Positive Communication

Infectious Diseases Nutrition
a dietetic practice group of the Academy of Nutrition and Dietetics

A Quarterly Newsletter of the Infectious Diseases Nutrition Dietetic Practice Group

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A Case Study on HIV/Hepatitis Co-Infection in a Transgender Patient

Theresa Galvin MS, RD, CDN has been working in HIV care in New York since 1986 in multiple settings. She has authored publications, served as critical reviewer for reports and lectured on nutrition and HIV.

Specific guidelines are well-established for the nutritional care of Human Immunodeficiency Virus (HIV) infected patients (1-6). However, the paucity of evidence-based guidelines for transgender HIV positive individuals co-infected with hepatitis C virus (HCV) makes care of these patients particularly challenging, even for skilled practitioners (7). Metaphorically speaking, maps to help clinicians navigate such clinical complexities have never been drawn.

GA: A Case Study

GA was a 41 year old transgender male to female (MTF) patient when admitted to our home care agency. She had transitioned approximately fifteen years prior to admission, and was living in a five-story walk up with her elderly grandmother. Her medical history included HIV/AIDS (CD4 count <200), thrush, wasting, viral hepatitis B, chronic HCV, anxiety and depression. Anti Retroviral Therapy (ART) initially included Zerit and Epivir, and was later changed to Viramune and Trizivir. Interferon and Ribavirin were prescribed for Hepatitis C. She was not on hormone replacement therapy (HRT) secondary to active liver disease. When RD services began, she was 5'8" and weighed 132 pounds with a body mass index (BMI) of 20. She was at 86 percent of her usual body weight (UBW) and 81 percent of her ideal body weight (IBW). She was prescribed a regular diet supplemented with Ensure Plus, therapeutic multivitamin with minerals, B complex, and vitamin C.

She presented with nutrition related symptoms of wasting, moderate protein energy malnutrition (PEM), anorexia, anemia, hyperlipidemia, and she was also edentulous. She suffered from common side effects of her HIV medications which contributed to suboptimal intake and subsequent malnutrition. The HCV therapy caused depression, exacerbating her anorexia. Periactin, an off-label appetite stimulant, was ineffective; other stimulants were contraindicated due to her liver disease.

Of significance, GA also had diarrhea with stools that were greasy, watery and foul smelling, containing mucous and undigested food particles. I felt strongly that malabsorption was likely and suggested ova and parasite stool studies assessing for infectious etiology, qualitative stool fat studies (including a Sudan Stain for fecal fat excretion), a zylose Test (for carbohydrate absorption) and a Schilling's test (assessing B12 absorption). Unfortunately, GA's physician failed to recognize the significance of these symptoms, so a work up was never performed. GA remained symptomatic throughout her homecare services; this would become just one of many issues impacting her quality of life.

Ongoing issues with ill-fitting dentures were never resolved. Her diet was modified to soft consistency and a dental

In this issue...

work-up was planned. With wasting and lipoatrophy already identified, GA likely had changes in bone and gum structure requiring re-fitting of dentures. Truth be told, GA was largely responsible for her dental issues not being addressed. Barring an emergency, she disliked being seen outside of the house. Lack of dentition combined with preexisting body image issues (lipoatrophy, wasting and masculinization) made venturing out in public even more daunting.

"Lack of dentition combined with preexisting body image issues (lipoatrophy, wasting and masculinization) made venturing out in public even more daunting."

GA had lived a very glamorous public life in her post-transition, pre-HIV/AIDS days. She was recognized by high society as the beautiful model men were drawn to, and was accustomed to thriving there; one famous artist considered GA his personal muse. Drawing people in was her gift. GA readily shared her life, pre- and post-transition, via oral and written history, photos, and speaking candidly about living transgendered. This dynamic is possible when trust begets trust.

Weighing GA became an endearing routine for the two of us; my tool was a scale, hers, a tiara atop her head. For GA, the tiara symbolized celebration in the event of weight gain, consolation if weight had been lost. The tiara served as an effective individualized intervention allowing consistent monitoring of weight status. Without this it might not have occurred.

Three months into RD services, her HCV treatments were discontinued due to poor tolerance. GA was elated; she abhorred its side effects. Her new blood indices were consistent with iron deficiency anemia, so iron supplementation was started with education about iron rich foods.

Over the next year, she received home care RD services once or twice a month. Her weight fluctuated mildly (plus or minus five pounds) and all nutritional issues from onset of care continued to haunt her. Although diagnosed with hyperlipidemia and prescribed a statin, diet modifications were not indicated due to negligible fat intake. HRT was re-started simultaneously with plans for facial bone reconstructive surgery. This combination appealed to her sense of aesthetics. While GA was off HRT, signs of masculinity (facial hair and deepening voice) had appeared, profoundly troubling her.

Restarting Interferon treatment was considered, exacerbating GA's anxiety. She was prescribed Zoloft, then Paxil, both of which were met with poor tolerance and impacted her appetite. Weight loss of almost ten pounds was observed within three weeks; the medications were discontinued and GA was referred to the agency's mental health RN for home psychotherapy. Lab results showed elevated lipids and LFT's high enough to preclude re-initiation of Interferon. She began milk thistle with physician approval as a "holistic liver detoxification agent." Changing from the brutality of Interferon to the well-tolerated milk thistle was a welcome relief and an intervention she was content with.

During the second year that GA received homecare services a sudden thirteen pound weight gain in three weeks was noted, putting GA at her all time high of 145 pounds. Other significant findings included bloating, increased abdominal girth, bi-lateral lower extremity edema, fever, generalized discoloration, syncope and flu like symptoms with shortness of breath.

GA was sent to the emergency room, admitted, and subsequently diagnosed with ascites and tricuspid regurgitation. She was prescribed a two gram sodium diet with a 1000 milliliter fluid restriction and Resource Fruit Beverage as a supplement.

At this point, GA was lost to home RD services for two years while seeing an RD in a clinic. Over time, GA demonstrated poor compliance with outpatient RD appointments, likely because this entailed leaving the house. An exacerbation of her anorexia resulted in a referral back to home RD services and admittedly, I was pleased to re-open her case. She was still seeing the mental health RN to address the mounting issues of GA's anxiety, depression and care-giver related stress concerning her grandmother, who was now ill. Viral load was undetectable and remained so for the next two years. Although Interferon and Ribavirin had been prescribed one year prior, it was discontinued

due to severe depression. When the mental health RN went out on leave, GA refused additional counseling. For all intents and purposes, GA appeared finished with her fight to live; she succumbed to deep depression, starting the beginning of the end. Despite multiple nutritional interventions, her weight dropped and remained at baseline (130 pounds) with waxing/waning interest in RD services culminating in an abrupt end. Her last labs revealed a CD4 count of 469 and undetectable viral load, which was surprising given the broader clinical picture. GA was subsequently lost to follow up and died of multiple system complications within the year.

Closing

GA's passing left most of us on her team wondering what more could have been done. True to the old adage, our hindsight will become foresight when dealing with transgender cases that have complicated medical histories in the future. This experience also demonstrated the challenges of working with medical providers, who, because of lack of knowledge, will or cooperation, needed to be coached to consider interdisciplinary input. One explicit lesson was to be more persistent in addressing glaring clinical issues, even when confronted with resistance from other providers. Despite these challenges, GA received exceptional multidisciplinary care that was non-judgmental, unconditional and fully embracing of GA as the total person she was. Although no clear outcomes can quantify this, her quality of life did benefit from this patient centered, gender sensitive approach.

Nutritional challenges began when establishing an IBW for her gender, enabling assessment of nutrient requirements and appropriate interventions. For transgendered patients, the convention has been to use the birth gender for these calculations. Research on this population, confirming that our discipline's "guesstimate" is metabolically accurate, is warranted. The fact that GA was dually diagnosed with HIV and HCV added complexity to her clinical management.

The Gay and Lesbian Medical Association (GLMA) suggests that the most important aspect of transgender clinical relationships is depression and/or anxiety management (8). As we navigated, albeit without maps in place, it became clear this was the key element in GA's overall clinical team management. We truly were, as Adrienne Rich said, "in a country with no language: whatever we did was pure invention (9)."

** See Transgener Care Hormone Therapy Handout on pages 6 and 7.

Author acknowledgements: Jacqueline M. Newman, Ph.D., FACN, FADA, CDN, CHE and Sandra Haim RN, MPH, ACRN

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Letter from the Chair

Dear IDN DPG,

Being the Chair of the IDN DPG was a wonderful experience for me. I achieved many of the goals I had set for myself this past year. We were a presence at the Food & Nutrition Conference & Expo in San Diego with our Discussion Session on Body Composition Assessment and our Member Showcase where we networked with members and other DPGs. During a time when it seems fewer resources are being dedicated to people suffering from infectious diseases, it is especially important for RDs working in the field to educate and raise awareness among our peers.

I was also able to plan efficient and productive board meetings where we made headway with the Strategic Plan and where we brainstormed on how to enhance the content of the newsletter and EML.

I would like to encourage all of you to become involved with the DPG in some way. After sending out eblasts and newsletter announcements of the open positions on the DPG board this winter we received a great response. I would like to thank Monica Gonzalez, Marianne Wetherill, and Lisa Ronco who will be volunteering their time in the following positions this upcoming year or more:

Monica Gonzalez, RD: Membership and Alliance Chair
Marianne Wetherill, MPH, RD, LD: Research/Education Chair
Lisa Ronco, RD: Public Policy Chair and House of Delegates Representative

Lastly, I am excited to be passing on the Chair responsibilities now to Linnea Matulat, MS, RD, CDN who I know will be a terrific leader.

Sincerely,

Jenny Torino, MS, RD, LDN

Co-Editors' Letter

Dear DPG Members,

Happy summer, and welcome to a new membership year for our DPG! In this issue of Positive Communication you will find a summary of a recent conference in New York City focusing on the past, present and future of nutrition care for PLWHA, and some of the potential effects of health care reform. The case study of a transgender patient co-infected with HIV and HCV demonstrates the benefits and challenges that can arise when striving for effective interdisciplinary care. This issue's patient handout provides a nice summary of nutrition aspects of hormone therapy for transgender patients. We have also included an index of newsletter content published in 2011 to refresh your memory.

As always, please contact the newsletter editors if you have suggestions, feedback, or are interested in contributing an article.

Happy Reading!

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Don't Miss this Important Announcment

In an effort to go green and save IDN DPG resources, all issues of the Positive Communication Newsletter will be delivered to you electronically.

You currently receive 2 issues via eblast which connects you to the IDN Website (where the current issue is posted). Now you will access every issue of the newsletter in this way.

If you have any feedback regarding this change, please contact your editors.

Thank you!

Transgender Care: Hormone Therapy

Nutritional Considerations

Feminizing Hormones (Transwomen or MTF)				
	Hormone (*brand names*)	**Food and Herb Interactions**	**Metabolic and Other Effects**	**Nutrition Recommendations**
Estrogen Therapy	**Non-Oral Estrogen** (*Estradot, Estraderm, Oesclim, Climara, Alora, Vivelle*)	- Alcohol - Grapefruit juice - St. John's Wort - Herbs with estrogenic properties†	- Patients with elevated lipids and liver disease may benefit from non-oral estrogen	
	Oral Estrogen (*Premarin, Estrace, Cenestin, Menest, Enjuvia, Gynodiol, Femtrace, Estrofem)*	- Alcohol - Grapefruit juice - St. John's Wort - Herbs with estrogenic properties†	- Weight gain - Hyperlipidemia - Elevated Liver enzymes - Type 2 diabetes - Gall stones - Increased blood pressure	- Follow recommendations for a heart healthy diet
Antiandrogen Therapy	**Spironolactone** (*Aldactone)*	- Alcohol - Natural licorice	- Diuretic - Hyperkalemia - Increased excretion of sodium, calcium, chloride - Decreased blood pressure	- Take with food - Avoid potassium-sparing diuretics - Avoid potassium supplements - Avoid salt substitutes with potassium chloride
	Flutamide (*Euflex)*		- Elevated liver enzymes	
	Finasteride (*Proscar, Propecia)*	- St. John's Wort		
	Cryptoterone (*Androcur*)		- Elevated liver enzymes	
	Dutasteride (*Avodart*)	- Saw Palmetto		
Progesterone Therapy	**Medroxyprogesterone** (*Provera, Prometrium*)	- Alcohol - St. John's Wort	- Weight gain - Coronary heart disease	- Take with food
	Progesterone (*Prometrium, Crinone)*	- St. John's Wort - Herbs with progesterogenic properties††	- Weight gain - Coronary heart disease	- Take with food

† Alfalfa, black cohosh, bloodroot, hops, kudzu, licorice, red clover, saw palmetto, soybean, thyme, wild yam, yucca

†† Bloodroot, chasteberry, damiana, oregano, yucca

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Transgender Care: Hormone Therapy

Nutritional Considerations

Masculinizing Hormones (Transmen or FTM)				
	Hormone (*brand names*)	**Food and Herb Interactions**	**Metabolic and Other Effects**	**Nutrition Recommendations**
Testosterone Therapy	**Intramuscular Testosterone** (*Depo-Testosterone, Delatestryl)*		- Weight gain - Increased visceral fat - Dyslipidemia - Cardiovascular disease - Type 2 diabetes - Hypoglycemia in diabetic patients - Increased blood pressure - Decreased bone loss (increased risk for bone loss after oophorectomy if testosterone is discontinued)	- Follow recommendations for a heart healthy diet
	Transdermal Testerone (*AndroGel, Androderm*)		- Same as above	
	Oral testosterone (*Oxandrolone*)	- Alcohol	- Same as above - Liver toxicity	

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Thirty Years of HIV Nutrition Care: Today's Challenges and Opportunities: Conference Summary

Naima Sullivan, MS, RD, CDN, HIV Nutrition Specialist, Gay Men's Health Crisis (GMHC), New York, NY

On Saturday, June 9, 2012 the Nutritionists in AIDS Care (NIAC) Special Interest Group of the Greater New York Dietetic Association (GNYDA), together with God's Love We Deliver, presented a conference looking back at 30 years of HIV nutrition care and looking forward to the challenges and opportunities that lay ahead.

Can HIV-Specific Services and Funding Survive Health Care Reform

Matthew Lesieur, Director of Public Policy, Village Care, New York, NY

Matthew Lesieur opened by explaining that due to a clinical trial linking initiation of Antiretroviral Therapy (ART) with a 95 percent reduction in risk of Human Immunodeficiency Virus (HIV) transmission, engagement in care has become a primary outcome measure of HIV prevention strategies. Looking at the numbers, however, Lesieur noted that less than half of people living with HIV/AIDS (PLWHA) in New York City (NYC) are engaged in care with effective viral load suppression, with numbers much worse nationally.

With this in mind, Lesieur moved on to describe the current health care environment for PLWHA and changes expected with the roll out of the Patient Protection Affordable Care Act (PPACA). Compared to the general population nationwide, PLWHA are more likely to utilize public coverage or to be uninsured. Medicaid and Medicare are the biggest payers for HIV care. In New York State, PLWHA have benefitted from expanded Medicaid eligibility and Lesieur predicted that starting in 2014, with the roll out of PPACA, Medicaid programs across the United States will start to look more like New York's. For PLWHA, this means increased access to health care.

Given this proposed expansion of coverage, Lesieur raised an important question: "Why do we need Ryan White?" The Ryan White Comprehensive AIDS Resources Emergency (CARE) Act was passed in 1990 and was designed to fill in gaps in services to PLWHA and has been reauthorized four times. Currently funded at $2.392 billion and providing services to approximately 529,000 PLWHA, it will be up for reauthorization again on September 30, 2013. The program was creating during a time when PLWHA experienced discrimination in the health care system. Furthermore, much less was known about the virus and treatment goals were far different. A highly specialized healthcare and support system was created with Ryan White funding to help and protect PLWHA. Now that HIV/AIDS is managed much like other chronic diseases and health care coverage may be expanding with the passage of the PPACA, many are asking if this specially funded system of care is still needed.

"Reauthorizing Ryan White would help to ensure stability of HIV care, especially given the unpredictability of healthcare reform."

Lesieur described some of the benefits and disadvantages of reauthorizing Ryan White in 2013. Reauthorizing Ryan White would help to ensure stability of HIV care, especially given the unpredictability of healthcare reform. In addition, reauthorization would give policy makers an opportunity to amend the program allowing Ryan White to fund more supportive services. Finally, the program could be expanded to include other populations, such as hepatitis C patients, a growing demographic with needs similar to PLWHA. On the other hand, reauthorization would expose the program to debate among a highly fractured and partisan Congress with an unpredictable legislative process. There is a possibility that this could lead to elimination of parts of the program, elimination of local control, and raised liabilities in some populations served by the program, such as undocumented immigrants. An alternative, Lesieur explained, would be a simple extension of the program. Congress could continue to fund the program without reauthorization with no changes made to the core/non-core services requirement but with the risk that funding levels could change.

To close, Lesieur stressed that we, as food and nutrition service providers, need to prepare for impending changes by evaluating our funding sources and our readiness to evolve along with changes in health care and Ryan White funding. Lesieur then engaged the audience in a discussion on Medicaid billing of nutrition services and the possibility of working with healthcare exchanges. Also interesting was the idea of promoting nutrition services as "value added," by demonstrating, for example, that they can help prevent avoidable hospital readmissions, and thus save healthcare costs. In addition, there was an interesting discussion about HIV exceptionalism because of stigma and discrimination. Can the HIV community ask to be treated the same while also demanding a separate care system?

HIV Nutrition: A Thirty Year Retrospective

Theresa Galvin, MS, RD, CDN, Certified Home Health Agency at Village Care, New York, NY

Having worked with PLWHA for nearly 30 years, Theresa Galvin opened her presentation by sharing that she felt both humbled and privileged to accompany her patients on their unique journeys. She lit a candle in remembrance of those who have died and those now fighting, and dedicated her presentation to all of the patients who have come into and enriched her life. Galvin shared, as if on a timeline, her reflections on major accomplishments and landmarks in HIV nutrition care over the last 30 years.

- 1981 marked the first documented AIDS case, along with a growing understanding of the correlation

between immunity and nutrition. Protein Energy Malnutrition (PEM) and AIDS were found to have similar effects on the immune system.

- In 1987-1989 a link between HIV, nutrition, and death was established by Kotler and colleagues (1,2). AIDS wasting was prevalent in the early epidemic, described by Galvin as "the look of AIDS."
- In 1989 the NIAC special interest group of the GNYDA was founded, providing support, education, and peer dialogue; the American Dietetic Association (ADA) published its first position paper on nutrition in HIV/AIDS.
- In 1990-1992 many disciplines identified nutrition implications of HIV/AIDS. Galvin shared that in her experience, the role of dietitians as an integral part of the medical team came into being during the AIDS epidemic. Nutrition guidelines for HIV/AIDS were developed, drawing on the understanding of body composition, nutrition and metabolic assessment of hospitalized patients, metabolic response to infection, hypoalbuminemia in intractable diarrhea, and developments in hospice care.
- 1996 brought on the era of protease inhibitors, and with it lipodystrophy, lipoatrophy, and lipohypertrophy.
- In 2003 came a greater understanding of the role of inflammation in HIV, even among those treated with ART.
- In 2010 an article was published in the Journal of the American Dietetic Association describing growing interest in the links between diet, inflammatory processes, and chronic diseases, questioning whether the "anti-inflammatory diet" is a fad, and concluding that more research is needed (3). Galvin pointed out that this may become a defining issue in HIV nutrition care.

Galvin compared HIV nutrition assessments then and now. In 1989, for example, assessments reflected predictable immune deficiencies, high incidence of opportunistic infections, micronutrient deficiencies, and PEM. Galvin explained that vitamin and mineral mega-dosing and alternative therapies were common and empowered people to take control of their health at a time when there weren't many treatment options.

Today, confounding clinical and social issues complicate nutrition assessments and disease management. These include medication interactions, comorbidities, wasting, lipodystrophy, food insecurity and aging. Weight status, body composition and biochemical data remain important, but the parameters have changed. Metabolic abnormalities such as elevated blood lipids and insulin resistance are common, as are mitochondrial toxicity, anemias, kidney damage, micronutrient deficiencies and inflammation.

Galvin explained that the demographics of the virus have changed. During the early epidemic, she saw mostly gay men affected by HIV, whereas now, her patients are more representative of minority and low-income communities, where the effects of HIV are not as publicized as they once were. As a home care dietitian working in Brooklyn, NY with low-income patients she still sees cases reminiscent of the early days of HIV, where people experience wasting, and have urgent medical needs, sometimes requiring 911 calls. In short, AIDS is still a crisis. Galvin expressed frustration with the opinion that HIV nutrition is no longer a specialty because of the chronic nature of the virus, asserting that HIV nutrition is actually an enhanced specialty, dealing with HIV and comorbidities.

Galvin pointed out that many of her patients eat pro-inflammatory diets high in refined starches, saturated fats and trans fats, and low in fruits, vegetables, whole grains and omega 3 fatty acids. She asked the audience to think about some of the barriers to adopting an anti-inflammatory diet and how we can help our patients overcome these barriers, which lead to further discussion about challenges faced today such as body image and HIV, nutritional management of co-morbidities, and the importance of nutrition in HIV care and its role as a valued specialty.

HIV Over 50

Stacey Gladstone RN, BSN, ACRN, Health Home Medical Supervisor, Village Care, New York, NY

Stacey Gladstone began by sharing statistics on HIV among older adults. By the year 2015 nearly half of PLWHA in the US will be 50 years or older. This may be related to PLWHA living longer, individuals infected at an early age being diagnosed later in life, and new HIV infections among older adults.

Gladstone described risk factors specific to older adults. Older women may not use condoms, viewing them primarily as birth control, not as protection from sexually transmitted disease. Older men with erectile dysfunction may resist using condoms. Concurrently, erectile dysfunction drugs may increase rates of sexual activity and thus risk among older adults. Despite the fact that many older adults remain sexually active, HIV prevention campaigns are largely targeted towards younger audiences. In fact, Gladstone pointed out that Americans over 50 are 1/6 as likely to use condoms and 1/5 as likely to have been tested for HIV, compared to adults in their 20's. Drug users are aging, and intravenous drug use is the second most common risk factor for contracting HIV.

"Despite the fact that many older adults remain sexually active, HIV prevention campaigns are largely targeted towards younger audiences."

Gladstone explained that older adults with HIV/AIDS have poorer outcomes than younger PLWHA; HIV infection progresses more rapidly and survival times are shorter. Gladstone noted that aging itself has a deleterious effect on the immune system. Older HIV positive adults experience greater declines in CD4 count, slower recovery of CD4 lymphocytes, and nutritional deficiencies which can contribute to immunosuppression. Furthermore, HIV infection accelerates aging due to the inflammatory response. A 55 year old with HIV may clinically look more like an HIV negative person in his or her 70s. Metabolic abnormalities such as lipodystrophy and clinical events such as hepatic injury, stroke and cognitive decline are more common among older HIV positive adults. Screening for comorbidities and dementia are important. Polypharmacy could be another reason for poor outcomes as it could increase the risk of adverse reactions.

Gladstone explained that providers and patients may lack awareness of the

risk among older adults and therefore fail to discuss risk behaviors and HIV testing, resulting in diagnostic delay which in turn can lead to poor outcomes. For older women, this may be complicated by the fact that many symptoms of HIV such as fatigue, hot flashes, and facial flushing mimic menopause and may be dismissed by providers. To improve outcomes and to prevent HIV transmission, Gladstone expressed the importance of discussing sexuality and HIV risk with older patients. She explained that often it is not patients who feel uncomfortable discussing sexuality, but rather providers. She noted that in a recent study, participants were more likely to refuse questions about income than about sex.

Gladstone closed by urging us to support testing and self-advocacy by discussing sexual risk, promoting condom use, and encouraging early diagnosis and treatment among older adults. Some questions arose about how food and nutrition providers can discuss sexuality and sexual risk with patients and clients. Some suggestions included giving patients warning that this would be discussed, explaining why the questions are being asked, and explaining that these questions are asked of everyone. Another suggestion was that the only way to get comfortable talking about sex with clients is to talk about sex with clients!

Food and Nutrition Service Needs among Persons Living with HIV/AIDS

Angela Aidala, PhD, Mailman School of Public Health, Columbia University
Angela Aidala is the Study Director of the Community Health Advisory and Information Network (CHAIN) Project.

Since 1994 CHAIN has been a primary evaluation resource for the NYC HIV Planning Council and provider communities. Aidala presented evidence from the project regarding the need for and use of food and nutrition services as well as medical care and health outcomes associated with food insecurity among PLWHA.

The research principles of the CHAIN project include recruiting a representative sample of PLWHA residing in NYC and the suburban tri-county area, collecting profiles of PLWHA over time through structured interviews, and working in collaboration with various stakeholders to identify study questions and disseminate findings, all in order to gather practice-based evidence that can be translated into knowledge and policy. The most recent interviews were conducted from 2008 to 2010.

Aidala described some results regarding need for food and nutrition services. Over 80 percent of respondents reported receiving food assistance from a food or meal program or food stamps, indicating an almost universal need for food and nutrition assistance. Use of services did not eliminate need; 40 percent of service recipients continue to experience some degree of food insecurity. Reasons for this include the fact that food and meals programs do not provide all meals and that many participants experience multiple hardships.

Aidala discussed the need for nutrition counseling. Ninety-eight percent of participants living in NYC reported eating less than the recommended five servings of fruits and vegetables the previous day; the majority ate only one or two servings. Eighty-nine percent of NYC respondents had a medically indicated need for nutrition counseling defined as a nutrition-sensitive illness, BMI greater than 25 or less than 18.5, or pregnancy. Despite these numbers only 32 percent of participants with a demonstrated need had received nutrition counseling in the last 6 months.
Some of the most interesting results were regarding medical care and health outcomes. Participants who were food insecure were more likely to miss two or more medical appointments in the last 6 months, visit the emergency room (ER) at least once in the last 6 months, and receive care that does not meet minimal practice standards. Food insecurity predicted missed appointments and ER visits more than other factors such as income level, mental health functioning, and current drug use. Regarding health outcomes, respondents who were food insecure were more likely to have low mental health scores, poor physical health functioning, CD4 T cell counts below 200, and uncontrolled viral loads.

Aidala concluded by summarizing the implications of the study findings. Food insecurity and need for food and nutrition services are widespread among PLWHA in the NYC and Tri-County area and are associated with poor engagement with HIV medical care and poor health outcomes. Food and nutrition services are essential to promote treatment efficacy and maintain health among PLWHA. Aidala pointed out that the Institute of Medicine guidelines include access to food and nutrition services and food security as criteria for monitoring quality HIV care and achievement of National HIV/AIDS Strategy for the United States goals. In short, Aidala was adamant that food and nutrition services should be considered core services because of their impact on engagement in medical care and health outcomes.

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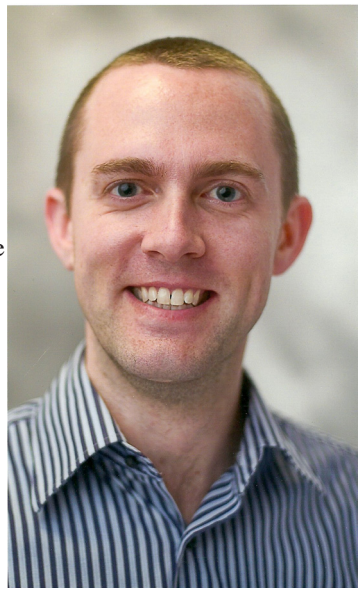
Member Spotlight: Ben Atkinson, MS, RD, CD



What inspired you to enter the field of nutrition?

After I graduated with a degree in biochemistry, and found out that I didn't like working in a solitary lab, I found a job in food service. I was working in the nutrition department of an academic medical center, supervising patient meal delivery. I liked that job, and enjoyed interacting with patients regarding their meal choices. But to do anything that would involve direct patient care or a higher salary, I'd need some more education. So it was off to grad school for nutrition studies.

What led you to the specialty of infectious diseases?

I don't have a great reason why I chose this specialty. I was working two part-time jobs in a community health clinic and in a research role, and only one provided vacation or health benefits. My wife was pregnant and I didn't want to take unpaid time off with the baby, so I found a full-time job, which happened to be in infectious diseases nutrition. But I'm happy it worked out the way it did.

Where are you currently working, and what does this position entail?

I work at Harborview Medical Center in Seattle, Washington, in the Madison Clinic. It's the county's main HIV clinic, and we have actually branched out into surrounding counties. I see a mix of patients, including those who are starting or switching HAART, all patients new to the clinic, patients referred for a particular issue, and patients that are self-referred. Additionally, I am part of a team working to implement a room service style menu for our inpatients. I also work in the hospital's cardiology clinic one day per week.

What do you enjoy most about your job?

I like the variety of people I get to work with. I learn something new from them each day—new foods, new restaurants, and new cultural norms. I like how every member of the clinic is there for the right reason—to help others. I enjoy teaching students, and have lectured at two local universities so far this year. I also like the opportunity to participate in, and learn about the latest clinical research through the Seattle site of the AIDS Clinical Trials Group, which shares the same hospital floor as the Madison Clinic.

What do you find most challenging?

I find organization most challenging. I do enjoy the variety of the work I do right now, but it is difficult to keep up some days! Using calendars has really helped, as has setting boundaries like not seeing patients on days when I'm not in the clinic.

What do you see as the biggest challenge for dietitians right now?

Asserting ourselves as the experts in nutrition is a huge challenge. The public is bombarded by fad nutrition advice in every media format you can name. Whether it's my friend wanting to fast or do the Paleo Diet to lose weight, or my patient wanting to try the book Dr. Phil recommended, I've been having conversations with people to show them what the scientific evidence says about their strategies. Dietitians are really at the head of the pack in using science to back up our recommendations; we just need to make sure we let our clients and neighbors know that it makes a difference.

What advice would you give to those interested in entering the field of nutrition and dietetics?

I'd advise them to get to know some people in the field. I felt that after working with dietitians in my food service position, I had at least a slight understanding of what some possible dietitian jobs would entail. For new dietitians, I'd also recommend joining a local or state dietetics group, or a specialty group like a DPG. I really received good career advice from people in these groups early on, and now as the president of my local dietetics group, I've been able to get at least one new graduate a job. Personal connections are your best resume.

Research Briefs

HIV

Dietary intervention prevents dyslipidemia associated with highly active antiretroviral therapy in human immunodeficiency virus type 1-infected individuals: a randomized trial. Lazzaretti RK, Kuhmmer R, Sprinz E, Polanczyk CA, Ribeiro JP. J Am Coll Cardiol. 2012;59(11):979-988.

The purpose of this randomized controlled study was to evaluate the efficacy of diet intervention on blood lipids of HIV-1 infected, treatment naïve patients started on highly active antiretroviral therapy (HAART). Eighty-three patients were randomized to receive either HAART with quarterly nutrition guidance from a registered dietitian based on the National Cholesterol Education Program for 12 months or HAART without dietary intervention. Twenty-four hour recalls and blood lipid profiles were obtained before and after intervention. Participants in the diet intervention group experienced reductions in percentage of fat intake while controls did not. Increases in total cholesterol and LDL cholesterol were observed in the control group and not in the diet intervention group. Plasma triglycerides were reduced in the diet intervention group and increased in the control group. At 1 year, 21 percent of patients in the diet intervention group had lipid profiles consistent with dyslipidemia compared to 68 percent of controls, suggesting that diet intervention can prevent dyslipidemia associated with initiation of HAART.

Nutritional assessment of hospitalized HIV-infected patients by the phase angle z-score measurement. Antunes AA, Alves Pereira Rodriguez AP, Geraix J, Vaz de Arruda Silveira L, Camara Marques Pereira P, Barros Leite Carvalhaes MA. Nutr Hosp. 2012;27(3):771-774.

Phase angle (PA) is a measurement of reactance and resistance that has been interpreted as a marker for cell integrity in clinical practice. The aim of this cross sectional study was to compare PA values of hospitalized HIV infected patients with values in a healthy population, and to analyze correlations between PA and nutritional parameters used in clinical practice. PA z-score was expressed as the patient's observed PA value subtracted by the median for the healthy population divided by the standard deviation for the healthy population. Study participants showed lower PA values compared to a healthy population, with only 6.6 percent showing a positive z-score value. PA z-score correlated with nutritional parameters including percent weight loss, serum albumin, arm muscle circumference, and percent body fat, after adjusting for CD4 count. The authors concluded that PA z-score is a useful tool for the assessment of nutritional status among hospitalized HIV infected patients.

Impact of switch to fosamprenavir and addition of Lovaza for treatment of hypertriglyceridemia in HIV-infected subjects on antiretroviral therapy. Felizarta F, Scarsella A, Khanlou H, Young W, Ross L, Zhao H, Pappa K, Ha B. World J AIDS. 2012;2:24-32.

Antiretroviral regimens containing protease inhibitors (PIs) have been associated with hypertriglyceridemia, an independent risk factor for coronary heart disease in the general population and among PLWHA. Diet and lifestyle interventions for hypertriglyceridemia are difficult to maintain and pharmacotherapy may result in adverse drug-drug interactions. The aim of this study was to evaluate a dual strategy to manage hypertriglyceridemia in HIV

(Research Briefs continued on next page)

(Member Spotlight Continued)

What are a few of your hobbies or interests outside of work?

I have 2 baby girls, so they and my wife take up most of my time outside of work. Luckily, they're great to hang out with and I try to share my hobbies with them. I enjoy collecting new and old vinyl records. My 3 year old girl, Olive, was recently caught singing the words 'People, people, we gotta get over, before we go under' from James Brown's 'Funky President.' She thinks it's a new record because it came in the mail a few weeks ago. Take that Justin Bieber!

Olive also likes my hobby of bike riding. I commute to work on my bike, and last summer I tried fixed gear track racing. It was really fun and I even won a few races, until I got in a wreck. I was fine, but my friend who crashed into me lost his thumb. It was lying right there on the track…and that was my last bike race.

infected patients taking PIs. At baseline, thirty-six patients were switched to fosamprenavir and lipid-lowering drugs were discontinued. At 6 weeks, Lovaza 4 g daily was added. The authors found that after 24 weeks triglycerides decreased by an average of 30.4 percent from week 6 and viral loads remained suppressed, but suggested that baseline PI may affect likelihood of achieving triglycerides less than 200 mg/dL.

HCV

Metabolic syndrome in patients with chronic hepatitis c virus genotype 1 infection who do not have obesity or type 2 diabetes. Oliveira LP, de Jesus RP, Boulhosa RS, Mendes CM, Lyra AC, Lyra LG. Clinics. 2012;67(3):219-223.

Individual components of metabolic syndrome are independent predictors of mortality in patients with chronic liver disease. The purpose of this cross-sectional study was to evaluate the prevalence of metabolic syndrome, defined according to the International Diabetes Federation, and its risk predictors in 125 non-obese and non-diabetic hepatitis C virus (HCV) infected patients. Metabolic syndrome was diagnosed in 21.6 percent of subjects of which 85.2 percent were overweight, 85.2 percent had increased body fat percentage, and 92.3 percent had elevated waist to hip ratio. Metabolic syndrome was significantly associated with female gender, hypertension, insulin resistance, increased abdominal fat and overweight, suggesting that frequent monitoring for insulin resistance and weight gain among patients with HCV is beneficial.

HPV

Circulating Biomarkers of Iron Storage and Clearance of Incident Human Papillomavirus Infection
Siegel EM, Patel N, Lu B, Lee JH, Nyitray AG, Huang X, Villa LL, Franco EL, Giuliano AR. Cancer Epidemiol Biomarkers Prev. 2012;21(5):859-865.

The aim of this study was to examine the association between biomarkers of iron status and clearance of incident HPV infection among 327 premenopausal Brazilian women participating in the Ludwig-McGill cohort study. Serum ferritin and soluble transferrin receptor (sTfR) were measured at baseline, providing a measurement of subjects' long term average levels. While median duration of HPV infection was not affected by iron status, women with enriched iron stores, defined as serum ferritin >120 µg, were less likely to clear incident any-type HPV or oncogenic HPV infections, suggesting that rising iron stores may increase risk of persistent HPV infection by promoting viral activity and contributing to oxidative DNA damage.

TB

Association of BMI category change with TB treatment mortality in HIV-positive smear-negative and extrapulmonary TB patients in Myanmar and Zimbabwe. Benova L, Fielding K, Greig J, Bern-Thomas N, Casas EC, Silveira de Fonseca M, du Cross P. PLoS One. 2012;7(4):e35948.

Unlike in smear-positive pulmonary tuberculosis (TB), there are no markers of TB treatment progress systematically used to identify individuals most at risk for mortality. The purpose of this study was to assess the association of body mass index (BMI) after 1 month of TB treatment with mortality among HIV-positive individuals with smear-negative and extrapulmonary TB. BMI was categorized as severely underweight (<16), underweight (16.0-18.48), normal (18.5-24.99), and overweight and obese (>25). The authors found that remaining severely underweight or losing BMI category increased mortality when compared with maintaining BMI or moving to a higher BMI category, suggesting that change in BMI would be a useful tool for identifying individuals at risk for mortality.

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