

Renal Nutrition Forum

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The Benefits of Vegetarian Diets in Chronic Kidney Disease

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This article has been approved for 2.0 CPE units. The online CPEU quiz and certificate of completion can be accessed in the Members Only section of the RPG web site via the My CPEU link. This CPE offering is available to current RPG members only and the expiration date is January 31, 2013.

One only needs to reflect on the past 40 years of dialysis therapies to fully appreciate its transformation. The field of dialysis has been evolving from its early beginnings to what it is today: early diagnosis of chronic kidney disease (CKD), innovations in dialysis-related technology and advances in the treatment of corresponding anemia and bone disease. Despite these amazing advances, perceptions about vegetarianism have not progressed as quickly. The myths of plant protein being inferior to animal protein still remain. The fear of utilizing plant-based foods is likely due to a clinging to “old vegetarian myths.” Examples of these myths include the belief that such a diet could cause potassium and phosphorus levels to rise and that plant proteins do not meet the needs of the dialysis population. As a result of these beliefs, plant-based protein options are not commonly introduced to our patients.

Vegetarianism and plant-based diets are not inferior to animal-based food choices. Plant-based protein can be equal to, if not superior to

animal-based protein quality (1). A recent study looked at nineteen vegetarian dialysis patients compared to 299 non-vegetarians, over a six month period of time, and found no difference in albumin levels, hand grip strength or subjective global assessment (SGA) scores (2). Although much concern has been raised regarding the phosphorus originating from plant-based proteins, this concern is minor compared to the exponential increase in phosphate additives within our food supply. In the 1990’s, phosphorus additives contributed approximately 500 mg per day to the American diet. Today, phosphate additives contribute as much as 1000 mg per day to the average American diet (3). Animal-based phosphorus is bound to protein but is easily hydrolyzed and readily absorbed. Plant-based phosphorus found in nuts, cereals, and dried cooked beans is primarily in the form of phytic acid or phytates. Since humans do not have the enzyme phytase, the biological availability of plant-based phosphorus is less than 50%, in contrast to an estimated 70% bioavailability from phosphates in animal protein (3). In comparison, phosphates from processed foods, including colas and many other flavored beverages, cereals, frozen meals and enhanced meat products, are not bound to protein or phytates. These phosphates are salts that are readily disassociated. Consequently the absorption of the inorganic phosphorus is increased to over 90% (3).

Potassium concerns need not be a barrier for a patient to successfully follow a plant-based diet. Lower potassium options can be suggested such as tofu, seitan or lower potassium beans such as lentils, pinto beans or kidney beans (in place of navy or soy beans). In addition, adjustments can be made in a patient’s fruit and vegetable consumption to allow for more plant-based proteins.

– Continued on page 3.

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Articles about successful programs, research interventions, evaluations and treatment strategies, educational materials, meeting announcements and information about educational programs are welcome and should be emailed to the editor by the next deadline.

Future Deadlines:

March 1, 2012
June 1, 2012
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December 1, 2012

Please forward information to:
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From the Editor's Desk

Sara Erickson, RD, CSR, LDN, CNSC
Editor



Hello, RPG Members! I hope you enjoy this issue and find the resources beneficial to you. I had the pleasure of attending my first ADA Food and Nutrition Conference & Expo this fall. What an amazing experience! I

thoroughly enjoyed meeting fellow members at the RPG breakfast and meeting fellow editors from other practice groups. The RPG Executive board also held a meeting during the conference. Rachael Majorowicz, RD, LD, provides a summary of the activities in the RPG Chair Message. The 2010-2011 RPG Annual Report is also available in this issue, which includes a detailed account of the projects and collaborations the RPG has been involved with over the past year.

In this issue, there are 3.5 CPEUs available. Our featured article, authored by Joan Hogan, RD, CSR, CD, provides an in-depth look into the benefits of vegetarian diets for patients with chronic kidney disease. Her article is complimented by kidney friendly vegetarian recipes provided by Chef Duane Sunwold. I had the pleasure of sampling some of his culinary creations earlier this year and they were fantastic! Our advanced practice article is co-authored by Megan Artisok, RD, Elizabeth Bancroft, MS, RD, LD, Nicole Ng, RD, and Jessie Pavlinac, MS, RD, CSR, LD. Their article focuses on which evidenced-based guidelines are in use by renal dietitians as well as a look into what barriers renal dietitians face that prevent them from applying these guidelines within their practice.

Also included in this issue is an article reprint provided by The Cranberry Institute, which delves into research that analyzes the safety of cranberry juice consumption while taking warfarin. This article will also be posted in the Profession Resource section on the RPG website www.renalnutrition.org.

Sincere thanks to my fellow Editorial Board Members, Megan Sliwa, RD, LDN and Jackie Abels, MA, RD, LD, for all their support. Finally, Thank you to the peer-reviewers who provide invaluable feedback, the authors for their contributions, and to Amy Hess-Fishl, MS, RD, LDN, BC-ADM, CDE, for providing the CPEU test questions. Without you the Forum could not be completed!

Best Regards,

CSR Testing Info/Dates

The Commission on Dietetic Registration (CDR) invites you to become a Board Certified Specialist in Renal Nutrition (CSR). Please note the following examination dates and associated application deadlines:

Exam dates: May 5-25, 2012
Application postmark deadline:
February 17, 2012

Exam dates: November 1-21, 2012
Application postmark deadline:
August 13, 2012

Information is available on CDR's website at the following links:

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CSR Application Instruction Booklet & Forms:
<http://www.cdrnet.org/certifications/spec/eapplication%20renal.cfm>

Feature Article...

Plant-based foods are cell protective and they offer a variety of phytochemicals and phytoestrogens not present in animal-based foods. Advanced glycation end-products (AGE) are more prevalent in animal-based products.

Introducing the healthy benefits of plant-based foods in easy-to-prepare and creative ways is one more approach to promote health, prevent disease progression and co-morbid conditions in the person coping with kidney disease or at risk for kidney disease. Patients may choose to not adhere to a diet that is 100% vegetarian; however adding plant-based options to the diet is still beneficial to patient health. When counseling patients at earlier stages of CKD, the introduction of diets that replace animal protein with plant-based protein choices may decrease proteinuria, improve blood pressure control and decrease hyperfiltration (4-9).

Disturbances in mineral metabolism can begin in CKD Stages 3 and 4. The damaged kidney is unable to tolerate a large phosphate load leading to an elevated parathyroid hormone (PTH) level, and fibroblast growth factor 23 (FGF-23) contributing to heart disease and kidney disease progression (10,11). Studies show even one week on a vegetarian diet can decrease phosphorus levels and FGF-23. These same results are not found with animal protein-based diets (12).

The Protective Role of Plant-Based Diets in CKD

Glomerular capillary hypertension was first associated with protein rich diets in 1982 (13). Since then, studies have consistently isolated substances of plant protein that are kidney protective and can slow the progression of CKD (7,12,14-17). According to the National Health and Nutrition Examination Survey (NHANES) there is an inter-relationship among diabetes, cardiovascular disease, hypertension and CKD (18). A plant-based diet that emphasizes the use of plant protein is a means of decreasing the incidence of these interrelated co-morbidities. This is accomplished by decreasing the inflammatory response, adding antioxidant protection and improving immunity.

Inflammation

Comprehensive care for those with CKD involves not only treating the disease but managing and reducing the associated inflammation. Those with CKD are susceptible to oxidative damage and the formation of AGEs. What ensues is a never-ending cycle rife with the formation of free radicals and productions of pro-inflammatory cytokines. Because of this cycle of inflammation, those with CKD often have other complex conditions that result from chronic inflammation. These conditions include cardiovascular disease, atherosclerosis and stroke (19,20).

Implementing a vegetarian diet shows promise in attenuating the inflammatory response (21). Higher consumptions of fruits and vegetables is associated with lower C-reactive protein (CRP) levels

(22). Specific components in plant foods, such as isoflavones, produce effects that modulate cell protection and mimic the action of natural COX 2 enzyme inhibition, contributing to anti-inflammatory effect (23,24).

Plant-based diets offer more options for increasing fiber consumption. This in turn promotes the formation of bacteria friendly to the intestinal tract, which can attenuate systemic inflammatory responses (25). Finally, because the fat content of a plant-based diet is often low, there is less risk that cooking methods will promote AGE product formation (26,27).

Oxygen Radical Absorbance Capacity (ORAC) of Foods

Antioxidants are a diverse group of chemical substances found in fruit, vegetables and other plants. They include, but are not exclusive to enzymes, Vitamin C, Vitamin E and beta-carotene. Antioxidants work by decreasing free radical formation related to oxidative damage and disease. Some of these degenerative diseases include cardiovascular disease, cancer and atherosclerosis.

As a means to quantify the antioxidant content of a given food, the ORAC designation was developed by the National Institute of Health in the early 1990s. The data is reported in micromole Trolox Equivalents (TE/ μ mol) per typical serving size and is a measurement of the antioxidant capacity of a food. Although the ORAC assays have been criticized for lack of in vivo validation and variation in values from sample to sample, they do offer a guideline for identifying antioxidant-rich foods that are potentially beneficial to our patients. The higher the ORAC value, the better the capacity of the food to neutralize free radicals. The recommended intake of ORAC is 3000-5000 TE/ μ mol per day (28). Table 1 lists high ORAC foods that are also low in potassium, given the serving listed. This is one tool for teaching our patients how to add antioxidant-rich foods to their diet while keeping potassium levels in a safe range.

Gut Health

Gut-associated lymphoid tissue generates almost 70% of the body's antibodies and accounts for the predominance of lymphocytes in the body (2). Processed foods and low fiber diets, and multiple medications promote unhealthy gut flora. This may manifest as a multitude of gastro-intestinal complaints, such as gas, bloating, diarrhea or even constipation. Plant-based diets provide a way to maintain intestinal microflora by promoting gut health to improve patient immune system function (25,29). Metabolites of plant-based food promote Equol and O-desmethylangolensin (O-DMA). Equol and O-DMA are end metabolite biotransformations from the phytoestrogen Daidzein. Both end-products have been found to be in higher concentration in the guts of vegetarians vs. non-vegetarians, and may be associated with

Feature Article...

Table 1
TOP ORAC VALUE FOODS

FRUITS/VEGETABLES ^{1,2} ½ cup portions				SPICES/NUTS/BEANS ^{1,2}			
FOOD	ORAC ³ (TE/μmol)	Phos (mg)	K+ (mg)	FOOD	ORAC ³ (TE/μmol)	Phos (mg)	K+ (mg)
Raspberries	3002	8	94	Cinnamon, 1 tsp	6956	1	11
Strawberries	2969	14	120	Oregano, 1 tsp dried	3602	3	25
Blueberries	4848	8	65	Turmeric, 1 tsp	N/A	6	57
Cranberries	4792	5	34	Rosemary, 1 tsp	N/A	<1	11
Asparagus	1441	25	72	Pinto Beans Dry, ½ cup cooked	4000-5000	137	300
Broccoli Raab, raw	620	15	39	Almonds, 1 oz (22 nuts)	1260	128	186
Brussels Sprouts, raw	980	30	171	Peas, ¾ cup cooked	400	118	265
Cabbage, raw	3145	8	86	Pecans, 1 oz (19 halves)	5086	79	116

1 Food and Nutrition Information Center. USDA National Nutrient Database for Standard Reference.

Available at: <http://www.nal.usda.gov/fnic/foodcomp/search/>.

2 Pennington JA, Douglass JS. Bowes and Church's Food Values for Portions Commonly Used. 18th Edition. Lippincott Williams & Wilkins: Baltimore, 2005.

3 U.S. Department of Agriculture. *Oxygen Radical Absorbance Capacity (ORAC) of Selected Foods* – 2007. Available: <http://www.ars.usda.gov/nutrientdata>.

reduced risk of certain diseases, including breast and prostate cancers (30,31). Isoflavones have been shown to slow down the progression of CKD with the added benefit of reducing inflammation in the aforementioned co-morbidities (9,32,33).

Environmental Disruptors

Humans are exposed to toxins from our environment on a daily basis (34-38). As our patients live longer, our nutrition education needs to take into consideration diet choices for long-term protection from these environmental insults. One example is the estrogen that we are exposed to exogenously. Exogenous estrogens, also known as endocrine disruptors or xenoestrogens, can originate from the environment in the form of plastic, herbicides, food additives or cigarette smoke (34-38). Other dietary sources include animal fats, charbroiled meats and AGE products. The extent to which these disruptors contribute to disease is only beginning to be understood but it is postulated that they play a role in the genesis of autoimmune disorders, cancers and neurological disorder (39).

Many plant-based proteins and plant-based foods work to antagonize the negative effects of the exogenous estrogens. Commonly referred to as phytoestrogens or functional estrogens, these food properties can be broken down into several subcategories: lignans, stilbene, stilbenoids, coumestans and flavinoids. Examples of these foods are found in Table 2 (31,40,41).

Table 2
Sources of Phytoestrogens

- | | |
|--|--|
| • Fiber – lignan
(flax, wheat, rye) | • Sulfur (onion, shallots) |
| • Dried cooked beans | • Artichokes |
| • Isoflavones | • Flavonoids – citrus, grapes |
| • Curcumin (tumeric) | • Soluble Fiber – oats, legumes |
| • Rosemary | • Indole 3 Carbinol – broccoli,
cauliflower, brussels sprouts,
cabbage |
| • Limonene – citrus | |

Summary

Plant-based diet offer many advantages to our patients; not only in positively altering the progression of kidney disease but in preventing co-morbid conditions. Plant-based proteins can be added easily and safely to our patient's diets, providing the same quality as animal protein with additional benefits. Whether working with dialysis patients, CKD or transplant patients, registered dietitians (RDs) need to feel comfortable working with a variety of plant-based foods in order to help patients introduce these foods to their diet. Included with this article are recipes that are aimed at making it easy for the RDs to introduce plant-based foods safely and in tasteful, creative ways.

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RPG WEBSITE & ELECTRONIC MEDIA HIGHLIGHTS

Some exciting new additions & updates!



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Now you have the option to purchase both the English & Spanish update versions of this popular and useful patient education tool.

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Many member inquiries are submitted regarding questions about whether the CPE quizzes and credits recorded online are forwarded to CDR. Please note that RPG has provided the member benefit for online recording as a tool for members to have access to a compiled summary of the credits completed online over time. Thus it is the responsibility of each member to transfer the CPE credit information into their respective CDR Portfolio for credits.

"Be a yardstick of quality.

Some people aren't used to an environment where excellence is expected."

— STEVE JOBS

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Can't find a resource or have a suggestion for a great link to add to the RPG Website?

We want to hear from you with suggestions or comments. Please email Cathy M. Goeddeke-Merickel, MS, RD, LD cmgmerickel@gmail.com

Visit RPG's web site: www.renalnutrition.org for CPEU offerings and valuable professional and patient resources

Adoption of Evidence-Based Guidelines by Renal Dietitians in the United States

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This article has been approved for 1.5 CPE units. The online CPEU quiz and certificate of completion can be accessed in the Members Only section of the RPG web site via the My CPEU link. This CPE offering is available to current RPG members only and the expiration date is January 31, 2013.

Introduction

Twenty-six million: the number of American adults that have chronic kidney disease (CKD), with millions of others at risk for developing the disease (1). CKD, the slow loss of kidney function over time, has no cure and can lead to end-stage renal disease (ESRD) and eventually death from the buildup of fluids and waste products in the body (2). CKD patients (without CKD co-morbidities), have double the healthcare costs when compared to those without CKD due to an increased need for prescriptions, outpatient and inpatient visits, and longer hospital stays (3).

In July 2010, the American Dietetic Association (ADA) released evidence-based guidelines for the treatment of adults with CKD stages 1-5 and post kidney transplant patients, excluding dialysis (4). Previous guidelines had been published in 2001. The 2010 Guidelines made 24 recommendations (4). Medical nutrition therapy based on these guidelines is used to prevent progression and treat symptoms of CKD including protein-energy malnutrition and

electrolyte and mineral disorders. Use of the guidelines can also minimize the impact of co-morbidities (diabetes, obesity, hypertension, lipid metabolism disorders) associated with the progression of kidney disease (4). However, patients cannot benefit from these guidelines unless they are implemented.

Following the model of two studies, one conducted in Canada and the other in the US (5,6), we surveyed renal dietitians across the US to identify to what degree they use the 2010 ADA CKD guidelines and possible barriers that may influence use of these guidelines. We hypothesized that at least 90% of renal dietitians serving CKD patients (stages 1-5 including post kidney transplant, not on dialysis) in the US were aware of the new ADA CKD guidelines, and that greater than 70% of dietitians would use at least one of the guidelines in their practice. We expected that 50% of dietitians would report using three or more guidelines and that a significant barrier to guideline use would be lack of time and/or resources.

General Design

Cross-sectional design was used to survey renal dietitians in the United States serving adult CKD patients (stages 1-5 including post kidney transplant, not on dialysis). This study was approved by the Institutional Review Boards at Oregon Health & Science University.

Instrument:

The survey included 31 open- and closed-ended questions separated into: questions that assessed knowledge/use of guidelines, questions that assessed factors that impact knowledge/use of guidelines, and questions regarding demographic characteristics of the survey sample. The survey was created and administered through ConstantContact.com and was estimated to take participants less than 15 minutes to complete. The questions included in the survey were adapted from a survey used by Burrowes et al, a 2005 pilot study of US renal dietitians, to evaluate the clarity and validity of the National Kidney Foundation Kidney Disease Outcome Quality Initiative (NKF-K/DOQI) Adult Nutrition Guidelines (5).

Participants:

The target population for this questionnaire was male and female renal dietitians in the US serving CKD patients (stages 1-5 including post kidney transplant, not on dialysis). Participating dietitians needed to be members of the National Kidney Foundation Council on Renal Nutrition Listserv (NKF-CRN) or the American Dietetic Association Renal Dietitians Dietetic Practice Group (ADA RPG). An email invitation to participate in the study was sent to all members of these organizations. This invitation included an explanation of the purpose of the study, the inclusion criteria (dietitians who worked with CKD patients stages 1-5 including post kidney transplant but excluding dialysis), and a

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link to the online survey. Participant consent was obtained within the Constant Contact questionnaire. One week after the initial email invitation was sent, a reminder email with a link to the online survey was emailed to members. The questionnaire was active for a period of two weeks in spring 2011.

Data Analysis:

Survey data was analyzed using descriptive statistics. To determine statistical significance, we needed a minimum of 73 valid responses from our survey to a maximum of 385 responses. Findings were considered statistically significant if p-values were <0.05. Survey responses were qualitatively analyzed to identify themes related to barriers and benefits of guideline use, and sorted by demographic data such as age and years of dietetic experience.

Results

The survey was distributed to 3,551 listserv participants in the U.S., and 69 responses were received, for a response rate of 2%. There were 65 (98%) useable surveys. Respondents who were not practicing renal dietitians (2%) or who did not complete the survey (<1%) were excluded.

Demographics:

All respondents were female and all four major geographical regions (Northeast, Midwest, South, West) of the country were represented, with the greatest participation from the South (36%) and Midwest (26%). The largest group of participants (32%) worked in large cities with greater than 500,000 people, while another 25% of respondents worked in smaller cities with between 50,000-149,999 people. The majority of participants worked in free-standing, for-profit renal centers (57%). Of the participants surveyed, 99% were registered dietitians and 1% were dietetic technicians. Only 26% were certified specialists in renal nutrition (CSR), and 30% had a Master's degree. The majority of participants (65%) had an annual salary between \$45,000 and

Figure 1
Age of Participants Compared to Years of Dietetic Experience

Years of Dietetic Experience (n=65)				
Age	0-5 Years	6-10 Years	11-20 Years	21 or More
Under 25	0	0	0	0
26-35	5	10	2	0
36-45	0	2	9	0
46-60	0	1	8	23
61 and up	0	0	0	6

Figure 2
Guideline Implementation Related to Years of Dietetic Experience

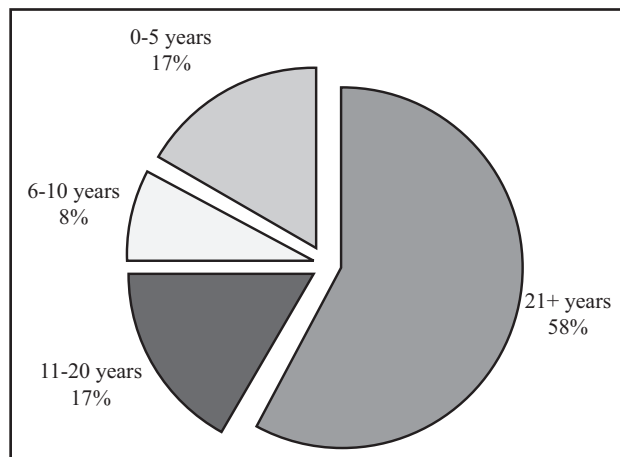


Figure 3
Summary of Implementation of Individual ADA CKD Nutrition Guidelines

Which guidelines have you implemented?	# of Responses	Response Ratio
Anthropometric Assessment Options	16	40%
Assess CKD-Mineral and Bone Disorders	28	70%
Assessment of Biochemical Parameters	24	60%
Assessment of Food Nutrition-Related History	22	55%
Assessment of Medical/Health History	20	50%
Calcium	26	65%
Coordination of Care	19	48%
Education on Self-Management Behaviors	17	43%
Energy Intake	24	60%
Fish Oil/Omega-3 Fatty Acids	19	48%
Medical Nutrition Therapy (Non-Dialysis)	17	43%
Monitor and Evaluate Adherence to Nutrition and Lifestyle Recommendations	26	65%
Monitor and Evaluate Biochemical Parameters	24	60%
Multivitamin Supplementation	26	65%
Physical Activity	18	45%
Potassium	27	68%
Protein Intake	31	78%
Sodium	26	65%
Total	40	100%

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\$64,999. Figure 1 shows that the largest group of respondents (n= 23) was between 46-60 years old with 21 or more years of overall dietetic experience. The majority of the respondents had between 6-10 years of renal dietetic experience (29%).

Familiarity with the Nutrition Guidelines:

Only 66% of renal dietitians responded that they were aware of the new ADA CKD guidelines. Of that percentage, 25% have read all of the guidelines, 36% have read some of the guidelines and 6% are aware, but have not read any of the guidelines. Of the total respondents, 33% were not aware there were new guidelines and had not read any of the guidelines. Figure 2 shows guideline implementation with regard to age. Participants between the ages of 41-60 (46%) with 21 or more years of dietetic experience (42%) were most likely to be aware of the guidelines and had implemented the guidelines.

The majority of respondents who reported being aware of the new guidelines (58%) implemented at least one of the guidelines and 52% reported implementing three or more guidelines. Figure 3 shows a percentage breakdown of guideline implementation. Participants were most likely to implement guidelines on protein intake (78%) and least likely to implement guidelines on dyslipidemia and CKD (23%). Major barriers to implementing the guidelines included not being aware (33%), lack of time (13%), and lack of necessary tools (9%).

Evaluation of Nutritional Status:

Since the release of the guidelines, only 25% of respondents report that they have changed the parameters they use when evaluating a patient's nutritional status. Figure 4 ranks participant's perception of importance of nutrition parameters on a scale from most important (score = 1) to least important (score = 10). Participants ranked nutritional assessment parameters related to change in body weight as most important and body component analysis by Dual Energy X-Ray Absorptiometry (DEXA) as least.

Assessment of Nutrient Intake and Body Composition:

Participants were asked how they assess nutritional intake in CKD patients not on dialysis. 44% of participants reported 24-hour food recalls as the most common method to evaluate dietary intake. Calculating numbers by hand (42%) or by diet exchanges (28%) were the most frequent methods used to estimate dietary intake.

Measuring height (84%) and weight (87%) were the most common anthropometric measures used, yet only 27% of participants have a stadiometer to measure height. Most respondents (98%) report that they do not measure a patient's skinfold thickness and only 15% have calipers to perform skinfold anthropometry.

Figure 4
Importance of Parameters to Evaluate Nutritional Status

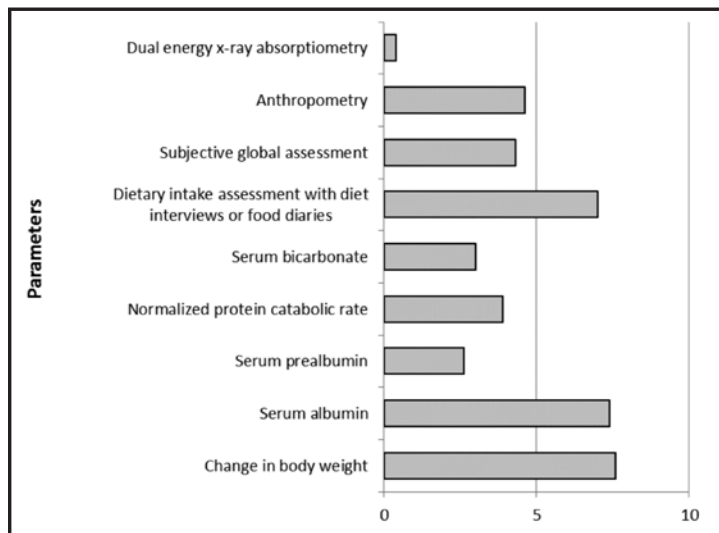
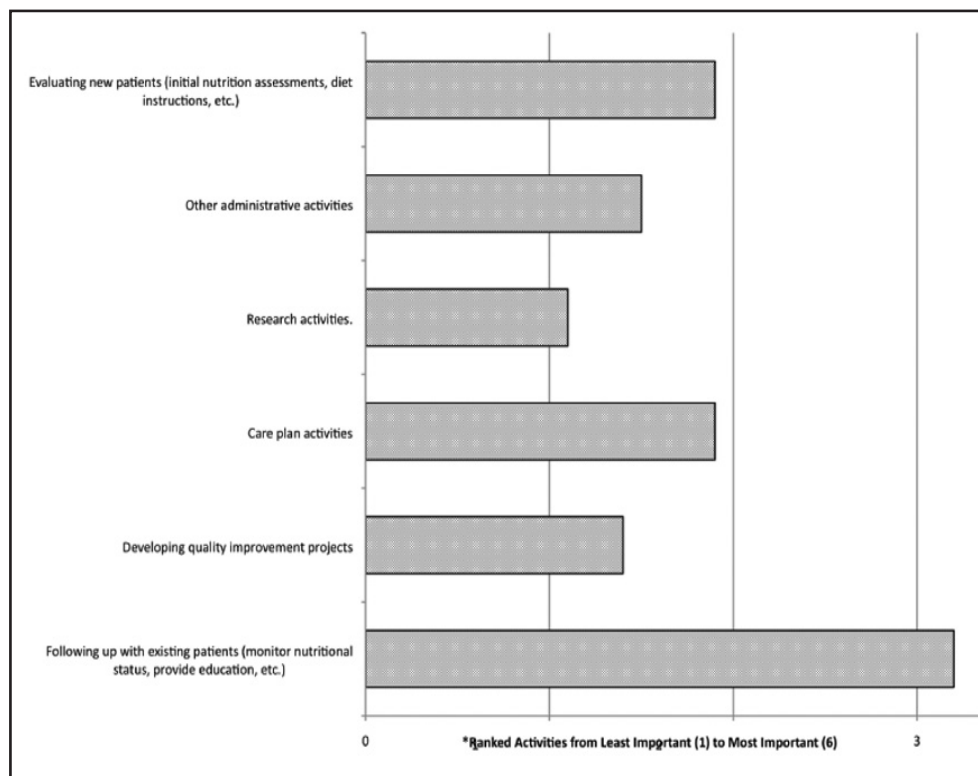


Figure 5
Participants Rank Importance of Activities



Daily Activities and Workload:

The majority of respondents (67%) reported spending less than 10 hours a month working with CKD patients not on dialysis. In Figure 5, participants were asked to rank the amount of time spent each month on nutritional services on a scale of 1-6, six being the most important. Participants spent the most time following up with existing patients, spending an average of 26-50 hours per month monitoring nutritional status, providing education, etc.

Discussion

Other surveys of this kind have been conducted with renal dietitians to ascertain the use of practice guidelines, but this survey is the first to be directed specifically to renal dietitians serving CKD patients not on dialysis (5,7). This survey had a small response rate (2%), although representation from all major regions of the country was achieved. We may have had limited response because only two emails were sent to listserv members asking them to complete the online questionnaire, or due to the fact that the majority of renal dietitians work with patients on dialysis and not CKD patients not on dialysis. No incentives were offered to listserv members, which may have increased participation.

Implementation of Guidelines:

Of survey respondents, the majority (66%) indicated that they were aware of the new ADA CKD guidelines. Slightly over half (58%) reported implementing at least one of the guidelines, and 52% reported implementing three or more of the guidelines. A third of participants indicated that they were unaware of the guidelines. Similar findings were reported in a 2005 study by Burrowes, et al, where the vast majority of renal dietitians were aware of evidence-based practice guidelines but only a minority of the dietitians reported actually using the guidelines in practice (5). Due to our limited response rate, we were unable to determine statistical significance. Therefore, our results are representative of our sample of respondents, but cannot be generalized to the overall population of U.S. renal dietitians.

Since the release of the new ADA CKD guidelines, most survey respondents report they have not changed the nutrition assessment process of their patients. The majority of participating dietitians reported parameters related to changes in body weight to be the most important indicators of nutritional status. The most commonly reported method of estimating dietary intake was 24-hour recall. Similarly, in Burrowes, et al (2005) dietitians indicated the most important criteria for evaluating patient nutritional status were the same before and after the release of evidence-based practice guidelines. These

indicators included serum albumin, weight changes, dietary interviews, and food diaries (5). Our results, and those of similar studies, indicate that new renal practice guidelines have had little impact on how renal dietitians assess their patient's nutritional status and dietary intake. Large private organizations often have their own protocols and guidelines for nutrition assessment, renal dietitians working for these companies may use company guidelines rather than referring to the ADA CKD standards of practice. More effort should be dedicated to educating dietitians, especially those working for large private organizations, about the new ADA CKD guidelines.

Barriers to Guideline Implementation:

A number of factors were identified by respondents as barriers to guideline implementation. Being unaware of the guideline was the most frequently cited challenge to implementation (33%). However, this was not identified as a significant barrier in other studies. In Burrowes, et al, the most significant challenge noted was the lack of necessary resources to implement new guidelines. In our study, only 9% of respondents reported lack of necessary tools as a barrier to guideline implementation. In a similar study by Trudel, et al the most significant barrier to guideline implementation was "human resource allocations", which included both the allocation of funds as well as the time necessary to implement guidelines (7). Lack of time was a common barrier noted by dietitians in our study (13%), as well as 40% of participants in the 2005 study by Burrowes, et al (5).

In Trudel, et al's 2010 study, they found that dietitians who had been practicing in the field of renal dietetics for greater than five years were less likely to implement guidelines because they possessed a personal bias or sensed a conflict in the evidence supporting the new guidelines. Trudel, et al hypothesized that as renal dietitians gain experience, they may use their clinical judgment more often than guidelines to direct their practice (7). In our study, we found that very experienced renal dietitians (between the ages of 46-60 years of age and with 21 or more years of dietetic experience) were the most likely to participate in the survey (42% of respondents). In contrast to Trudel's study, we found that this group of highly experienced renal dietitians was also the most likely to be aware of and to implement the new guidelines. However, due to our limited sample size, it is difficult to make any generalizations about implementation and knowledge of the guidelines based on age group or experience level.

Limitations:

Since this survey was administered online as a web-based questionnaire, our participant population may not be representative of all renal dietitians because those who are more comfortable with the internet may have been more likely to complete the survey. It is also possible that differences in guideline implementation were related to factors of dietetics that we did not inquire about in our survey. Another

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limitation of this study was that it was intended to capture the perceptions of renal dietitians who work primarily with CKD patients not on dialysis. However, the majority of respondents (67%) indicated they spend less than 10 hours each month working with patients not on dialysis. We suspect that most renal dietitians do not work exclusively or even predominantly with CKD patients not on dialysis. Instead, we think that general dietitians may be more likely to interact with CKD patients before they become dialysis-dependent, but general dietitians generally do not join NKF CRN or RPG which is a limitation to the study participant pool.

Conclusion

Our findings indicate that, in contrast to our hypothesis, fewer than 70% of renal dietitians surveyed have implemented at least one of the new ADA CKD guidelines; however, in line with our hypothesis, slightly greater than 50% have implemented at least three or more of the new recommendations. Further efforts should be made to inform renal dietitians, as well as general dietitians, about the new ADA CKD guidelines and to make sure that renal dietitians have reasonable case loads and tools needed to make it possible for them to devote time to putting new evidence-based guidelines into practice. However, due to the limited sample size, and inability to achieve statistical significance, this study can only be regarded in terms of the specific sample studied with no opportunity for wider generalization. Future studies could be directed towards general clinical dietitians who may be more likely to work with CKD patients before they begin dialysis. Responses from the population of general clinical dietitians might shed more light on how new ADA CKD guidelines are being utilized by those individuals who work with pre-dialysis CKD patients.

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Calendar of Events

February 2012

Annual Dialysis Conference

San Antonio, TX

February 26-28, 2012

<http://som.missouri.edu/Dialysis>

CRRT 2012 Conference

(Continuous Renal Replacement Therapies)

Hilton Bayfront; San Diego, CA

February 14-17, 2012

<http://www.crrtonline.com/>

2012 Canadian Society of Transplantation

Annual Scientific Conference

Fairmont Château Frontenac Québec, Québec

February 23-25, 2012

<http://www.cst-transplant.ca/AnnualConference.cfm>

April 2012

ANNA 43rd National Symposium

Walt Disney World Dolphin

Orlando, FL

April 29-May 2, 2012

<http://www.annanurse.org/>

May 2012

National Kidney Foundation 2012 Spring

Clinical Meetings

Gaylord National; Washington, DC

May 9-13, 2012

www.kidney.org/news/meetings/clinical/index.cfm

June 2012

American Transplant Congress 2012

Boston, MA

June 2-5, 2012

www.atcmeeting.org/2012/

1st World Renal Nutrition Week

16th International Congress on Renal Nutrition and Metabolism (ICRNM)

Honolulu, HI

June 26-30, 2012

www.renalnutrition.com

July 2012

24th International Congress of the Transplantation Society

Berlin, Germany

July 15-19, 2012

<http://transplantation2012.org>

August 2012

NATCO 37th Annual Meeting

Grand Hyatt Washington DC, Washington DC

August 12-15, 2012

<http://www.natco1.org>

October 2012

ADA Food & Nutrition Conference & Expo

Philadelphia, PA

October 6-9, 2012

www.eatright.org/fnce/

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- **Find research that relates to areas of interest**
- **Critically appraise an article**
- **Evaluate whether the study design is suitable to answer the research question and test the hypothesis (2.5 CPEUs)**
- **Interpret statistics and determine whether they are appropriately utilized in the study (3 CPEUs)**
- **Apply research to practice**
- **Determine the first step in a research project**
- **Develop a good research question with a testable hypothesis (1 CPEU)**
- **Write a research grant**

The Research Toolkit is free of charge to Academy members at <https://www.adaevidencelibrary.com/store.cfm?category=13&auth=1>

The Academy Research Committee would like to acknowledge the generous financial contributions of the Research, Pediatric, Renal, Weight Management and Behavioral Health Dietetic Practice Groups that, in part, made this resource possible.

Cooking Easily with Plant-Based Proteins

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Spokane Community College
Spokane, WA
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The following recipes are an example of the creativity that can be used to help patients incorporate more plant-based proteins in their diet. By doing a few simple pre-planning activities, vegetarian cooking can be very easy to implement into the CKD patients' lifestyle. Dividing the recipe preparation over a couple days makes the following cooking methods easy to achieve for most patients and caregivers. Also, these recipes can be stored in the refrigerator, allowing for patients to make easy microwavable meals over several days. With some forethought, vegetarian recipes can add creativity and flavor back into a patient's diet.

Vegan Fettuccini Alfredo (4 servings)

1/2 cup dried white beans
1 teaspoon olive oil
1/2 onion, diced
5 cloves garlic, minced
1 1/2 cups rice milk
3 tablespoons dried basil
1 tablespoon Pesto seasoning
8 ounce fettuccini noodles (without eggs)

Cover beans with water and soak overnight. Cook beans in water until tender, 50 to 60 minutes. Add oil to a non-stick pan, sauté onions until translucent. In a food processor, add cooked beans, onions, garlic, rice milk and process until smooth. Pour back into the pan and simmer for 10 to 15 minutes. Cook noodles according to the package, drain the noodles, mix with the sauce and serve.

Analysis:

Calories 344, total fat 3 g, saturated fat 0.5 g, monounsaturated fat 2.1 g, polyunsaturated fat 0.9 g, cholesterol 0.0 mg, calcium 93 mg, sodium 41 mg, phosphorus 217 mg, potassium 550 mg, total carbohydrates 65.8 g, dietary fiber 6.3 g, sugar 6 g, protein 12.7 g

Brussels Sprouts in a Rosemary Mustard Sauce (6 servings)

16 ounce package frozen Brussels Sprouts
2 shallots, peeled and diced
2 tablespoons rice vinegar
2 tablespoons dried Rosemary
1/4 cup Dijon mustard
1/2 cup soy sour cream

Microwave Brussels Spouts according the package directions. In a non-stick pan, add shallots and rice vinegar. Over medium heat, evaporate the rice vinegar and this will cook the shallots. When the liquid is gone, add Dijon mustard and Rosemary then cook for 2 more minutes. Stir in soy sour cream, Brussels Sprouts and keep cooking for additional 2 minutes.

Analysis:

Calories 158, total fat 10.5 g, saturated fat 4.2 g, monounsaturated fat 0.1 g, polyunsaturated fat 0.2 g, cholesterol 0.0 mg, calcium 36.8 mg, sodium 8.8 mg, phosphorus 50.5 mg, potassium 307 mg, total carbohydrates 11.5 g, dietary fiber 3.4 g, sugar 0.2 g, protein 5 g

Renal Dietitians

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Baked Braised Red Cabbage (12 servings)

1 head of red cabbage, exterior leaves and core removed

1/2 yellow onion, julienne

3 Granny Smith apples, peeled, cored and diced

1/4 cup cider vinegar

1/4 cup sugar

2 cups vegetable stock, low sodium

Cut cabbage into 12 wedges and place in 9 x 13 baking dish. Sprinkle the onions over the top of the cabbage wedges. Mix vinegar, sugar, stock and diced apples together; make sure sugar is dissolved. Pour the apple and liquid mixture over the cabbage and onions. Cover with foil and bake in a pre-heated 325° F oven for 2 hours.

Analysis:

Calories 63, total fat 0.3 g, saturated fat 0.1 g, monounsaturated fat 0.0 g, polyunsaturated fat 0.2 g, cholesterol 0.0 mg, calcium 41.5 mg, sodium 25.5 mg, phosphorus 31 mg, potassium 257 mg, total carbohydrates 15.8g, dietary fiber 2.9 g, sugar 11.2 g, protein 1.3 g

Almond Herb Puffs 6 servings (2 puffs per serving)

1/2 cup whole almonds

8 ounces Tofu, firm

1 1/2 teaspoons garlic, chopped

1/4 teaspoon dried oregano

2 teaspoons dried basil

1/4 teaspoon dried ground

thyme

1 tablespoon lemon juice

1/4 teaspoon onion powder

1/4 teaspoon grilling spice,

salt-free

2 drops Tabasco

1 1/4 teaspoons vegetarian

chicken base (McKay's)

1/4 teaspoon garlic powder

8 sheets of phyllo dough

Olive oil, spray

Blanch the almonds in water, simmering for 15 minutes. Drain the almonds and chop in food processor. Add the rest of ingredients, except phyllo dough & oil, and mix into a smooth consistency. Take 1 sheet of phyllo dough, spray with oil, add a second sheet and spray with oil, continue until you have 4 layers. Cut the dough into 6 squares; place each square into a muffin cup. After filling 12 muffin cups, spoon the almond-tofu mixture into each phyllo cup. Bake in a pre-heated 400° F oven for 10 to 15 minutes, until the phyllo is golden brown. Remove from oven, let cool for 5 minutes and serve.

Analysis:

Calories 178, total fat 9.4 g, saturated fat 1 g, monounsaturated fat 6 g, polyunsaturated fat 2 g, cholesterol 0.0 mg, calcium 46 mg, sodium 273 mg, phosphorus 109.4 mg, potassium 136 mg, total carbohydrates 17.2 g, dietary fiber 1.8 g, sugar 0.9 g, protein 7 g

German Seitan

Sausage (6 servings)

1 cup wheat gluten

1/2 teaspoon onion powder

1/4 teaspoon garlic powder

1/2 teaspoon ground sage

3/4 teaspoons vegan beef base

3/4 cup water

2 tablespoons tahini paste

Dry Rub

1 teaspoon ground sage

Pinch ground black pepper

1/2 teaspoon marjoram

Pinch crushed red pepper

flakes

Pinch of cayenne pepper

1/4 teaspoon ground nutmeg

1/4 teaspoon allspice

To make the Seitan, mix wheat gluten, onion powder, garlic powder and sage together. In a measuring cup, dissolve water, beef base and tahini paste together. Pour the liquid mixture into the wheat gluten mixture and stir until it becomes a ball. Knead for 5 minutes. Divide the dough into 6 equal balls, roll each ball into a long stick about 6" in length. Place each piece on foil and wrap tightly. Place in steamer for 25 minutes, making sure the foil is not submerged in water. Remove from steamer, take off the foil and let cool. May store in a refrigerator up to 1 week, covered.

To finish preparation, cut the Seitan sticks into small 1/4 inch cubes. Mix the dry rub spices together. Spray the Seitan cubes with oil and mix with the dry rub. Place on a baking sheet and bake for 10 minutes in 325°F oven.

Analysis:

Calories 198, total fat 3.8 g, saturated fat 0.5 g, monounsaturated fat 1.3 g, polyunsaturated fat 1.2 g, cholesterol 0.0 mg, calcium 72 mg, sodium 72 mg, phosphorus 126 mg, potassium 40 mg, total carbohydrates 10 g, dietary fiber 1 g, sugar 0.6 g, protein 32.3 g

In addition other helpful resources for recipes:

Websites:

www.allrecipes.com

www.wholefoodsmarket.com

www.vrg.org

www.vegnews.com

www.soyconnection.com

www.vegetarianadvantage.com

Books:

The Vegetarian Diet for Kidney Disease: Preserving Kidney Function With Plant Based Eating. by Joan Brookhyser Hogan, RD (2009)

The New Becoming Vegetarian: The Essential Guide to a Healthy Vegetarian Diet by Vesanto Melina, MS, RD and Brenda Davis, RD. (2003)

Dinner with Duane by Duane Sunwold (publication pending)

Other Resources:

Vegetarian Nutrition Dietetic Practice Group. www.vndpg.com

Cranberry Juice is Safe to Consume with Warfarin!

Jack Ansell, M.D.

There is no creditable scientific evidence to link an interaction between the moderate consumption of cranberry juice and warfarin.

In September 2003, the UK Committee on Safety of Medicines (CSM) issued a warning of a possible interaction between warfarin and cranberry juice. This warning was based on five spontaneous brief case descriptions (nothing more than a few sentences) suggesting such an interaction, leading to changes in INR values. The Committee indicated that the interaction is biologically plausible since cranberry juice contains various antioxidants, including flavonoids, which are known to inhibit specific cytochrome P450 enzymes. They acknowledged that further investigation was needed and recommended that until this matter was concluded, it would be prudent for patients taking warfarin to be advised to limit or avoid drinking cranberry juice. Similar warnings appeared on the labels for the FDA-approved products Coumadin® (warfarin, Bristol-Myers Squibb) and several generic warfarin products.

A review of all 16 suspected reports from the UK reported to the Medicines and Healthcare products Regulatory Agency (MHRA) via spontaneous reporting schemes found that the cases were poorly documented.¹ There are several other factors that could have been responsible for the changes in INR observed in these patients, including multiple co-morbidities, nutritional impairment, use of a number of other drugs, and exorbitant amounts of cranberry juice consumed. In one case, the INR actually decreased, the opposite of what is attributed to the interaction. The number of reports is also remarkably small considering the extensive use of warfarin and cranberry juice, often concurrently, by the elderly.

Against this anecdotal and poorly documented evidence from spontaneous reports is the overwhelming and ever-accumulating evidence from well-designed specific drug interaction studies. Recent publications have concluded that there is no interaction between cranberry juice and warfarin. There are seven separate interaction studies assessing valid and accepted pharmacodynamic (PD) and/or pharmacokinetic (PK) end-points, examining a total exposure of 75 patients and healthy volunteers, of which six concluded that a cranberry juice-warfarin interaction is unlikely. The studies are summarized in Table 1.

Summary of Results

The data show that, in both healthy subjects and patients, there is no evidence of a PK or PD interaction between cranberry juice and warfarin – with the exception of the Abdul study. Abdul and colleagues² claimed a potential PD interaction on the basis of assessment of an inappropriate and unconventional AUC-based PD parameter and the use of a single, very high dose (25 mg) of warfarin in healthy volunteers. An integrated assessment of the seven formal drug interactions studies, investigating an interaction between cranberry juice and warfarin in vitro and in vivo leads to the following conclusions:



- Using flurbiprofen or diclofenac as the probe substrates, studies indicate that, overall, there is no consistent in vitro evidence of a significant inhibition of CYP2C9 by normal quantities of cranberry juice (i.e., two 250 ml glasses of CJ/day or less). The evidence for in vitro inhibition of CYP2C9 by cranberry juice is conflicting at best. In any case, in vitro performance of cranberry juice is not predictive of its in vivo performance.
- Li et al³ showed that cranberry juice does not inhibit the in vivo activities of CYP1A2 or CYP3A4.
- Evidence consistently shows that cranberry juice does not affect the PK of either warfarin or other probe substrates of CYP2C9.
- Evidence consistently shows that cranberry juice does not affect warfarin-induced changes in INR or vitamin K-dependent clotting factors unless the data analysis employs PD AUC, whose clinical relevance is uncertain.
- Consumption of cranberry juice at a daily volume of 250 ml (used in most studies) or even as high as 200 ml t.i.d for 10 days, as used by Lilja et al⁴, or 250 ml of pure cranberry juice twice daily, as used by Mellen et al⁵, is without effect on the in vivo pharmacological properties of warfarin. At present, no conclusions can be drawn on the effect of larger volumes.

Conclusions

In conclusion, there is no evidence of risk of a clinically relevant interaction between warfarin and cranberry products from peer-reviewed interaction studies when cranberry juice is consumed in moderation. One cannot exclude the possibility of an interaction with the consumption of excessive quantities of cranberry products. Thus, it does not appear necessary to avoid normal levels of usage of cranberry products (two 8 oz glasses/day).

Table 1. Summary of studies examining a potential cranberry juice-warfarin interaction from the literature

Study	Participant numbers	Study design	Treatment groups	Duration of cranberry juice exposure	PK result*	PD result*
Li et al (2006) ³	7 patients (warfarin for AF)*	Crossover	Warfarin + cranberry juice/placebo	Extended	Not determined	No effect (INR)
Greenblatt et al (2006) ⁵	14 healthy volunteers	Crossover	Flurbiprofen (single dose) (preceded by cranberry juice, placebo, grape juice, tea or fluconazole)	Short-term	No effect	N/A
Lilja et al (2007) ⁴	10 healthy volunteers	Parallel	R-S warfarin, tizanidine, midazolam (5 days) + cranberry	Extended	No effect	No effect (thromboplastin time)
Abdul et al (2008) ²	12 healthy male volunteers	Open label, randomized crossover	Single dose 25 mg warfarin, alone or after 2 weeks of cranberry juice concentrate capsules or garlic tablets	Extended	No effect	INR AUC increased by 28% (max 8% difference at any individual time point) in warfarin/cranberry juice group
Ansell et al (2009) ⁷	30 patients (16 placebo; 14 cranberry juice) AF (9), DVT (9), PE (4), VHD (3), CVD (4), CHF (1)*	Parallel	Cranberry juice vs. placebo	Extended	No effect	No significant effect on INR
Ushijima et al (2009) ⁸	6 male, 2 female healthy volunteers, mean age 30.5 (range 23–44 years)	Open-label, two-period, crossover design with a wash-out period of >2 weeks	Cranberry juice vs. water with or without diclofenac (a medication metabolized by CYP2C9)	Medium duration (5 days), dosing of cranberry juice 180 ml, twice a day	No effect in healthy volunteers	No interaction with diclofenac in vivo, although inhibition of CYP2C9 in microsomal preparation in vitro
Mellen, et al (2010) ⁵	10 patients, ages 62–86, on warfarin for AF (3), PE (5), DVT-stroke or DVT and AF (1 each)*	Open-label, prospective	On stable warfarin dose, INR 2–3.	Cranberry juice (100%), 240 ml, twice/day x 7 days	N/A	No significant difference found in the mean PT at baseline vs. anytime during the study*
*AF = atrial fibrillation; DVT = deep vein thrombosis; PE = pulmonary embolism; VHD = valvular heart disease; CVD = cerebrovascular disease; CHF = congestive heart failure; AUC = area under the curve; PT = prothrombin time.						

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Disclosure

Dr. Ansell has been asked by the Cranberry Institute to clarify the relationship between cranberry juice consumption and warfarin effect based on sound clinical science. As such, he is paid a small honorarium for his efforts. The Cranberry Institute is a not-for-profit organization to support cranberry growers through agricultural and environmental research, promotion and education.

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2010 – 2011 Annual Report

Renal Dietitians (RPG) Dietetic Practice Group

MISSION: Renal Dietitians Dietetic Practice Group members are a valued source of expertise in nephrology nutrition.

VISION: Renal Dietitians Dietetic Practice Group is leading the future of dietetics by promoting and supporting ADA members working in nephrology practice.

STRATEGIC PLAN:

- Promote and increase an engaged, diverse membership that is actively involved with renal nutrition
- Encourage quality nutrition care in Chronic Kidney Disease by providing opportunities for professional education and development of effective patient educational materials
- Define scope of practice and standards of professional performance for dietitians in nephrology practice
- Stimulate, support, encourage and disseminate nephrology nutrition-related research
- Impact regulatory and legislative issues related to nephrology nutrition

**Members are the
Renal Dietitians Dietetic Practice Group's
Greatest Resource!**

Member Benefits Include:

- Subscription to the Renal Nutrition Forum (RNF), a quarterly reviewed publication
- Access to the members only section of the Renal Dietitians Web site: www.renalnutrition.org which features current archived issues of the RNF, downloadable forms and applications, CPEU tracking for the Renal Nutrition Forum, webinars, Certified Renal Specialist (CSR) Review, patient education handouts, and other topics of interest to renal dietitians
- Access to the Lending Library which enables members to check out current texts and other materials free of charge except for shipping costs. The library contains texts that are recommended for review for the Certified Specialist in Renal Nutrition exam
- Educational scholarships for advanced degrees and stipends for attending professional conferences. See Awards-Grants-Scholarships at www.renalnutrition.org for details.
- Networking opportunities through the Area Coordinators, RPG events at the Food & Nutrition Conference & Expo (FNCE) and collaboration on projects within the RPG and with the National Kidney Foundation Council on Renal Nutrition

- Opportunities for involvement in RPG projects such as writing articles or as a peer reviewer for the RNF, providing technical expertise on projects or suggestions for new projects

2010-2011 Key RPG Projects

Awards

2010 Outstanding Service Award recipient – Philippa Norton-Feiertag, MEd, RD

Media

- Quarterly Renal Nutrition Forum (RNF) Publication
- Through the peer reviewed publication, the RNF, and the Web site, www.renalnutrition.org, members can receive professional development and continuing professional education units (CPEU)
- RPG as part of ADA is an accredited provider of CPEU by the Commission on Dietetic Registration. In the 2010-2011 membership year, members had the opportunity to earn 14.5 CPEUs

Electronic Communications

- The RPG Web site, www.renalnutrition.org, features a variety of professional resources, including the opportunity to receive RNF continuing professional education hours online
- RNF (current and archived) issues offered in electronic form
- A webinar section that is fully functional and completely online is interactive and accessible for recorded webinar purchases, handouts, webinar CPEU quizzes and online CPEU recording of hours attained
- Member eblasts on RPG timely topics
- Online membership survey
- 14.5 CPEUs were offered and available online
- RPG provided funding to support the ADA online MNT Provider newsletter

Meetings with RPG Representation

- RPG Transitional Leadership
- ADA Leadership Institute
- ADA House of Delegates

Public Policy & Reimbursement:

- ADA Public Policy Workshop

Professional Development Project

- ADA Nutrition Care Manual Webinar Workshop: Webinar focused on new features and updates to the ADA Nutrition Care Manual – including renal nutrition information

2010 – 2011 Annual Report

Current Projects in Progress

- American Dietetic Association, the American Kidney Fund, and Abbott Nutrition Project for healthcare professionals to describe Medicare programs and services for beneficiaries with kidney disease
- ADA Publication with Diabetes Care and Education (DCE) and RPG in development “Making Choices: A Counseling Guide and Client Education for the Diabetic – Renal Meal Plan
- ADA Professional Development Online Certificate of Training in development RPG members assisted in review of draft CKD modules for this online CPEU program

FNCE 2010 Activities

- Networking Membership Reception Breakfast
This networking breakfast event was held at the American Dietetic Association Food & Nutrition Conference & Expo in Boston, 2010. Speakers included Cathy M. Goddeke-Merickel, MS, RD, LD who provided an update on the RPG web site features
- RPG donated two FNCE student stipends, and funds toward the ADAF silent auction
- DPG Showcase Participation

Special Thanks to our Valued Industry Sponsors

- Abbott Nutrition
- Abbott Renal
- Amgen
- Genzyme

RPG Network with:

- National Kidney Foundation Council on Renal Nutrition

Financial Outcomes

- Revenues totaled: \$163,828.00
- Expenses totaled: \$76,139.00

Looking for CPEUs?

Looking to share your knowledge?
The Mississippi Valley Dietetic Association (Illinois/Iowa) is hosting an event on Saturday, March 10, 2012 from 9 AM - 12 PM in Davenport, Iowa. We're nearly completed with our agenda and are looking to add one more speaker that is focused on a 'hot topic' in renal nutrition therapy. If you're interested in speaking, a stipend and travel funding is available, please contact:

Molly Shattuck, MS, RD, LDN
mshattuck@hy-ee.com
309-781-9446

2011 ADA Food & Nutrition Conference & Expo, San Diego, CA

RPG Member Stipend Award Recipients

Adele Huls, PhD, RD, LMNT, LN
Marianne Wolfe-Hutton, RD, CSR, CDE
Cheryl Y. Montgomery, RD, LDN

RPG Student Stipend Award Recipients

Kate Kauffman
WanJu (Ann) Lin, RD
Eun Lee
Kira McNealy
Shelby Shackett
Ana Garcia

Please visit www.renalnutrition.org to view excerpts from the students on their FNCE experience.

Recently Published

Have you recently completed an article search or wanted to keep up with what's new in the publications? This new section of the Renal Nutrition Forum will highlight recently published articles that focus on topics pertaining to nephrology nutrition. Our goal is to keep RPG members informed and we hope you find this list resourceful. As always, if you have feedback or something you'd like to share with other members, we'd love to hear from you!

June 2011

Patel A, Robertson J, Darwin C, et al. Double-blind study comparing doxercalciferol and placebo in vitamin D-replete CKD patients. *Dial Transplant*. 2011; 40(6):252-257.

July 2011

Agrawal L, Azad N, Emanuele NV, et al. Observation on renal outcomes in the veterans' affairs diabetes trial. *Diab Care*. 2011;34(9):2090-2094.

September 2011

Mehrotra R, Duong U, Jiwakanon S, et al. Serum albumin as a predictor of mortality in peritoneal dialysis: comparisons with hemodialysis. *Am J Kidney Dis*. 2011; 58(3):418-428.

Al-Qaoud TM, Nitsch D, Wells J, et al. Socioeconomic status and reduced kidney function in the Whitehall II study: role of obesity and metabolic syndrome. *Am J Kidney Dis*. 2011;58(3):389-397.

Pilz S, Iodice S, Zittermann A, et al. Vitamin D status and mortality risk in CKD: a meta-analysis of prospective studies. *Am J Kidney Dis*. 2011; 58(3):374-382.

Molnar MZ, Streja E, Kovesdy CP, et al. High platelet count as a link between renal cachexia and cardiovascular mortality in end-stage renal disease patients. *Am J Clin Nutr*. 2011;94(3):945-954.

Steiber AL, Kopple JD. Vitamin status and needs for people with stages 3-5 chronic kidney disease. *J Ren Nutr*. 2011;21(5):355-368.

Mafra D, Deleaval P, Teta D, et al. Influence of inflammation on total energy expenditure in hemodialysis patients. *J Ren Nutr*. 2011; 21(5):387-393.

Mazairac AHA, deWit, A, Penne EL, et al. Protein-energy nutritional status and kidney disease-specific quality of life in hemodialysis patients. *J Ren Nutr*. 2011;21(5): 376-386.

Moreau-Gaudry X, Guebre-Egziabher F, Jean G, et al. Serum creatinine improves body mass index survival prediction in hemodialysis patients: a 1-year prospective cohort analysis from the ARNOS study. *J Ren Nutr*. 2011; 21(5):369-375.

October 2011

Krishnamurthy VM, Wei G, Baird BC, et al. High dietary fiber intake is associated with decreased inflammation and all-cause mortality in patients with chronic kidney disease. *Kidney Int*. 2011 Oct 19. doi: 10.1038/ki.2011.355. [Epub ahead of print]

Grzegorzewska AE, Młot-Michalska M. Bone mineral density, its predictors, and outcomes in peritoneal dialysis patients. *Adv Perit Dial*. 2011;27:140-5.

Upadhyay A, Weiner DE. Lipid-lowering therapy in individuals with CKD: lessons learned from SHARP. *Am J Kidney Dis*. 2011 Oct 25. [Epub ahead of print]

Beck LH. Childhood membranous nephropathy and dietary antigens. *Am J Kidney Dis*. 2011 Oct 18. [Epub ahead of print]

November 2011

Mayne TJ, Benner D, Ricketts K, et al. Results of a pilot program to improve phosphorus outcomes in hemodialysis patients. *J Ren Nutr*. 2011 Nov 2. [Epub ahead of print]

Suckling RJ, He FJ, Markandu ND, Macgregor GA. Dietary salt influences postprandial plasma sodium concentration and systolic blood pressure. *Kidney Int*. 2011 Nov 2. doi: 10.1038/ki.2011.369. [Epub ahead of print]

Nicoletto BB, Souza GC, Gonçalves LF, Costa C, Perry IS, Manfro RC. Leptin, insulin resistance, and metabolic changes 5 year after renal transplantation. *J Ren Nutr*. 2011 Nov 4. [Epub ahead of print]

Calò LA, Savica V, Davis PA. Phosphate content of beverages in addition to food phosphate additives: real and insidious danger for renal patients. *J Ren Nutr*. 2011 Nov 8. [Epub ahead of print]

Silva LF, Lopes GB, Matos CM, et al. Gastrointestinal symptoms and nutritional status in women and men on maintenance hemodialysis. *J Ren Nutr*. 2011 Nov 8. [Epub ahead of print]

Renal Dietitians Chair Message



Rachael Majorowicz, RD, LD
RPG Chair
majorowicz.rachael@mayo.edu

The Renal Practice Group (RPG) Executive Committee (EC) recently met at the American Dietetic Association's Food & Nutrition Conference & Expo in San Diego. During our day-long meeting, the committee made plans for upcoming projects & finalized others, including:

In Progress Projects

- Changing the structure of the RPG EC to include more education positions, reflecting our growing emphasis on renal education for RD's and resources for our patients. Contact me to learn how to help!
- Changing the criteria of RPG's Outstanding Service Award, which will allow recognition for any member working to advance the practice!
- Update of the CSR webinars in 2012!
- Updating the Renal Nutrition Forum Archives to be a searchable database, so any specific topics or articles you seek will be easier to find!
- Joint collaboration with the Council on Renal Nutrition (CRN) on disparities in care for dialysis dietitians and investigating Kidney Friendly Food Shelves. More details to come!

Completed Projects

- The ESRD Spanish pamphlet has been updated and undergone a face-lift (also available in English). Available at RPG's online store (on the web site under Materials for Purchase)!

- The Lending Library has been renamed the Professional Resource Center and the materials can now be ordered through the online store, eliminating the delays of snail-mail! Discussions of expanding the available resources are also underway!

We are also exploring options of how to keep you better informed of the many projects and initiatives that the committee is undertaking. We plan to create space on the web site and hope this information will be of great use to you!

In looking through RPG's list of projects and the numerous other resources available at other sites, it occurs to me that renal dietitians have more resources available to us than ever before. There are numerous resources for patients, including those provided by RPG, the Council on Renal Nutrition (CRN), National Kidney Disease Education Program (NKDEP), Renal Support Network, American Association of Kidney Patients, Kidney School, American Kidney Fund, and others.

There are also numerous resources for dietitians, including those through RPG and CRN, among others. Most recently, in November 2011, NKDEP released a 12.5 CEU CKD Certificate Program, which is available online at the ADA store.

If you're like me, your head is spinning trying to keep tabs on where all these resources can be found! RPG can alleviate this frustration with our comprehensive list of these resources/links in one place, our web site Member Resource section! (www.renalnutrition.org/members_only/resources.php).

The RPG executive committee sincerely hopes you will find value in these initiatives and will continue to contact us regarding future needs as they arise. Additionally, if you are passionate about any of the projects mentioned earlier, please feel free to contact me and find out how you can help make a difference!



RPG Chair, Rachael Majorowicz presenting Sandra McMillan her Prize Certificate

Congratulations to the RPG FNCE Breakfast Prize Winners!

Debbie Shutts RD, MBA, CDE, CNSD
Winner of the 2012 CSR Updated Webinars

Sandra McMillan, RD, LD
Winner of the NKDEP/NIDDK CKD Certificate Modules

2011-2012 RPG Executive Committee

Mission: Renal dietitians practice group is leading the future of dietetics by promoting and supporting its members working in nephrology nutrition.

Vision: RPG members are a valued source of expertise in nephrology nutrition.

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RNF Guidelines for Authors

Article length:

Article length is determined by the Editor for each specific issue. The feature article (including abstract) is approximately 3000 words (not including tables/graphs). Other articles are usually 1000-1500 words; member highlights and reports are approximately 400-500 words.

Text format:

Times New Roman font, 12 point, double space.

Tables/Illustrations:

Tables should be self-explanatory. All diagrams, charts and figures should be camera-ready. Each should be accompanied by a title and brief caption that clearly explains the table, chart, diagram, figure, illustration, etc.

References:

References should be cited in the text in consecutive order parenthetically. At the end of the text, each reference should be listed in order of citation. The format should be the same as the Journal of the American Dietetic Association.

Reference citation examples:

Article in periodical:

Knower WC, Barrett-Connor E, Fowler SE, et al. Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. *N Eng J Med*. 2002;346:393-403.

Book:

Institute of Medicine. *Dietary Reference Intakes: Applications for Dietary Assessment*. Washington, D.C.: National Academy Press; 2001.

Chapter in a book:

Walsh J. Which insulin to use and how to start. In: *Using Insulin*. San Diego, Calif.: Torrey Pines Press; 2003.

Web site:

Medscape drug info. Available at www.medscape.com/druginfo. Accessed August 15, 2011.

Author information:

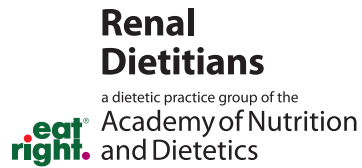
List author with first name, middle initial (if any), last name, professional suffix and affiliation below the title of the article. Also include the primary author's complete contact information including affiliation, phone, fax and email address.

All submissions for publication should be submitted to the editor as an email attachment (MS Word file). The feature articles from the Renal Nutrition Forum will be posted on the Members Only Section of the RPG website (password protected). Thus, please include a brief abstract and 2-3 key words along with feature article submissions.

For all inquiries please email:
helpU@renalnutrition.org

Sara Erickson, RD, CSR, LDN, CNSC
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