

Case Study

Palliative Care Is More Care, Not Less

by Rachel Selby-Penczak, MD

Educational Objectives

1. Discuss the origins of hospice and palliative care.
2. Compare and contrast Curative, Palliative, and Hospice Models of Care.
3. Identify when palliative care is appropriate.

Background

Both palliative care and hospice share a similar background and purpose, making it difficult to discuss one without the other.

The word “hospice” derives from the same Latin root as “hospitality” and can be traced back to medieval times, referring to a place of shelter and rest for weary or ill travelers on a long journey. It was first applied to specialized care for dying patients by Dame Cicely Saunders, a physician who began her work with the terminally ill in 1948 and went on to create the first modern

hospice, St Christopher’s Hospice, almost two decades later in a residential suburb of London.

Dr. Saunders introduced this concept of care to the United States in 1963, during a visit to Yale University. Her lecture to medical students, nurses, social workers, and chaplains about the concept of holistic hospice care included photos of terminally ill cancer patients and their families, showing the dramatic differences before and after symptom management. Although her lecture served as the launching pad of a long chain of events that eventually resulted in the development of hospice care as we know it today, the U.S. Congress did not make the Medicare Hospice Benefit permanent until 1986.

The word “palliative” derives from Latin *palliare*, meaning to “cloak, conceal or alleviate symptoms without curing,” and can be found in documents traced back to the late 14th century in Elizabethan and Indo-European traditions.

Modern day use of the term palliative care first occurred in 1974, by Canadian surgical oncologist and

Saunders student, Dr. Balfour Mount, as a means to help French speaking Canadians accept the concept of holistic care for people with chronic or life limiting diseases, while dispelling the poor reputation and negative connotation of destitution that had become affiliated with hospice institutions in France.

Books including *On Death and Dying* by Dr. Elisabeth Kubler-Ross published in 1969, demonstration projects funded by the Robert Wood Johnson and John A Hartford Foundations, grants supported by George Soros’ Open Society Institute, the 1997 report from the Institute of Medicine entitled “Approaching Death: Improving Care at End of Life (M.I. Field and C.K. Cassel, editors), and consumer awareness efforts through Last Acts, and the Bill Moyer’s Series “On Our Own Terms” (2000) have all played important roles in bringing to the public the concept of “total care” for any patient, adult or child, diagnosed with life-limiting illness, as well as those who are dying, and in many cases, influencing policies both in the U.S. and elsewhere around the world.

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As of 2006, Hospice and Palliative Medicine became a recognized subspecialty by both the American Board of Medical Specialties (ABMS) and the Accreditation Council for Graduate Medical Education; since 2008, physicians who qualify have been able to take examinations that certify their expertise in this important area of medicine.

Curative versus Palliative Care

Healthcare in the U.S. has a strong tendency to focus on cure, which, while important, can also lead to patient and family suffering, cause patient and family goals to be overlooked, and quality of life to be mistakenly considered as less important.

Curative care tends to focus on cure. In the process of focusing on the disease itself, the goal often becomes eradicating or slowing progression of disease, during which the patient may be viewed as a collection of parts or organ systems, with the body often differentiated from the mind. It places high values on measurable data, such as labs and radiology reports, and in general views death as the ultimate failure.

On the other hand, palliative care focuses on the relief of suffering for the patient and his or her family. It looks to treat symptoms, rather than viewing them as clues to diagnosis. Data may be considered part of the picture, but it's the subjective, often difficult to quantify, information provided by the patient and the family that's given the highest value. Palliative care looks to control symptoms and relieve suffer-

ing, whether or not the underlying disease can be eradicated or slowed, and views the patient as a whole, basing treatments on the values, beliefs, and concerns of the patient and the family. Success is viewed as enabling the patient and the family to live as fully and comfortably as possible until death, whenever it may come.

Palliative Care Defined

The World Health Organization formally defined the term palliative care in 1989, and published a revised definition in 2002:

"Palliative care is an approach that improves the quality of life of patients and their families facing the problems associated with life threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual."

"Palliative care: provides relief from pain and other distressing symptoms; affirms life and regards dying as a normal process; intends neither to hasten or postpone death; integrates the psychological and spiritual aspects of patient care; offers a support system to help patients live as actively as possible until death; offers a support system to help the family cope during the patient's illness and in their own bereavement; uses a team approach to address the needs of patients and their families, including bereavement counselling, if indicated; will enhance quality of life, and may also positively influence the course of illness; and is

applicable early in the course of illness, in conjunction with other therapies that are intended to prolong life, such as chemo-therapy or radiation therapy, and includes those investigations needed to better understand and manage distressing clinical complications."

Medicare has also recognized palliative care as important, noting that it should be part of overall care management based on *need*, not *prognosis*.

Through education, the public has begun to view palliative care for what it really is: a team-based approach to care that will improve quality of life, provide an extra layer of support, and can be given to any person, at any age, and at any stage of the serious illness alongside curative treatments. Palliative care can be provided in any setting, including home, hospitals, clinics, and nursing facilities and applies to any number of chronic and life limiting illnesses, including, but not limited to: cancer, cardiac disease and heart failure, kidney failure, cirrhosis of the liver, lung disease, multiple sclerosis, Alzheimer's and other dementias, Parkinson's disease, HIV, and drug-resistant tuberculosis. When first diagnosed with a chronic illness, the focus may be mostly curative, but as time goes on the amount of curative and palliative interventions may fluctuate and gradually shift towards a progressively more palliative approach.

One of the most well-known randomized controlled studies of the benefits of palliative care is by Temel and colleagues (2010). It demonstrated that those patients

with newly diagnosed metastatic non-small cell lung cancer who received early palliative care alongside standard cancer care had improved quality of life, reduced depression, and longer survival, compared to those patients receiving standard care alone, even though the former received less aggressive interventions.

Although hospice and palliative care share similar goals and focus, they are not the same, and despite studies to the contrary, patients are not the only ones to associate, mistakenly, the term palliative with death or hospice. Studies (Fadul, 2009; Dalal, 2011) have shown that clinical providers and oncologists were more likely to embrace the use of and consult palliative care services if the name were changed from Palliative Care to Supportive Care.

It is important to mention that while Medicare has a distinct payment system for hospice services, currently there is no equivalent payment system to easily facilitate palliative services delivered in a complete and coordinated interdisciplinary package.

Hospice Defined

Hospice is a group of services and the largest provider of palliative care in the country. It is a comprehensive and holistic approach to treatment that recognizes that the impending death of an individual warrants a change in focus from curative to palliative care for relief of pain and symptom management, providing compassionate patient and family-centered care for those who are terminally ill.

The goal is to help terminally ill individuals continue life with minimal disruption to normal activities, while remaining primarily in the home.

Hospice is an interdisciplinary approach to deliver medical, nursing, social, psychological, emotional, and spiritual services with the goal of making the individual as physically and emotionally comfortable as possible; the expectation is that the care plan will shift over time to meet the changing needs of the patient and the family, while viewing both the patient and the family as a single unit of care.

However, unlike the palliative model, in the United States, Medicare has determined that a person is only eligible for hospice if in the terminal phase of the disease, with a life expectancy of six months or less, and if willing to give up curative treatments. That being said, some treatments such as radiation, chemotherapy and dobutamine may still be allowed by some hospice agencies if they are specifically for comfort and symptom management and are consistent with the goals of the patient.

Hospice is considered a skilled service, and most often occurs where the patient lives; however, unlike with Medicare Home Health Services, the patient does not have to be homebound.

The Medicare hospice benefit does not end at the patient's death and includes bereavement services to the family for up to 13 months after the patient dies.

Case Study #1

Joan is a 48-year-old single mother of three daughters ages 17 to 20 years old. She works as a book keeper and volunteers at a local museum. She presented to the ER with abdominal pain, nausea, and constipation. She has a history of ovarian cancer diagnosed two years earlier which was treated with surgery and chemotherapy resulting in successful resolution of the primary tumor. She is started on opioids for pain, anti-emetics for nausea, and admitted to the palliative care unit for further symptom management. An aggressive bowel regimen results in relief of constipation. CT scans of her abdomen and pelvis reveal new tumor recurrence. Oncology is consulted, and while she is no longer considered a surgical candidate, she may be a candidate for further palliative chemotherapy as an outpatient, once her acute symptoms resolve and if her functional status remains stable.

Despite being in pain, each morning she greets the staff with a smile, and before she is willing to answer questions about her own symptoms, she insists on expressing her appreciation of the care she is receiving, and her hope that the members of the medical team are doing well.

Although her nausea improves, her pain remains poorly controlled. She is seen by the palliative social worker, chaplain, and psychologist.

Customary measures for pain control, including escalating doses of opioids, opioid rotation, and epigastric nerve block performed by interventional radiology, have little

impact on her abdominal pain. Throughout the hospitalization, Joan's code status has been Full Code, meaning that should her heart stop beating or should she be unable to breathe on her own, she would receive CPR, be intubated, and placed on a ventilator if medically indicated. A discussion about the risks and benefits of potential atypical pain medications led to talking about code status, and the normally calm Joan became, stating "I don't want to talk about that. Just go get the medication."

With Joan's permission, her daughters are invited to a family meeting during which the palliative care nurse and physicians work together with Joan to address goals of care. Upon listening to Joan discuss her clear understanding of her medical problems, hearing her goals to remain independent and pursue palliative chemotherapy in hopes that it will enable her to attend her daughter's high school graduation, and having the opportunity to see Joan interact with her daughters, it becomes obvious that although Joan has physical reasons for symptoms, her uncontrolled pain may, in large part, be due to existential sources of suffering.

Dr. Rose kneels down at beside, looks Joan in the eyes and asks if she can share some thoughts that might be upsetting. Joan agrees. Dr. Rose expresses her admiration for Joan's strength and grace, informing her that as a mother of three herself, Dr. Rose doesn't know if she would demonstrate the same virtues in a similar circumstance. She explains her suspicion that Joan may be avoiding discussions about certain topics such as code status in

an effort to protect her daughters and prevent them from mistakenly believing that she has given up. She informs Joan that, given her advanced cancer for which she is not a surgical candidate, she is also not a good candidate for cardiopulmonary resuscitation; it would be unlikely to work, would not change the underlying cancer, would add to burden and suffering at end of life, and would bring her further away from her stated goals. Dr. Rose added that, by not specifically expressing her wishes to her daughters now, there may be increased suffering for her daughters later, if they had to make clinical decisions for their mother if she became unable to make decisions for herself. Joan thanks Dr. Rose for her candor and calmly tells her daughters that should her heart stop or end of life draw near, she would not want to receive CPR or be placed on artificial means of life support but rather would want to be kept comfortable and die with dignity. After responding to the daughters' questions, the palliative team gives the family private time alone.

The next morning, Joan appears brighter and reports much less pain. Over the next few days, her opioid regimen is gradually reduced, she engages in more open discussions with the palliative interdisciplinary team, and is seen by physical and occupational therapy. She is discharged home on much lower doses of opioids, with improved pain control, and plans to follow up in the outpatient Palliative Care Clinic for continued symptom management, and with outpatient oncology for palliative chemotherapy.

Case Study #2

Michael is a 58-year-old father of three grown children. He has strong family and social networks, and religion is an important part of his life. A mechanic, he was diagnosed with colon cancer in February 2009. He underwent surgical removal of part of his colon and received chemotherapy that was completed in September 2009, after which he was feeling good and able to return to work. Almost a year later, he was found to have regional recurrence of his colon cancer. Extensive surgery resulted in bladder and prostate removal, and a colostomy. Despite another six months of chemotherapy, he was diagnosed with a second local recurrence; the regimen was discontinued, as it interfered with the anticoagulant he was taking for treatment of blood clots. He received pelvic radiation which was completed in May 2012.

In July 2012 he developed abdominal pain and vomiting due to small bowel obstruction for which he was hospitalized twice at a local hospital and managed medically with bowel rest and IV hydration. When his symptoms recurred a third time, he presented to a tertiary medical center for a second opinion and was hospitalized once again. His primary oncologist, Dr. Turner, was contacted by the inpatient medical team and she informed them that, despite aggressive treatment, Michael's cancer had progressed to the point that recurrent partial small bowel obstructions would likely continue. She was concerned about Michael, and stated that at their last visit he and his wife Sheila were having a hard time accepting the information

given to them and were understandably tearful when they left. She recommended focusing on symptom control as the best option. At the time of his discharge in early August, his symptoms had resolved and he was tolerating a normal diet.

In late August, he had an outpatient appointment with Dr. Smith, an oncologist at the tertiary medical center, for a second opinion. Dr. Smith discussed possible treatment options, including the risks, benefits, and possible toxicity from further chemotherapy, pointing out that any treatment at this point would be palliative, with possible extension of life, but without cure. Michael and his wife decided to pursue this route.

Chemotherapy was delayed by insurance issues, and over the next two months he was hospitalized three more times. CT scans of his abdomen and pelvis were compared to those done a month earlier and revealed new metastatic disease to his lungs and soft tissue. Laparoscopic exploratory surgery was offered which Michael initially declined in favor of more conservative management with total peripheral nutrition (TPN) and symptom medications.

Michael was seen by the Palliative Care Chaplain and expressed concerns about his body image, should he proceed with further surgery. The Palliative Care Psychologist also met with him, providing education and teaching him breathing and other relaxation techniques, as a means to help manage stress and anxiety related to his health problems and inability to work for the past two years.

In late October, Michael was taken to the operating room for laparoscopic surgery with extensive removal of adhesions and removal of his distal small bowel. His post op course was complicated by delayed return of bowel function and fever related to intraabdominal abscesses for which he was started on broad spectrum antibiotics.

He was transferred to the palliative care unit for further symptom management. Despite aggressive medical treatment and improved symptom management with help of the Palliative Care Interdisciplinary team, it became clear that he would no longer be a candidate for palliative chemotherapy and that the risk of continuing TPN outweighed the benefits, given the persistent infection and sepsis. With his poor prognosis and life expectancy of two to four weeks, Michael chose to return home to focus on quality of life with his family.

He was enrolled in home hospice in late December 2012. Over the next nine months, the hospice team helped manage Michael's symptoms at home. Despite continued weight loss and periodic low grade fevers, he was able to enjoy time with his family, go fishing with his wife, and avoid further hospitalization. He died peacefully at home in early September 2013.

Conclusion

The concept of both palliative and hospice care has been around for centuries. While scientific and technological advancements have provided the means for cure and prolongation of life to those with chronic and life limiting illness,

such measures may also contribute to increased symptom burden, add to suffering, and detract from quality of life. The biggest mistake patients, families, and clinicians make is believing that one must choose between cure and comfort, waiting too long to ask for a palliative care referral. Regardless of disease stage, it is never wrong to treat symptoms and make sure that all medical interventions pursued are consistent with patient and family goals. Although the cases discussed here highlight two patients with cancer, palliative care can and should be provided for all patients, at any stage of any chronic or life limiting illness or disease, as studies have shown that doing so may result in improved length and quality of life, better patient and family satisfaction, and lower costs at end of life.

Study Questions

1. What are the differences between curative and palliative care?
2. When should one receive hospice instead of palliative care?
3. Which types of symptoms can be addressed by palliative care and who are the typical members of a palliative care team?

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About the Author



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Editorials

From the Director, Virginia Center on Aging

Edward F. Ansello, Ph.D.

Fix and Fit to Age in Place

Most of us want to grow old in our own homes, to age in place.

Social determinants of aging. These are features in someone's life, like neighborhoods, existing resources, education, occupation and income, which shape how an individual (or group) experiences growing older. These social and environmental factors can help create positive, helpful conditions or negative, unhelpful conditions.

We've written about how sidewalk curb cuts, accessible entryways, and walkability can facilitate fuller participation in work and community life for persons with physical and intellectual disabilities; there's also the role that removing policy barriers can play in enriching and "normalizing" the lives of individuals with disabilities.

Now come findings that simple improvements in housing, coupled with modest person-centered supports, can improve the health and daily lives of poor older adults with limitations, enabling them to age in place.

An interdisciplinary team of a registered nurse, an occupational therapist, and a handyman made minor improvements in the houses of poor elders and introduced simple assistive devices, each time focusing on the specific situation of the individ-

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ual. Five months later, participating older adults had improved their ability to take care of themselves substantially, reducing by almost half the number of their impairments in Activities of Daily Living, and reducing their levels of depression.

Here's how it worked. Sarah Szanton, a nurse practitioner and associate professor of nursing at Johns Hopkins University, led a team at Hopkins (Sarah Szanton, Bruce Leff, Jennifer Wolff, Laken Roberts, & Laura Gitlin) in a project called CAPABLE (Community Aging in Place, Advancing Better Living for Elders), funded 2012-2015 by the Center for Medicare and Medicaid Innovation, focused on improving everyday physical functioning. Szanton has written elsewhere on the effect of poverty on physical functioning, cognitive ability, and mortality. This project's findings are in the September 2016 issue of *Health Affairs*.

The CMS Innovation Center is supporting projects to investigate if high-cost users of the health care system have problems that can be addressed cost effectively in ways other than usage of traditional health care processes, like brick-and-mortar medical centers. Difficulties with Activities of Daily Living (feeding oneself, bathing, dressing, walking, etc.) and Instrumental Activities of Daily Living (shopping, taking medications, doing laundry, etc.) strongly predict use of expensive chronic care services and institutionalization. Yet traditional health care services seldom address these.

CAPABLE is one of several inves-

tigations looking into ways to improve everyday functioning and thereby promote aging in place and reduce long-term care costs. Participants in CAPABLE had to be living in a house and could not be cognitively impaired, and be receiving skilled home health care services or have been hospitalized four or more times in the previous year. All were dually eligible for Medicare and Medicaid. Forty-five percent lived alone.

The CAPABLE interdisciplinary team comprised an occupational therapist, who made six visits to each participant; a nurse, who made four visits; and a handyman, who labored up to a full day in providing home repairs, installing assistive devices, and making home modifications.

Participants worked with the occupational therapist (OT) and nurse in semi-structured interviews to identify up to three achievable goals with each of these two disciplines. The OT observed the participant's current behavior regarding these goals and identified barriers to achieving them. For instance, with safe bathing, barriers might include a slippery tub, muscle weakness, and lack of hand rails.

The OT created a work order for the handyman prioritized by the participant, with each participant's dwelling having a budget of up to \$1300. The handyman then made, within three weeks, all improvements needed for participants to overcome the barriers; if needed repairs exceeded the budget, the handyman made repairs as were most feasible. Spending on assistive devices and home repairs and

modifications ranged from \$72 to \$1,398 for each participant.

The nurse helped the participant identify and prioritize up to three goals related to pain, depression, strength and balance, medication management, or communication with primary care providers.

CAPABLE built in procedures to help participants better face subsequent challenges, employing and testing problem solving strategies that might be useful later on. The nurse communicated with the primary care provider and the participant's family members about identified medical issues. In the next three visits, *"the nurse and participant brainstormed and planned incremental actions to address each of the participant's goals. For example, they might decide to try having the participant use the toilet at specified intervals and changing when the participant took a diuretic, so that he or she was less likely to have to rush to the bathroom at night and risk a fall."*

During the final visit, the nurse reviewed what the participant had found effective and helped him or her to consider how to apply what was learned to future challenges. The nurse also wrote to the primary care provider to summarize the participant's goals and how well he or she had achieved them.

CAPABLE involved 283 participants over a three-year period, with 234 providing complete data. Of these, 83 percent were women and 80 percent were African American. All of them lived at home with or without family members.

Results are impressive. At baseline,

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participants had difficulty with 3.9 of the 8.0 ADLs. At the end of the five-month CAPABLE program, these difficulties were reduced among 75 percent of participants. Difficulties in ADLs dropped from an average of 3.9 activities to difficulties in 2.0 activities, a 49 percent improvement in physical functioning.

Difficulties with instrumental ADLs decreased in 65 percent of participants. The average decrease in difficulty was from 4.1 activities to 2.9 activities. Importantly, multivariate model analyses showed that age, race, and symptoms of depression at baseline were not significant predictors of functional improvements. The project itself and its person-centered focus seemed to make the difference.

Depressive symptoms improved in 53 percent of the participants. Home hazards decreased from an average of 3.3 hazards to 1.4 hazards.

Participants benefited equally from CAPABLE whether or not they had been hospitalized in the previous year.

The average cost of delivering the program was \$2,825 per participant. This included all ten clinician visits, mileage, care coordination, supervision, home repair and modification (including parts and labor), and assistive devices, as well as overhead paid to the handyman organization. This is lower than the costs previously reported in the CAPABLE pilot project because experience helped to reduce costs.

So the questions are: does the

CAPABLE initiative ultimately save tax payer money by reducing more expensive chronic care and institutional costs? Do the findings reflect the “halo effect” where simply being paid attention to can improve outcomes? Cost benefits may become clearer through applications of CAPABLE in Michigan and Maine. And separately, the CAPABLE team is conducting an on-going NIH-funded randomized controlled study to help find out the role of social interaction. Control subjects will participate in sedentary activities of their choice through visits and time equal to what the CAPABLE participants received but without the focus on structural improvements and person-centered prioritized goals.

If aging in place is the goal, simple targeted improvements to one’s home and ability to function in it may be central.

2016/2017 DARS Meeting Calendar

Commonwealth Council on Aging
January 25, April 12, July 12, and
September 20, 2017

**Alzheimer’s Disease and
Related Disorders Commission**
December 6, 2016
March 7, June 6, August 29, and
December 12, 2017

**Public Guardian and
Conservator Advisory Board**
November 17, 2016
March 23, June 22, September 14,
and November 9, 2017

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From the Commissioner, Virginia Department for Aging and Rehabilitative Services

Guest Editorial by
Marcia C. DuBois
Director, Division for the Aging
Virginia Department for Aging
and Rehabilitative Services

Up and Running

The past few weeks have been a whirlwind of activity as I transitioned to my new role as director of Virginia’s Division for the Aging (VDA). During the first week, I joined my colleagues at the Home and Community Based Services Conference for a week of intensive, informative sessions. Many of the sessions focused on Managed Long-Term Services and Supports (MLTSS), and the Home and Community Based Services Final Rule which requires person-centered planning, conflict-free case management, and integrated settings. It is heartening to see that aging service professionals in Virginia are working diligently to respond to this changing landscape of service delivery.

What a great time to join the VDA team! Virginia is receiving well-deserved recognition for countless initiatives like Live Well, Lifespan Respite, Care Transitions, Dementia Care, No Wrong Door, livable communities planning, and more. The vision of making Virginia THE state for innovative aging services and exemplary stewardship is already being realized and I am delighted to do my part to continue

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this positive trend.

It feels a bit like coming home. For the past several years, I have had the pleasure of working with the Virginia Division for the Aging (VDA) in various capacities. As a member of the VDA Monitoring team, I reviewed transportation services at 13 Area Agencies on Aging (AAAs) and helped to review AAA Area Plans. Learning about aging services from the experts has helped me appreciate the importance of what we do.

Several people have mentioned that they wondered why I chose to leave the disability field for aging services. For me, disability and aging are inextricably linked, so the transition feels seamless. The 2010 Census shows that the prevalence of disability is 35% for ages 65-69. This figure increases to more than 70% for ages 80 and over. Most of us will experience at least one disability in our lifetime, if we are fortunate enough to have a long life.

The words “aging” and “disability” also share a negative connotation for some, yet both are just a part of the fabric of all of our lives. Culture and attitude make all of the difference in terms of how we view ourselves and our communities. In the past, loss of mobility, hearing, or vision would often result in isolation for elders. Likewise, younger people with disabilities were also segregated and isolated. Now, changing attitudes, better access in the community, and advances in assistive technology such as screen readers, communication devices, and even cell phones, make life easier and foster connectedness and engagement.

Living in a barrier-free environment with access to services that support independence is meaningful for older Virginians as well as younger people with physical, mental, sensory, or developmental disabilities. The recent loss of one of my parents to Alzheimer’s disease really underscored the importance of community based services and supports in a very personal way.

Choosing where to live and having access to a menu of supportive services that are tailored to each individual and his or her needs, not one-size fits all, improves everyone’s quality of life.

In my previous role promoting Virginia’s Blueprint for Livable Communities, I was able to witness and showcase the collaborative efforts of local grass roots groups comprised of AAAs, businesses, foundations, and community partners responding to changing demographics by creating comprehensive age wave plans. Currently, there are nine active age wave plans in the Commonwealth. Several other localities are well on their way. These local partnerships are critical to ensuring that vintage Virginians have a multitude of options that foster healthy living in the community.

It was gratifying to see that livable communities’ planning and long-term services and supports were featured prominently in the 2016 Virginia Governor’s Conference on Aging (VGCA). Mark your calendars for May 22-23, 2017 at the Hotel Roanoke. It was a testament to the conference organizers that the 2016 conference sold out early. The 2017 VGCA promises to be

even bigger and better with a continuation of the themes of Culture Change in Long Term Services and Supports; Safety and Financial Security: Older Adults in the New Virginia Economy; Livable Communities: Overcoming Barriers and Sharing Strategies; and a new focus on Community Engagement: Supporting and Leveraging the Work of Citizen Advocates.

In recent weeks, I have enjoyed the opportunity to meet with VDA staff and leaders in aging services in order to gain a deeper understanding of the vital aging services that are provided by the strong network of aging service providers in Virginia. My listening tour is just beginning, though. Many of you may recall our former Deputy Commissioner, Bob Brink, and his energetic, ambitious tour of all of Virginia’s AAAs over the span of just 12 months. He set the bar high, but I am pleased to accept the “Brink Challenge” and visit each of the 25 AAAs within a year. Even though I have already been to more than half of them previously, I did not have the opportunity to receive a full overview of each one. As they say, “If you have seen one AAA, you’ve seen one AAA”. Traveling throughout the Commonwealth to all 25 is no chore, though. In fact, I am eager to spend more time learning about their unique, local initiatives and exemplary programs while enjoying Virginia’s scenic views.

COMMONWEALTH OF VIRGINIA

Alzheimer's and Related Diseases Research Award Fund

2015-2016 Final Project Report Summaries

The Alzheimer's and Related Diseases Research Award Fund (ARDRAF) was established by the Virginia General Assembly in 1982 and is administered by the Virginia Center on Aging at Virginia Commonwealth University. The awards this year were enhanced by a \$25,000 donation from Mrs. Russell Sullivan of Fredericksburg, in memory of her husband who died of dementia. Sullivan awards are indicated by an asterisk (*). Summaries of the final project reports submitted by investigators funded during the 2015-2016 round of competition are given below. To receive the full reports, please contact the investigators or the ARDRAF administrator, Dr. Constance Coogler (ccoogler@vcu.edu).

EVMS

Frank J. Castora, PhD, and Randolph Coleman, PhD

Biochemical Systems Theory Modeling of Alzheimer's Disease Using Mitochondrial Genes Involved in Amyloid Precursor Protein and Tau Processing

Mitochondrial dysfunction is a critical component in the pathogenesis of Alzheimer's Disease (AD) where deficits in oxidative capacity and energy production have been reported. The investigators previously found abnormal expression of several genes critical to mitochondrial energy production in AD brains. In this study, total RNA was isolated from age-matched controls, AD and AD+ (AD possessing a mitochondrial DNA mutation) frozen autopsy brain samples, and the abnormal expression of 168 genes involved in mitochondrial function and energy production was assessed. A subset of mitochondrial genes was found to be critically involved in mitochondrial energy production and function in AD brains. The investigators have now begun to build a mathematical model of AD using Biochemical System Theory (BST). Through the development and application of appropriate differential equations, the flux of various metabolites and small molecules will be simulated and used to generate a testable model of mitochondrial involvement in AD pathogenesis. (Dr. Castora may be contacted at (757) 446-5657, castorfi@evms.edu; Dr. Coleman may be contacted at (757) 221-2679, racole@wm.edu.)

UVA

Alev Erisir, MD, PhD*

Ultrastructural Neuropathology in Transgenic Models of Alzheimer's Disease

This investigation aimed to reveal brain alterations that are too small or too subtle to be detected by the microscopic tools used for studying lesions in AD. Using transgenic mice aged between 3 and 12 months that overexpress amyloid and electron microscopy (EM), the earliest alterations in brain structure were characterized prior to the onset of cognitive decline. The brain regions known to display AD pathology were surveyed to characterize the emergence and severity of ultrastructural lesions therein. In addition, immuno-EM was used to identify when and where A β -associated neuronal deterioration started. Their systematic analyses revealed evidence of a previously unappreciated culprit for the cognitive decline that emerges before 5 months of age. Particularly, the oligodendrocytes, the cells that make myelin, become hypermotile in the presence of overexpressed amyloid. The consequence is over-myelination, or rather disruptive myelination, all across the brain. Basal forebrain and entorhinal cortex, the sites of first neurodegeneration in human AD, contained oligodendrocyte hypermotility-related pathologies at the youngest ages. Other regions displayed progressively more severe pathologies at later ages, in a spatial pattern similar to the consensus staging protocol for the neuropathologic assessment of human AD established by the National Institute on Aging and the Alzheimer's Association. By the ages when cell death is prominent, myelin outfoldings gave rise to massive bulb structures, which are transitional to neuritic plaques. These results provide insights into the mechanism and role of oligodendrocyte hypermotility that will guide future studies of AD neuropathology in the human brain. (Dr. Erisir may be contacted at (434) 243-3549, ae4h@virginia.edu.)

VCU**MaryPeace McRae, PharmD, PhD, and Patricia Slattum, PharmD, PhD******Investigating the Relationship between Benzodiazepine Medications and the Development of Blood Brain Barrier Dysfunction as Risk Factors for Alzheimer's Disease***

The main focus of this project was to accumulate experimental evidence that would establish a mechanism of the observed association between benzodiazepine use and the development of AD. The goal of these studies was to investigate the effects of benzodiazepine medications on the integrity and function of the blood brain barrier (BBB). Utilizing the *in vitro* human BBB model already established in the investigator's lab, studies confirmed the hypothesis that select benzodiazepines alter measurements of barrier integrity. The ability of the barrier to maintain its selectivity was only modestly affected by the benzodiazepines, and treatment with alprazolam did not result in changes in amyloid β flux across the barrier. Further work will be conducted to examine the effects of the benzodiazepines on the expression of the transport proteins involved in amyloid beta passage across the BBB. (Dr. McRae may be contacted at (804) 628-5076, mpmcrae@vcu.edu; Dr. Slattum may be contacted at (804) 828-6355, pwslattum@vcu.edu.)

VPI & SU**Webster L. Santos, PhD, and Gregorio Valdez, PhD******Controlling Neuronal Sphingosine-1-Phosphate as Alzheimer's Disease Therapy***

Sphingosine-1-phosphate has been shown to be a potent lipid signaling molecule that protects neurons from dying as a result of biological insults. Six synthetic small molecules designed to specifically inhibit the activity of one or both of the sphingosine kinases (SphK1 & SphK2) were tested on hippocampal neurons cultured under conditions that mimic the stress environment in brain regions affected by AD. Three compounds showed promise for preventing pathophysiological changes in hippocampal neurons and thus promoting their long-term survival in culture. In addition, neurons treated with one of these contained more synaptic-like structures, indicating that inhibiting these kinases either promotes the formation of new synapses or stabilizes and prevents the loss of already existing synapses. The investigators are currently determining the optimal dose for the designed compound, and testing the therapeutic benefit on cortical neurons. The data obtained should serve as the basis for developing treatments for AD. (Dr. Santos may be contacted at (540) 231-5742, santosw@vt.edu; Dr. Valdez may be contacted at (540) 526-2076, gvaldez1@vtc.vt.edu.)

GMU**Catherine J. Tompkins, PhD, and colleagues******Individuals with Dementia at Adult Day Health Care Centers: Examining the Effects of Individualized Music on Mood and Agitation***

The Music and Memory Program© is an international program that brings personalized music selections into the lives of people with dementia. A mixed method, six-week quasi-experimental two-group design was implemented to examine the effects of linking individualized treatment goals to strategic music implementation on behavioral and emotional functioning in a sample of older adults with dementia participating in five different adult day health care centers. The results demonstrated a positive change in mood and a decrease in agitation for the intervention group participants based on behavioral observations. This research will increase understanding of a non-pharmacological, situation-specific individualized music intervention that can be used by formal and informal caregivers to impact the behavior of individuals with AD. (Dr. Tompkins may be contacted at (703) 993-2838, ctompkin@gmu.edu.)

VPI & SU Bin Xu, PhD, David Bevan, PhD, and Ling Wu, MD, PhD*

Molecular Mechanisms of Amylin as a Novel Contributor to Alzheimer's Disease

Epidemiological studies have shown a link between type 2 diabetes (T2D) and the risk for AD. A feature common to both diseases is the formation of amyloid peptide aggregates. The peptide associated with AD is amyloid beta (A β), and for T2D, it is amylin. Amylin can possibly travel to the brain, and aggregate themselves into amylin amyloids, or combine with A β , to form amylin/A β -crossed amyloids. This project applied an interdisciplinary approach involving cellular, biochemical, biophysical, and computational methods to define the amylin amyloid species, establish cell-based neurotoxicity assays, and assess amylin/A β -crossed amyloid formation and toxicity. The investigators were able to define three amylin amyloid species that have distinct sizes and shapes. They further defined how amylin forms amyloid and fibril using multiple biochemical and biophysical methods. They established cell-based functional assays that can be used to assess amylin-induced neurotoxicity. Two compounds used in Alternative and Complementary Medicine to treat diabetes, inflammation and neuroprotection were found to potentially inhibit amylin-induced neurotoxicity. Mechanistic insights were provided through detailed and comprehensive cellular, biochemical, and computational simulation studies. These results serve as the basis for a future comprehensive research program to elucidate molecular events that contribute to AD as well as to devise potential treatment strategies. (Dr. Xu may be contacted at (540) 231-1449, binxu@vt.edu; Dr. Bevan may be contacted at (540) 231-5040, drbevan@vt.edu; Dr. Wu may be contacted at (540) 231-8442, wul3@vt.edu.)

2014-2015 Delayed Final Project Report

UVA Roberto Fernandez-Romero MD, MPH, PhD

The Neurophysiology of Driving Impairments in Early Alzheimer's Disease

Getting lost in familiar surroundings, wandering, and unsafe driving are some of the most debilitating early symptoms of AD and represent a major safety concern. These visual-spatial impairments have been associated with a decreased capacity to perceive optic flow, the pattern of visual-motion that is naturally observed during common tasks like ambulation or vehicular driving. Using an electroencephalographic technique known as event related potentials (ERPs), the investigators recorded specific brainwaves that are generated by optic flow and found significant differences between AD patients and controls. In this study they combined ERPs with a virtual reality driving test to explore the links between decreased brain responsiveness and driving capacity in a group of 19 patients with early stage AD and 18 cognitively normal elderly controls. Only one patient passed the driving test and only one control subject failed it. A comparison of test scores showed highly significant differences between the two groups, supporting the utility of virtual reality in the assessment of driving capacity. The researchers also found statistically significant differences in the magnitude of ERPs, with AD subjects showing smaller responses that were also linked to poor driving scores and impaired cognitive tests. These results have several implications; the differences in response magnitude between groups and their association to cognitive scores support the potential utility of ERPs as early markers of Alzheimer's. Furthermore, the association between ERPs and driving score supports the notion that impaired perception of optic flow is partly responsible for impaired driving capacity and suggests that ERPs may serve as screening tools. Future studies with larger samples will be necessary to generalize these findings and establish normal parameters. Longitudinal studies will also explore the use of optic flow ERPs as markers of disease progression. (Dr. Fernandez-Romero may be contacted at (434) 243-5611, rf6u@virginia.edu.)

Mountain Empire Older Citizens Transit Receives Prestigious Aging Innovations Award from the National Association of Area Agencies on Aging

Much of this piece appeared previously in The Mountain Empire News, September 2016.

MEOC's Falls Prevention in Transportation Program recently received national recognition from the National Association of Area Agencies on Aging (n4a) with an *Aging Innovations Award*, the highest honor presented by n4a to its over 650 member agencies. The awards program is sponsored by Critical Signal Technologies Link to Life. The Falls Prevention in Transportation Program was among the top 16 local area agency on aging programs to receive honors during the n4a Annual Conference and Tradeshow, July 24-28, in San Diego, California.

The 2016 *n4a Aging Innovations and Achievement Awards* recognize Area Agencies on Aging and Title VI Native American aging programs that develop and implement cutting-edge approaches to support older adults, people with disabilities and their family caregivers. A part of the criteria for selection of the honorees was the ease with which other agencies could replicate the program in their communities.

The Falls Prevention Program was a collaborative effort of Mountain

Empire Older Citizens' Program of All-Inclusive Care for the Elderly (PACE), MEOC Transit, and the Virginia Geriatric Education Center (VGEC), a consortium of Virginia Commonwealth University, University of Virginia, and Eastern Virginia Medical School. The Consortium includes staff from medicine, pharmacy, nursing, occupational therapy, physical therapy, and social work who work together as an interprofessional group of equals who oversee all of the consortium's geriatrics training programs. The consortium has been federally funded and supported by the Health Resources and Services Administration (HRSA) of the Department of Health and Human Services since 2010.

MEOC's award winning Falls Prevention in Transportation Program is one of many positive results of the seven-week evidence based practice training program on falls prevention conducted by VGEC to the Interdisciplinary Team and staff at Mountain Empire PACE. Ed Ansello, PhD, Director of the VGEC as well as the Director of the Virginia Center on Aging at Virginia Commonwealth University said, "The interdisciplinary staff at MEOC's PACE is an especially impressive team. MEOC had the foresight to include in our seven-week training program on falls prevention various employees who touch the lives of the older persons in the PACE program, including those in transportation."

MEOC seized the opportunity to take the VGEC training to all its frontline employees and provided a falls prevention class focused on educating PACE, Transit, and Per-

sonal Care staff on preventing falls and how they impact service and liability. The sessions included discussion of risk factors, care planning, teamwork, interventions and implementation. As a direct result of the training and the implementation of the evidence based practices in the daily work of Mountain Empire Transit, there was a 24% reduction of falls in the third quarter and a 40% decrease in falls in the fourth quarter.

Michael Wampler, Executive Director of MEOC, said, "We are very grateful to have received this n4a Innovations Award. We share this honor with many partners and would like to especially thank VCU and VGEC for providing invaluable and critical assistance with the project. Falls prevention is of great importance to the health, safety, and quality of life of those we serve."

Dr. Ansello noted, "Our trainers encountered enthusiasm and commitment to the well-being of older adults in all of our interactions at MEOC PACE. Moreover, we enjoyed firsthand the warmth and hospitality of its leadership."

PACE Executive Director Tony Lawson said, "VGEC's evidence-based falls prevention training program helped PACE staff understand and evaluate practices in use by healthcare providers around the world. The training helped us rule out ineffective practices and focus on interventions that are known to prevent falls." Lawson added, "The ongoing geriatric teleconsults with VCU faculty are helping our clinical team stay current on important geriatric issues like poly-pharmacy and antibiotic-resistant organisms.

The more we know, the better we can care for participants in the PACE program.”

“With the health care landscape continuing to change rapidly, our members are discovering new ways to position themselves in the long-term and health care marketplaces, as well as to strengthen long-standing services, to meet the needs of America’s rapidly growing older adult population,” said n4a’s Chief Executive Officer Sandy Markwood. “Our members work tirelessly, and with little fanfare in their communities, and this program enables us to shine a well-deserved spotlight on their critical work to support older adults’ health, safety, independence, and dignity,” Markwood added.

In conclusion, Dr. Ansello shared, “Happily we have been funded by HRSA for another three years and are continuing this positive relationship with MEOC PACE. Our current interactions include staff and caregiver training events and bi-monthly geriatric consults where MEOC PACE identifies issues needing clarifications and training, and our VGEC identifies and supplies the experts to deliver these via teleconferencing. We have found our partnership with MEOC PACE to be most positive and beneficial for older adults.”

MEOC has been providing services to older adults and their caregivers in Lee, Wise, and Scott Counties and the City of Norton since 1974. MEOC’s Program of All-Inclusive Care for the Elderly, one of the very first rural PACE programs in the country, opened its doors over eight years ago.



Representatives of Mountain Empire Older Citizens, Inc. (MEOC) accept a National Association of Area Agencies on Aging (n4a) Aging Innovations and Achievement Award for MEOC’s Falls Prevention in Transportation Program. Left to right are Heather Sellar, Critical Signals Technology Vice President of Managed Care and Independent Living, Michael Wampler, MEOC Executive Director, Mitch Elliott, MEOC Transit Director, 2014-2016 n4a President Joe Ruby and Tony Lawson, MEOC PACE Director.

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Websites for Older Adults Taking Medications

As we age, it’s likely that some of us have more prescriptions in our daily regimen than we used to.

Aging may coincide with having several health issues simultaneously, so we are seeing more than one health care provider, and we receive prescriptions from each of them. Such concurrent conditions most likely mean we’re taking multiple medications from different drug classes. The result can be that these drugs interact with each other or with foods in our diet or produce adverse drug reactions (ADRs).

There’s an excellent website to help older adults manage them and be alert to troublesome possibilities. Is my prescription drug problematic for older patients, even though it’s effective with those who are younger? Is my prescription medication likely to interact with other drugs or with certain foods? Are the ADRs likely to be seen as a new condition, prompting my health care prescriber to order still another medication?

Drugs.com maintains up-to-date information on more than 24,000 prescription, over the counter, and herbal drugs. Its website contains such features as an A-Z drug index (alphabetical search of drugs, with dosage, interactions, side effects, etc.); a pill identifier, where you type in a pill’s color, shape, and anything imprinted on it to learn what it is; a News & Alerts section

- continued on p. 17

Medicare Advantage Plans May Recover Conditional Payments Under the Medicare Secondary Payer Act

by Andrew H. Hook, CELA and Shannon A. Laymon-Pecoraro, Esq., Hook Law Center, Virginia Beach and Suffolk

The following first appeared in Hook Law Center News, May 31, 2016, and is reprinted with permission. But first, some context subsequently provided by co-author Shannon Laymon-Pecoraro:

Let's say John is over the age of 65 and enrolled in Medicare and has Anthem as a Medicare Advantage Plan (MAP). John is in an automobile accident that breaks his hip, requiring surgery and extensive rehab. Medicare (\$100,000) and his MAP (\$50,000) pay for the surgery and rehab. John's attorney gets John a \$500,000 settlement from the other driver. Traditionally, only the Medicare lien (for lack of a better term) of \$100,000 would have been due (to be reimbursed or "recovered"). Under this new case, the MAP's lien of \$50,000 is also due. If the attorney fails to properly pay off the conditional payments, John and John's attorney could be penalized.

In an effort to reduce government spending and preserve the Medicare program, Congress enacted the Medicare Secondary Payer ("MSP") Act in 1980. Prior to that time, Medicare was the primary payer for any covered medical expense, the only exception being those persons covered by Worker's

Compensation. With the adoption of the MSP Act, Medicare's responsibility for medical expenses is reduced to only those expenses not covered from another source, such as another insurance plan, which includes health, Worker's Compensation, automobile, liability, and no-fault insurance plans, known as a primary plan. As a result, Medicare can recover any payments that have been made, or can reasonably be expected to be made, that are the responsibility of a primary plan.

In cases when it is expected that the primary plan will either not pay for services or not pay promptly, Medicare may make conditional payments, thereby creating a Medicare lien. This lien must then be repaid by a primary plan or any entity that receives a third-party payment. The MSP Act therefore affects everyone involved in a MSP claim, including, but not limited to, any beneficiary, provider, physicians, state agency or attorney. Failure to comply with this requirement could result in Medicare's ability to recover double damages.

For years, there has been a debate with regard to whether the MSP Act extends to private companies that contract with Medicare, typically under what is referred to as a Medicare Advantage Plan ("MAP"). Under a MAP, an individual elects to receive Medicare services from an insurance company of his choosing, Medicare pays the MAP a fixed fee, and the MAP assumes the insurance risk by providing Medicare Part A and B services. The United States District Court for the Eastern District of Virginia recently held that a Medicare Advantage Plan has a pri-

vate right to recover under the MSP Act, and may pursue recovery from any entity that receives payment from a primary plan.

In Humana Insurance Co. v. Paris Blank, LLP, Humana, which made conditional payments as a MAP, sought recovery from various parties, including Paris Blank, LLP, a law firm representing a Plaintiff in a personal injury action as a result of an automobile accident. Paris Blank argued that Medicare was a private insurance company, and as a result, was not entitled to recover under the MSP Act, and specifically, that recovery could not be made against the law firm. Citing In re Avandia and a memorandum from the Centers for Medicare & Medicaid Services, the court essentially determined that Medicare, in contracting with the MAP, assigns the MAP its rights and responsibility in recovering from a primary plan.

The Court then reasons that although the attorneys are not the primary plan, the MSP Act extends to any entity, including attorneys or law firms, receiving payment from the primary plan, and that as a result, the MAP could recover from an attorney who was paid from the proceeds of a personal injury settlement.

(Editor: So, for those who have both Medicare and a Medicare Advantage Plan, the latter must now be seen in a new light when there are personal injuries and law suits.)

Chocolate and Health



There have been so many headlines and gossip buzzes about the benefits of eating chocolate that you'd think we should add candy bars to the four basic food groups. Not so fast.

First, it's not chocolate itself which deserves whatever praise may or may not be warranted. It's cocoa flavanols that may be the source of health benefits. Flavanols are bioactive plant based nutrients that are almost totally free of calories, sugar, and fat. Chocolate is a combination of cocoa solids, cocoa butter or other fat, and sugar. Milk in the form of milk powder or condensed milk is added to make milk chocolate, while cocoa solids are held back to make white chocolate. Worth noting is that, in making some forms of chocolate, the processing can destroy the cocoa flavanols.

Small studies in 2013 and 2014 suggested that the naturally occurring flavanols in cocoa beans may help to improve blood flow and lower blood pressure and may have helped subjects in their 50s and 60s remember and recognize visual patterns more quickly than counterparts given placebos over three months.

But how and where do we find these cocoa flavanols? The answer is that it's not always easy nor practical. To get 750 mg of flavanol (an amount used in some of the studies) would require approximately: 6 tablespoons of cocoa powder, about 70 calories; or 5 ½ ounces of semi-

sweet chocolate chips, about 740 calories; or 4 ¾ ounces of dark chocolate, about 750 calories; or 2 ½ pounds of milk chocolate, about 5,850 calories! And we'd have to consume this every day.

This would also mean that we are ingesting all the sugar and fats added in the recipes for these various forms of chocolate. A very unhealthy way of trying to get healthy.

So, a new research trial has begun at Harvard Medical School entitled COSMOS (COcoa Supplement and Multivitamins Outcomes Study), directed by Drs. JoAnn Manson and Howard Sesso. It'll give 750 mg a day of cocoa flavanols (in capsules, free of additives) to 18,000 women (ages 65 and above) and men (ages 60 and above) for four years.

This randomized trial of cocoa flavanols is the first large scale study to test whether or not cocoa flavanols deserve the health benefits ascribed and do, indeed, help lower the risk of heart attacks, strokes, and cardiovascular deaths. So for now, we really don't know whether cocoa flavanols protect the heart and brain.

Chocolate and health? We'll have to wait to find out.

10 Ways to Love Your Brain

Start Now. It's never too late or too early to incorporate healthy habits.

Hit the Books. Formal education will help reduce risk of cognitive decline and dementia. Take a class at a local college, community center, or online.

Butt Out. Smoking increases risk of cognitive decline. Quitting smoking can reduce risk to levels comparable to those who have not smoked.

Take Care of Your Mental Health. Some studies link depression with cognitive decline, so seek treatment if you have depression, anxiety or stress.

Heads Up! Brain injury can raise risk of cognitive decline and dementia. Wear a seat belt and use a helmet when playing contact sports or riding a bike.

Follow Your Heart. Risk factors for cardiovascular disease and stroke (obesity, high blood pressure and diabetes) negatively impact your cognitive health.

Fuel up Right. Eat a balanced diet that is higher in vegetables and fruit to help reduce the risk of cognitive decline.

Catch Some ZZZZs. Not getting enough sleep may result in problems with memory and thinking.

Break a Sweat. Engage in regular cardiovascular exercise that elevates heart rate and increases blood

flow. Studies have found that physical activity reduces risk of cognitive decline.

Stump Yourself. Challenge your mind. Build a piece of furniture. Play games of strategy, like bridge.

Buddy Up. Staying socially engaged may support brain health. Find ways to be part of your local community or share activities with friends and family.

Growing evidence indicates that people can reduce their risk of cognitive decline by adopting key lifestyle habits. When possible, combine these habits to achieve maximum benefit for the brain and body.

Visit www.alz.org/10ways to learn more.



Geriatrics Workforce Training Grants Available

The Virginia Center on Aging (VCoA) has begun its 11th year as administrator of monies to train personnel to be better prepared to meet the needs of older Virginians. Former Delegate Jack Reid patroned the bill establishing the Geriatric Training and Education (GTE) initiative to develop a stronger geriatrics and gerontological work force in the Commonwealth. The General Assembly of Virginia has appropriated funds to continue this program during fiscal year, July 1, 2016 to June 30, 2017.

The General Assembly has designated the VCoA as administrator of GTE. In order to put these GTE monies to their most effective and prudent use, we issue a Request for Proposals from Virginia institutions of higher education, community-based organizations, and other not-for-profit groups with a strong history of adult and aging-related experience. Applicants submit project proposals at either of two submission deadlines: August 1st or November 1st. Application guidelines are available on the VCoA website (www.sahp.vcu.edu/departments/vcoa) under Programs.

Eligible applicants apply for GTE funds for workforce training and education initiatives that can be completed within the fiscal year. Applications for training projects, conferences, or similar educational programs are appropriate. Applicants may request GTE awards of \$1,000 to \$25,000, as long as the request is justified. VCoA uses

objective third-party reviewers in the award selection process. The number of awards made depends upon the availability of funds.

See the website for guideline in formatting the application and lists of the past 10 years' awardees and their topics of training and education. The next application deadline is November 1, 2016.

Websites, continued

that has information on new applications of existing drugs, FDA Alerts, and drug shortages; an interactive list of the Top 100 Drugs currently in use; and other options for consumers and professionals.

Suppose you are taking Atorvastatin prescribed by your cardiologist. Clicking this medication on the Top 100 Drugs tab, for instance, gives you information on what this drug is and its intended purpose; its generic and brand names; considerations before starting the drug; how to take it; what happens if you miss a dose; what you should avoid while taking atorvastatin; side effects; dosing information; drug interactions; geriatric considerations, and more. The same format applies for not only the 100 Top Drugs but also for all drugs in the huge index.

AdultMedication.com is a website developed and maintained by the American Society on Aging and the American Society of Consultant Pharmacists Foundation. The site focuses on medication adherence, meaning the person's actions to continue taking appropriate drugs.

Calendar of Events

October 16-19, 2016

67th Annual Convention and Expo of the American Healthcare Association and the National Center for Assisted Living. Nashville, TN. For information, visit www.eventscribe.com/2016/ahcancal/index.asp.

November 4, 2016

Fundamentals in Leadership Training for Healthcare Professionals. Presented by CommonHealth Partners. Contact hours (6) sponsored by VCU's Department of Gerontology. 10:00 a.m. – 2:00 p.m. Cost: \$185. Mariners Landing, Huddleston, VA. For information, e-mail Jay@commonhealthpartners.com or visit https://training.vcu.edu/course_detail.asp?ID=15380.

November 10, 2016

Conference on Dementia: Enhancing Quality of Life in Dementia Care. Presented by Alzheimer's Association Central and Western Virginia Chapter. 8:00 a.m. - 5:00 p.m. Holiday Inn Valley View, Roanoke. For information, call (434) 973-6122 ext. 103 or visit www.alz.org/cwva.

November 10, 2016

The Art of Healthy Aging Forum and Expo: The Joys and Challenges of Caregiving. Presented by Senior Services of Southeastern Virginia. Virginia Beach Convention Center. For information, visit www.ssseva.org.

November 15-16, 2016

33rd Annual Conference and Trade Show of The Virginia Association for Home Care and Hospice. Marriott City Center, Newport News. For information, visit www.vahc.org.

November 16, 2016

The RVA Better Aging Forum. Kathy F. Berry, Chaplain - Westminster Canterbury Richmond, will discuss how family members and caregivers can address the spiritual needs of older adults with dementia. Senior care/product/service industry professionals are invited. 11:30 a.m. - 1:00 p.m. The Virginia Room, Imperial Plaza, Richmond. For information, call (804) 368-3200 or e-mail JWarns@RFSLEnds.com.

November 16-20, 2016

Annual Scientific Meeting of the Gerontological Society of America. New Orleans Marriott and Sheraton New Orleans, New Orleans, LA. For information, visit www.geron.org.

January 25, 2017

Virginia Center on Aging's 31st Annual Legislative Breakfast. St. Paul's Episcopal Church, Richmond. 7:30 a.m. - 9:00 a.m. For information, call (804) 828-1525 or e-mail eansello@vcu.edu.

March 9-12, 2017

The Future Is Here: Educating a New Generation of Professionals in Aging Worldwide. The 43rd Annual Meeting and Educational Leadership Conference of The Association for Gerontology in Higher Education. Miami Marriott Dadeland, Miami, FL. For information, visit www.aghe.org.

March 20-24, 2017

Aging in America: Annual Conference of the American Society on Aging. Chicago, IL. For information, visit www.asaging.org.

April 4-5, 2017

Virginia Assisted Living Annual Spring Conference and Trade Show. DoubleTree by Hilton, Williamsburg, VA. For information, visit www.valainfo.org.

April 6-9, 2017

38th Annual Meeting of The Southern Gerontological Society. DoubleTree by Hilton Asheville Biltmore, Asheville, NC. For information visit www.southerngerontologicalsociety.org.

April 21-23, 2017

The 28th Annual Virginia Geriatrics Society Conference. Short Pump Hilton, Richmond. For information, visit www.virginia geriatricsociety.org.

May 22-23, 2017

Governor's Conference on Aging. Hotel Roanoke, Roanoke. For information, visit www.dars.virginia.gov.

Age in Action

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Refresh, Refuel, and Retool: An Alzheimer's Workshop for Caregivers
Presented by The Community Idea Stations

November 17, 2016

The Community Idea Station, Richmond
8:30 a.m. - 4:30 p.m.

This interactive workshop will be a time of engagement for family caregivers with experts in the field of Alzheimer's and Dementia. Sessions will explore positive approaches to living with the disease from the perspective of the caregiver as well as the loved one with Alzheimer's. Built into the day will be time for sharing and discussion of each person's unique journey.

Presentations include:

- Alzheimer's: Understanding the Disease, the Science, and the Latest Research and Treatments
- Learn to Speak Dementia
- Enjoyment and Engagement in Life: How to Provide Meaningful Activity for a Person with Dementia
- Friendships: How to Encourage Others to Be a Better Friend to You and Your Loved One

Registration fee is \$15 and includes a continental breakfast and lunch. Each participant will leave with a Care-giver's Tool Kit to take home. For information, visit www.ideastations.org.

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