foundation.

^tPN=parenteral nutrition.

^uIDPN=intradialytic parenteral nutrition.

^vIPN=intraperitoneal nutrition.

^wA.S.P.E.N.=American Society for Parenteral and Enteral Nutrition.

^xDPBRN=Dietetics Practice-Based Research Network.

^yNKF-CRN=National Kidney Foundation Council on Renal Nutrition.

^zTJC=The Joint Commission.

^{aa}USRDS=US Renal Data System.

^{bb}SRTR=Scientific Registry of Transplant Recipients.

^{cc}UNOS=United Network for Organ Sharing.

^{dd}ESRD=end-stage renal disease.

^{ee}DOPPS=Dialysis Outcomes and Practice Patterns Study.

^{ff}Academy/RPG=Academy of Nutrition and Dietetics Renal Dietitians Practice Group.

^{gg}AKF=American Kidney Fund.

^{hh}AAKP=American Association of Kidney Patients.

ⁱⁱANNA=American Nephrology Nurses Association.

Figure 2. (Continued)

Standards of Practice are authoritative statements that describe practice demonstrated through nutrition assessment, nutrition diagnosis (problem identification), nutrition intervention (planning, implementation), and outcomes monitoring and evaluation (four separate standards), and the responsibilities for which registered dietitian nutritionists (RDNs) are accountable. The Standards of Practice for RDNs in Nephrology Nutrition presuppose that the RDN uses critical thinking skills, analytical abilities, theories, best available research findings, current accepted dietetics and medical knowledge, and the systematic holistic approach of the nutrition care process as they relate to the application of the standards. Standards of Professional Performance for RDNs in Nephrology Nutrition are authoritative statements that describe behavior in the professional role, including activities related to Quality in Practice, Competence and Accountability, Provision of Services, Application of Research, Communication and Application of Knowledge, and Utilization and Management of Resources (six separate standards).

Standards of Practice and Standards of Professional Performance are evaluation resources with complementary sets of standards—both serve to describe the practice and professional performance of RDNs. All indicators may not be applicable to all RDNs' practice or to all practice settings and situations. RDNs operate within the directives of applicable federal and state laws and regulations as well as policies and procedures established by the organization in which they are employed. To determine whether an activity is within the scope of practice of the RDN, the practitioner compares his or her knowledge, skill, and competence with the criteria necessary to perform the activity safely, ethically, legally, and appropriately. The Academy's Scope of Practice Decision Tool, which is an online, interactive tool, is specifically designed to assist practitioners with this process.

The term patient/client is used in the Standards of Practice as a universal term, as these standards relate to direct provision of nutrition care and services. Patient/client could also mean client/patient, resident, participant, consumer, or any individual or group who receives nephrology nutrition services. Customer is used in the Standards of Professional Performance as a universal term. Customer could also mean client/patient, client/patient/customer, participant, consumer, or any individual, group or organization to which the RDN provides services. These services are provided to individuals of all ages. These Standards of Practice and Standards of Professional Performance are not limited to the clinical setting. In addition, it is recognized that the family and caregiver(s) of patient/clients of all ages, including individuals with special health care needs, play critical roles in overall health and are important members of the team throughout the assessment and intervention process. The term appropriate is used in the standards to mean: Selecting from a range of best practice or evidence-based possibilities, one or more of which would give an acceptable result in the circumstances.

Each standard is equal in relevance and importance and includes a definition, a rationale statement, indicators, and examples of desired outcomes. A standard is a collection of specific outcome-focused statements against which a practitioner's performance can be assessed. The rationale statement describes the intent of the standard and defines its purpose and importance in greater detail. Indicators are measurable action statements that illustrate how each specific standard can be applied in practice. Indicators serve to identify the level of performance of competent practitioners and to encourage and recognize professional growth.

Standard definitions, rationale statements, core indicators, and examples of outcomes found in the Academy of Nutrition and Dietetics Revised 2012 Standards of Practice in Nutrition Care and Standards of Professional Performance for RDs have been adapted to reflect three levels of practice (competent, proficient, and expert) for RDNs in nephrology nutrition (see figure below). In addition, the core indicators have been expanded to reflect the unique competence expectations of the RDN in nephrology nutrition.

Standards described as proficient level of practice in this document are not equivalent to the CDR certification, Board Certification as a Specialist in Renal Nutrition (CSR). Rather, the CSR designation recognizes the skill level of an RDN who has developed and demonstrated, through successful completion of the certification examination, knowledge and application of nephrology nutrition beyond the competent practitioner and demonstrates, at a minimum, proficient-level skills. An RDN with a CSR designation is an example of an RDN who has demonstrated additional knowledge, skills, and experience in nephrology nutrition by the attainment of a specialist credential.

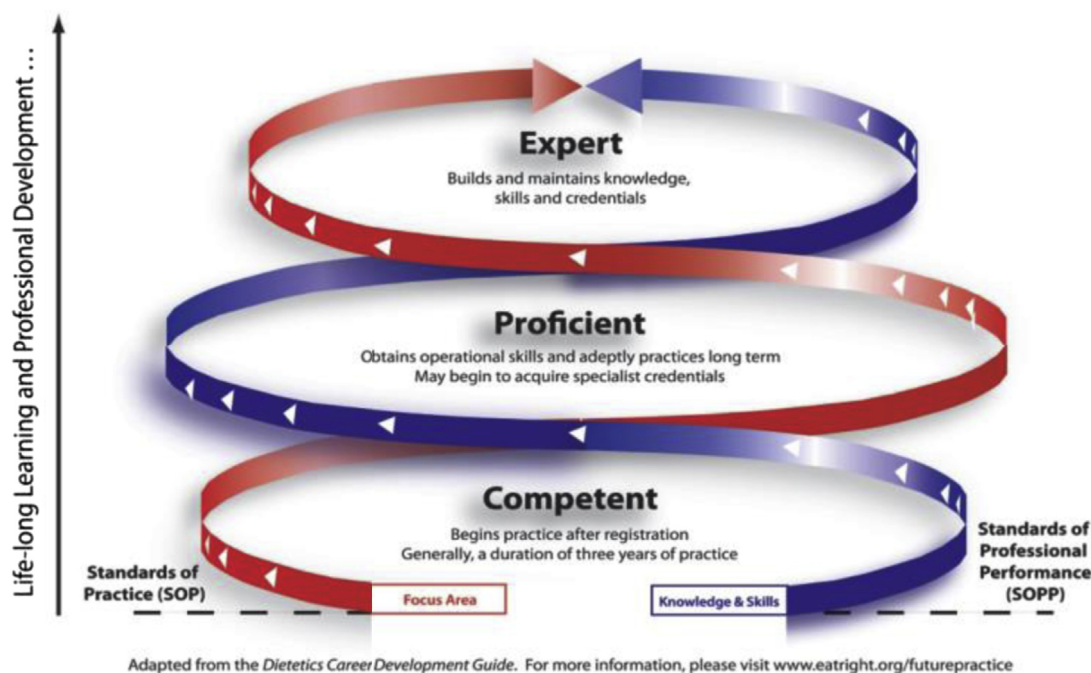


Figure 3. Standards of Practice and Standards of Professional Performance for Registered Dietitian Nutritionists (Competent, Proficient, and Expert) in Nephrology Nutrition.