

Practical Applications: Utilizing the Scope of Practice Tool and the Revised Standards of Practice/Standards of Professional Performance for Nephrology Nutrition

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Introduction

Registered dietitian nutritionists (RDNs) practicing in nephrology nutrition face complex situations every day. This article will highlight a case study to demonstrate application of the Scope of Practice Tool and the Revised Standards/Standards of Professional Performance for Nephrology Nutrition. Addressing the unique needs of each situation and applying standards appropriately is essential in providing safe, timely, patient-centered quality care and services. The Academy of Nutrition and Dietetics Renal Dietitians Practice Group (RPG) and the National Kidney Foundation's Council on Renal Nutrition (NKF-CRN) in collaboration with the Academy Quality Management Committee revised the Standards of Practice/Standards of Professional Performance for Nephrology Nutrition in 2014 (1). The Standards of Practice (SOP) relate directly to patient/client care and are based on the four steps of the Nutrition Care Process (NCP). The Standards of Professional Performance (SOPP) represent the six domains of professionalism. These standards are not regulations but are recommended for use by RDNs in developing and advancing their professional practice in providing care to persons with chronic kidney disease (CKD) in various settings and circumstances.

To support the RDN in advancing practice, the Academy developed an online Scope of Practice Decision Tool to enable the RDN to critically evaluate knowledge, skill sets and demonstrated competence by using specific criteria (2). With the changing health-care environment, a new opportunity may arise and the RDN can use the interactive Scope of Practice Decision Tool to assess if the activity is within the dietetics scope of practice. For example, reducing unplanned hospital related to fluid overload within 30 days of discharge is a key focus of Centers for Medicare & Medicaid Services (3). Approximately

30% of ESRD Medicare beneficiaries have an unplanned readmission within the 30 days following discharge (CMS, 2014). Hospital readmissions among ESRD patients represent a significant societal and financial burden, and may have a major negative impact on patients' well-being and quality of life. So what is the RDN's role regarding reducing fluid overload readmissions in the ESRD population?

The Tool's first question begins the self-evaluation guiding the RDN: "Has this activity become routine in dietetics or nutrition literature and in nutrition and dietetics practice?" The answer to the question is yes. Routine assessment of dry weight in chronic hemodialysis patients relies primarily on clinical evaluation of patient fluid status. According to the Academy Core Standards document, RDN Standards of Practice in Nutrition Care (2012), the RDN completes the anthropometric assessment by identifying and interpreting trends in anthropometric indices. Completion of the Scope of Practice questions will help determine if reducing hospital fluid related admissions is within the RDN scope of practice. Of course, all practice must comply with licensure laws and organizational policies and procedures. Practitioners are expected to practice in the areas in which they are competent but level of experience, skills, and proficiency to perform designated activities vary. Competent practitioners may need to review evidence based guidelines whereas proficient and expert levels of practice can respond with appropriate strategies to prevent admissions and reduce the incidence of readmissions.

Patient Case

The following patient case illustrates how the Nephrology Nutrition SOP-SOPP can be applied to managing fluid overload in a patient with stage 5 CKD.

Standard 1: Assessment

- RL is a 50 year old female with CKD stage 5 due to interstitial nephritis receiving in-center hemodialysis for four months.
- **Dialysis Prescription:** HD – 4 hours, 3x/week; 2 mEq/L K, 2.5 mEq/L Ca bath, 35 mEq/l bicarbonate, 140 mEq/L constant sodium, access: catheter
- **Anthropometrics:** Height 158 cm, medium frame; target weight 76.5 kg; post dialysis weight 83.2 kg, intradialytic weight gains > 5%
- **Usual Diet:** appetite fair and eats 2 meals per day of mostly processed food
- **Dialysis Treatment Assessment:** periorbital and pitting peripheral edema with evidence of hypertension pre and post dialysis; frequently skips treatments and shortens treatments due to cramping and nausea. Frequently hospitalized due to fluid overload complications.

SOP/SOPP Series

Table 1: Medications

Medication	Dosage	Indications for Use
*amlodipine	10 mg daily	High blood pressure
calcium acetate	1334 mg three times a day with meals	Hyperphosphatemia
*Carvedilol	12.5 mg twice a day	High blood pressure
*Hydralazine	25 mg three times a day	High blood pressure
*Pantoprazole	40 mg daily	Gastrointestinal reflux disease
renal vitamin	1 tablet daily	Vitamin supplement for CKD patients
Paricalcitol	9 mcg per dialysis treatment	Hyperparathyroidism
epoetin alfa	23000 units per dialysis treatment	Erythropoetin stimulating agent
Alka-Seltzer®	2 tablets 4 times per day	Antacid

*Medications may contribute to dry mouth

Table 2: Laboratory Results

	Lab Norm	11/2014	12/2014	1/2015	2/2015
Albumin (g/dL)	3.6 - 5.4	3.3	3.5	3.5	3.7
Corrected Calcium (mg/dL)	8.4 - 10.2	9.0	8.9	8.8	8.9
Phosphorus (mEq/L)	3.5 – 5.5	5.6	5.0	5.0	3.9
Intact PTH (ng/L)	170 - 765	458	1341	1239	537
Hemoglobin (g/dL)	10 - 12	9.0	10	8.0	9.0
Potassium (mEq/L)	3.4 – 5.0	6.0	5.5	5.7	5.0
Sodium (mEq/L)	136 - 145	132	133	132	136
CO2 (mmol/L)	19 - 26	12	10	12	17
Kt/V	N/A	.83	.84	.86	.98

*Lab norms may vary by facility

Standard 2: Nutrition Diagnosis

- Albumin less than desirable range due to inadequate oral intake or decreased appetite complicated by fluid status
- Excessive fluid intake due to habitual excessive fluid intake/sodium intake
- At risk for hemodialysis adequacy problems due to missed and shortened treatments
- Patient generally hospitalized as a result of complications due to missed treatments

Standard 3: Nutrition Intervention

- Restricting dialysate sodium may reduce thirst and consequently intradialytic weight gains
- Liquacel® 1 ounce for albumin < 3.8 for 2 months
- Nutrition Prescription:
 - 95 g protein
 - 2.5 g K+
 - 2.0 g Na
 - 1200 mg P
 - 2500 Kcal
 - 1000 cc fluid restriction

Standard 4: Nutrition Monitoring and Evaluation

- Evaluate dry weight with close monitoring
- Ongoing assessment of dialytic prescription
- Provide aggressive nutritional intervention to improve oral intake and appetite
- Ongoing nutrition education

Discussion

The first step in the nutrition care process is the nutrition assessment. Indicator 1.1 in Standard 1 – Nutrition Assessment (Table 3: Indicator 1.1) indicates all three levels of practice are accountable to practice within this indicator. Indicators are measurable action statements that illustrate how each standard can be applied in practice. An “X” in the competent column indicates that an RDN who is caring for CKD patients is expected to complete this activity and/or seek assistance to learn how to perform at this level of practice.

RL has been dialyzing for four months with a history of nonadherence due to shortened treatments and no shows. The RDN with one year of experience may focus on assessment of the data whereas a proficient RDN would review protocols/guidelines for

bone mineral metabolism disorders or anemia management. In addition, the expert and proficient level RDN would evaluate the dialysis prescription for potential effects on nutrition status (Table 4: Standard 1 – Indicator 1.2). Since the patient is hyponatremic, there is a potential of sodium overload resulting in excessive thirst post treatment. Discuss with medical team the reduction of the dialysate from 140 constant bath to 137. In some instances, components of the SOP-SOPP do not specifically differentiate between proficient level and expert level practice as seen in Indicator 1.2 in Standard 1. The depth at which the RDN performs each activity will increase as the individual moves beyond the competent level.

All levels of practice review the medication list (Table 5: Indicator 3.6D1). The proficient and expert level of practice recognize the impact and interactions of pharmacotherapy (Table 5: Indicator 3.6D2). The medications denoted with an asterisk (Table 1) can contribute to dry mouth. The expert RDN would do a further deep dive regarding OTC medications. One Alka-Seltzer® tablet contains 445 milligrams of salt according to the manufacturer (5). By taking the maximum dose of two tablets four times a day that patient has an additional intake of 3560 mg of sodium. The patient was taking Alka-Seltzer® to aid with nausea she experienced with dialysis treatments. The SOPP guides the RDN under Standard 5.6A to serve as the nephrology nutrition professional with the interdisciplinary team (IDT) and make recommendations as needed.

The Conditions for Coverage require the IDT to use the KDQOL-36 results to develop a plan of care. The Kidney Disease Quality of Life (KDQOL) survey collects self-reported health related quality of life information regarding the patients' physical health, mental health, and social well-being. In this patient case, the patient scored a 35 on the physical composite score (PCS) and a 42.32 on the mental composite score (MCS). Research has shown that a one point improvement in the PCS score reduces hospital days by 2% and patients with a score less than 34 are twice likely to be hospitalized. Both PCS and MCS tend to decline in the initial months of dialysis (6). RDNs are ideally suited to play an integral role in the intervention to reduce hospital admissions.

In summary, RDNs are encouraged to use these published standards to help guide them in their practice and skills development when working with persons with kidney disease. The CKD practice setting is an area that requires RDNs to be proactive team players and identify creative nutrition intervention approaches that are addressed in the SOP and SOPP to reduce fluid related hospital admissions. Increasing CKD-related knowledge and skills (as noted in the SOP and SOPP) through education, training, and experience is needed by RDNs at all levels of practice.

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SOP/SOPP Series

Table 3: Standard 1 - Indicator 1.1 and Sub-indicators 1.1A – 1.1C

Indicators for Standard 1: Nutrition Assessment		The “X” signifies the indicators for the level of practice		
Bold Font Indicators are Academy Core RDN Standards of Practice Indicators		Competent	Proficient	Expert
<i>Each RDN:</i>				
1.1	Anthropometric assessment: Assess anthropometric measures that may include: height, weight, body mass index (BMI), 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 amputees	X	X	X
	1.1C Identifies and interprets trends in anthropometric indicies	X	X	X

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Table 4: Standard 1 – Indicator 1.2 and Sub-indicators 1.2A – 1.2D

<i>Each RDN:</i>		Competent	Proficient	Expert
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, GIb, 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
	1.2 B Utilizes biochemical data (including appropriate eGFR) to evaluate nutritional status in relation to the stages of kidney disease	X	X	X
	1.2C Evaluates adequacy of dialysis (eg, UKMd or eKt/V) 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
	1.2D Applies complex decision making to interpret tests, procedures, and evaluations			X

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Table 5: Standard 3 – Sub-indicator 3.6D - 3.6D1 – 3.6D3

<i>Each RDN:</i>		Competent	Proficient	Expert
3.6X	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

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