“Never the Twain Shall Meet:” Dual Systems Exacerbate Malnutrition in Older Adults Recently Discharged from Hospitals

The citation for this article:
Julie L. Locher, PhD, MSPH; and Nancy S. Wellman, PhD, RD, FADA (2011): “Never the Twain Shall Meet:” Dual Systems Exacerbate Malnutrition in Older Adults Recently Discharged from Hospitals, Journal of Nutrition in Gerontology and Geriatrics, 30:1, 24–28.

FOREWORD:
A partnership between the Academy’s Healthy Aging Dietetic Practice Group and the Journal of Nutrition in Gerontology and Geriatrics (formerly the Journal of Nutrition for the Elderly) has produced our feature article. This partnership provides our members with quality CPE opportunities in each of our quarterly editions. The suggested learning codes for this article include: 4010 Community intervention, monitoring, and evaluation; 4080 Government-funded food and nutrition programs; and 4190 Elderly nutrition.

Learning Objectives
At the completion of this self-study article, the learner will be able to:
- Identify the coordination gap for nutrition services in hospital facilities, contrasted with those provided on discharge to home or the community.
- List the barriers to adequate nutrition care during transitional care.
- Describe the negative impact that results from poor transitional care.
- Distinguish between bureaucratic roadblocks and individual unwillingness to participate in comprehensive nutrition interventions.
- “. . . and never the twain shall meet.”—Rudyard Kipling, “The Ballad of East and West”

A Multi-System Problem
There are two parallel but non-intersecting systems providing services to frail older adults: the hospital-based health care system and the community-based social service system. As long as “never the twain shall meet,” older adults will continue to suffer the serious consequences of undernutrition, including slower recovery, loss of independence and poorer quality of life, and increased risk of hospital readmission and nursing home placement—all of which contribute to soaring costs of care. This is ironic given today’s federal cost containment policy to rebalance long-term care away from nursing homes to home- and community-based services. Today’s Affordable Health Care Act places an undeniably robust emphasis on community care given the mandate to cut costs, the majority of which is expended on facility-based care.

The problem begins in hospitals and worsens in communities. Several groups of investigators have documented the lack of coordination between hospital health care providers and community or social service providers. In a large study, hospital discharge planners perceived, rightly or wrongly, that community nutrition services were not readily available even for patients needing those services. Unfortunately, this coordination gap can worsen when referrals are made, but there are long waiting lists for nutrition programs in some geographic areas. For example, the Older Americans Act (OAA) Nutrition Program (commonly called Meals-on-Wheels) is not universally available to all frail homebound older adults because of funding shortfalls as well as other related factors such as reliance on volunteers. In fact, there has been a substantial decrease in total appropriations for the OAA Nutrition Program in the past two decades ($942 million in FY1990 to $820 million in FY2010), with total meals declining by almost 4 million. Congress can and should be pushed to rectify the funding shortfall in light of the growing numbers of older adults and the documented increase
In this commentary, we offer insights into barriers that likely contribute to the persistent underutilization of available nutrition services and consequent gaps in the continuum of care for at-risk, recently discharged older adults.

The array of community programs available to older adults and their underutilization and/or their underfunding is the focus of a recent position paper by the Academy of Nutrition and Dietetics (formerly the American Dietetic Association), the American Society for Nutrition, and the Society for Nutrition Education and Behavior.8

Continuity of nutrition care is essential for older adults.9 Primary among the barriers that contribute to inadequate transitions of care involve processes that occur both within hospitals and between hospitals and other providers of care. Within hospitals, lower priority is frequently placed on adequately meeting nutritional needs compared with meeting medical needs, which are often viewed as more pressing and relevant to patients’ immediate health concerns. A growing body of evidence is accumulating that demonstrates the negative impact that poor transitional care, including non-receipt of nutritional services post-hospital discharge, has on contributing to negative patient outcomes and increased health care utilization and costs.10 It seems that providing up-to-date nutrition education that increases the knowledge of hospital staff who deal with post-discharge planning of older adults is warranted.

Two recent articles by Sahyoun and colleagues in the Journal of Nutrition in Gerontology and Geriatrics suggest that recently hospital-discharged older adults who are especially vulnerable may be underserved by the OAA Nutrition Program—the nation’s largest community nutrition program designed specifically for older adults. Further corroborating this work, an oral presentation delivered this year at the Gerontological Society of America annual meeting reported that such older adults were either not referred or were unwilling to participate in a comprehensive nutrition intervention that potentially included homedelivered meals (a component of the OAA Nutrition Program).11

As highlighted in the work by Sahyoun and colleagues, even when six local OAA Nutrition Programs participated in a demonstration project targeted at increasing referrals and enrollment in community nutrition intervention programs, referral of patients from hospitals remained abysmally low. This astonished Nutrition Program staff and investigators who had communicated with discharge planners, administrators, and social workers at the local hospitals and thought that they had their support. Buys and Locher experienced a similar disappointment in their recruitment efforts at both local hospitals and home health agencies. For example, Buys and Locher spent countless hours interacting with the medical director, nurses, and discharge planners in one hospital, including processing all of the institutional review board materials, in hopes of recruiting study volunteers, and yet did not receive a single referral. In both Sahyoun’s and Locher’s experiences, daily interaction occurred with partnering hospitals and health care facilities, and the need among patients was high. Yet referrals were low or nonexistent. This is a particularly alarming observation since, in both situations, the services being offered were to be very comprehensive, extending well beyond merely the delivery of meals to homes.

In these two situations, one wonders why health care providers would spend a considerable amount of time establishing relationships with researchers and community partners and agreeing to participate in demonstration projects, but then not follow through by identifying potential study participants. Sahyoun and colleagues pointed out that often the bureaucratic roadblocks were ones the hospitals themselves created. Buys and Locher reported encountering similar problems. In some situations, there was uncertainty over who was responsible for making referrals and a lack of support from supervisors in facilitating smooth transitions during times of staff turn-over and/or transitions. Frequently, the responsibility falls to social workers, who carry large patient loads and do not focus on nutrition. There are few multi-disciplinary teams and, particularly, the lack of involvement by registered dietitians (RDs), in both hospitals discharge planning and community service provision.

continued on page 3
“Never the Twain Shall Meet” continued from page 2

What Are the Steps for Addressing the Problem?

Within the hospital setting as part of discharge planning, appropriate referrals to nutrition services in the community might well be best facilitated by the establishment of routine procedures for doing so. This recommendation is especially relevant as Sahyoun and colleagues pointed out that in one setting, when a single staff member left the project, all referrals to the study stopped. This emphasizes the need for systems to be in place that function in the absence of a solitary individual within an organization.

Sahyoun and colleagues additionally pointed out that policies need to be implemented that incentivize health service providers to make appropriate referrals. As increasing efforts are being directed at linking hospital reimbursement to preventable adverse events following discharge, it is more likely that nutrition-related events will be more carefully scrutinized. Ensuring that patients receive appropriate community nutrition services may be one quality indicator worth examining in the context of the changing health care environment. We are aware of one insurance carrier that demonstrated a cost-benefit in providing meals to recently discharged hospitalized patients. Whether it is insurance providers or states that pay for essential nutrition services in communities, this is a logical area to investigate for both improved patient outcomes and cost savings. Increased funding for such initiatives, particularly targeted for short time periods when older adults are recently discharged from hospitals and when they need the services the most, is warranted. In England and some other countries, home-delivered meals and nutrition services are already part of comprehensive cost-containing care following a hospital stay.

We did find in our work that even when patients were offered services, they frequently declined to participate. The primary reasons were that they either (1) did not perceive nutrition as part of medical/health care that would speed their recovery or (2) they were happy with weight loss they had experienced while hospitalized and wished to continue losing weight. Such beliefs were echoed by caregivers and, in some instances, by health care providers. Thus, a major barrier of community program participation involves education of patients, caregivers, and staff regarding the benefits of nutrition services and the harm associated with undernutrition, including weight loss even among overweight older adults. Education efforts should address the multiple and diverse reasons for non-participation (i.e., benefit underestimation, welfare stigma, burdensome application processes, and lack of outreach and program awareness, as well as confusing eligibility requirements).

University curricula and continuing education for nurses, dietitians, social workers, and other health providers can and should encourage collaboration between hospital and community systems. There is a new opportunity for the twain systems to meet as Title VIII in the Affordable Health Care Act and its Community Living Assistance Service & Supports Act (CLASS Act) establishes a new national voluntary insurance program to provide resources to purchase community living services. Undeniably, if we are serious about helping older adults remain independent in their communities and avoid institutionalization, now is the time for the “twain to meet.”

By: Julie L. Locher, PhD, MSPH; and Nancy S. Wellman, PhD, RD, FADA

Authors’ Note: As we were finalizing this edition of The Spectrum, the CLASS Act was repealed. The Affordable Care Act continues to offer opportunities and provisions for forming partnerships between community-based and health-care organizations, to support older adults’ nutritional needs and independence within the community.

About the authors: Julie L. Locher, PhD, MSPH, Departments of Medicine and Health Care Organization and Policy, University of Alabama at Birmingham, Birmingham, Alabama

Nancy S. Wellman, PhD, RD, FADA, Friedman School of Nutrition Science & Policy, Tufts University, Boston, Massachusetts

References


continued on page 4
“Never the Twain Shall Meet” continued from page 3


Nutrition: An Intrinsic Factor of Pressure-Ulcer Healing

Learning Objectives
After completing this continuing education activity, nutrition professionals will be able to:

- Outline features of the normal structure and function of the skin.
- Identify nutritional risk factors for the development of pressure ulcers.
- Implement evidence-based guidelines for treating pressure ulcers.

BACKGROUND
The National Pressure Ulcer Advisory Panel (NPUAP) describes a pressure ulcer (PU) as a “localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear. A number of contributing or confounding factors are also associated with PUs; the significance of these factors is yet to be elucidated.”

Shear is a common mechanical force with physiological effects that happens when two surfaces move in opposite directions instead of moving freely across each other. This action causes malformations and tearing of vessels in deep tissue.

Because a PU is often referred to as a bedsore or decubitus, the inconsistency in labeling skin injuries has made it hard to pinpoint the true prevalence of PUs in the different care settings. Age-associated alterations in the skin add to the risk for developing skin injuries, such as the 20% loss of dermal thickness that contributes to the paper-thin appearance of the skin seen in older adults. In the US approximately 1.3–3.0 million patients have PUs. Prevalence has been estimated at 3–15% of all patients in acute care and 11% for patients in long-term care (LTC).

A data brief from the Centers for Disease Control and Prevention (CDC) highlights that residents 64 years and younger were more likely to develop PUs (14%) than their older counterparts (10%). Males (14%) are more likely to develop PUs than females (10%).

In the LTC setting, residents with a recent weight loss have an increased probability (20%) of having PUs over residents with a stable weight (10%). LTC residents with immobility, polypharmacy (more than eight medications), and bowel and bladder incontinence increase their risk of developing PUs by 11%, 4%, and 5%, respectively. In the acute-care setting, the prevalence of hospital patients with PUs ranges from 3.5% in the general hospital population to 69% for older adults admitted to acute-care hospitals.

Regardless of the care setting, PUs are very costly conditions to treat. The cost of a hospital-acquired PU can range from $1,199–$70,000, depending on the stage of the wound and the length of stay of the patient. The costs cited do not take into account the physical and emotional pain and suffering linked with a PU, as well as the impact on the quality of life of the resident/patient.

The Integumentary System: Anatomy and Physiology of the Skin
Covering the entire body, the skin is the largest organ. Aside from serving as a protective buffer against heat, light, injury, and infection, the skin regulates body temperature, stores water and fat, and serves as a sensory organ. The epidermis (outermost layer) and the dermis (inner layer) are separated by the dermal-epidermal junction, also known as the basement-membrane zone. A layer of adipose tissue called the hypodermis lies below the dermis.

The epidermis is a thin, avascular layer that regenerates every four to six weeks. This layer contains five tiers, as shown in Figure 1:

Figure 1: Skin layers.
(http://www.lionden.com/graphics/AP/SkinLayers.jpg)
Stratum corneum: This layer can be easily removed during bathing or scrubbing the skin. It protects against entrance of foreign substances and the loss of fluid from the body.

Stratum lucidum: Present only on the palms of the hands and the soles of the feet.

Stratum granulosum: Also known as the granular layer. It is one to three cells thick.

Stratum spinosum: These are multi-sided cells.

Stratum basale: Contains melanocytes.

The dermal/epidermal junction, also known as the basement membrane zone (BMZ), anchors the epidermis to the dermis via “rete ridges” that interlock with each other. As we age, the height of the rete ridges decreases. The dermis is the middle layer of the skin. As the thickest skin layer, it contains blood vessels, lymph vessels, hair follicles, sweat glands, collagen bundles, fibroblasts, and nerves. The dermis gives the skin flexibility and strength. It also contains touch and pain sensors.

The hypodermis is the deepest layer of the skin. It consists of a network of collagen and fat cells that helps conserve body heat and acts as a shock absorber.

The skin acts as a barrier between the internal and external environments. It dilates and constricts blood vessels to regulate body temperature. Nerve receptors located in the skin allow us to respond to pain, touch, temperature, and pressure. In the presence of sunlight, ultraviolet rays strike the skin and activate vitamin D synthesis.

The skin goes through textural changes as we age. The dermis thins and becomes more susceptible to skin tears. Thinning subcutaneous fatty layers accentuate bony prominences and increase the risk for PUs in these areas. Skin loses elasticity as collagen decreases and elastin loses its ability to recoil. As previously mentioned, the size of the rete ridges decreases as we age, allowing for easier separation of the epidermis from the dermis. With a reduction of sweat glands, we see drier skin that has much slower epidermal regeneration.

Wound Assessment
An accurate medical history is vital to understanding the physiological effects on wound healing. The diagnosis and medical history will help the assessor determine a realistic wound goal: to heal it, keep it from progressing when healing is not an option, or expect it to worsen. A review of the physician-completed history/physical or the nursing assessment can point to risk factors that can interfere with wound healing. Examples include information related to tissue oxygen perfusion, edema, bacterial bioburden, central circulatory dysfunction such as congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD), chronic illness including diabetes mellitus (DM), renal insufficiency, and malignancy. The presence of inflammatory or autoimmune disorders will also adversely affect wound healing.

Time frames for wound assessments are normally determined by institutional guidelines, regulatory agencies, and wound characteristics. According to the recent NPUAP guidelines, PUs should be evaluated minimally on admission, weekly, and with changes in condition. In the acute-care setting, PUs are assessed daily, with each dressing change, or at least weekly.

Home-care wound assessments are conducted weekly and/or timed to coincide with a visit from a licensed nurse.

The Centers for Medicare and Medicaid Services (CMS) suggests that LTC facilities record at minimum the following information about PUs:

- wound location
- wound stage
- wound size
- amount of exudate
- level of pain
- color and type of wound bed tissue
- description of wound edges and periwound

The NPUAP and the EPUAP (European Pressure Ulcer Advisory Panel) has developed six stages/categories for grading PUs. The stages/categories system refers to the depth of the tissue damage in numerical stages/categories I–IV. PUs concealed with necrotic tissue or eschar are classified as unstageable. See Figure 2 for more information about staging PUs.

Nutrition and Pressure-Ulcer Healing
Current literature has identified more than 100 risk factors for PU development. Some extrinsic (primary/non-physiological) and intrinsic (secondary/physiological) risk factors that contribute to PU development include diabetes mellitus, peripheral vascular disease, malignancy, prolonged pressure on an area of the body, being 70 years of age and older, smoking, urinary and fecal incontinence, a history of PUs, a low BMI, and malnutrition.

Pathophysiologic and intrinsic factors at the core of PU formation include nutrition. Maintaining adequate parameters of nutrition is considered a best practice in both the prevention and treatment of PUs. Older adults with PUs or who are at risk for developing PUs should strive to achieve or continued on page 7
Pressure-Ulcer Healing
continued from page 6

maintain adequate nutrition parameters.

Role of Nutrients in Wound Prevention and Healing
Sufficient macronutrients (carbohydrates, protein, fats, and water) and micronutrients (vitamins and minerals) are vital for the body to support tissue integrity and prevent breakdown. Research supports that weight loss and difficulties with eating can increase the incidence of PUs.\textsuperscript{15} Other nutrition-related risk factors that can contribute to PU development include a change in appetite, compromised dental health, gastrointestinal and elimination disturbances, decreased self-feeding abilities, drug-nutrient interactions, and alcohol and substance abuse.\textsuperscript{13,16,17}

Restrictive diets can contribute to a decreased intake of nutrients.\textsuperscript{18} A diet too low in protein will lack the amino acids needed for protein synthesis. Protein plays a major role in the production of enzymes involved in wound healing, cell multiplication, and collagen and connective-tissue manufacture. Protein depletion impairs wound healing by preventing a desirable wound bed from forming. Caloric needs must be met in order for protein to be spared for buildup and repair.\textsuperscript{10,19} Although the amount of protein needed by patients with PUs can be debatable, protein levels higher than the adult recommendation of 0.8 grams (g) per kilogram (kg) of body weight per day are generally accepted and recommended. The NPUAP recommends 1.2–1.5 grams of protein/kg of body weight per day and 30–35 kcal/kg of body weight per day for wound healing.\textsuperscript{19}

Low-fat diets can be deficient in essential fatty acids, which the skin

---

**Figure 2:** Pressure-ulcer (PU) classifications. (NPUAP copyright and used with permission.)

<table>
<thead>
<tr>
<th>Stage/Category</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage/Category 1</td>
<td>Observable, pressure-related alteration of intact skin. Defined as an area of persistent redness, with blue or purple hues.</td>
</tr>
<tr>
<td>Stage/Category 2</td>
<td>Partial thickness skin loss involving the epidermis, dermis, or both. It is a superficial injury with no slough. Does not include rash, skin tears, bruises, lacerations, or incontinence-associated dermatitis (IAD).</td>
</tr>
<tr>
<td>Stage/Category 3</td>
<td>Full-thickness tissue loss, without bone, tendon, or muscle exposure. Slough may be present but does not obscure depth of tissue loss. Depth varies by location. Injury can be shallow in areas without subcutaneous tissue, such as the nose, ears, and malleoli. It can be extremely deep in areas with significant adiposity.</td>
</tr>
<tr>
<td>Stage/Category 4</td>
<td>Full-thickness tissue loss with exposed bone, tendon, or muscle. Slough or eschar may be present. Often includes undermining and tunneling. Depth varies by location. Bone or tendon may be exposed or directly palpable. Osteomyelitis may be present.</td>
</tr>
<tr>
<td>Stage/Category 5</td>
<td>Purple or very dark area. Profound redness, edema, or induration, or blood-filled blister from pressure and/or shear.</td>
</tr>
<tr>
<td>Unstagable</td>
<td>Eschar and necrotic (slough) tissue covers the wound bed.</td>
</tr>
</tbody>
</table>

---

**Figure 2:** Pressure-ulcer (PU) classifications. (NPUAP copyright and used with permission.)

<table>
<thead>
<tr>
<th>Stage/Category</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage/Category 1</td>
<td>Observable, pressure-related alteration of intact skin. Defined as an area of persistent redness, with blue or purple hues.</td>
</tr>
<tr>
<td>Stage/Category 2</td>
<td>Partial thickness skin loss involving the epidermis, dermis, or both. It is a superficial injury with no slough. Does not include rash, skin tears, bruises, lacerations, or incontinence-associated dermatitis (IAD).</td>
</tr>
<tr>
<td>Stage/Category 3</td>
<td>Full-thickness tissue loss, without bone, tendon, or muscle exposure. Slough may be present but does not obscure depth of tissue loss. Depth varies by location. Injury can be shallow in areas without subcutaneous tissue, such as the nose, ears, and malleoli. It can be extremely deep in areas with significant adiposity.</td>
</tr>
<tr>
<td>Stage/Category 4</td>
<td>Full-thickness tissue loss with exposed bone, tendon, or muscle. Slough or eschar may be present. Often includes undermining and tunneling. Depth varies by location. Bone or tendon may be exposed or directly palpable. Osteomyelitis may be present.</td>
</tr>
<tr>
<td>Stage/Category 5</td>
<td>Purple or very dark area. Profound redness, edema, or induration, or blood-filled blister from pressure and/or shear.</td>
</tr>
<tr>
<td>Unstagable</td>
<td>Eschar and necrotic (slough) tissue covers the wound bed.</td>
</tr>
</tbody>
</table>
Zinc is associated with collagen formation, protein metabolism, vitamin A transport, and immune function. Zinc deficiency can emerge as a result of severe wound drainage or GI losses, corticosteroid use, or a long-term decreased dietary intake. Chronic and/or a severe zinc deficit can contribute to abnormal function of white blood cells and lymphocytes, added vulnerability to infection, and delayed wound healing. When considering supplementation, it is important to remember that consumption of increased zinc can interfere with copper metabolism, thus producing copper-induced anemia. The amount of zinc in a multivitamin and mineral supplement is generally adequate. Supplementing to no more than the upper tolerable limit of the DRI (40 mg of elemental zinc) until the deficiency is corrected can be recommended.

Aside from the role of vitamins and minerals, the role of individual amino acids in wound healing has been explored. Arginine is a conditionally essential amino acid that in several studies has been shown to raise concentrations of hydroxyproline, an indicator of collagen accumulation and protein in the wound site. Arginine stimulates growth factors and boosts the immune system. Current research does not support the use of arginine to promote PU healing. Glutamine is a conditionally-essential amino acid that serves as a fuel source for fibroblasts and epithelial cells in the healing process. Further research is needed to determine the effectiveness of glutamine and arginine supplementation on wound healing.

**Laboratory Data**

Laboratory data is one of the many assessment parameters to be considered when evaluating patients with PUs. No single test can show the nutritional status of a patient with a PU. Serum albumin, prealbumin, transferrin, and retinol binding protein are valuable parts of a comprehensive assessment, as is the data collected through a basic metabolic panel (BMP). These test results can help when ascertaining critically-ill patients who are at risk for developing malnutrition.

Albumin normally comprises more than 50% of total protein in serum. Main functions include the preservation of plasma oncotic pressure; and the binding and transport of bilirubin, fatty acids, calcium, hormones, and drugs. An albumin test is often ordered to gauge overall health, nutritional status, and liver function. A low albumin level is common in hospitalized patients. Inflammation, liver disease, malabsorption, nephrotic syndrome, gastrointestinal losses, over-hydration, infection, trauma, malignancy, and movement (of albumin) into the extravascular space can contribute to low albumin levels. As with most tests, dehydration falsely elevates albumin results. Its long half-life (12–21 days) makes this a poor indicator of short-term response to nutritional therapy interventions. Albumin is a good indicator of morbidity and mortality.

Prealbumin, also known as transthyretin and PAB, is a transport protein for the thyroid hormone thyroxine. It circulates as a complex with retinol binding protein, which transports vitamin A. This test had been labeled as the “nutritional test of choice” because of its sensitivity to measure nutritional status. It is now reported that PAB is decreased in many of the same conditions as serum albumin. With a half-life of 2 to 3 days, values do rise and fall more rapidly in reaction to nutritional status and liver-function alterations. PAB levels are elevated in the...
Pressure-Ulcer Healing
continued from page 8

presence of corticosteroid therapy and the use of nonsteroidal anti-inflammatory drugs (NSAIDS). Low levels can occur as a result of malabsorption, malnutrition, liver disease, nephrotic syndrome, infection, trauma, and malignancy.  

Transferrin is the transport protein for iron plasma. It has a half-life of approximately eight days. Increased levels are observed in the presence of iron-deficiency anemia. Low levels are seen with inflammation, malignancy, nephrotic syndrome, and malnutrition.  

Retinol binding protein transports vitamin A to the tissue as needed. Like PAB, it responds very quickly to protein-energy malnutrition and adequate nutrition therapy. With a half-life of approximately 12 hours, it is an indicator of recent intake versus overall nutritional status. There is no current research to support that its use in nutritional assessment is favored over PAB. Serum levels are increased with renal disease and decreased in the presence of vitamin A deficiency, acute catabolic states, and hyperthyroidism.  

The BMP offers information about the patient’s electrolytes (sodium, potassium, chloride, total CO\textsubscript{2}), kidney function (creatinine, urea), and regulation of blood glucose and calcium. Other tests that can help complete the biochemical picture include a complete blood count (CBC), a total lymphocyte count (TLC), and C-reactive protein (CRP). Again, it is important to note that the laboratory data is just one of the tools used to define the root cause of the problem for the patient.

Case Study

NM is a 76-year-old male just admitted to your facility. See Table 1 for a summary of the information collected during the initial chart review.

<table>
<thead>
<tr>
<th>Area</th>
<th>Patient Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosis</td>
<td>Seizure disorder, HTN, Hx CVA, depression, agitation, left hemiparesis, UTI, Dilantin toxicity, stage 4 sacral ulcer.</td>
</tr>
<tr>
<td>Past Medical History</td>
<td>Septic shock, hyponatremia, colostomy, dysphagia, cardiac dysrhythmia, PEG tube.</td>
</tr>
<tr>
<td>Medications</td>
<td>Aspirin, cranberry capsule, Aricept (dementia), Lovenox, Synthroid, Prinivil, Lopressor, MVI, Phenobarbital, Dilantin, Zocor, sliding scale for BS, Vanco ordered for 10 days.</td>
</tr>
<tr>
<td>Treatment</td>
<td>Wound treatment: Pack wound slightly with Dakins 1/2-strength gauze after cleansing with NSS, and cover with dry dressing BID.</td>
</tr>
<tr>
<td>Diet</td>
<td>NPO. TF: Specialty formula for DM providing 1.2 calories per mL/100 ml x 20 hours.</td>
</tr>
<tr>
<td></td>
<td>Flush with 240 ml water 4 times per day.</td>
</tr>
<tr>
<td>Laboratory Results</td>
<td>Glucose, fasting 69 (low), calcium 8.8 (WNL), BUN 12 (WNL), sodium 136 (WNL), potassium 4.5 (WNL), chloride 96 (WNL), creatinine 1.3 (WNL), GFR 394 (WNL), PAB 12.7 (low). WNL=within normal limits.</td>
</tr>
<tr>
<td>Nursing</td>
<td>Braden scale 7 (very high risk).</td>
</tr>
<tr>
<td>Assessment</td>
<td>Sacral wound stage 4. Description: Serosanguinous exudate, moderate amount, no odor. Periwound: Intact. The resident shows no signs/symptoms of infection.</td>
</tr>
</tbody>
</table>

All laboratory results are within normal levels except for the PAB. Because NM receives many medications, polypharmacy may be contributing to his nutritional status and may explain his low PAB value. See Table 2 for more information.

Based on current weight, classification of obesity, and PU condition, how should the clinician evaluate NM’s nutritional needs? This discussion itself certainly qualifies as the topic continued on page 10.
Pressure-Ulcer Healing
continued from page 9

for a different article. For the case presented here, the goal for NM is to heal the wound. Following the NPUAP recommendations, the patient should receive sufficient calories. NPUAP’s recommendations suggest 30–35 kcal/kg of body weight. Because sufficient protein should be provided to promote nitrogen balance, the NPUAP recommends 1.25–1.5 grams of protein/kg of body weight per day. Caution needs to be used when providing large amounts of protein (check renal function first). As part of the nutrition regime, sufficient fluids should be provided, especially if the patient is being fed large amounts of protein. Fluids serve as a solvent for nutrients and help the body remove waste products. Sufficient amounts of vitamins and minerals must also be provided. Based on the case study information and the guidelines provided, what is the next step? Is the current enteral feeding regime adequate to support NM’s wound-healing goal? Is the use of an MVI appropriate? Is the specialty formula the best choice for this patient/resident?

Nutrition Diagnosis: The Academy of Nutrition and Dietetics has identified nutrition diagnosis and problems terminology for use when providing medical nutrition therapy (MNT). The Academy provides a detailed description of this process. Nutrition diagnosis is a vital component of the nutrition care process. Based on the current amount of enteral feeding being provided and the estimated nutritional needs for the patient/resident, it seems that nutrition diagnosis NI–2.3 can be a starting point, as described in Table 3.

**Intervention:** What intervention will positively change NM’s health status? Review practice guidelines and policies to define and prioritize interventions that will facilitate improvement in the nutritional status and help the patients/residents accomplish their goals. To implement the selected interventions, communicate the plan of care with the interdisciplinary team, and consistently revise the nutrition interventions as warranted based on patient/resident response. Helping the patient maintain adequate nutritional status, identify and treat poor food intake, manage unintentional and insidious weight loss, and/or improve nutritional status should guide the intervention selection process.

For NM, select an intervention from the food and nutrition delivery domain. The amount of formula being provided needs to be evaluated and adjusted (formula/solution ND–2.1.1). For patients/residents with PO intake, the NPUAP guidelines suggest the use of enhanced foods and/or supplements as needed to promote adequate nutrient intake. Figure 3 provides an example of a fortified food recipe.

Monitoring and evaluation: It is important to monitor and evaluate the impact of the interventions put in place. Are the clinical goals of the patient being met? For patients/residents continued on page 11

---

**Table 2: Medication side effects and food-medication interactions.**

<table>
<thead>
<tr>
<th>Medication</th>
<th>Side Effects, Food-Medication Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspirin</td>
<td>Diet: Ensure adequate fluid/hydration. Anorexia. Do not use when GI bleed is present. Use with caution in the presence of decreased potassium.</td>
</tr>
<tr>
<td>Cranberry capsule</td>
<td>Caution when using warfarin.</td>
</tr>
<tr>
<td>Aricept</td>
<td>Anorexia, weight loss, dehydration, increased gastric acid secretion.</td>
</tr>
<tr>
<td>Lovenox</td>
<td>Anemia, skin necrosis, hyperkalemia, peripheral edema.</td>
</tr>
<tr>
<td>Synthroid</td>
<td>Appetite changes, decreased weight, nausea, vomiting, and diarrhea.</td>
</tr>
<tr>
<td>Prinivil</td>
<td>Increased potassium, decreased sodium. Caution with potassium supplements. Decreased-calorie diet may be recommended.</td>
</tr>
<tr>
<td>Lopressor</td>
<td>Decreased sodium, increased potassium, confusion, fatigue. Decreased-calorie diet may be recommended.</td>
</tr>
<tr>
<td>MVI</td>
<td>No known side effects or food-medication interactions.</td>
</tr>
<tr>
<td>Phenoobarbital</td>
<td>Increased rate of metabolism of vitamin D, vitamin B&lt;sub&gt;12&lt;/sub&gt; and folate.</td>
</tr>
<tr>
<td>Dilantin</td>
<td>Increased metabolism of vitamin D, vitamin K; TF lowers bioavailability (stop TF before and after providing drug).</td>
</tr>
<tr>
<td>Zocor</td>
<td>Dyspepsia, constipation. Provide increased-calorie diet if needed.</td>
</tr>
<tr>
<td>Sliding scale for BS (regular)</td>
<td>Increased weight; decreased glucose, potassium, magnesium, and phosphorus.</td>
</tr>
<tr>
<td>Vanco ordered for 10 days</td>
<td>Bitter taste, nausea; increased BUN and creatinine.</td>
</tr>
</tbody>
</table>
Pressure-Ulcer Healing
continued from page 10

with PUs, monitoring and evaluating parameters individualized to the nutrition diagnosis is an important step. Some relevant areas to monitor include weight, anthropometrics, laboratory results, nutrient intake (oral, enteral, parenteral), wound-healing progress (improvement or deterioration), wound stage (with wound deterioration the stage is adjusted), and hydration status. These parameters can be monitored via the plan of care developed for the patient/resident.

Implications for Practice
PU prevention and treatment has been an important element of clinical/nutritional care. Promoting optimum nutritional status is an essential component in the plan of care for patients/residents with PUs. Care goals should be patient-centered and dynamic. A patient’s response (or lack of response) to the interventions in the plan of care needs to be monitored. With changes in condition, the plan of care and the planned interventions must be revised to meet the new clinical demands of the patient.

The nutritional needs of the patient must be defined. As appropriate, patients/residents with PUs should receive 30–35 calories/kg/body weight/per day, 1.25–1.5 g protein/kg body weight (as appropriate for their medical condition), fluids to promote adequate hydration, enhanced foods and/or medical supplements as needed, and a multivitamin when vitamin and mineral deficiency is diagnosed or suspected.

By: Dr. Nancy Munoz, DCN, MHA, RD, LDN

Table 3: Nutrition diagnosis for the patient/resident outlined in the case study.

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate enteral nutrition infusion&lt;sup&gt;27&lt;/sup&gt;</td>
<td>NI-2.3</td>
</tr>
<tr>
<td>“Enteral infusion that provides fewer calories or nutrients compared to established reference standards or recommendations based on physiological needs.”&lt;sup&gt;27&lt;/sup&gt;</td>
<td>“Note: May not be an appropriate nutrition diagnosis when recommendation is for weight loss, during end-of-life care, upon initiation of feeding, or during acute stressed states (e.g., surgery, organ failure). Whenever possible, nutrient intake data should be considered in combination with clinical, biochemical, anthropometric information, medical diagnosis, clinical status, and/or other factors as well as diet to provide a valid assessment of nutritional status based on a totality of the evidence.” (Institute of Medicine. Dietary Reference Intakes: Applications in Dietary Assessment. Washington, DC: National Academies Press; 2000.)&lt;sup&gt;27&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

Figure 3: An example of a fortified food recipe.

Recipe reprinted with permission from Digna Cassens, MHA, RD & Linda S. Eck Mills, MBA, RD, FADA authors of Flavorful Fortified Food–Recipes to Enrich Life (copyright 2012)–available on Amazon.com.
About the author: Dr. Munoz holds a doctorate in clinical nutrition from the University of Medicine and Dentistry of NJ, a master’s degree in healthcare administration from the University of Maryland, and a bachelor’s degree in food and nutrition from Marymount College in New York. She is a registered diethin, a member of the Academy of Nutrition and Dietetics, and a past president of the New Jersey Dietetic Association. She has authored and served as an expert reviewer for manuscripts for numerous professional publications, and is an active member of the Academy of Nutrition Evidence Analysis Library. Currently, Dr. Munoz is a lecturer for the University of Massachusetts Amherst Nutrition Department, and an instructor for the University of Phoenix College of Nursing and Healthcare Program. She is also the Clinical Nutrition Manager for Genesis HealthCare, LLC, where she oversees the performance of registered dietitians working in 122 skilled nursing facilities. She has been providing services to the geriatric population for over 30 years.


DURING THE FALL 2012 HOD
Meeting delegates discussed the Commission on Future Practice report, “Visioning Report: Moving Forward—A Vision for Education, Credentialing and Practice.” The Visioning Report outlined nine recommendations for the future of the profession. (The full report is available at http://www.eatright.org/Members/content.aspx?id=6442471140). Of these recommendations, #7 presents opportunities for Healthy Aging nutrition practitioners:

“Support continuing development of advanced practice credentials for the nutrition and dietetics profession, based on objective evidence. Continue to encourage and develop advanced practice educational experiences and opportunities.”

The Commission on Dietetic Registration already supports a Board Certification as a Specialist in Gerontological Nutrition. Currently, 446 individuals have successfully completed the requirements to earn the Specialist credential in Gerontological nutrition. Advanced-practice credentialing enriches not only an individual practitioner’s status, but also advances the level of expertise within the profession. Healthy Aging encourages its members to consider earning an advanced credential.

The HOD also discussed and subsequently approved the 2012 Comprehensive Scope of Practice Resources Tool for RDs and DTRs. Developed by the Quality Management Committee, which then presented it to the HOD, the Resource Tool is an all-inclusive set of documents that specifically states the skills that RDs and DTRs must have to provide quality nutrition and dietetics care. The Resource Tool describes the tasks and services RDs and DTRs perform to meet employer, government, customer/client/patient, and other stakeholder requirements and opportunities.

Additionally, Quality Management in collaboration with the Scope of Practice Subcommittee revised the 2008 Scope of Dietetics Practice Framework. The Framework document encompasses the range of roles, activities, and regulations within which nutrition and dietetics practitioners perform. The Resource Tool and Framework, used together, help RDs and DTRs determine if an activity is within their practice purviews. As you acquire competence and capability, the Framework provides a systematic approach for you to fully consider whether a new activity is within your legitimate scope of practice. The decision analysis tool and the decision tree determine whether a specific requested service or act falls within your individualized scope of practice.

Another topic discussed was public-health nutrition. As a result of this discussion, the HOD voted to establish a Public Health Nutrition/Community Nutrition Task Force. The task force will be charged to develop a plan for members. The plan will provide direction on how members can prepare to become active in public-health nutrition and community nutrition. The task force will be charged to develop a plan for members and the Academy based on the HOD dialogue session, along with identifying gaps to be filled. The plan will provide direction on how members can prepare to become active in public-health nutrition and community nutrition, and the role the Academy can play to assist members in this effort.

The 2013 “virtual” Spring HOD meeting is scheduled for May 4 and 5. The mega issue to be discussed: Hunger in America—Food and Nutrition Insecurity Affects all RDs and DTRs. The question to be addressed is: “How can we as Academy members increase our awareness of food and nutrition insecurity and demonstrate our commitment to take action?” The backgrounder is available on the Academy’s website (www.eatright.org, Home/Members/Governance/House of Delegates/Spring 2013 HOD Virtual Meeting). Be sure to check the Healthy Aging DPG listserv and website for information on this mega issue.

By: Barbara Kamp, MS, RD, Healthy Aging DPG Delegate
DEAR COLLEAGUES,

Here’s hoping that your year so far has been happy, healthy, and successful! Recently I attended the Massachusetts Health Policy Forum, “Healthy Aging in Massachusetts: Where Do We Go from Here?” Dan Buettner, author of The Blue Zones: Lessons for Living Longer from People Who’ve Lived the Longest, was the keynote speaker. It was a very inspiring speech. He talked a lot about healthy aging and longevity. It reminds me of how precious life is, and how lucky we are to be in a profession where we can help people enjoy a long and healthy life.

I ask myself, “What is healthy aging?” I believe it is the overall health of a person’s mind, body, and spirit as they age. During our normal practice, we nutrition specialists promote balanced nutrition, physical fitness, and healthy lifestyles. Members of the Healthy Aging DPG counsel clients on enhancing their medical care and health, as well as their physical and functional status. As the aging population increases, the majority of our clients will reside in the community. The environment where they live plays a big role in their health outlook. As stated by the Academy’s paper, “Position of the Academy of Nutrition and Dietetics: Food and Nutrition for Older Adults: Promoting Health and Wellness,” the living situation, social and economic status, cultural traditions, religious beliefs, access to food and food preparation, social support, and daily socialization are all direct and indirect affecters of health status and quality of life.1 For older adults, socialization plays an important role in maintaining emotional health. It gives them a sense of belonging and helps them feel needed.

Social Support

Other researchers also agree on the importance of social support; in two studies published in JAMA last year, researchers found an association between social support and life expectancy and improved health.2,3 One study found that among the elderly participants, loneliness was associated with all outcome measures. Lonely subjects were more likely to experience decline in ADLs or a decline in mobility.2 Loneliness was also associated with an increased risk of death.2 The other study3 investigated whether living alone was associated with increased mortality and cardiovascular risk in the global registry of Reduction of Atherothrombosis for Continued Health (REACH). In this global study, researchers at Brigham and Women’s Hospital examined survey data from nearly 45,000 volunteers from the United States and other countries. They found that among middle-aged adults, nearly 8 percent of those who reported living alone at the beginning of the study had died four years later, compared with nearly 6 percent of those who lived with someone when the study began. Even though the researchers didn’t find a correlation between living alone and death among people over age 80, it is important to recognize that loneliness and living alone can influence health outcomes, and that we can help modify these risk factors.3

What Kind of “Out of the Box” Approach Can HA DPG Members Take?

HA DPG members have so many opportunities to promote healthy lifestyles that benefit not only the aging population, but also the broader population and communities.

Our Involvement with Healthy Community Lifestyles

We need to believe that we have the power and knowledge to make a difference. When we practice at the community level, we can help people connect to social networks, encourage social engagement and positive attitudes. We can advocate activities involving multiple generations that promote respect, a positive outlook on life, a sense of purpose, family values, and socialization. We need to work with other professionals such as social workers and other entities such as local municipal government community centers and transportation companies, to form healthy communities and encourage social support. One good example is the “village” movement, also known as aging in the community. “It works for both rich and under-resourced communities where people have time available but not the financial resources,” says Andrew Scharlach, director of the Center for the Advanced Study of Aging Services. “It provides a protection against social isolation. There’s certainly a tremendous health benefit in that.”4
**Chair’s Message**

continued from page 15

**Our Work Involves the Person’s Whole Well-Being, Beyond Diet and Nutrition Counseling**

Familiarity with all assistance systems in the community is important so we can extend our counseling to many areas. We also need to be familiar with the public assistance programs, such as SNAP and the Senior Nutrition Farmers’ Market Program. One of my favorite, true stories about what makes nutrition professionals so special touches on this theme: An older man found himself newly widowed; he lived by himself, was depressed, and started losing weight unintentionally. Everyone tried to help him regain his strength. His family and physician wanted to convince him to move into an assisted-living or retirement home, but he refused. He seemed reasonably able to take care of himself, but he had no desire to cook or eat. Eventually his social worker suggested that he join a support group or see a counselor. His physician recommended that he visit an RD to see if he needed a special diet or supplements. An experienced RD visited him in his home. While she talked to him, she went into the kitchen and saw that the cabinets were messy and full of gourmet cooking spices. She asked him, “Do you use all these?” “No,” he replied, “those belonged to my wife, and I do not know how to use them, so I cannot cook.” She then cleaned up the cabinets, leaving only the basics: salt and pepper. He sighed in relief and said, “Okay, now I can cook.” This solution sounds so simple, but it demonstrates how an RD looks at the person’s well-being as a whole; that nutrition counseling delves into an individual’s social, community, and environmental conditions; and how those conditions may affect lifestyles and eating behaviors.

**Our Work Involves Policy Changes and Environmental Enhancements, and Actively Supports the Academy’s Public-Policy Agenda**

We should be more actively engaged in policy and environmental issues. It is very important to pay attention to the Academy’s public-policy agenda and to support it. As a single voice, together we can make the United States food and nutrition policy healthier and stronger. Some thoughts: If we practice in assisted-living facilities, we should not treat large portions or premade foods with high sodium contents as a norm; we should not only correct the menu, but also be able to advocate a policy that includes good nutrition standards as part of the assisted-living regulations. If we consult to private citizens, we should encourage the supermarket to have healthy foods packaged in smaller amounts for senior citizens. In Figure 6 of the *Position Paper*, there is a comprehensive list of actions for us to take to ensure quality food and nutrition services in promoting health and wellness for the older adults.

Spring is on its way, enjoy it! And remember that March is National Nutrition Month.

**Renewed your membership yet?**

We hope you have enjoyed the Healthy Aging DPG’s continuing-education opportunities, newsletter, and other member services this past year.

When you renew your Academy membership, please remember to renew your membership with the Healthy Aging DPG at the same time.

To renew your Academy and DPG membership online, go to http://www.eatright.org/membershipinfo/.

To renew by phone, call (800) 877–1600 ext. 5000, Monday through Friday, 8 AM–5 PM Central time to reach the Member Services Center.

**References**


### MARK YOUR CALENDAR: UPCOMING CONFERENCES & EVENTS

#### ACCESS TO OTHER EVENTS CALENDARS:

- **Events Calendar from the DHHS Administration on Aging (now within the Administration for Community Living)**
  www.aoa.gov/AoAroot/Press_Room/events/events.asp

- **Events in Aging from the American Society on Aging**
  http://www.asaging.org/events_calendar

- **Academy of Nutrition and Dietetics**
  http://www.eatright.org/HealthProfessionals/content.aspx?id=644245271

- **Commission on Dietetic Registration**
  www.cdrnet.org

- **Calendar Service Available**

  Food and nutrition professionals can call, fax, or write the Commission on Dietetic Registration office for information on prior approved continuing professional education activities by topic, program provider, location, and/or date.

  **Call:** (800) 877-1600, ext. 5500
  **Fax:** (312) 899-4772
  **Or visit the searchable database at:**
  www.cdrnet.org

  **Write attention:**
  Commission on Dietetic Registration, 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 12–16, 2013</td>
<td>American College of Health Care Administrators Annual Convocation and Expo</td>
<td>Orlando, FL</td>
<td><a href="http://www.achca.org">http://www.achca.org</a></td>
</tr>
<tr>
<td>May 3–5, 2013</td>
<td>American Geriatrics Society Annual Scientific Meeting</td>
<td>Grapevine, TX</td>
<td><a href="http://www.americangeriatrics.org">http://www.americangeriatrics.org</a></td>
</tr>
<tr>
<td>May 7–9, 2013</td>
<td>Assisted Living Federation of America Conference and Expo</td>
<td>Charlotte, NC</td>
<td><a href="http://www.alfa.org">http://www.alfa.org</a></td>
</tr>
<tr>
<td>August 9–12, 2013</td>
<td>Society for Nutrition Education and Behavior Annual Conference</td>
<td>Portland, OR</td>
<td><a href="http://www.sne.org">www.sne.org</a></td>
</tr>
<tr>
<td>August 28–30, 2013</td>
<td>Meals on Wheels Association of America Annual Conference</td>
<td>Boston, MA</td>
<td><a href="http://www.mowaa.org">www.mowaa.org</a></td>
</tr>
<tr>
<td>October 19–22, 2013</td>
<td>Academy of Nutrition and Dietetics Food and Nutrition Conference and Expo</td>
<td>Houston, TX</td>
<td><a href="http://www.eatright.org">www.eatright.org</a></td>
</tr>
<tr>
<td>October 27–30, 2013</td>
<td>LeadingAge Annual Meeting and IAHSA Global Aging Conference</td>
<td>Dallas, TX</td>
<td><a href="http://www.leadingage.org">http://www.leadingage.org</a></td>
</tr>
<tr>
<td>November 2–6, 2013</td>
<td>American Public Health Association Annual Meeting and Public Health Expo</td>
<td>Boston, MA</td>
<td><a href="http://www.apha.org">www.apha.org</a></td>
</tr>
<tr>
<td>November 20–24, 2013</td>
<td>Gerontological Society of America Annual Scientific Meeting</td>
<td>New Orleans, LA</td>
<td><a href="http://www.geron.org">www.geron.org</a></td>
</tr>
</tbody>
</table>

For the most current list of events, go to:
http://www.hadpg.org/events.cfm
On Your Colleagues

Name and credentials: Dr. Nancy Munoz, DCN, MHA, RD, LDN

The Healthy Aging DPG is delighted to highlight Nancy Munoz, DCN, MHA, RD, LDN. Dr. Munoz is a Healthy Aging DPG member and author of this issue’s continuing-education article, “Nutrition: An Intrinsic Factor of Pressure-Ulcer Healing.”

Dr. Munoz, an expert on nutrition, aging, and health care administration, has built her career integrating teaching/mentoring, research, and practice; all of which are critical components of dietetic practice. We asked about the importance of these components in her professional career path. She replied, “Yes, that is why I chose the DCN (Doctor of Clinical Nutrition) program versus a PhD. At the end of the day I am a practitioner! Going through the DCN program really helped me strengthen my clinical skills. Through continued research and the exchange of information with colleagues and students, I work to maintain a level of clinical practice that I feel is needed for providing services and nutrition care to older adults. I feel very fortunate that I provide services to this very special segment of the population, which is taking center stage in the healthcare system.”

For the past 24 years, Dr. Munoz has worked for Genesis HealthCare, LLC. Located in Kennett Square, PA, Genesis HealthCare is one of the nation’s largest providers of skilled nursing and rehabilitative services. Currently the Clinical Nutrition Manager for Mid-Atlantic South East Division 2, she is responsible for the promotion and delivery of high-quality clinical nutrition therapy services, as well as the company’s compliance with regulatory agencies. Dr. Munoz supervises dietitians working in 122 skilled nursing facilities. She collaborates with interdisciplinary colleagues across corporate and regional levels to advance clinical nutrition practice. Dr. Munoz also provides nutrition education in the prevention and treatment of wounds to the wound specialists within Genesis Centers. She received a Genesis HealthCare Clinical Excellence Award in 2010 that recognized her major contributions to patient care and services.

Dr. Munoz is involved in a myriad of activities at Genesis HealthCare, all of which are designed to empower registered dietitians (RD) and dietetic technicians, registered (DTR) to deliver evidence-based clinical nutrition care and improve patient outcomes. One of her preferred activities includes developing education sessions and CE programs to provide RDs and DTRs with evidence-based information to use in practice. As technology continues to change our profession, Dr. Munoz has taken advantage of the latest innovations to move the clinical-staff education platform to a distance-education format. To achieve this goal, her position at Genesis HealthCare has evolved to include activities such as coordination across different disciplines when developing and presenting education sessions. As Genesis HealthCare continues to support this teaching venue, Dr. Munoz works to mentor staff RDs interested in developing CE programs and conducting webinars. Education topics run the gamut from chronic-disease processes to pressure-ulcer management and the use of appetite stimulants with older patients.

Implementing the Nutrition Care Process (NCP) is an ongoing endeavor at Genesis HealthCare. “As a company, we take pride in ensuring that our clinicians have cutting-edge, evidence-based information to guide clinical practice. As an organization, we have been teaching the NCP to our dietitians since 2006. Our goal is to move the practice of our clinicians toward conducting focused assessments, with resulting interventions targeted to impact the root causes of the clinical problem. While we have had challenges along the way, I would dare say that our current clinicians are on board with our practice philosophy. Implementing the NCP is an active process. Education to ensure success is ongoing.”

Equally important, Dr. Munoz’s work implementing the NCP and the developed nutrition-assessment protocol has practice applications. She states, “We have taken advantage of both the need to implement the Health Electronic Record (HER) and the NCP to ensure that the nutrition assessment put in place guides the clinicians to truly focus on the root of the problem, thus improving the quality of care they provide. We measure compliance standards via quality review and clinical audits. The evolving role of today’s dietitian requires a blend of clinical skills and technology. The advent of laptops

continued on page 19
that can be brought into a patient’s room as the person is interviewed, and the different hand-held devices that allow us to look up evidence-based guidelines from the Electronic Analysis Library (EAL), certainly make completing a nutrition assessment a lot easier than it used to be.”

Through the Health Care Association of New Jersey and a grant provided by the Centers for Medicare and Medicaid Services (CMS), Dr. Munoz served as a faculty member in developing an education program to prepare RNs, LPNs, RDs, MDs, and PTs to take the Certified Wound Specialist and Certified Wound Specialist Associate Certification exam, given by the American Board of Wound Management. The course is offered several times per year in both NJ and PA, and Dr. Munoz teaches the nutrition component and most recently the research aspect of the program. Dr. Munoz promotes the use of evidence and its role in clinical practice. She chairs the Academy’s Nutrition Across the Spectrum of Aging Evidence Analysis workgroup, which continues to investigate the relationship between nutrition and aging. Findings are incorporated in the recently released paper, “Position of the Academy of Nutrition and Dietetics: Food and Nutrition for Older Adults: Promoting Health and Wellness,” which Dr. Munoz co-authored with Melissa Bernstein, PhD, RD. This position statement and supporting argument make a strong case for food and nutrition services and the role of the RD or DTR as integral in promoting health and wellness for older persons. Dr. Munoz is the Alliance Representative for the Academy of Nutrition and Dietetics National Pressure Ulcer Advisory Panel (NPUAP). In conjunction with both the European PUAP and the PAN Pacific Pressure Ulcer Forum, the NPUAP is now conducting the research to revise its guidelines. Dr. Munoz will participate in the nutrition workgroup. Additionally, she serves as a peer referee for the Cochrane Wounds Group.

During her career, Dr. Munoz has received peer recognition, including the 2005 American Dietetic Association’s Colgate Palmolive Research Fellowship for conducting research linking nutrition and oral health. She has also served as the New Jersey Dietetic Association’s President.

We asked Dr. Munoz to comment on the transitional care process and its impact on RDS and DTRs. She stated, “Short-stay and subacute units are redefining the role of the RD and the DTR in LTC settings. RDs and DTRs are moving from providing patient education to providing nutrition counseling that will influence lifestyle changes and promote wellness. Because we nutrition practitioners are more involved in education and counseling..."}

### Morning Muffins

**Makes 12 muffins.**

#### Ingredients:
- 2 ripe bananas
- ½ cup applesauce (no added sugar)
- 1 cup nonfat buttermilk
- ½ teaspoon baking soda
- 1 teaspoon salt
- 1 cup quick (not instant) oatmeal
- Optional: ½-cup chocolate chips, chopped walnuts, or dried cranberries
- ¼ cup light brown sugar
- 1 teaspoon vanilla
- 1 cup all-purpose flour
- 2 teaspoons baking powder
- 1 teaspoon ground cinnamon

#### Instructions:
1. Preheat oven to 350° F. Lightly grease muffin pan or use muffin pan liners.
2. Thoroughly mash the ripe bananas in a medium bowl.
3. In a large bowl, combine the mashed bananas, brown sugar, applesauce, vanilla, and buttermilk. Stir until well blended.
4. In a separate bowl, combine the flour, baking soda, baking powder, salt, cinnamon, and oatmeal. Gently stir this dry flour mixture into the banana mixture, until combined; do not overmix. Add the optional ingredients, without overmixing. Pour into the prepared muffin pan.
5. Bake for 15–20 minutes, or until light brown. Cool before serving.

#### Nutrition Facts

<table>
<thead>
<tr>
<th>Serving size: 4 oz (113g) (74g)</th>
<th>Servings Per Recipe: 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount Per Serving</td>
<td></td>
</tr>
<tr>
<td>Calories</td>
<td>124</td>
</tr>
<tr>
<td>% Daily Value*</td>
<td></td>
</tr>
<tr>
<td>Total Fat</td>
<td>1g</td>
</tr>
<tr>
<td>Saturated Fat</td>
<td>0g</td>
</tr>
<tr>
<td>Trans Fats</td>
<td>0g</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>1mg</td>
</tr>
<tr>
<td>Sodium</td>
<td>352mg</td>
</tr>
<tr>
<td>Total Carbohydrate</td>
<td>27g</td>
</tr>
<tr>
<td>Dietary Fiber</td>
<td>2g</td>
</tr>
<tr>
<td>Sugars</td>
<td>12g</td>
</tr>
<tr>
<td>Protein</td>
<td>3g</td>
</tr>
<tr>
<td>Vitamin A</td>
<td>0%</td>
</tr>
<tr>
<td>Vitamin C</td>
<td>4%</td>
</tr>
<tr>
<td>Calcium</td>
<td>8%</td>
</tr>
<tr>
<td>Iron</td>
<td>6%</td>
</tr>
</tbody>
</table>

*Percent Daily Values is based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

<table>
<thead>
<tr>
<th></th>
<th>Calories</th>
<th>2,000</th>
<th>2,500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Fat</td>
<td>Less than 65g</td>
<td>60g</td>
<td>65g</td>
</tr>
<tr>
<td>Saturated Fat</td>
<td>Less than 20g</td>
<td>20g</td>
<td>25g</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>Less than 300mg</td>
<td>300mg</td>
<td>350mg</td>
</tr>
<tr>
<td>Sodium</td>
<td>Less than 2400mg</td>
<td>2400mg</td>
<td>2800mg</td>
</tr>
<tr>
<td>Total Carbohydrate</td>
<td>30g</td>
<td>35g</td>
<td>40g</td>
</tr>
<tr>
<td>Dietary Fiber</td>
<td>25g</td>
<td>30g</td>
<td>35g</td>
</tr>
<tr>
<td>Calories per gram:</td>
<td>Fat 3</td>
<td>Carbohydrate 4</td>
<td>Protein 4</td>
</tr>
</tbody>
</table>
Spotlight continued from page 19

As part of the discharge process, we are being challenged to upskill our knowledge base. Knowing and teaching diet components is important, but providing information about the different nutrition programs available in the community and possibly assisting with a referral can make the difference in improved food security for a discharged older person.

“The national trend in the care of older adults is to use community support services to help them live independently in their communities for as long as possible. While we will always have custodial care for the frail older adult, the development of transitional care units will continue to influence long-term care as we know it. As we live longer and the older population continues to be the fastest-growing segment of the population, the care setting for older adults shifts. The current healthcare system cannot continue to pay for healthcare services in institutions.”

Dr. Munoz graciously shares one of her favorite recipes with us. The Genesis HealthCare culinary team developed this recipe for the employee-wellness program. It is amazing when the art of food and the science of nutrition are combined to create delicious and healthy food items. Enjoy!

“Spotlight On Your Colleagues” is a recurring feature in The Spectrum. Each issue will feature a HA DPG member.

Awards and Stipends Available

Did you know that the Healthy Aging Dietetic Practice Group offers awards and stipends to its members? Well we do!

We have student research awards, best practice awards, service awards, speaker awards, and more.

Visit our Web site at: http://www.hadpg.org and go to the “awards and recognition” link for award descriptions, criteria, deadlines, and applications.

Complete all information and submit to:
Healthy Aging Management Services
P.O. Box 46998, Seattle, WA 98146
hadpg@quidnunc.net (electronic applications preferred)

Author Opportunities

The Spectrum’s editorial board is searching for authors to write articles on the following topics:

1. Issues of nutrient supplementation
2. Protein and aging
3. Nutrients and cognition
4. Nutrition status as a risk factor for falls among older adults
5. Malnutrition and older adults

If you are interested in becoming an author or if you would like to suggest a possible author, please submit your name and contact information to Robin Dahm, RD, LDN at dahmrd@gmail.com.
Every year, specific aspects of the Affordable Care Act of 2010 go into effect. The five changes for 2013 are:

- Medicaid pay raises for primary-care doctors (became effective January 1, 2013)
- Improvements in Medicaid preventive care (became effective January 1, 2013)
- expanded authority to bundle payments (became effective January 1, 2013)
- Additional funding for the Children Health Insurance Program (will become effective October 1, 2013)
- The certifying of each new state insurance exchanges (an ongoing process throughout 2013).

For complete details about health care reform, click here and here to the Academy’s Web site devoted to health care reform.

New Organizations: State Health Insurance Exchanges
State health insurance exchanges are new organizations that create a more organized and competitive market where consumers and small businesses can buy health insurance eligible for federal subsidies. They will offer a choice of different health plans, certifying plans that participate and provide information to help consumers better understand their options. All plans sold within the Exchange must offer a package of covered services known as “essential health benefits.” All exchanges must be fully certified and operational by January 1, 2014, under federal law. States can create multiple Exchanges, as long as only one serves each geographic area and can work together to form regional Exchanges. States may choose to join together to run multi-state exchanges, or they may opt out of running their own exchange, in which case the federal government will step in to create an exchange for use by their citizens.

As members of the Healthy Aging DPG, it is important to ensure that nutrition services provided by RDs have been included in your state’s essential health benefit package. Each state has selected a benchmark plan that defines the scope of services that must be included in all health plans sold through the Exchange. While all plans need to include preventive services, the current regulations do not clearly identify nutrition services as “preventive services” other than “obesity counseling,” and “healthy diet counseling,” both of which are related to risk factors for cardiovascular and other chronic diseases. Nor is there a guarantee that RDs will be reimbursable providers of these services.

New Resources
New resources are available to help you keep current about state health policy issues and where members of Congress stand on nutrition policies:

- The National Governors Association (NGA) has launched a Virtual Health Resource Center, a new website that addresses important state issues such as prevention and health promotion, health care planning and development, and health information technology. The NGA’s site hosts resources on state policy options and federal regulations, as well as guidance about and grant opportunities for states. Academy members can leverage this new site to stay up to date on health care issues occurring in their states.

- Identify where your members of Congress stand on important food and nutrition issues with Food Policy Action, a new non-profit organization. Food Policy Action tells how members of Congress voted on essential food and nutrition legislation with Congressional Scorecards; highlights why food policy matters; spotlights the latest pending food legislation; and offers information on hunger, school foods, GMOs, food additives, food sustainability, and food prices. Fifty members of Congress voted “yes” 100 percent of the time over the past two years for important issues involving food. The average score for the Senate lawmakers was fifty-eight percent, with the House lawmakers fifty-seven percent. Some lawmakers were below ten percent. Do you know where your members stand?

continued on page 22
Legislative Update
continued from page 21

Additional Valuable Resources
These websites are good resources for keeping current about a variety of nutrition-related happenings:
- National Council on Aging
- The National Resource Center on Nutrition and Aging
- American College Health Association
- American Society for Nutrition
- Health Education Advocate (additional link)
- National Association of Nutrition and Aging Services Programs
- Society for Nutrition Education and Behavior

Members of the Healthy Aging DPG are encouraged to work with their affiliate Public Policy Panels on advocacy efforts related to their states' essential health benefits package and other state-specific pieces of the Affordable Care Act. The Academy of Nutrition and Dietetics has many resources to support us in our advocacy work on nutrition issues. For complete details about health care reform, click here and here to the Academy's Web site devoted to health care reform.

By: Charlotte L. Vincent, PhD, RD, CD Public Policy Liaison

References

March 13, 2013
Commemorating the dedication of RDs as advocates for advancing the nutritional status of Americans and people around the world.

For celebration ideas visit www.eatright.org/nnm.
Nutrition Education Aid

HA members are urged to share nutrition education masters for future newsletters.

Send a copy (on white background) to:
Michelle Hunter, RD, Coordinating Editor,
at El Dorado County Area Agency on Aging,
937 Spring Street, Placerville, CA 95667.
E-mail: michelle.hunter@edcgov.us

Obtain permission from author to reprint.
The Spectrum newsletter
Publication of Healthy Aging –
A Dietetic Practice Group of the Academy of Nutrition and Dietetics.
Subscription for individuals not eligible for membership in the Academy:
Send $20 payable to Academy of Nutrition and Dietetics/HA
per year’s subscription directly to the HA Office, P.O. Box 46998,
Seattle, WA 98146.

Coordinating Editor: Michelle Hunter, RD
michelle.hunter@edc.gov.us

Editor-in-Chief: Robin Dahm, RD
dahmrd@gmail.com

Review Board: Robin Dahm, RD
Nancy Munoz, DCN, MHA, RD, LDN
Martha Peppones, MS, RD, CD
Linda Shoaf, PhD, RD, LDN
Willa Thomas, MS, RD, LD

Schedule:
Issue Deadline
Spring December 15
Summer March 15
Fall June 15
Winter September 15

Change of Address: Please notify the Academy of Nutrition and Dietetics
headquarters, which sends nightly updates to HA.
Use the change-of-address card in the Journal of the Academy of Nutrition and Dietetics
or email: membership@eatright.org

HA Web site: www.hadpg.org

In this issue ...

“Never the Twain Shall Meet:” Dual Systems Exacerbate Malnutrition in Older Adults
Recently Discharged from Hospitals

Nutrition: An Intrinsic Factor of Pressure-Ulcer Healing

House of Delegates (HOD) Update

Chair’s Message

Mark Your Calendar: Upcoming Conferences & Events

Spotlight on Your Colleagues

Awards and Stipends Available

Author Opportunities

Legislative Update: 2013 Health Care Reform Changes and Policies/Advocacy Resources

© Copyright 2013 by Healthy Aging – A Dietetic Practice Group of the Academy of Nutrition and Dietetics. Viewpoints and statements in this Newsletter do not necessarily reflect policies and/or positions of the Academy of Nutrition and Dietetics and/or HA DPG. Mention of product names in this publication does not constitute endorsement by the authors or the Academy of Nutrition and Dietetics.