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On the Cover: Dementia

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Editorial

Jane Lochrie, M.D.

Jane Lochrie, M.D.

As the proportion of Americans over the age of 65 continues to grow, the number of patients with Alzheimer's disease (AD) and other dementias will also increase. It is estimated that the number of patients with AD will increase from 5.1 million today to 7.1 million in 10 years – a 40 percent increase. This is the sixth leading cause of death in the United States and the only cause of death in the Top 10 diseases that cannot be prevented, cured or slowed down. Deaths attributed to AD have increased 71 percent from 2000 to 2013, while deaths from the No. 1 cause of death, heart disease, has decreased 14 percent.

The cost of this disease is staggering; the direct cost is estimated to be $226 billion in 2015. Half this cost is borne by Medicare; one in every five dollars is spent on people with Alzheimer's, and Medicaid payments for patients with this disease are 19 times higher than for those without the disease. In addition, friends and family of people with AD and other dementias provide an estimated 17.9 billion hours of unpaid care, valued at $217.7 billion. Almost 60 percent of caregivers rate the emotional stress of caregiving as "high" or "very high," and 40 percent suffer from depression, adding another $9.7 billion for the cost of the caregivers' health care.

In the first article, Dr. David Drachman describes the 100-plus years of the history of AD, what is known and what is unknown. Much of what we know today is attributed to his research. He proposed the cholinergic system as the defect in age-related AD. Unfortunately, more than 200 drugs have been studied for the treatment of AD, but only four have been released – with disappointing results.

Ron Vallario, M.D., and Brenda King, PsyD, describe the PACE program that provides those with dementia the option to continue to live in the community through an integrated model of care with an interdisciplinary team. Transportation to the PACE center and to appointments is a key component that allows caregivers to remain employed while caring for their loved one. The three goals of PACE is to promote longevity, optimize function and promote palliative care.

Dr. Popkin continues to extol the virtues of the Writer's Roundtable (see his previous article in *Worcester Medicine,* Jan/Feb 2012). Contrary to previous opinion, regular mental exercise can actually alter the neural circuitry in older adults, making learning centers more responsive. A college English professor, Dr. Lucia Knoles, set up a weekly autobiography writing class in an assisted living facility in Worcester with remarkable success. In fact, this has been instituted in four additional facilities.

Raghu Appasani, a second-year medical student at the University of Massachusetts Medical School, describes AD as an "international health care crisis." He has been working in the rural areas of India for the past six years. He opines that the main barrier to mental health care is social stigma and lack of education. Collaborating with local leaders, he was able to implement a mental health education program, and there has already been a dramatic increase in the number of people seeking mental health care. He calls for world leaders to address all aspects of care and not just focus on the medical condition.

The nursing perspective was presented by Carolann Monopoli, MSN, RN, ACPN, and Cindybeth Scerra Palmgren, MSN, APRN-BC, NP-C. They enumerate the many challenges of an elderly hospitalized patient. They advocate for a multidisciplinary team approach to the elderly patient and emphasize the importance of including the family.

The pharmacologic treatment of AD is reviewed by Anna Morn, Pharm.D. The four drugs that are currently on the market show only modest and unsustained benefits. She describes two human monoclonal antibodies that target and remove beta-amyloid. She is cautiously optimistic that these new drugs being studied may offer some benefit in the near future.

Included in this issue are two book reviews. The first review was written by Amanda Graves, a WDMS Alliance affiliate. She reviewed *Still Alice* by Lisa Genova, a heart-wrenching account of a 50-year-old Harvard psychology professor with early-onset AD. The second book was reviewed by a former UMMS student, Tom Peteet, who is now an internal medicine resident at Boston Medical Center. *The Digital Doctor* by Bob Watcher tackles the history of the technology in American medicine.

Before you finish with this publication, please read, As I See It, a brief account of the WISE program at Assumption College by retired physician Dr. Reid Roberts. As always, we also have Society Snippets, the President's Message and the Legal Consult, which hits close to home this time.

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A path to better health care: Keep it simple and satisfying for all

Frederic Baker, M.D.

Frederic Baker, M.D.

The practice of medicine is a calling that many physicians find very personally rewarding. Yet, for a profession dedicated to promoting health and well-being, U.S. physicians are often reported as experiencing more burnout than other American workers. Burnout is commonly defined as loss of enthusiasm for work, feelings of cynicism/disengagement, low self-esteem or a low sense of personal accomplishment, emotional exhaustion, ineffectiveness and depersonalization, as a result of the work environment and not as a consequence of a mental illness.[1,]

A 2015 *Medscape* Physician Lifestyle Report noted "46% of responding physicians reported they had burnout." Burnout is associated with higher rates of physician attrition and premature retirement, patient dissatisfaction, clinical errors and suicide rates. Physician suicide rates exceed that of the general population.[1,4,5] Just what can be done to reverse these disturbing trends of physician burnout?

A review of the literature reveals some interesting suggestions and some common themes.

One article[1] in particular contends that the seeds of burnout can start as early as residency, as a part of the culture of medical training. The extreme pursuit of the "four values characteristic of physicians and reinforced in medical training of service, excellence, curative competence and compassion towards others" comes at the expense, neglect and denial of the caretaker's needs. What manifests are toxic and opposite values of "deprivation, invincibility, omnipotence, and isolation in the caretaker." The authors offer how reassessing our priorities, mental training with mindfulness, self-awareness, acceptance of fallibility and uncertainty, and connection with community are great interventions. Coping skills and efforts at increasing resiliency foster a sense of awareness and inner peace that can reduce or prevent the onset of burnout.

Certainly a greater awareness and recognition of early signs and causes of burnout and exhaustion are a critical start. A *Medscape* 2015 survey of physicians ranked "too many bureaucratic tasks" and "too many hours at work" as the No. 1 and No. 2 causes of physician burnout respectively.[4]

Writer Steve Denning cites several authors, psychologists and social critics in a thought-provoking article, "If Happiness Is An Inalienable Right, How Come We're Not Happier?"[2] The author asserts, "Finding meaning in work and at work has become part of what it means to be human." He goes on to note the following:

"Yet our management practices have not responded to the challenge. The hierarchical bureaucracies that are still pervasive in today's large organizations are systematically making employees miserable. …Author Kurt Eichenwald interviewed employees and found that a management system known as 'stack ranking' – a program that forces every unit to declare a certain percentage of employees as top performers, good performers, average and poor – effectively crippled Microsoft's ability to innovate. 'Every current and former Microsoft employee I interviewed – every one – cited stack ranking as the most destructive process inside of Microsoft, something that drove out untold numbers of employees' Eichenwald writes."

Denning offers that psychologist Martin Seligman has argued, "humans are happiest when they have engagement… relationships… meaning or being part of a perceived quest or belonging to something bigger… and accomplishments (having realized tangible goals)."

I agree with the philosophy of one headline that espoused, "Focus on Meaningful Work Protects Doctors From Burnout."[6] Thus, it comes with great irony that the "Meaningful Use Program" seems to conjure the very opposite sentiment.

The American Medical Association (AMA), having heard physicians' concerns consistently, cited several objectives in improving physicians' professional satisfaction. I would highlight three in particular: fostering work quantity and pace that allows sufficient time and attention to patient care; work content that is meaningful and matches physicians' training, facilitated by teamwork with allied health professionals and support staff; and income stability and fairness, which are especially important in transitions between practice ownership models and payment systems. The AMA held a town hall meeting in Atlanta with the Medical Association of Georgia on July 20, 2015, and encouraged physicians to share their experiences with Meaningful Use. It was noted that sentiments of frustration "echoed physician frustration from a prominent study conducted by AMA and RAND that found most EHR systems fail to support efficient and effective clinical work and are the leading cause of physician dissatisfaction, emotional fatigue, depersonalization, and lost enthusiasm." On July 30, 2015, the AMA declared its strong support for new legislation introduced by U.S. Rep. Renee Ellmers, from North Carolina, which would reportedly address many problems in the Meaningful Use Program by introducing needed flexibility and enhancing EHR to improve patient care and access to health information.[3]

I invite you to access a YouTube video I made at https://youtu.be/Rf1gFgp9lXg.

This is a YouTube video I made and sent in response to the AMA's call to physicians to share their experiences and challenges with the current Meaningful Use Program demands. This video highlights just one of the many challenges confronting clinicians, where a typical physician office "task" that takes 30 seconds on paper takes more than two minutes on electronic record. It plays best on a laptop or desktop computer.

Our focus must indeed shift away from rigid mandates and regulations that seem obsessed on collecting data, while diverting time, attention and staff away from direct patient care, to a system that everyone can agree is meaningful and reinforces value for all.

We welcome and encourage your feedback and ideas on this article at fgrillb@aol.com.

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3 http://hitconsultant.net/2015/07/31/ama-supports-legislative-effort-to-revise-meaningful-use/

4 http://www.medscape.com/viewarticle/838437 (Physician Burnout: It Just Keeps Getting Worse Carol Peckham, January 26, 2015)

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A century-plus of Alzheimer's disease

David A. Drachman, M.D., FAAN, FANA

Until the late 1970s, most people had never heard of Alzheimer's disease (AD) and few considered the late-life decline of memory to be a greatly feared medical disaster. Even among neurologists, Alzheimer's disease was considered of little importance. The 1955 edition of Merritt's classic *Textbook of Neurology* had just 2½ pages on "PRESENILE DEMENTIA; Pick's and Alzheimer's Disease," but 46 pages on Neurosyphilis. Today, Alzheimer's disease ranks just below cancer among the medical concerns of Americans. This will describe more than a century of evolution of this unresolved problem and our current state of knowledge.

In 1906, Alois Alzheimer first described dementia in a 51-year-old woman, publishing the neuropathological changes of senile plaques and neurofibrillary tangles. Others had described senile plaques more than a decade earlier, and tangles earlier in 1906, but in 1910, Emil Kraepelin, Alzheimer's chief, named pre-senile dementia "Alzheimer's Disease" in his *Handbook of Psychiatry.* Late-onset dementia occurring after age 65 was known as "senile dementia" until 1976, when Robert Katzman at Einstein Medical School wrote that – regardless of age of onset – the clinical and pathological features were closely similar.[1] Naming senile dementia "Alzheimer's disease" dramatically increased the number of people with this condition by 25-fold, turned a presumed consequence of old age into an eponymic disease and began the process of medical and scientific interest.

Several other factors contributed to the increasing awareness of Alzheimer's disease in the 1970s.

- The U.S. population older than 65, susceptible to this condition, had grown from 3 million in 1900 to 25 million by the late 1970s.
- Until the 1970s, many demented patients had been institutionalized in large psychiatric hospitals, paid for by state funds. With Medicaid and other federal programs sharing the cost of care for low-income people, "deinstitutionalization" closed virtually all these state facilities. As elderly demented patients returned to their families and communities, elderly demented parents were no longer "invisible."
- The Alzheimer's Disease and Related Disorders Association (ADRDA) – now National Alzheimer's Association – was founded in Chicago, rapidly spreading nationwide, with the purpose of informing everyone about the disease and supporting research and care.
- Finally, the state of neuroscience – pharmacology, molecular genetics, epidemiology and imaging – at last made research on AD possible.

From 1965-1976 – before AD included senile as well as pre-senile dementia – just 150 articles on AD were published. Critical scientific interest was minimal; the Alzheimer's Association funded a dozen small pilot research grants and received few, and uninspired, proposals. In 1982, following a meager grant review session, I was tasked with developing a plan to increase scientific interest in AD. Following "Sutton's Law" ("go where the money is"), I proposed 10 National Institutes of Health (NIH)-funded Alzheimer Centers of Excellence at $1 million each per year. With the impetus of Senator Ted Kennedy and Representative Claude Pepper, five centers were funded in 1984, and there are now 34 Alzheimer Centers nationwide. Research interest rose dramatically with the money; between 1976 and the present there have been 108,000 publications on AD.

Over the last four decades, what have we learned about AD and what is still unknown?

The vast majority of the 5.3 million patients with AD – more than 96 percent – develop late-onset, sporadic dementia. This typically begins with decreased episodic memory for recent events – forgetting appointments, asking the same questions repeatedly, losing the way when driving. Cognitive decline progresses over time, with loss of previous skills for word-finding, calculation, decision-making and planning (executive functions). Behavioral problems often develop, including anger, aggression, rummaging, hallucinations and paranoid ideas. Vegetative symptoms may occur, including incontinence, sleep disturbance and altered food preference. Family members are far more troubled by patients' incontinence and nocturnal awakening than by difficulty driving or doing the Sunday crossword puzzle!

Diagnosis of AD was arbitrary and variable until 1984, when criteria for the diagnosis of Possible, Probable and Definite AD were published by the NIH and Alzheimer's Disease and Related Disorders Association (ADRDA).[2] This article has been cited more than any other neurological publication (13,000 times). Criteria for **Probable** AD include onset of progressive dementia after age 65, documented by neuropsychological screening tests; normal consciousness; absence of systemic diseases that could cause dementia; normal LP and EEG; and brain atrophy on CT scan. Focal neurological signs and sudden onset are against the diagnosis. **Possible** AD is similar, but with systemic diseases. **Definite** AD requires autopsy confirmation. These criteria are accurate in about 85 percent of cases. Subsequently, additional diagnostic markers now include MRI scans showing hippocampal atrophy, spinal fluid with decreased amyloid and increased phospho-tau, and PET scans with decreased glucose metabolism in parietal and frontal lobes.

By far, the most important risk factor for AD is age. The risk of developing AD at 85 is 20 to 30 times greater than at 65! Vascular disease, with hypertension, dyslipidemia and diabetes, increases the probability of AD significantly.

Dominant genetic mutations of the Amyloid Precursor Protein (APP) gene or the Presenilin 1 or 2 (PS) genes invariably cause early-onset AD, but these mutations are responsible for less than 4 percent of AD. There are three apolipoprotein E genes – e2, 3 and 4. An APOEe4 gene can increase the risk of developing AD; one APOEe4 gene roughly doubles the risk of AD, while two APOEe4 genes increase the risk about tenfold. The lifetime risk of developing AD in a middle-aged person with no knowledge of genotype is about 15 percent; and with an APOEe4 gene it is 29 percent.[3]

In 1984, Glenner and Wong noted a unique form of amyloid in AD brains. Although amyloid is present post-mortem in the brains of AD patients and is found in living AD patients using PET scans with amyloid ligands, it is not clear whether it plays a role in causing AD. The amount of amyloid in the brains of patients with AD is not proportional to the severity of dementia, and a third of cognitively normal elderly people have similar amounts of amyloid in their brains. Removing amyloid during life, using anti-amyloid antibodies (e.g., bapineuzumab) or preventing its formation from the amyloid precursor protein (APP) by blocking gamma secretase cleavage of APP neither improves cognitive function nor slows the progression of AD.[4]

In the few people with inherited mutations of presenilin or APP, early-onset familial AD is an inevitable outcome of their genetic makeup. For the other 96 percent of AD patients, the precise cause of AD remains uncertain. By age 90, 10 percent of the brain's 100 billion neurons and 40 percent of their connections are normally lost,[5] and with advancing age, the brain becomes increasingly vulnerable to intrinsic and experiential changes. Old traumatic losses, vascular attenuation, loss of trophic factors that maintain neuronal integrity, exhausted mitochondria and a dozen minor identified genetic risk factors leave the aging brain vulnerable to a late event that precipitates rapid decline. This may be failure of normal angiogenesis. As critical neural structures suffer losses, a threshold is eventually crossed at which memory and cognition are no longer reliable.

More than 40 years ago, funded by a generous patient (the former little girl with an umbrella on the Morton Salt box), I had the opportunity to try to understand the cause and potential treatment of memory impairment in aging and dementia. I decided to evaluate the role of various neurotransmitter systems of the brain. Recalling that scopolamine caused loss of memory for pain in "twilight sleep" for obstetrical deliveries, I studied the cholinergic system and found that when I gave scopolamine to healthy young nursing or medical students, they performed very much like elderly and cognitively impaired patients. I proposed that the impairment of the cholinergic pharmacosystem might be responsible in part for age- and AD-related memory impairment.[6] Three of the four drugs in use today for the treatment of AD are anticholinesterases, derived from that serendipitous study. Anticholinesterases ameliorate the cognitive impairment of AD significantly, if modestly. Unfortunately, they do not alter the course of AD, nor does the one other drug (Memantine) currently in use.

Some 200 drugs have been studied for the treatment of AD, and all but the four mentioned above have failed.[7] Pharmaceutical companies have invested billions of dollars in the hope that a treatment would slow the degenerative process of AD, so far to no avail. Most of the investment has been in drugs that attempt to remove amyloid from the brain, and although some succeed in that goal, they have not as yet slowed the course of AD or improved cognition.

The journey of more than a century from Alzheimer's description of his one pre-senile patient to the present has been a prolonged one – slow for decades and accelerating in recent years as the population ages. We used to recommend that to avoid Alzheimer's disease, one should "choose his parents wisely and lead a short, happy life." With increases in longevity, visibility of the affected elderly, advances in neuroscience and modern approaches to a lifetime of health, better answers are needed. Despite the "breakthroughs" that are announced regularly on television – more red wine, blue-green algae, Ayurvedic plants, coconut oil, etc. – and the preliminary announcements of pharmaceutical companies, later withdrawn, it is likely that it will require more than a single, simple pharmaceutical to provide a dramatic cure and reverse the cognitive impairment.

The Future

As noted, Alzheimer's disease is a two-phase disorder: first, the cumulative erosion of cerebral integrity occurring over many decades, producing a vulnerable brain; second, a presumptive "precipitating event" that initiates a catastrophic further decline, from which the available resources are unable to recover. Impaired vascular supply, loss of trophic factors that maintain neural integrity, or exhaustion of neural stem cells capable of replacing losses may initiate this decline.

Mastering the events leading to AD will involve, first, a lifetime of daily management of brain resources, including such banal approaches as wearing seat belts and protective helmets when cycling; maintaining a low vascular risk with blood pressure, lipid and diabetic control; avoidance of drug and alcohol-related damage, etc. Managing the precipitating events may be more complex and include facilitating vascular endothelial health and function, monitoring levels and replenishing circulating progenitor cells, facilitating intracranial angiogenesis and other mechanisms of avoiding known – and as yet unknown – risk factors.

So far, medicine has done remarkably well in prolonging functional longevity, substituting artificial for damaged joints, opening clogged coronary arteries and removing malignancies. Similar approaches to "avoid the slings and arrows of outrageous fortune" and to supplement the inevitable losses will be needed to prevent or arrest the dementia of AD.

David A. Drachman, MD, FAAN, FANA, is a professor of neurology and chairman emeritus at University of Massachusetts Medical School and former chairman of the Medical and Scientific Advisory Board of the National Alzheimer's Association.

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Photo: President Ronald Reagan with Dr. David Drachman, declaring November to be Alzheimer's Disease Month.

The Summit ElderCare PACE program and dementia

Ron Vallario, M.D. and Brenda King, PsyD

PACE is an innovative program that provides a continuum of medical care and services to individuals with dementia who meet eligibility for nursing home care. The PACE acronym stands for Program of All-inclusive Care for the Elderly. The first PACE program opened in 1972, in response to the community's desire to avoid placing its elderly family members, including those with dementia, in long term-care. Today, there are more than 110 PACE programs across the country, including the one at Summit ElderCare in Massachusetts, which is the seventh-largest PACE program in the U.S.

The mission of the PACE model is to provide those with dementia the option of continuing to live in the community indefinitely. This is accomplished through an integrated model of care that provides a wide range of services and an interdisciplinary team that includes physicians, nurse practitioners, visiting nurses, physical and occupational therapists, social workers, health aides, nutritionists and transportation services. Through these teams, the viewpoints of different disciplines are brought together and the information gained through interactions with the PACE participant and the caregiver across time and settings is shared. This approach allows more information to be available at critical points when decisions are being made. Since PACE participants must be nursing home eligible to enroll, caregiver and family support for keeping them in the community are essential elements to the success of the goals.

The average PACE participant is an 80-year-old woman with approximately eight medical conditions, which frequently includes dementia. Nationally, only 12 percent of PACE participants are nursing home residents, with the vast majority living in their own community, usually with family members. PACE participants with dementia regularly attend a PACE center as often as five days a week. The Summit ElderCare centers include a health clinic and rehabilitation facilities, as well as a common room for social, recreational and dining activities. Because PACE participants have regular contact with primary care professionals who know them well, slight changes in their health status or mood can be addressed immediately. Transportation of participants to and from the PACE center and to appointments is a key support that PACE provides for caregivers, many of whom are still employed and may have young children at home. In addition to providing some relief from caregiving tasks, PACE-sponsored transportation also supports the participant's autonomy and independence.

When necessary, the interdisciplinary team follows the patient with dementia through acute care hospitalizations and skilled rehabilitation admissions. If a patient requires in-patient rehabilitation services, the Summit ElderCare interdisciplinary team will follow the patient to provide continuity and communicate with the family about medical issues and develop a plan for a safe return to the home.

The PACE model recognizes that patients with dementia are a heterogeneous group with differing health profiles, prognoses, preferences, goals of care and family resources. Life expectancy and quality of life issues are addressed early on with the participant and caregivers by the interdisciplinary team. This includes establishing the goals of care that PACE has divided into the following three categories: Promoting Longevity, Optimizing Function, and Palliative Care. When medical decisions need to be made, the primary care provider will determine which recommendations are appropriate for each participant, considering the patient's preferences, life expectancy and expected benefits versus the burdens of specific interventions. The PACE model puts advance care planning as a cornerstone of care for patients with dementia, and as such, the goals of care established early on guide the treatment decisions for participants. Early education is important, as participants with dementia quickly loose their capacity to participate in decision-making. Early education decreases the risk of overly aggressive interventions at the end of life, such as hospitalization and tube feedings.

Disruptive behaviors present another challenging area for PACE participants with dementia. Education and support of caregivers is an important and ongoing process that involves written materials, monthly caregiver support groups, self-care and stress management programs, and referrals to mental health professionals when indicated. Caregiver stress is the primary reason that PACE patients with dementia may be unable to remain in the community.

PACE staff are educated on dementia behaviors and effective interventions and are able to provide support and education to caregivers to teach skills for interacting with loved ones with dementia in ways that can minimize anxiety and agitation in the person with dementia and help manage behavioral disturbances in the home. At the PACE centers, staff utilize non-pharmacologic interventions, which include specific group activities, room settings, lighting and sound that are rhythmic, familiar and soothing. For individuals who may be showing distress, tracking behaviors to determine and anticipate triggers for disruptive behaviors or agitation can help to identify effective interventions. These can include modifying the environment, redirecting the patient or creating a personalized activity for the individual. At Summit ElderCare day centers, specialized multisensory rooms allow staff to use sounds, smells, soothing lighting and different tactile sensations to soothe patients with dementia when they become overwhelmed or unable to communicate their distress except by disruptive behavior. In the PACE model, when pharmacologic intervention may be needed, the approach is to start with low doses and gradually titrate up until the goal is reached without inducing side effects.

Dementia is difficult for anyone it touches, and at PACE, with the thoughtful and flexible care and coordination of so many health care disciplines, we are able to limit its effects to improve the quality of life for patients who have dementia and to support those who care for them.

Ron Vallario, M.D., is a geriatrician and Brenda King, PsyD, is a behavioral health specialist in the PACE program at Summit ElderCare.

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> “Worcester Academy shaped me into who I am today. I was shown that I was not the only smart student who also needed help on occasion. That knowledge allowed me to ask questions or for help when needed. Those skills of self-advocacy and positive self-awareness have stayed with me. As a result, I have been able to accomplish many great things.”
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Creative writing and the decline of the lobbyists

Joel H. Popkin, M.D.

Joel H. Popkin, M.D.

It was a graduation that may have ultimately brought more tears than cheers. Although the students had completed the curriculum, none wanted it to end...

In the 1950s – not the 1850s – psychiatrists and other mental health workers still counseled that the elderly reminiscing about their childhood was an understandable, but unhealthy, preoccupation. That "living in the past was viewed as pathology – regression to the dependency of the child, denial of the passage of time and the reality of the present, or evidence of organic impairment of the intellect." Heaven help us if "we were to divert the old from their reminiscing through activities like bingo and arts and crafts."[1]

It was not until the early '60s, under the fundamental influence of Dr. Robert Butler, the founding director of the National Institute on Aging and ultimately the founder of American geriatric training, that a review of life was first considered not only normal but actually therapeutic.

Twenty years later, these concepts were being more aggressively tested and promoted. Donna E. Shalala, president of Hunter College, said, "Creativity is ageless," at a 1981 conference of 250 gerontologists, artists and scholars, titled Metaphors of Self: Creativity and Reminiscence in Old Age.[2]

At that same conference, Dr. Rose Dobrof spoke of creativity in old age leading to "the opportunity to attend to parts of ourselves that we never had the time or the energy or the chance to develop earlier in life. There is the opportunity to be honest in a way we've never been able to be before – for there can be a fearlessness in the face of death that fosters truth-telling. There is a deep and different sense about human beings and situations, one that just isn't possible when one is younger."

To Dr. Harry Moody, the depression in the elderly could be traced to the feelings of inability to grow or be creative.[2] "In some areas," he added, "as in tests measuring insight into problem situations, in creative understanding, and metaphoric processing, older people show actual statistical gains."

By the late '90s technological breakthroughs – particularly in functional imaging – vastly improved our understanding of brain function, including the then-new concept of brain plasticity. Prior to this, it was generally believed that the brain we were born with simply degenerated inexorably. We now know that regular mental exercise can actually alter the neural circuitry in older adults, making memory and learning regions more responsive.

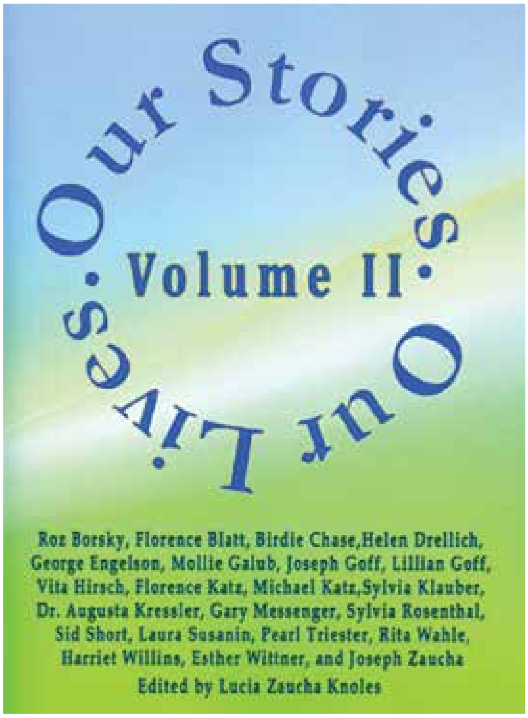
Although the news isn't entirely upbeat, it is much better than previously thought, as function, strengths and weaknesses of the aging brain have become better sorted out. Multiple cognitive skills are generally now divided into "fluid intelligence" (relying on non-experiential abilities to solve problems) and "crystallized intelligence" (skills that have evolved from experience and education).[3] Twenty-year-olds do enjoy an advantage in fluid intelligence, but seniors can crystallize their accumulated knowledge and experience and draw from this palate to develop novel solutions to problems – i.e., the association of wisdom with age. The elderly better utilize reasoning and can more successfully accentuate the need for perspective, compromise and understanding of limitations. These complexities actually improve with age.[4]

Yet in these enlightened times, it is generally still perceived, perhaps especially by our seniors themselves, that aging brings with it a hopeless downhill cognitive slide. Efforts have been made to move the elderly in facilities away from the bingo tables, but the results, at best, have been inconsistent.

2010: Enter Dr. Lucia Knoles, an English professor at Assumption College in Worcester. Her parents had moved into the Eisenberg Assisted Living Facility in Worcester, a place of ideal caring, warmth and comfort, but clearly culturally distinct from their backgrounds. Her father struggled mightily, not only because of the transition but from grieving through his wife's progressive regression with Alzheimer's. In an extraordinarily perceptive and poignant letter to her father,[5] Lucia described why she was creating a Writers' Roundtable: "I suspect we all need 'something to do' and something more – a sense of purpose. I notice that two of the people who seem most contented in your residence use their talents to contribute to your community: one plays the piano for people after dinner, the other researches subjects that interest her and gives lectures to the other residents… I thought perhaps by teaching an autobiography-writing course I would give people one more thing to occupy them, perhaps something more."

Well, "something more" she gave indeed. She set up weekly meet-

ings to read aloud from published works, discuss her students' writing and have them share and critique their own works. She donated yet additional time for one-on-one tutoring.



Our Stories · Our Lives · Volume II ·

Roz Borsky, Florence Blatt, Birdie Chase,Helen Drellich, George Engelson, Mollie Galub, Joseph Goff, Lillian Goff, Vita Hirsch, Florence Katz, Michael Katz,Sylvia Klauber, Dr. Augusta Kressler, Gary Messenger, Sylvia Rosenthal, Sid Short, Laura Susanin, Pearl Triester, Rita Wahle, Harriet Willins, Esther Wittner, and Joseph Zaucha

Edited by Lucia Zaucha Knoles

Lucia's first sessions were attended by two students – her father and the resident who "gives lectures," who happened to be my 98-year-old mother, also a new arrival at Eisenberg. Six months later saw three full roundtables, with lively, engaging discussions that extended way beyond the weekly meetings. I witnessed remarkable transformations, as Eisenberg residents indeed found a purpose. Their reflections on life led to remarkable discoveries about each other and insights that their families were only now learning – our own included. Although my mother had been a teacher her whole career, she had not taken up writing until meeting Lucia. The working orders were to write with passion and worry about grammar and structure later. The group published two books, which were compendia of its individual writings. A book reading and signing ceremony followed each, where families joined together, reveled and cried, many for the first time in years. At one of these ceremonies, a previously solitary retired physician-resident, self-diagnosed with Alzheimer's, was extolling the virtues of Lucia and the program. Beaming, she described to my wife and me how much all of this meant to her; the new social interactions and writing certainly spoke for a misdiagnosis of Alzheimer's and an apparent cure for her pseudodementia.

In Lucia's letter to her father, she described how writing could help him figure out his life: "Now, in your writing, you seem to be taking control of the story of your life. You are choosing its meaning."

What my mother said about her experience with Lucia was this: "A truly remarkable feature [of Eisenberg] has been the visits of Professor Lucia Knoles… Lucia has created a challenging 'Writers' Roundtable' that has made us all – including her father – pick up pen and paper. … She immediately had us pour out stories and memories, keeping us on our toes with weekly assignments. It's like being in school again, but a lot more fun. … We each read our papers aloud. What amazing life stories emerge! My cup often runneth over. Lucia inspires many young people, of course, and she has had them directly interacting with us elders, which inspires us in turn. Life is good again. In fact, it is fabulous! In the transition, I didn't die or go crazy, in part because I am busy again, including writing and giving advice from an old crow who just turned 100 to get off that chair and head towards new adventures. My professor and friend Lucia Knoles has the wings of an angel."[6] My mother continued her lectures and was putting the final touches on her own series of mostly autobiographical essays, "My First Hundred Years," when she died in mid-sentence at age 100. I trust she knew how meaningful on so many levels that book was to be for our family and friends.

And so the sense of purpose Lucia brought to Eisenberg – and since then, to four more institutions – transformed personalities in ways previously unimaginable to me as a physician caring for many elderly patients over the past 40 years, effects which we are now more formally studying. What emotions will follow graduation are yet to be fully evaluated, but the importance of this program may be even further underscored in follow-up.

My mother used to refer jokingly to anesthetized residents who lined the entrance lobby of Eisenberg as "the lobbyists." "They're all waiting for Godot," she would sigh. But she lived to see the lobbyists disappear, as Lucia steered them to the realm of discussion and discovery.

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An international perspective of a looming disease

Raghu Kiran Appasani, BA, MS-II MD candidate

Raghu Kiran Appasani, BA, MS-II MD candidate

Dementia, a progressive loss of brain function, including memory, language and attention span, is on the rise – most importantly, in an aging population that continues to grow. The World Health Organization (WHO) predicts that by 2025, about 75 percent of the estimated 1.2 billion people aged 60 years and older will reside in developing countries such as India. It is estimated that the number of people living with dementia will almost double every 20 years from 42.3 million in 2020 to 81.1 million in 2040. Currently, there are more than 35 million people suffering from dementia globally – of that, 3.7 million are reported to be in India. Early prevention and treatment, which are infrequent in middle- and low-income countries such as India, are of paramount importance. Therefore, global public awareness and education is vital, and government agencies and health care systems need to develop a proactive role in tackling this international health care crisis.

Over the past six years, I have been working in the field of mental health in India, specifically in rural regions where the primary barrier to care is a social stigma centered on misunderstanding and a lack of education around the topic of mental health. Time has already proven that education is the key to personal, social and economic growth. Through my work in India, I have been able to collaborate with local stakeholders (e.g., village leaders, physicians, teachers) to implement a community mental health education program in rural Gujarat; needless to say, the effects have been drastic. We have seen an increase of more than 77 percent in mental health literacy and a dramatic increase in the number of people seeking care, free from the barriers of social stigma within their communities.[1] The past few years have allowed us to notice the burden of dementia increasing due to the rise in the elderly demographic and the increase in prevalence of many non-communicable risk factors such as hypertension, cardiovascular diseases, diabetes mellitus and lifestyle changes, as well as other traditional risk factors, such as addiction, genetic factors, trauma, stroke and malnutrition. Studies aimed at analyzing these risk factors in India have also documented poor literacy, chewing tobacco and low economic status as critical for the presentation of dementia. We also noticed a general lack of awareness around dementia, with the perspective of it being seen as either slightly accelerated aging or as a mental illness (gone mad, *paagal*). To make things even more difficult, it is socially unacceptable for children to point out memory lapses or mood swings or suggest a trip to a specialist. Hence, I and my team at The MINDS Foundation are now in the process of developing a targeted curriculum based on mental health issues that specifically affect aging populations, such as these dementia-specific risk factors shown to be apparent in the communities where we work.

We have learned a great deal about how the United States approaches dementia, specifically how to treat and how to approach palliative care in this population. India is now in the beginnings of developing such systems, and despite all of the ingrained cultural factors, there are a number of practices that can be applied to India from the West in order to provide better care for these patients. However, it is critical to have an appreciation and understanding of the cultural context of dementia in India. For example, forgetfulness in the elderly is often recognized as normal variation of aging, as some amount of senility is expected. Additionally, elders typically pass on their household duties to the next generation; hence, they tend not to live independently and minor deterioration in memory is not recognized in time to visit a specialist. If and by the time the illness is recognized as pathologic, it is often in a very advanced state and immediate family members are unlikely to believe the diagnosis. They tend to continue to treat the dementia patient as a person competent to handle decisions and cannot understand that the person may be suffering memory gaps and working around them through delusions, mood swings, cover-ups, frustrations and accusations. This is the critical time, when a deeper understanding of dementia and effective support groups are needed. Oftentimes, the caregiver ends up being a son/daughter who tends to be faced by much criticism and judgment. India is a culture in which no one expects the caregivers to want a break or get tired; if they show any signs of weakness in their duty, they are faced with judgmental comments. If the caregivers even think about putting the parents/patients in a "home," they will most definitely be seen as heartless. Even so, many of these homes are not yet equipped to properly handle dementia patients.[2]

Currently, there are only 18 ARDSI (Alzheimer's and Related Disorders Society of India) centers across seven Indian states, along with pockets of residential and institutional care. A few private facilities offer care to people diagnosed with dementia, such as the Dignity Foundation in Chennai and Nightingales Dementia Care Center in Bangalore. But these private locations often only cater to a few people at a time, and as such, the number of people who can benefit is negligible compared to the number thought to suffer from the disease. The lack of sufficient services for dementia can lead to a family member being forced to stay home and informally care for his or her relative, with fraying familial and social ties and devoid of professional support.[3]

Although I address methods of care in the United States that can and should be translated into the Indian landscape for those suffering from dementia, there is also much to learn from the joint family model in India. Even though India has been faced with a large exodus of the younger generation, which is migrating to cities and forming nuclear families, there are still a large number of joint family living situations, including extended families and multiple generations living within the same household. While working in India on mental health over the past five years, I have noticed the positive effect of this situation. A patient living in a joint family allows us to educate multiple caregivers in the household, and as a result, the patient has much more support to aid in recovery and treatment. This method of educating multiple family members and caregivers should most definitely be translated into the Western health care landscape. In the United States, we do a great job of providing nursing homes and assisted-living facilities, but educating family members and other caregivers may assist the patient in reaching a better quality of life more effectively.

Dementia is a complex medical condition that is affected not only by underlying biological modifications, but also by social, cultural and economic factors. As this disease continues to increase in prevalence, it will become critical for us as health care professionals to work with those from other sectors and across the world to appropriately address all aspects involved and not just focus on medical conditions. Patient experience and stellar health care should not be compromised due to a lack of communication, and I encourage each and every one of us in the health care field to properly address this growing issue.

Raghu Kiran Appasani, BA, is an MS-II MD candidate at the University of Massachusetts Medical School in Worcester and is the founder and CEO of The MINDS Foundation.

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Dementia in the acute care setting – experienes of acute care nurses

Carolann Monopoli, MSN, RN, ACNP, and Cindybeth Scerra Palmgren, MSN, APRN-BC, NP-C

Carolann Monopoli, MSN, RN, ACNP

Cindybeth Scerra Palmgren, MSN, APRN-BC, NP-C

Caring for patients with dementia is a challenge. Older persons with dementia often experience significant distress and disorientation when exposed to a new environment. Confusion is often exacerbated and delirium is common.[1] As acute care nurses, we don't have the advantage of knowing the baseline cognitive or physical functioning of our patients, and they are typically seriously ill or injured when we first meet them. The following case study will illustrate some of the common experiences and challenges we encounter when working with patients with dementia.

Henry Smith (pseudonym) is a 74-year-old widower who lives alone and spends his time talking about and working on antique cars. Mr. Smith was involved in a low-speed motor vehicle collision and sustained multiple rib fractures, a hemothorax with flail chest, a right scapula fracture and a small traumatic subdural hematoma. Following the accident, Mr. Smith was admitted to an ICU.

Mr. Smith was agitated upon arrival to the unit, unable to speak coherently and disoriented. We have many questions for Mr. Smith, but he is unable to accurately respond. We look to his son to help us understand his father's baseline cognitive and physical functioning. Was his father often confused? Does he have any hearing or visual impairments? Was he able to manage his ADLs independently? Did he manage his own finances? How well does he tolerate pain?

We want to manage Mr. Smith's pain because pain can contribute to agitation and confusion. We use an interdisciplinary approach, working with the intensive care team. Pain is controlled with an epidural catheter, scheduled acetaminophen, a Lidoderm patch and an opioid analgesic for severe pain. But how do we know if we are managing his pain? At this time, Mr. Smith is unable to our questions directly. To accurately assess pain in a non-verbal patient, we use the Abbey Pain Scale.[2] This is an observational scale that suggests uncontrolled pain based upon behaviors such as groaning, fidgeting, grimacing, increased confusion, perspiration and tachycardia. When a patient can't tell us they are in pain, we have to look for other cues. Sometimes, family members can tell us "he always does that when he is in pain." We continuously assess Mr. Smith's response to our interventions for signs that he may be more comfortable. We work to keep his pain under control so that he can take deep breaths and shift in bed to prevent atelectasis and skin breakdown.

Knowing the high risk of delirium – up to 87 percent – in critically ill patients, we initiated several non-pharmacologic, evidence-based strategies. These included early mobilization, adequate hydration, providing hearing aids and dentures, placing his glasses on his face and allowing for sufficient uninterrupted periods of rest.[3,4,5] Environmental considerations are important and include strategic room selection – choosing a room near the nurse's station, placing the bed near a window and having a clock and a calendar easily visible from the bed.[5] We use the 3D Confusion Assessment Method (3D-CAM)[6,7] regularly. It takes three minutes and has a 95 percent sensitivity and 94 percent specificity for diagnosing delirium.[6] Mr. Smith develops delirium. He strikes out at staff and requires sedation with haldoperidol. What is precipitating his delirium? Is his pain worse? Does he have an infection? Is he overstimulated? What is his blood glucose? Does he have any injuries that weren't previously recognized? All physiologic causes are ruled out. Efforts were made to further reduce stimuli, adjust lighting to facilitate sleep and provide uninterrupted periods of rest.

Mr. Smith's children did not appreciate their father's cognitive impairment prior to his hospitalization. This is another challenge for acute care nurses, helping family members cope with the altered cognitive status of their loved ones. Delirious patients often respond well to familiar faces and sounds; involving the family members can help them feel useful and, in turn, calm their loved one. Having someone sit with Mr. Smith, orienting him to time and place, talking about familiar things, redirecting behavior when necessary, making sure he has his glasses and hearing aid, and avoiding overstimulation are all helpful. We want the family to be present, but we have to realize they also need support. We may involve a case manager or social worker who can be helpful.

Mr. Smith's next few days are tenuous; his agitation and delirium continue, and he develops pneumonia. With appropriate antibiotics, aggressive pulmonary care, attention to fluids, nutrition, skin care, elimination, rest and appropriate management of his pain, the efforts of the multidisciplinary team make it possible for Mr. Smith to be transferred out of the ICU. At this time, his cognitive status has almost returned to his baseline.

Transitioning to another unit can be hard for the patient and the family. How can we maintain Mr. Smith's function? A multidisciplinary approach to patient transitions between units is an important element of providing quality care for the patient with dementia.[8] Involving family in the transition is essential, and ongoing encouragement of their presence at the bedside will be helpful to Mr. Smith as he adjusts to the new surroundings. Information regarding baseline function at home, goals of care, family involvement, physiologic status, understanding of his cognitive impairment, his interest in antique cars and risk for additional delirium should be communicated to the nurses on the new unit.

The incidence of Alzheimer's dementia increases proportionally with aging, and it has been estimated that 44.4 million people have some form of dementia currently, while 135.5 million will have it by 2050.[9] With increased age, patients have more dementia and delirium along with altered mobility, urinary incontinence and multiple co-morbidities that make our work challenging. There are moments of frustration, but also moments of gratitude and inspiration when we are able to successfully help the older patient with dementia overcome his or her illness or injury and play a role in recovery and a return to home. Working together as a multidisciplinary team, we can provide quality care to patients with dementia.

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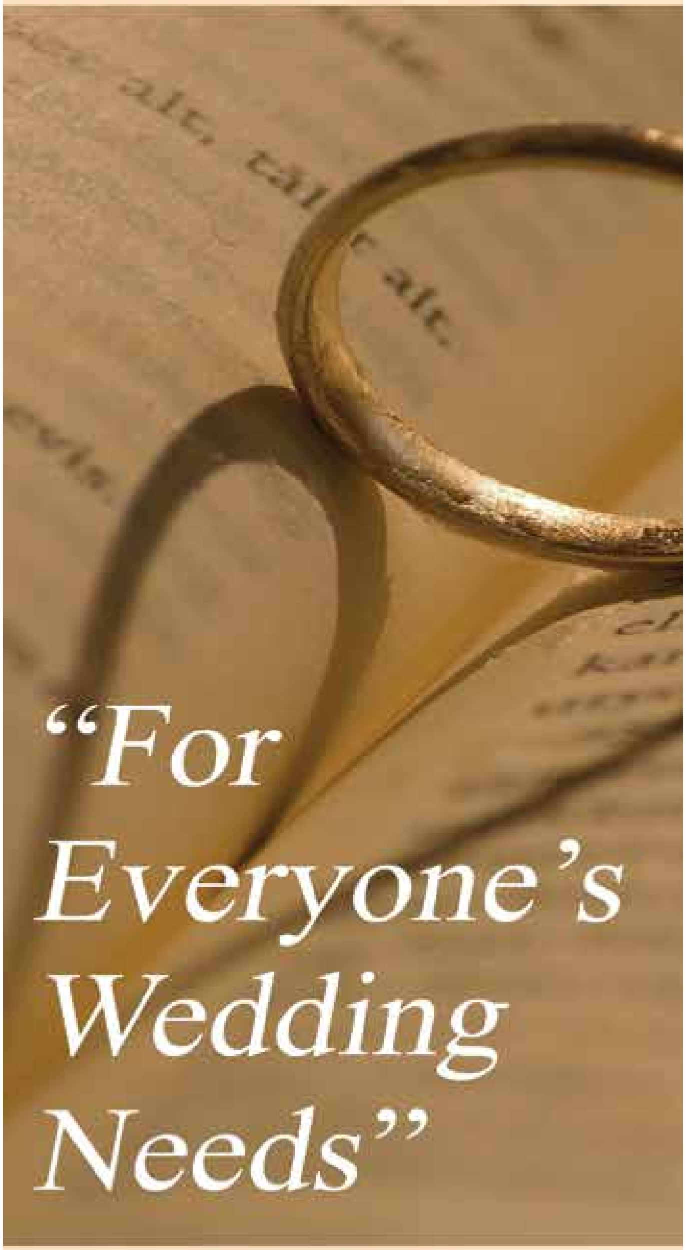

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Treatment of Alzheimer's disease: What's available and what's in the pipeline

Anna Morin, Pharm.D., RPh

Alzheimer's disease (AD), the most common type of dementia, is characterized by progressive cognitive and functional decline.[1] The primary goal of treatment in AD is to improve and preserve cognition and patient function for as long as possible. Secondary goals include treating the behavioral and psychiatric symptoms associated with AD (i.e., depression, agitation, aggression, hallucinations, delusions, sleep disturbances, wandering) that can worsen cognitive and functional impairment.[1] Risks and benefits of the use of psychotropic medications should be carefully weighed, and behavioral interventions should be used whenever possible. Current U.S. Food and Drug Administration (FDA)-approved drug treatments for AD include three cholinesterase inhibitors (ChEIs) and the partial N-methyl-D-aspartate (NMDA) receptor antagonist memantine (see Table 1).[2-7] These agents are used to prevent or delay the deterioration of cognitive function and have not been shown to cure, stop or reverse the pathophysiologic processes of AD. Evidence does not support the use of vitamin E, estrogen, ginkgo or non-steroidal anti-inflammatory agents for the treatment or prevention of AD.[1]

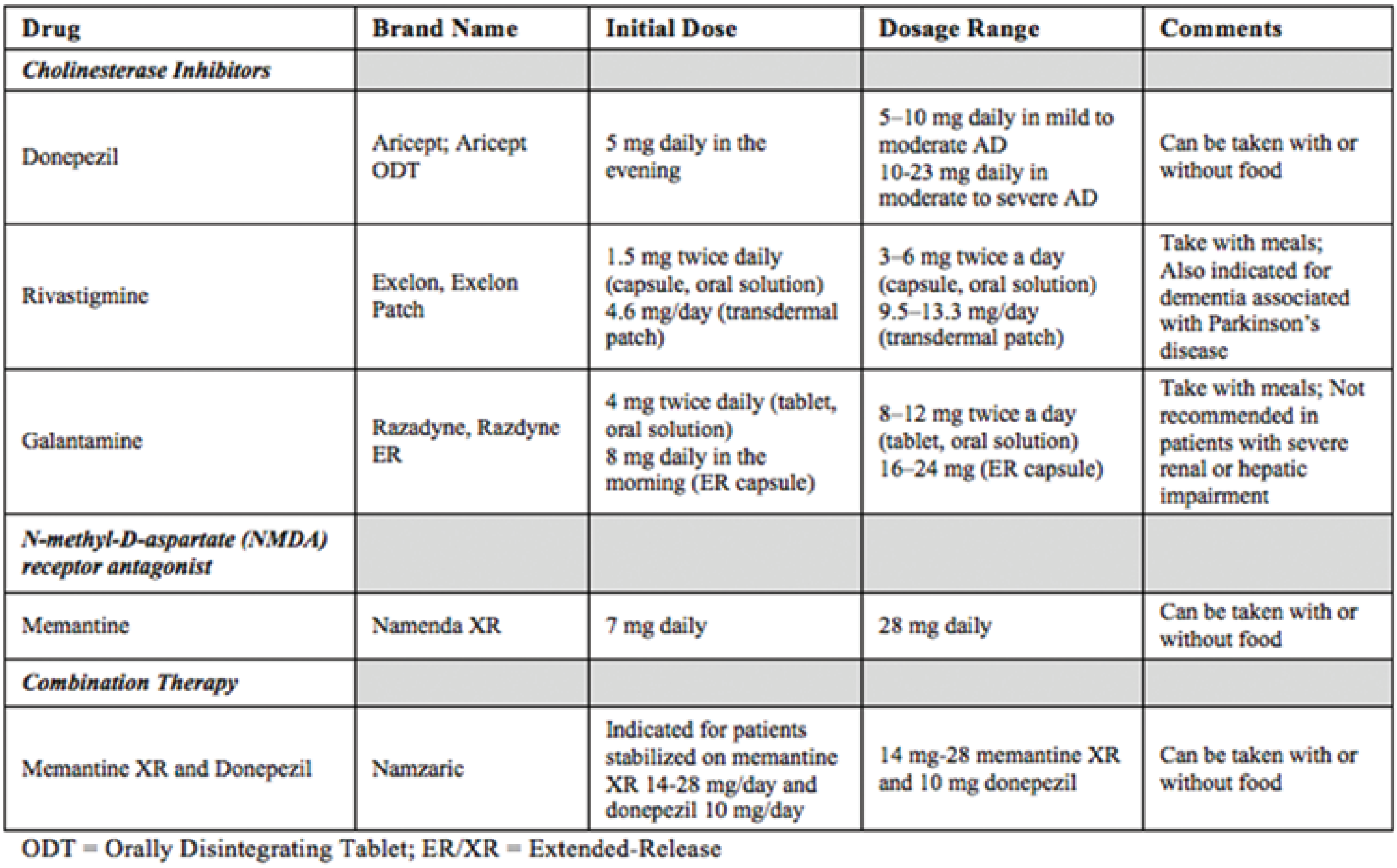
Clinical trials evaluating ChEIs have demonstrated modest symptomatic improvement in cognitive, global and functional outcomes in patients with mild-to-moderate AD; duration of benefit varies from three to 12 months.[8] Donepezil is also indicated for severe AD.[2] ChEIs inhibit the breakdown of acetylcholine, a neurotransmitter important for memory and mood, but do not alter the underlying degeneration of cholinergic neurons.[1,8] As a class, ChEIs are generally well-tolerated and have similar adverse event profiles. The most frequent adverse events are typically dose-related and include gastrointestinal symptoms (e.g., nausea, vomiting and diarrhea) and dizziness.[1,8] While not an FDA-approved indication, ChEIs are used to improve cognitive and neuropsychiatric symptoms in dementia with Lewy bodies.[9]

Antagonism of NMDA receptors by memantine prevents excessive glutamatergic neurotransmission that can lead to neurotoxicity.[10] Memantine, shown to improve cognition and patient function, is indicated for use in moderate-to-severe AD and can be used as monotherapy or added to ChEI therapy.[6,7,10] Memantine may also improve symptoms of agitation and aggression, but there is no evidence that memantine provides neuroprotective benefits in AD.[10] The most commonly observed adverse events in clinical trials involving memantine include headache, diarrhea and dizziness.[6] Memantine (extended-release formulation) is available with donepezil as a combination product (Namzaric) for patients with moderate-to-severe AD.[7]

AD is a neurodegenerative disease with a complex pathophysiology, and development of drugs for treatment or prevention of AD has been challenging. Research has focused on the development of disease-modifying agents that can slow or reverse the progression of AD, but no new treatments have been approved since 2003. Drugs that seemed promising in early small-scale studies have often showed no benefit in larger clinical trials.

Amyloid plaques, a characteristic pathological feature of AD and other dementias, are deposits of a beta-amyloid protein fragments that damage neuronal synaptic function.[1] Two human monoclonal antibodies that target and remove different forms beta-amyloid protein from the neuronal synapse, solanezumab (Eli Lilly) and aducanumab (Biogen), have shown promise in AD.[11,12] The results of two phase 3 double-blind, placebo-controlled clinical trials (EXPEDITION 1 and EXPEDITION 2) evaluating solanezumab in patients with mild-to-moderate AD found no improvement in cognitive or functional ability.[11] However, a recent analysis of these two studies suggests that solanezumab may slow the progression of early AD.[11] Further analysis of the potential benefit of starting treatment with solanezumab earlier in AD will be incorporated into the EXPEDITION 3 study currently in progress. An interim analysis of a phase 1b randomized, double-blind, placebo-controlled, multiple-dose study showed that aducanumab improved cognition and reduced beta-amyloid plaque accumulation (detected by PET scan) in patients with prodromal or mild AD treated up to 54 weeks with the 6 mg/kg dose.[12] Phase 3 trials involving aducanumab are planned.

Table 1: Medications FDA Approved for Treatment of Alzheimer's disease[2-7]



Drug	Brand Name	Initial Dose	Dosage Range	Comments
Cholinesterase Inhibitors				
Donepezil	Aricept; Aricept ODT	5 mg daily in the evening	5–10 mg daily in mild to moderate AD 10-23 mg daily in moderate to severe AD	Can be taken with or without food
Rivastigmine	Exelon, Exelon Patch	1.5 mg twice daily (capsule, oral solution) 4.6 mg/day (transdermal patch)	3–6 mg twice a day (capsule, oral solution) 9.5–13.3 mg/day (transdermal patch)	Take with meals; Also indicated for dementia associated with Parkinson's disease
Galantamine	Razadyne, Razdyne ER	4 mg twice daily (tablet, oral solution) 8 mg daily in the morning (ER capsule)	8–12 mg twice a day (tablet, oral solution) 16–24 mg (ER capsule)	Take with meals; Not recommended in patients with severe renal or hepatic impairment
N-methyl-D-aspartate (NMDA) receptor antagonist				
Memantine	Namenda XR	7 mg daily	28 mg daily	Can be taken with or without food
Combination Therapy				
Memantine XR and Donepezil	Namzaric	Indicated for patients stabilized on memantine XR 14-28 mg/day and donepezil 10 mg/day	14 mg-28 memantine XR and 10 mg donepezil	Can be taken with or without food

ODT = Orally Disintegrating Tablet; ER/XR = Extended-Release

Anna Morin, Pharm.D., RPh, is the associate dean and professor of Pharmacy Practice at MCPHS University School of Pharmacy -Worcester/Manchester.

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The apparent authority of a doctor in hospital clothing

Peter J. Martin, Esq. and Libbie Howley

Peter J. Martin, Esq.

Libbie Howley

Can a hospital that neither employs a physician nor controls the physician's activities be held liable for that physician's negligence? In many states, the rule is that such liability may exist if a patient who reasonably relied on some representation or manifestation by a hospital that a physician was its employee or agent was harmed by the physician while the physician acted under this "apparent authority" of the hospital. Massachusetts' highest court has not to date adopted this rule, but if it upholds *Beauregard v. Peebles*, 32 Mass.L.Rptr 491 (2015), a recent Superior Court decision, that rule may apply here as well. Should that occur, the already-complex relationship among patients, independent physicians and hospitals will become even more confusing.

The Superior Court decision related to the paraplegia of a patient resulting from treatment at the for-profit MetroWest Medical Center. The claim was that an improper placement of an epidural catheter during surgery by a physician, specifically an anesthesiologist employed by an independent medical group, leading to this harm should be grounds for suing the hospital for medical malpractice. The physician in question was the hospital's chief of anesthesia, even though an independent contractor. The patient signed a consent document prior to surgery that noted that many of the physicians providing services at the hospital are independent contractors; this document then cited radiologists and cardiologists, but not anesthesiologists, as examples of independent contractors. The consent document also required the patient to acknowledge that the hospital "is not responsible for the acts or omissions of my physician(s)"; the patient had only selected her surgeon, not the anesthesiologist. Shortly before surgery, the patient met the physician, who was wearing a white hospital lab coat with his name and the hospital's name or insignia on it. The patient claimed she would not have consented to surgery at the hospital had she known the physician was not a hospital employee.

Because the court heard the matter on the hospital's motion for summary judgment, it drew reasonable inferences from the facts that were favorable to the patient. Thus, the court ruled the patient could reasonably infer from the consent document that all medical professionals involved with her treatment at the hospital, other than her surgeon, were hospital employees. The court also ruled that the physician's wearing of the hospital lab coat could lead to the reasonable inference that the physician was authorized by the hospital to indicate he was acting as the hospital's agent. Finally, the court ruled that a jury might reasonably believe the patient's statement that she relied on the indications that the physician was the hospital's agent or employee in consenting to the surgery.

Normally, one independent party cannot be held liable for the misdeeds of another party unless the negligent party was employed by or otherwise sufficiently controlled by the first party. Because, in this case, the patient was unable to prove the physician was the hospital's employee or that the hospital had or exercised any right to control the physician's medical practice, she could not hold the hospital liable for the physician's negligence on either of those theories. As noted by the Superior Court, however, other principles of Massachusetts common law permit a suit against the hospital "under a theory that it is vicariously liable for torts committed by its apparent agents acting within the scope of their apparent authority."

One such principle is that the written or spoken words or conduct of one party (here, the hospital) could reasonably cause a third party (here, the patient) to believe that the one party consents to have an act done on that party's behalf by a person purporting to act on that one party's behalf (here, the physician). The court noted that only the words and conduct of the principal (the hospital) are considered in determining the existence of the apparent authority of the agent (the physician). The court's analysis does not consider whether a physician's words or acts disclaiming any authority to act on behalf of the hospital would have any effect on the application of this principle.

Another principle is the common law rule that a principal is liable for the misconduct of its agent while the agent is acting "within the scope of the authority delegated to it by the principal," even if the principal has no knowledge of the agent's wrongful acts or omissions. If the authority was not in fact delegated to the agent, the principal may still be liable where the principal "for his own purposes found it useful to create the impression that the agent acts with his authority."

Based on these principles, the court concluded that "a hospital is vicariously liable for negligence by a physician who, although an independent contractor, was acting under apparent authority."

It is important to note that creation of the apparent authority under this new theory of liability is in the hands of the hospital. It can, through words or deeds, cause the patient to believe the physician had such authority. If this new rule is adopted as Massachusetts law, hospitals will likely take vigorous steps to avoid such words and conduct by, among other things, prohibiting independent physicians on their medical staffs from wearing any kind of hospital insignia. Hospitals may also seek to impose on such physicians an obligation to affirmatively advise patients prior to seeking their consent to treatment that they are not acting as employees or otherwise on behalf of the hospital.

One can only imagine what effect these measures might have on patients. Many likely assume already that, apart from their personal physician seen frequently in an independent office setting, every caregiver in the hospital is a hospital employee. If a patient is specifically advised to the contrary while at the point of giving consent to treatment, has the patient knowingly given consent, even though one of the premises of that consent has now been shown to have been false?

For the independent physician under an obligation to identify herself to the patient as independent from the hospital, there may be other pitfalls. Will there be a legally-approved script that must be followed that adequately establishes the physician is acting on her own authority and not that of the hospital? Should a physician be forced to explain to the patient how exactly she is "independent" from the hospital that has granted her clinical privileges and consented to her membership on its medical staff?

It is unfortunate in an era of coordinated care that fears of legal liability may induce caregivers to disassociate themselves from each other. This issue will become more acute should Massachusetts adopt this new rule of liability. Physicians, and others, should ponder the consequences the adoption of that new rule will have on evolving systems of care and on the physician-patient relationship.

Peter J. Martin, Esquire, is a partner in the Worcester office of Bowditch & Dewey, LLP, his practice concentrating on health care and nonprofit law. Libbie Howley is an associate in the Worcester office of Bowditch & Dewey, LLP, and concentrates her practice in business and finance law.

Retirement and our brains

Reid Roberts, M.D.

During my 12 years of undergraduate, medical school, residency and fellowship training, I never thought much about the “extra-curricular” intellectual stimulation I was getting every day. Even during my 35 years as a practicing ophthalmologist, my brain was challenged every day with medical mysteries to be solved, insurance bureaucracies to be managed, committee meetings to be attended and patients to be seen.

In the years after my retirement in 2000, I kept myself busy building an H-O gauge model railroad reproduction of the Yosemite Valley Railroad and reading about historical events, especially World War II. In addition, I also enjoyed more time for travel, pursuing various interests and volunteering. But something was missing in my need to continue learning new things and revisiting old subjects.

Ten years ago, I discovered the Worcester Institute for Senior Education (WISE), right here at Assumption College. [1] A member of the network of national lifelong learning institutes, WISE offers more than 70 five-week courses each year in the arts, sciences and humanities, taught by local experts, including current and retired college professors. Courses often include suggested readings, and no exams are ever given. This is learning for the pure joy of it.

As a member of WISE, I have especially appreciated the history, literature, music and art courses because they expanded the special interests I have in these subjects. If I want, I can also take classes in science, philosophy, religion, politics and many other topics.

WISE offers me an incredible opportunity to come together with a variety of other older, intelligent and experienced adults. Those encounters provide unique perspectives and insights for refreshing one’s own views and options for a richer and healthier living experience. (BTW, others of our colleagues – e.g., Chris Durham, Ed Landau and Sam Pickens – are enjoying WISE in their retirements.)

As noted in a 2012 *New York Times* article, “Education seems to be an elixir that can bring us a healthy body and mind throughout adulthood and even a longer life.”[2] The Alzheimer’s Association, on its home page, advises one to “keep your brain active every day.”[3] WISE offers all these opportunities – educational classes, reading, writing, brown bag lectures and trips to museums and theaters.

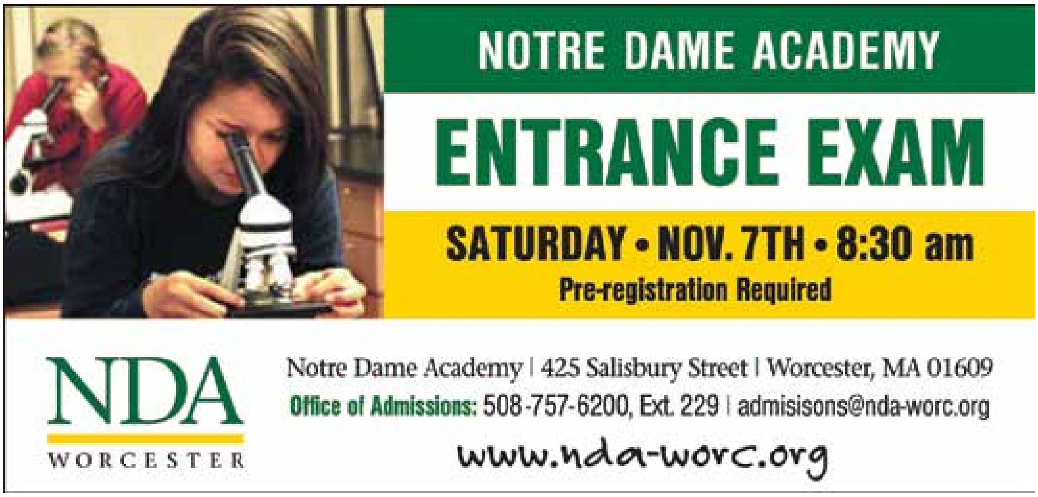
I hope you will join me in this enjoyable, health-promoting, easily accessible adventure as we enjoy the latter years of our lives.

References:

[1] www.assumption.edu/wise

[2] Quote from aging specialist Margie E. Lachman, psychologist at Brandeis University (Patricia Cohen, “A Sharper Mind, Middle Age and Beyond,” NYT, Jan 19, 2012)

[3] “Keep your brain active every day:
Stay curious and involved – commit to lifelong learning
Read, write, work crossword or other puzzles
Attend lectures and plays
Enroll in courses at your local adult education center, community college or other community group…”



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Still Alice by Lisa Genova

Amanda Graves

Amanda Graves

It's a heart-stopping moment: 50-year-old Harvard psychology professor Alice Howland goes out for her daily jog and gets lost in Harvard Square, just a few blocks from home.

Until this episode, Alice has attributed her increasing memory lapses to menopause: leaving her Blackberry in a restaurant, mixing up flight times and puzzling over why a particular name was written on one of her lists. After all, who among us hasn't had a similar experience? More concerning was forgetting to take a trip to Chicago for a convention, but surely with such a hectic schedule, that could also be explained.

However, getting lost in one's own neighborhood cannot be dismissed so easily.

When a battery of neurological tests reveals the devastating diagnosis of early-onset Alzheimer's disease, Alice finds herself in uncharted territory as both she and her family have to come to terms with a bleak future. Her husband John, in particular, has difficulty coping with Alice's illness, and as it progresses, he increasingly draws away and looks to his own future. Meanwhile, her three children have to decide whether to undergo genetic testing, since Alice is found to carry the early-onset Alzheimer's gene, which gives each of them a 50 percent chance of inheriting it.

As her relationship with John begins to crumble under the strain of the illness, Alice and her youngest daughter, Lydia, become surprisingly close. To Alice's great disappointment, Lydia decided to become an actress rather than pursuing a degree, and – to her even greater annoyance – John secretly paid for her acting classes in Los Angeles. Constant arguments ensue. Yet as the disease progresses and cerebral communication is lost, Alice can still connect with Lydia emotionally, and ironically, their relationship is all the stronger.

Lisa Genova, herself a professor of neuroscience, draws on her research with early-onset Alzheimer's patients to expertly guide the reader through the mind of a still-brilliant, yet increasingly confused, woman. The most heart-wrenching part of the book is when Alice finds a letter written to her future self, instructing her on how to commit suicide. The author also draws this from reality: Every patient she has encountered has considered this as an option.

Although *Still Alice* is fiction, Genova has done a wonderful, if terrifying, job of bringing the reader into the world of Alzheimer's patients, where the ground is "constantly shifting beneath their feet."

There is no question that *Still Alice* is frightening to read, yet it is an important book. People with early-onset Alzheimer's struggle with loneliness and isolation; understanding these challenges is helpful for friends and caregivers. The hope is that future treatments will be able to prevent Alzheimer's before any symptoms occur. Currently, there are drugs to slow its progression, but nothing can reverse it.

So how do we define the very essence of ourselves? Who is Alice if she is no longer herself? She has achieved so much professionally and personally: author, professor, researcher, wife and mother, but who will she be once her memories – and even her personality – are cruelly taken away? According to the author, and on a happier note, we see her discover that she is "more than what she can remember."

Amanda Graves is an affiliate member of both the Worcester District Medical Society Alliance and Massachusetts Medical Society Alliance, lending her cooking talents to support Alliance-sponsored nutritional events in the Worcester schools.

The Digital Doctor by Robert Wachter

Tom Peteet, M.D.

In *The Digital Doctor*, Wachter tackles the history of technology in American medicine. As a physician, he understands the limitations of modern health care and asks structural questions. He surveys the $30 billion of government funding for IT in health care in the past decade and argues, despite this expenditure, there have been modest gains in patient safety and outcomes. The main questions are not political, but practical. Where is the data?

Wachter lives between two generations of physicians: the old generation, which performed bedside rounds, and the new generation, which gives TED Talks. He lives fluidly in both worlds, eager to point out their strengths. The jewels of the book are the moments of exasperation and misanthropy, made all the more distinct against a measured, doctorly tone. On an emergency room physician's scathing critique of radiologists, he has one word: "Ouch."

His last chapter reads as a science fiction book proposal. He notes that robots will deliver medications directly to patients and flat-screen televisions will assist in teleconferencing. Voice recognition will replace tedious manual computer entry. Then comes the last vignette, a powerful story of helping a family cope with end-of-life issues in the ICU, underscoring the point that technology will never replace human compassion. The subtext is inspiring; maybe we can have it all – working free markets, technological innovation and humanism.

Wachter tries to hold a firm middle ground between humanist and technology optimist. The danger here is eschewing the philosophical and political questions of the extremes. What is the moral nature of the physician-patient relationship? Is health care a fundamental human right or a market commodity? How we wrestle with these questions determines our relationships to technology and to the political climate that endorses technology and quality, rather than community health or access to care.

Tom Peteet, M.D, is a resident in Internal Medicine at Boston Medical Center..

Worcester's Dr. Morse honored with path in his name

Cyrus Moulton, Telegram & Gazette Staff

Dr. Leonard Morse tips his hat at the dedication of Morse Stroll around Elm Park Thursday.
T&G Staff/Christine Peterson

Editor's Note: This article was originally published in the Worcester Telegram & Gazette on Aug. 27, 2015. It is reprinted with permission.

WORCESTER - For five decades Dr. Leonard J. Morse helped keep Worcester residents healthy through the city's Division of Public Health.

On Thursday, the city honored the longtime community leader and continued his mission by dedicating the Morse Stroll walking path along the perimeter of Elm Park.

"There is perhaps no tribute more befitting, Dr. Morse, than that of the Morse Stroll as this truly captures your greatness and the essence of how you've touched so many lives," Dr. Fred Baker, president of the Worcester District Medical Society, said during a dedication ceremony at Elm Park Thursday.

"The Morse Stroll, like the man it honors, welcomes all members of this diverse community without pretense or demands, but rather humility, compassion and sincerity. A stroll often represents a path, an opportunity, to promote good health, that is accessible and affordable to all, and that's consistent with your very philosophy ... that access to care and great resources come first before ability to pay."

Dr. Morse, 86, officially retired in 2011 after serving for nine years as Worcester's public health commissioner. But his affiliation with the city's Division of Public Health began in 1961 when he was beginning his career as a physician consultant and medical epidemiologist with a special interest in bioterrorism.

"From the Hepatitis A outbreak at Holy Cross to Operation Yellow Box that provided a safe disposal point for needles, to removing geese from Elm Park, to bioterrorism preparedness, Dr. Morse was on the front line of issues big and small," Worcester Mayor Joseph M. Petty said at the ceremony. "I want to thank you for your years of service, for all that you've done to make our city healthier, and congratulate you on today's honor."

Dr. Morse also has a long affiliation with Elm Park. In a telephone interview Wednesday, Dr. Morse recalled visiting the park as a child to sail toy sailboats with his father. He said he and his wife - "a great walker" - regularly stroll around the park now, and it takes him 2,000 steps.

Dr. Leonard Morse is greeted by friends at the dedication of Morse Stroll.
T&G Staff/Christine Peterson

"It's a lovely place - my wife and I walk the park anytime we can," Dr. Morse said. "We meet people there, they're all friends, everybody is a friend, it's a great experience to walk there."

Thursday afternoon, Dr. Morse, his wife, Maxine ("aka 'Vaccine,'" Mr. Petty joked) joined these friends as well as city officials and medical colleagues to officially dedicate the ¾-mile stroll. State Sen. Harriette L. Chandler presented an official citation honoring Dr. Morse and the occasion, and speakers praised the doctor for his dedication, integrity and courage.

"I can't think of a more fitting person to hold up to the community than a really dedicated public servant like Dr. Morse," City Manager Edward M. Augustus Jr. said. "Dr. Morse, I think, rightly could be called the Michael Jordan of public health. He's a superstar, like Michael Jordan was a superstar, but also retired three times; he wouldn't stay retired. He's always there when we need him, he's always on call, he's always able to offer his expertise and services."

Dr. Morse, wearing a hat that said "Elm Park Pride," said he was honored by the occasion.

"There were a lot of wonderful comments made that extol my virtues, and I won't talk about them because I fully agree," Dr. Morse joked. He also stopped his speech to say 'God bless you' when somebody in the audience sneezed. "I'm grateful to have lived this long to see this and witnessed it, and I thank you all. I thank you very, very much."

Website Link:
http://www.telegram.com/article/20150827/NEWS/150829257/101366

Video on YouTube: https://www.youtube.com/watch?v=XaGocn31VcU

Scholarship Fund of the Worcester District Medical Society

The Worcester District Medical Society is pleased to acknowledge the following who donated to the WDMS Scholarship Fund. Without their generosity, this program would not be possible.

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Reliant Medical Group
Dr. M. Elizabeth Fletcher Award

Saint Vincent Hospital
Dr. Gilbert E. Levinson Award

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Dr. Samuel Pickens Award

Worcester District Medical Society
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Michael Thompson, M.D. & Kathleen Thompson
Robert Yood, M.D. & Joan Yood

Worcester District Medical Society

Calendar of Events

2015

September
Friday
7:30 a.m.
Beechwood Hotel
25

24TH ANNUAL WOMEN IN MEDICINE BREAKFAST

"Healthy Living with the YMCA"

Speaker: Kathryn Hunter, president/CEO, YMCA of Central MA

Cosponsored by Physicians Insurance Agency of Massachusetts (PIAM)

October
Tuesday
5:30 p.m.
Beechwood Hotel
6

10TH ANNUAL LOUIS A. COTTLE LECTURE

"Child Abuse and Trauma: Recognition and Response"

Speaker: Heather Forkey, MD, chief, Child Protection Division, director, Foster Care Evaluation Service (FACES), UMass Memorial Children's Medical Center, Worcester

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October
Monday
5:30 p.m.
Beechwood Hotel
26

FALL DISTRICT MEETING AND AWARDS CEREMONY

The dinner meeting includes the A. Jane Fitzpatrick Community Service Award, the WDMS Career Achievement Award, and scholarship award presentations.

December
Friday
and
Saturday
9:00 a.m.
MMS headquarters
and
Newton Marriot
Hotel
4
&
5

2015 INTERIM MEETING AND MEETING OF THE MMS HOUSE OF DELEGATES

All WDMS members are invited to attend as guests and may submit a resolution to the Massachusetts Medical Society.

December
Thursday
5:30 p.m.
Washburn Hall,
Mechanics Hall
17

A NIGHT AT THE MOVIES

Sicko

Academy Award-winning filmmaker Michael Moore produced this comedy/documentary in 2007 that presents a scathing analysis of the failures in America's health system. Combining powerful personal testimonies with shocking statistics, Moore pulls the curtain back on the greed and other undesirable influences impacting the American health care system.

Group discussion and holiday celebration will follow.

2016

February
Wednesday
5:30 pm
Beechwood Hotel
10

220TH ANNUAL ORATION

February
Friday
7:00 p.m.
reception,
Boyden Salon;
8:00 p.m.
program,
Mechanics Hall
12

POLISH PHILHARMONIC

Ernst van Tiel, conductor, and Marcin Koziak, piano

Wagner's *Flying Dutchman* Overture, Beethoven's Piano Concerto no. 5 (*Emperor*), Tchaikovsky's Symphony no. 5

March
Wednesday
5:30 p.m.
Beechwood Hotel
9

WOMEN IN MEDICINE LEADERSHIP FORUM

Program to be determined

March
30

DOCTORS' DAY

Event to be announced

March 30 is National Doctors' Day when patients, friends, family, and colleagues honor physicians and express their gratitude for physicians' continuing commitment to patients and exceptional medical care.

Sponsored by the Worcester District Medical Society Alliance

April
Wednesday
5:30 p.m.
Beechwood Hotel
13

ANNUAL BUSINESS MEETING

Meeting includes presentation of the 2016 Community Clinician of the Year Award.

May
Wednesday
University of
Massachusetts
Medical School

MEET THE AUTHOR SERIES

Date to be determined

Cosponsored by WDMS and Humanities in Medicine Committee of the Lamar Soutter Library at the University of Massachusetts Medical School

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May
Thursday and
Saturday
9:00 a.m.
the Seaport Hotel
and World Trade
Center, Boston
5
&
7

2016 MMS ANNUAL MEETING AND HOUSE OF DELEGATES

All WDMS members are invited to attend as a guest and may submit a resolution to the Massachusetts Medical Society.

The National
Circus & Acrobats
of China

Sunday
November 22
2015 at 4:00 pm
Mechanics Hall
Youth Tickets $7.50

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