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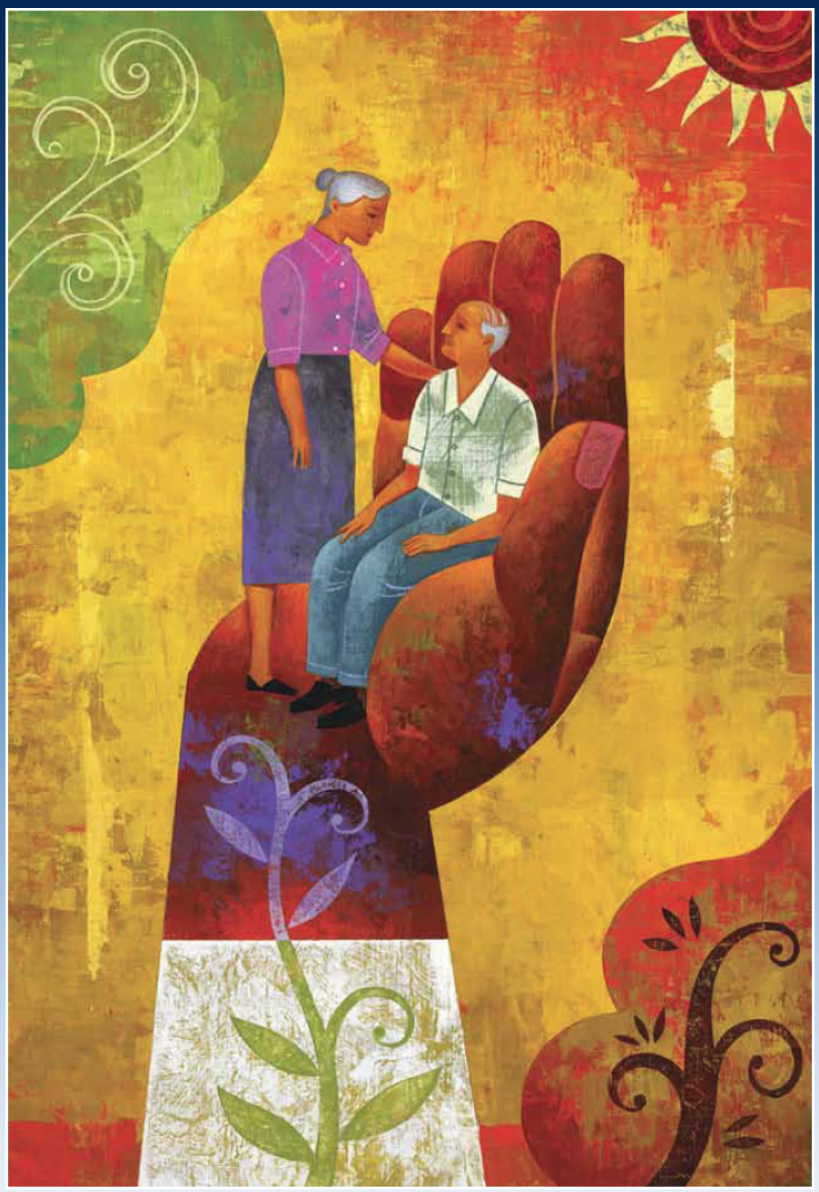

SPECIAL SECTION

The CHANGING WORLD *of* LONG-TERM CARE *in* RI

GUEST EDITOR

RENÉE R. SHIELD, PhD

MARCH 2015 VOLUME 98 • NUMBER 3 ISSN 2327-2228

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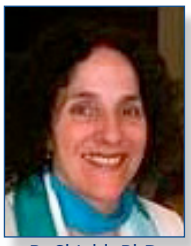
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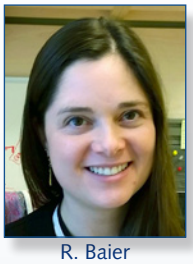
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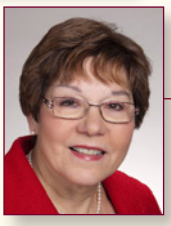

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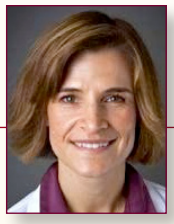

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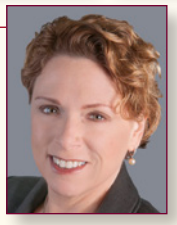

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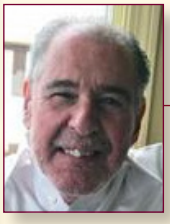

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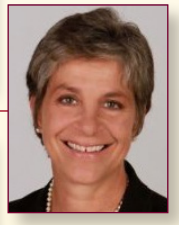

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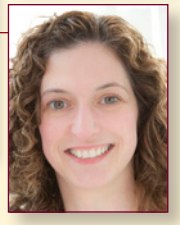

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Brain Treatments and Creativity

JOSEPH H. FRIEDMAN, MD
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A COLLEAGUE WROTE AN article on brain disease and creativity which brought up an interesting point that I had never considered seriously, namely, the potential side effect of reducing creativity in patients who we put on brain-active drugs. The article focused on people who suffered from mental illness (*Can J Psychiatry*. 2011;56;132) but there's no reason the point doesn't carry over to any brain disorder. While many of us are familiar with the eccentricities of friends or relatives with major mental illnesses, few of these people are very creative, simply because few people are very creative. Mental illness may be associated with creativity, particularly mania, when not out of control, but, as Sylvia Plath noted, "When you are insane, you are busy being insane all the time…When I was crazy, that's all I was." While I am not a psychiatrist, I have seen a large number of people with major psychiatric illnesses, and her personal observation rings true.

My patients form a highly select group. They all have movement disorders. This does not mean that the psychiatric patients with movement disorder side effects from their medications were poorly treated. Sometimes side effects are unavoidable. However, those patients I've seen haven't seemed particularly creative. Neuroleptics, the antipsychotic drugs that cause movement disorders, tend to slow people down, both in their movements and in their thinking. In fact, in the "early" days of psychopharmacology, animal testing for anti-schizophrenic drugs focused on the drug's ability to slow the animals and make them less inquisitive. Likewise the presumed benefit of frontal lobotomies was reduced agitation, often reduced movement in general, probably due largely to apathy. Dopamine receptor blockade, the cardinal neurotransmitter effect shared by all anti-psychotic drugs, probably produces apathy or at least some degree of indifference, in the patients I see. This is why they were used on political prisoners in the Soviet Union. In Parkinson's disease (PD), a dopamine depleting disorder, we think we see a reduction in "risk seeking behavior," that some have opined is related to the reduced dopamine. I doubt that apathy and creativity can coexist.

In her article, my friend cites medical conditions thought to be linked to creativity: hypomania and temporal lobe epilepsy. The link may be anecdotal (Dostoyevsky) or by clinical research (see articles by Norman Geschwind, MD), and those linked by popular opinion, particularly certain recreational drugs. (Think of Coleridge and his opium haze-induced Xanadu, or Timothy Leary and his LSD "trips.") It seems unlikely to me, on the face of it, that drugs induce creativity, although I do admit it is plausible. More likely, drugs suppress anxiety, or increase activity by combatting depression, leading to increased and more considered expression of already-present thoughts, but this is certainly not an evidence-based opinion, and the bottom line is the bottom line. If drug X helps someone to write a great poem, create a dance, or solve some problem, then who can argue?

The interesting question that arises in the article is whether certain medications might squelch creativity. There was a famous British comedian who was well known to be at his creative peak as he became hypomanic. But his hypomania preceded severe mania which would require hospitalization. What if the only way to control his need for hospitalization was to use medication that suppressed these bouts of creativity? Of course, the patient is the one who would determine whether to be treated or not, but a case like that is extraordinary. In most cases one can only wonder if there may be a link between a "mental illness," either frank illness or a premonitory state, and creativity. The author of the article opines that, based on theories about creativity and the modes of action of certain medications, some patients, "creative types" (my quotes, not hers) should be treated with certain drugs, less likely

to inhibit the creative impulse, than others approved for a similar indication. I am skeptical. I am not persuaded that we have such knowledge to guide us. If these drugs have predictable effects on creativity I would wonder if there may be different drugs for mathematicians, painters, writers or musicians. Some creative artists are creative in several realms, but so far as I know, Mozart and Einstein were known for single field creativity, implying that there is not a single "creativity circuit" in the brain.

One of the problems that we have in studying the brain is our tendency to oversimplify. This has become a problem because oversimplification sometimes does, in fact, produce heuristically helpful models that translate into actually useful outcomes. It's not always wrong. The insulin deficit in diabetes, or the dopamine deficiency problem in Parkinson's disease are good examples. But giving insulin through contemporaneous blood sugar samples only helps glucose control, not the other problems associated with diabetes. Increasing dopamine in the brain improves some movements in people with PD, but not all, and does nothing for any of the non-motor problems in that disorder. In addition, none of the ways we have of supplementing dopamine activity are helpful for the many disorders of dopamine deficiency that are not idiopathic PD. Furthermore, as I learned from a prominent neuropharmacologist, there are few, if any, neurological disorders that don't, at some point, involve dopamine. In the brain, as most people know, everything is connected to everything else. There are no isolated physiological circuits and there are no isolated neurotransmitter circuits. Any perturbation is counterbalanced by some response somewhere. Blocking dopamine, increasing serotonin, reducing nicotine activity create imbalances in one (or more) places, counterbalanced by changes in other neurotransmitters somewhere else. I fully believe that in one hundred years our current most sophisticated analyses of brain circuitry will seem closer to the four humors of the Greeks than 22nd century brain science. I am skeptical of theories that are not empiric when it comes to the brain because we know what we observe, but rarely why it occurs. We have too often been wrong, misled by our oversimplifications. Since there are usually several options for choosing psychiatric drugs, most of which work equally well, there is no harm in this theorizing, so long as we don't take it too seriously. ❖

Author

Joseph H. Friedman, MD, is Editor-in-chief of the *Rhode Island Medical Journal,* Professor and the Chief of the Division of Movement Disorders, Department of Neurology at the Alpert Medical School of Brown University, chief of Butler Hospital's Movement Disorders Program and first recipient of the Stanley Aronson Chair in Neurodegenerative Disorders.

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[Above] **Natalie Migneault**, an English as a Second Language (ESL) kindergarten teacher in Cranston, accessed the February issue of the *Rhode Island Medical Journal* at the Old Custom House on Plaza del Portal de la Pau.

[Top left] Natalie's husband, **Joseph Migneault**, with their grand-daughter **Stephanie Coro**, a professional basketball player for Aigües del Prat in the Federació Catalano de Basquetbol, stopped to see where else RIMJ is read, near the "Onades" (Waves) sculpture at Plaça del Carbó in the harbor.

[Left] The proud grandparents with Stephanie after her game.

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We are read everywhere

LA QUINTA, CALIFORNIA

Dr. Ken Korr of Barrington, at right, shows Feb. RIMJ to Gene Lerner, managing partner of a healthcare consulting company, on the back nine of the Nicklaus course in PGA West, La Quinta, CA. Weather: 82 with a cool breeze off the Santa Rosa mountains. Rough hazards: fire ants, and a rare rattlesnake.

JOSHUA TREE NATIONAL PARK, CALIFORNIA

Hiking in Joshua Tree National Park in California, RIMJ managing editor **Mary Korr** checks the February issue in front of a tall cholla cactus in the Sonoran Desert area of the park. [At right] Our intrepid editor on another trail in Joshua Tree National Park, home to large turtles, giant lizards, Big Horn Sheep and rattlesnakes.

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The Changing World of Long-term Care in RI

RENÉE R. SHIELD, PhD
GUEST EDITOR

The nursing home is a unique institution in American society that commonly elicits public and professional responses of dread and resignation, as well as brave efforts at reform. Nursing homes within the US long-term health care system have undergone major changes since I first began to study them in the early 1980s.

As guest editor for two themed issues on long-term care in RI for the *Rhode Island Medical Journal* (RIMJ), I am honored to dedicate them in loving memory of Dr. Stanley M. Aronson, my long-time mentor, collaborator and friend. As evident in his professional career and as editor *emeritus* of this Journal, the nursing home was of special interest to him for many decades; he was deeply committed to its improvement. I first met Stan in 1981 as a PhD student in cultural anthropology at Brown specializing in the study of aging. He had recently retired from his position as founding dean of the Medical School, and I asked if he would consent to be on my dissertation committee. In agreeing, he suggested I focus on the nursing home as a fascinating topic of rich history, complex individuals and high promise. I immersed myself in the culture of one nursing home for 14 months, going day and night for long hours at a time, trying to understand what it was like to live and work in this place. Each week I brought Stan my field notes, impressions and drafts about which we fervently argued and discussed. His red edits on my drafts were unsparing and clear-headed; his praise, when it came, was all the more precious. I later turned the dissertation into a book, *Uneasy Endings: Daily Life in an American Nursing Home* (Cornell, 1988). Years later, we co-authored *Aging in Today's World: Conversations between an Anthropologist and a Physician* (Berghahn, 2003), and we continued a deep and joyful friendship until his recent death. I owe profound thanks to Stan. What a huge loss for me, my family and for our community.

The authors in this and the next themed issue of RIMJ discuss important facets of long-term care in RI and the changes these institutions have undergone. This issue begins with Pelland, Mota and Baier's overview of long-term care services and costs situated within the demographic context of the aging population of our state. Nanda next provides a summary of the roles and responsibilities of the nursing home medical director, a role increasingly important given the complex medical needs of the varied populations in our nursing homes. Kevin McKay, administrator of Tockwotton Home, describes his view of the culture change movement in nursing homes and chronicles on-the-ground details of how Tockwotton has worked to implement innovative, person-centered reforms. Sue Vinhateiro rounds out this issue by describing her personal trajectory as a long-term care nurse in one RI facility. Her perspective mirrors changes that nursing homes have undergone over the last decades as she has experienced them.

Dr. Bill Thomas, creator of the reform effort called the Eden Alternative (www.edenalt.org), in attempting to explain the origins of this institution, said a hospital and a poorhouse got together to produce the nursing home.[1] This characterization embodies the contradiction that the nursing home is modeled after the hospital, is poorly reimbursed and is often a long-time last "home" for its residents. The predicament caused by its funding status and its split identity of hospital versus home creates challenges for reformers who want to ensure that competent and person-centered care is maintained in as home-like a setting as possible.

Stan Aronson was cautiously optimistic about the strides RI nursing homes were making to provide such care for our most frail and vulnerable Rhode Islanders. He wanted their care to be respectful and exceptional. In honor of his insistence on compassion and excellence, we offer these two issues. This issue provides an overview of the evolving nature of long-term care in RI, and the April issue will focus on transitions and end-of-life care. We hope they help inspire us to continue to improve and achieve the superb care that older Rhode Islanders deserve. Given the pressing demographic reality of our aging state, this goal must be our imperative.

Reference

1. Weil J. *The New Neighborhood Senior Center: Redefining Social and Service Roles for the Baby Boom Generation*. New Brunswick, NJ: Rutgers University Press; 2014.

Guest Editor

Renée R. Shield, PhD, is Professor of Health Services, Policy and Practice (Clinical) at the Center for Gerontology and Healthcare Research, Brown University School of Public Health.

The Nuts and Bolts of Long-term Care In Rhode Island: Demographics, Services and Costs

KIMBERLY PELLAND; TERESA MOTA, BSN, RN; ROSA R. BAIER, MPH

ABSTRACT

Nearly 8,000 people reside in Rhode Island's (RI's) 84 nursing homes at any single point in time. Many of these people are highly vulnerable because of illness or frailty. In this article, we describe the reasons that RI residents seek care from nursing homes, the associated costs (with a focus on Medicare and Medicaid payment), and different ways to assess nursing home quality. We also describe the home- and community-based services that can help people remain in the community. A resource list provides additional information for those seeking to better understand RI nursing homes and long-term care supports and services.

KEYWORDS: Economics, demographics, nursing home, skilled nursing facility, Rhode Island

INTRODUCTION

Each year, tens of thousands of Rhode Island (RI) residents are admitted to a nursing home for skilled care following a medical event or hospitalization (post-acute care) or for custodial care on a more permanent basis (long-term care). Altogether, nearly 8,000 residents reside in the state's 84 nursing homes at any single point in time.[1]

DEMOGRAPHICS

RI nursing homes are mostly independent facilities (60.7%), although a large minority belongs to a multi-facility organization (39.3%) (**Table 1**). Likelihood of admission increases with age, as well as among those with low income and low family and social support.[2] Residents are predominantly female (72.1%) and non-Hispanic white (93.4%) (**Table 2**).[3] More than half (55.5%) are aged 75 years or older.[3]

Locally, hospital patients are most-commonly discharged to nursing homes for post-acute care as a result of septicemia, osteoarthritis of the hip or knee, hip fracture or dislocation, or heart failure.[4] In contrast, long-term care residents' most-common health problems range from injury and surgery to the frailty and cognitive impairment that often accompanies aging (**Table 3**): many residents are dependent on staff for help with activities ranging from bathing (95.8%) to toileting (79.5%) and eating (43.2%); more than half are chair bound (57.2%), have cognitive impairment (moderate or severe, 64.6%), or dementia (52.4%); and nearly as many have depression (44.2%).

COVERAGE AND COSTS

In 2012, RI nursing home costs averaged $8,517/month for a shared room and $9,277/month for a private room.[5] Expenses include skilled (nursing, therapy, and medications) and custodial care, as well as room, board, housekeeping, and other overhead costs. Most residents are covered by Medicare, Medicare Advantage, or Medicaid, or pay out-of-pocket.

Approximately one-third of RI Medicare patients have fee-for-service (FFS) Medicare and two-thirds have Medicare Advantage, a private health plan that furnishes Medicare benefits. Medicare Part A (hospital insurance) provides FFS Medicare patients with limited coverage for nursing home care (**Table 4**).[6,7]

Table 1. Rhode Island Nursing Home Characteristics, June 2014 (N=84)

Characteristic	
Nursing Home Control, n (%)	
Hospital-based	0 (0.0)
Independent	51 (60.7)
Multi-facilities	33 (39.3)
Nursing Home Ownership, n (%)	
For profit	66 (78.6)
Government	0 (0.0)
Non-profit	18 (21.4)
Patients by Payer, n (%)	
Medicaid	5,281 (66.4)
Medicare	732 (9.2)
Other	1,941 (24.4)

Source: American Health Care Association, 2014

Table 2. Rhode Island Nursing Home Residents' Demographics, 2012 (N=8,221)

Demographics	n (%)
Age (Years)	
≤64	715 (8.7)
65-74	929 (11.3)
75-84	2,014 (24.5)
≥85	4,563 (55.5)
Female	5,927 (72.1)
Male	2,293 (27.9)
Race/Ethnicity	
Black, not Hispanic origin	304 (3.7)
Hispanic or Latino	164 (2.0)
White, not Hispanic origin	7,678 (93.4)
Other	66 (0.8)

Source: Centers for Medicare & Medicaid Services Nursing Home Compendium, 2013

Table 3. Rhode Island Nursing Home Residents' Medical Conditions, June 2014 (N=7,953)

Condition	n (%)
Mental Status	
Behavior Symptoms	1,622 (20.4)
Dementia	4,167 (52.4)
Depression	3,513 (44.2)
Psych Diagnosis	2,314 (29.1)
Mobility	
Ambulatory*	5,065 (63.7)
Bedfast	108 (1.4)
Chair bound	4,549 (57.2)
Pain Management†	3,977 (50.0)
Skin Integrity	
Pressure Ulcers	387 (4.9)
Pressure Ulcers at Admission	190 (2.4)
Preventative Skin Care	6,797 (85.4)
Special Care	
Hospice	437 (5.5)
IV Therapy	103 (1.3)
Mechanically altered diet	2,362 (29.7)
Special Rehab	2,108 (26.5)
Tube feeding	167 (2.1)
Total ADL Dependence	
Bathing Dependent	7,619 (95.8)
Eating Dependent	3,436 (43.2)
Toileting Dependent	6,792 (85.4)
Transferring Dependent	6,323 (79.5)

*Ambulate independently or with assistive devices
†Residents with a specific plan to control difficult to manage or intractable pain
Source: American Health Care Association, 2014

Medicare Advantage plan requirements vary by plan. Unless residents have long-term care insurance – and very few do – they must pay out of pocket for long-term care. Few can afford to do this for long; if their resources are exhausted, they turn to Medicaid. As a result, Medicaid is RI's largest payer for nursing home care, covering two-thirds (66.4%) of all post-acute and long-term care (**Table 1**).[8] In 2012, there were more than 1.9 million Medicaid bed days[9] among 7,978 residents; in contrast, there were 88,000 Medicare bed days.[1] Medicaid coverage is simpler, in some respects, because it is dictated by Medicaid eligibility (income and assets) and the clinical need for care (**Table 4**).

ECONOMICS OF CARE

Nearly eight in 10 (78.6%) RI nursing homes are for-profit (**Table 1**), although most are operating on a deficit. Why? As described above, the majority of RI nursing home residents are covered by Medicaid. Medicaid reimburses a flat daily rate that varies based on individual patients' acuity.[10] Although Medicaid reimbursement differs by state, on average it is lower than reimbursement by other payers and in some states, including RI, it can be lower than the actual cost of providing care.[11] In 2010, RI Medicaid patients accrued costs of, on average, $212/day and facilities were reimbursed $196/day, resulting in an operating deficit of $16/day per Medicaid resident and a net loss of nearly $30M in one year.[12]

In 2013, RI implemented a plan to constrain spending by enrolling long-term care residents with Medicaid into a health maintenance organization (HMO). Today over two-thirds of long-term care nursing home residents are enrolled in Neighborhood Health Plan of Rhode Island's Rhody Health Options.[13] However, Rhody Health Options receives Medicaid reimbursement rates and may therefore encounter similar operating deficits as Medicaid.

Table 4. Medicare and Medicaid Coverage

Eligibility	Fee-for-Service Medicare	Medicare Advantage	Medicaid
Overall	Based on age (≥65 years), end-stage renal disease diagnosis (any age), or certain disabilities (<65 years)	Based on age (≥65 years), end-stage renal disease diagnosis (any age), or certain disabilities (<65 years)	For certain population groups (children, pregnant women, parents, seniors, individuals with disabilities) or based on income/assets. Rhode Island has flexibility for coverage based on waivers.
Post-Acute Care	Medicare Part A (hospital insurance) provides limited coverage ≤100 days to patients who: • Have a recent inpatient hospital stay ≥3 days,* • Be admitted to a Medicare-certified nursing facility <30 days of the prior hospital stay, and • Be in need of skilled services such as nursing or therapy. For the first 20 days, 100% of costs are covered; for days 21-100, patients pay a co-pay (in 2014, $152.00/day) and Medicare pays the balance.	Requirements vary by plan; some may be exempt from the three-day hospital stay requirement, but most have higher co-pays	Covers inpatient, comprehensive services (e.g., post-acute and long-term care services) as part of institutional benefits. This includes state-licensed/certified nursing facilities for those in need of skilled services, such as nursing or therapy. Patients may need to meet level of care requirements
Long-Term Care	No coverage	No coverage	

Source: U.S. Department of Health and Human Services, 2014; Kaiser Family Foundation, 2012; Medicaid.gov, 2014
*This requirement makes it important for hospital patients to understand whether they are being held for observation (a short-term treatment or assessment before a decision is made regarding a hospital stay or discharge) or admitted as inpatients.

QUALITY OF CARE

Nursing home economics provide important context to the ongoing debate among nursing home providers, stakeholders, and researchers regarding the relationship between reimbursement rates and overall quality of care. There is a widely-accepted connection between reimbursement and resources, since reimbursement serves as nursing homes' primary source of revenue and their revenue, in turn, determines their ability to secure resources.[14]

Because Medicaid is the single-largest payer for nursing home care[11] and Medicaid reimbursement (as outlined above) can fall short of the actual costs of care,[15] researchers frequently use payer mix as a marker for overall quality of care. For example, investigators at Brown University's Center for Gerontology and Health Care Research found that facilities with the highest proportions of Medicaid residents — 85% or more — have fewer nurses, lower occupancy rates, and more health-related deficiencies.[17]

Nursing home quality is subjective and can include the physical environment, nursing care, clinical outcomes, relationships with staff or other residents, or other criteria. When choosing amongst facilities, experts suggest that people ask questions, visit in person to see how facilities look, sound, and smell, and use data to make comparisons. Both Medicare and the Rhode Island Department of Health (HEALTH) publish data to inform consumers.[15,16] HEALTH is also one of only four states nationwide to require all nursing homes to evaluate resident and family satisfaction each year,17 with results published on HEALTH's website.[19]

HEALTH monitors nursing home quality by performing inspections. Most facilities also have programs to improve the quality of care and experiences they provide residents. This includes participating in local and national initiatives, such as the national *Advancing Excellence in America's Nursing Homes* campaign,[18] and collaborating with Healthcentric Advisors, the New England Medicare Quality Improvement Organization (QIO). Healthcentric Advisors leads quality improvement initiatives that target national priority topics ranging from care transitions to patient safety, and is a national leader in improving person-directed care.[19]

HOME- AND COMMUNITY-BASED SERVICES

For those unable to live at home, assisted living is a growing trend to provide the help or supervision necessary to remain in the community (**Table 5**). In RI, an assisted living facility is any residence for two or more adults that provides lodging, meals, and personal assistance.[20] In 2012, assisted living costs averaged $3,898/month – less than half of the average nursing home costs ($8,517-$9,277/month).[5] However, residents usually pay out-of-pocket (assisted living is not a covered healthcare service) and these facilities do not substitute for nursing homes: they can manage medications, support activities of daily living, and provide social activities, but in most circumstances they cannot provide skilled nursing care for more than 21 days without HEALTH's approval.[21] Nationally, 69% of assisted living residents come from the community – not a hospital, rehabilitation center, or nursing home.[28]

When asked, most people will say that they prefer to stay at home. Home- and community-based services (HCBS) can help them do just that, by providing the wrap-around and supportive services necessary for disabled and elderly people to maintain independence (**Table 5**). The overarching goal of these programs is to "provide cost-effective services that will ensure that [patients] receive the appropriate services in the least restrictive and most appropriate setting."[22] Reducing costs is a secondary goal, though some policymakers

Table 5. Rhode Island Home- and Community-Based Services

Programs/Services	Details	Coverage
Assisted Living	Residences with lodging, meals, and personal assistance, including medication management, support activities of daily living and social activities	$3,898/month, usually paid for out-of-pocket by residents
Adult Day Services	Offer care during the day and can include assistance with personal care and medications, recreational and social activities, and meals	Services covered by Medicaid under Rhode Island's Section 1115 Waiver
Balancing Incentive Program	Designed to work separately or in concert, provides a network of HCBS services for seniors who want to remain in the community	Provided for patients with incomes up to 300% of the Social Security Income Federal Benefit Rate (in 2013, $2,130/month for an individual)
Home Health Care	Provides assistance for seniors who cannot live alone, yet want to remain in the community. Includes assistance with activities of daily living, medication management, homemaker services, and meals.	Services covered by Medicaid under Rhode Island's Section 1115 Waiver
Money Follows the Person	Provides targeted support for nursing home residents who transition back to the community	
Program of All-Inclusive Care for the Elderly (PACE)	Serves frail adults ≥55 years who have chronic health needs and want to live at home. These adults are nursing home-eligible. Transportation is provided to a central site that includes medical care and other services.	Services covered by Medicaid under Rhode Island's Section 1115 Waiver

Source: Rhode Island Executive Office of Health and Human Services

acknowledge that HCBS costs can be higher than nursing home care, if people need significant support.

Although there are numerous HCBS available throughout RI, most are run by state agencies such as the Rhode Island Executive Office of Health and Human Services (EOHHS, which administers Medicaid) and its Division of Elderly Affairs (DEA). The DEA-led Aging and Disability Resource Center, THE POINT, is a referral service that maintains a comprehensive directory of services available throughout RI and connects people with available programs. THE POINT also helps people to apply for EOHHS or DEA funding assistance, which is awarded based on need, income, or Medicaid eligibility.[23]

Under RI's Section 1115 Waiver,[24] EOHHS may use Medicaid funds for programs that further state objectives, such as providing care in the least restrictive setting.[25] Under the Medicaid State Plan's core and preventative services programs, people can receive personal care (e.g., assistance with activities of daily living), home health services, and homemaker services, such as preparing meals and light housekeeping. Additional services may include comprehensive case management, assistance with transitional care, or referral to other HCBS, such as adult day services, assisted or shared living, or Program of All-Inclusive Care for the Elderly (PACE, a program serving frail adults 55 and older who have chronic health needs and want to live at home).

EOHHS has two additional HCBS programs: Money Follows the Person and the Balancing Incentive Program.[26] Money Follows the Person provides targeted support for patients who transition from a nursing home back to the community. The Balancing Incentive Program provides new or expanded HCBS for patients with incomes up to 300% of the Social Security Income Federal Benefit Rate. These programs are designed to work separately or in concert, providing a network of services for seniors who want to remain in the community.

IN SUMMARY

RI's nursing home population includes nearly 8,000 people, many of whom are highly vulnerable because of illness or frailty, and the aging population is expected to place increasing demand on nursing homes in the coming years.[27] Characterizing nursing homes and HCBS resources can help consumers and providers better understand the industry and available services. **Table 6** provides resources for those seeking to better understand RI nursing homes and HCBS.

Table 6. Helpful Resources for Long-Term Care in Rhode Island

Resource	Description	Contact
Aging and Disability Resource Center, THE POINT	Provides information, referrals, and help getting started with programs and services for seniors, adults with disabilities, and their caregivers	adrc.ohhs.ri.gov or 401-462-4444
Alliance for Better Long-Term Care	As the Rhode Island Ombudsman for Long-Term Care, helps to protect the rights of elderly and disabled persons who live in long-term care settings and those who receive home health or hospice in the home	www.allianceblтc.com
LeadingAge-Rhode Island	A membership organization for non-profit providers of aging services, including nursing homes and assisted living residences, which aims to promote policy and practice that empowers people to live fully as they age	www.leadingageri.org
Healthcentric Advisors	As the New England Medicare Quality Improvement Organization (QIO), provides data, education, and assistance to help providers in all settings, including nursing homes, improve the quality of care they provide to patients	www.healthcentricadvisors.org
Medicare's Nursing Home Compare	Publishes data to help consumers compare nursing homes based on the care and outcomes that their residents experience	www.medicare.gov/nursinghomecompare
Rhode Island Division of Elderly Affairs	Focuses specifically on preserving the independence, dignity, and capacity for choice for seniors, adults with disabilities, families and caregivers	www.dea.ri.gov
Rhode Island Department of Health's Healthcare Quality Reporting Program	Publishes data to help consumers compare nursing homes based on the care and outcomes that their residents experience; includes resident and family satisfaction	www.health.ri.gov/nursinghomes/about/quality
Rhode Island Executive Office of Health and Human Services	Provides consumers aged 65 years and older with information about services to help them get the right care, at the right place, at the right time	www.eohhs.ri.gov/Consumer/Elders.aspx
Rhode Island Health Care Association	A membership organization of for-profit nursing homes, which aims to provide its members with information, education, and tools that enhance residents' quality	www.rihca.com
The Economic Progress Institute's Guide to Government Assistance	Provides information about government assistance programs and community-based resources that help low- and modest-income Rhode Islanders meet basic needs	www.economicprogressri.org

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Disclaimer

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The Roles and Functions of Medical Directors in Nursing Homes

AMAN NANDA, MD, CMD

ABSTRACT

The medical director is an important member of the healthcare team in a nursing home, and is responsible for overall coordination of care and for implementation of policies related to care of the residents in a nursing home. The residents in nursing homes are frail, medically complex, and have multiple disabilities. The medical director has an important leadership role in assisting nursing home administration in providing quality care that is consistent with current standards of care. This article provides an overview of roles and functions of the medical director, and suggests ways the medical director can be instrumental in achieving excellent care in today's nursing facilities.

KEYWORDS: Medical Directors, Nursing homes, Quality of care

INTRODUCTION

Nursing Homes are an important site for individuals who cannot manage without substantial help to live and receive healthcare. In 1974, Medicare required skilled nursing facilities it certified, to have a medical director. The Omnibus Budget Reconciliation Act of 1987 (OBRA-1987)[1] extended this requirement to all nursing homes. Services medical directors provide to fulfill their obligations vary widely. Medical directors may remain relatively uninvolved or be highly involved in working closely with the facility administration to deliver high quality care to the residents. Similarly, the administration of a nursing home may employ a medical director just to fulfill the Centers for Medicare and Medicaid Services (CMS) requirement for a medical director, or to use as a referral source for maintaining high occupancy in their facility. On the other hand, the Administrator and Director of Nursing may involve and fully embrace the skills the medical director has to offer and utilize that expertise in improving many aspects of the residents' care quality.

According to CMS, medical directors are responsible for implementing resident care policies and coordinating medical care of all the residents in the nursing homes. In the early 1990s, CMS developed interpretative guidelines for the medical director's role: "to ensure that the facility provides appropriate care as required; monitors and implements resident care policies; provides oversight and supervision of physician services and the medical care of residents; plays a significant role in overseeing the overall clinical care of residents to ensure to the extent possible that care is adequate; evaluates situations as they arise and takes appropriate steps to try to correct the root cause, if possible; consults with the resident and his or her physician concerning care and treatment, if necessary; and ensures the support of essential medical consultants as needed." These guidelines are broad and vague.

The 2000 report by the Institute of Medicine (IOM), "Improving the Quality of Long Term Care,"[2] urged that medical directors be given more authority and be held more accountable for medical services in nursing homes. In order to delineate the role and responsibilities of medical directors, the American Medical Directors Association (AMDA), the society for post-acute and long-term care medicine, has periodically revised and updated its policy statement. In its latest white paper in 2011, AMDA identified roles and functions for medical directors.[3]

ROLES OF MEDICAL DIRECTOR

There are four major roles of the medical director outlined by AMDA:

Physician Leadership

The medical director should be a role model, and is responsible for the overall clinical care of the residents in the facility. The medical director provides guidance for appropriate physician credentialing, coverage, and performance expectations.

Patient Care-Clinical Leadership

The medical director should apply clinical and administrative knowledge to guide the facility in providing high quality care. The medical director should have a panel of residents under his/her care, and should set an example in seeing new admissions and follow-up visits in a timely manner. The medical director should be available to administration and other providers to answer any clinical questions on a particular resident. The medical director should assist in the development of specific clinical practices in the facility and ensure that they are resident-centered standard of practice.

Quality of Care

The medical director should help the facility develop quality improvement projects. The medical director should assist the facility in providing a safe and caring environment and advise the administration on risk management.

Education, Information, and Communication

The medical director should educate and provide information to the facility staff, and practitioners which helps in improving the care of residents. The medical director should act as a liaison with the community and assist in establishing appropriate relationships with other health care organization.

FUNCTIONS OF MEDICAL DIRECTORS:

There are nine functions for medical directors, as stipulated by AMDA:

Administrative

The medical director should participate in developing and approving patient care-related policies and procedures. The medical director should meet periodically with the Administrator and Director of Nursing (DON) and discuss patient care issues.

Each facility is surveyed by state and/or federal surveyors once a year, or earlier if there are any complaints. The surveyors usually come unannounced. The medical director should be notified when the surveyors survey the facility. The medical director should make every attempt to go to the facility and introduce him/herself to the surveyors and answer any questions while the surveyors are on-site. During or after the survey, the medical director can help surveyors in clarifying any clinical questions. The medical director should try to attend the exit survey and should help the administration in resolving or correcting any citations in the correction plan.

Professional Services

Each facility should have a credentialing policy for the medical staff that includes physicians, mid-level practitioners and consultants. The medical director plays a lead role in developing this policy. The medical director ensures physician performance in the following activities:

- providing appropriate medical care to the residents
- performing timely admissions
- documenting care
- making scheduled and as-needed visits
- providing medical coverage 24/7

The medical director is responsible for covering the attending physician when the latter is unavailable. The medical director becomes the attending physician by default when no other physician is willing to accept the new admission. The medical director may take over the care of another physician's patient under the following circumstances:

- request by resident/family; or,
- to address any concern in quality of care.

Quality Assurance and Performance Improvement (QAPI)

Each facility is required to have a quarterly QAPI meeting, including the attendance of the medical director. The medical director can guide the committee about projects to improve quality of care. It is recommended that QAPI meetings be held monthly rather than quarterly, and all department heads should have a quality improvement project related to their discipline. Medical directors should maintain written records and e-mails documenting their relevant activities. There should be an agenda item in QAPI meetings regarding comments from the medical director. Activities conducted as part of the QAPI should be labeled as such, so they remain protected from discovery by the surveyors. This protection is intended to allow for more frank discussion to support the QAPI activities and overall a better care environment.

Rights of Individuals

The facility is required to have policies in place for ensuring that the rights of residents are respected. The medical director can help the administration in developing these policies, for example, by identifying and reporting abuse, or honoring a resident's choice for a particular attending on staff.

Person-Directed Care

The medical director should play a lead role in promoting person-directed care. Residents and their families should be actively involved in decision-making about treatment options. Residents should be offered choices; for example, regarding waking up and timing of medications administration. Residents should be treated with respect and dignity.

Education

The medical director should participate in educating the nursing staff as well as physicians and mid-level practitioners. The medical director can play a pivotal role in providing clinical leadership regarding current standards of care in attaining optimal residents' outcomes in the facility.

Employee Health

The medical director should participate in the development of policies for promoting employee health. The medical director is not expected to substitute for employees' primary care physicians. The medical director should approve policies that cover employee immunization programs, and address diagnosis and treatment of infectious illnesses that could be transmitted to residents or other employees.

Community

The medical director should act as a spokesperson and advocate for the facility in the community. Nursing homes often have an undeserved poor reputation. The medical director can play a role in educating colleagues, public and hospital administration officials about the nursing home structure and its importance in our health care system.

Social, Regulatory, Political, and Economic Factors

The medical director should have knowledge of social, regulatory, political, and economic factors that may have an impact on patient care. The medical director should have knowledge of important federal and state regulations, such as the responsibilities of attending physicians, the medical director, and pharmacy services.

There is wide variation in the involvement of medical directors in their facilities. In 2003, the Office of Inspector General released a report on a survey of medical directors in nursing homes. In this survey, 62% of responding medical directors reported visiting the facility once a week or less. Seventy percent reported that 1-10% of their overall medical practice is devoted to their medical director role. Eighty-six percent spend 8 hours or less per week at their facility.[4]

According to the IOM report[2], medical directors are accountable for the overall quality of care in nursing homes, but have little authority within the facilities (e.g., hiring and firing staff, setting administrative policies), and little authority over the attending physicians. The report recommended that in order to improve the quality of care in nursing homes, facilities should give greater authority and responsibility to their medical directors.

In order to better define the medical director's role and expectations, CMS updated the guidelines for the medical director (F-Tag 501).[5] The facility will be cited for F-501 if there are deficiencies in quality of care; e.g., if the nursing home staff are not proactive in preventing and treating pressure ulcers. In some states, if the facility is cited F-501, the division of facility regulations may inform the physician licensure board of the respective state. In order to show their active involvement, medical directors should keep logs of their activities in the form of notes, e-mails, letters or minutes of the QAPI meetings.

The American Medical Directors Association offers a certification program for medical directors (CMD). Medical directors may improve their medical direction skills by attending the core curriculum for this certification program. In one study done in US nursing homes, the presence of certified medical directors in the nursing facilities was an independent predictor of good quality of care.[6]

Nursing homes are an important part of health care system in United States. Despite the limitations in their authority, the medical director can play an important role in helping the facility to provide good quality of care to the residents.

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A Nursing Home Administrator's Perspective on Culture Change: Tockwotton's Commitment to Resident-Centered Care

KEVIN McKAY

ABSTRACT

Tockwotton Home, a 150+-year-old long-term care organization reinvented itself by adopting the household model of management ("culture change") to enable residents to play an integral role in self-directing their care. Staff was cross-trained and cross- certified to be nimble in meeting resident needs. In addition to philosophical changes, the organization made a $53.2M investment in a new building with architectural features that reflected the new focus. The process of change, the resources facilitating this change and our responses to challenges are described. Early indicators (and long-term studies at other institutions) have suggested that the new model of care is leading to fewer medications, falls and pressure ulcers and higher resident satisfaction.

KEYWORDS: Nursing home administration, culture change, resident-centered care, self-organized workplace

INTRODUCTION

Sound business concepts turn into successful ventures when the owners listen to their customers and implement responsive plans. With more patient choices and increased competition for residents from for-profit entities, the 150-year-old Tockwotton Home took pages from textbook case studies and applied the same logic to our organization, thereby acknowledging that providing medicine alone simply isn't good enough for our residents. Through research of best-in-class practices, trial and error, and implementation, we've learned that patient care requires a holistic approach that responds to the full range of patient requisites, from spiritual to medical to daily activities. Successfully addressing resident needs at Tockwotton on the Waterfront means providing the kind of care they want, at a time they dictate and in a setting of their choice.

While healthcare organizations originally intended to provide personalized, attentive and professional care, oftentimes record keeping, billing, reimbursements, staffing quotas and government mandates place undue pressures on administrators and direct caregivers. By the 1990s, efficiency and efficacy were industry buzzwords used more frequently than compassion and choice. Like other healthcare organizations, Tockwotton Home in Providence was struggling to balance cost containment with best-in-class care while tending to its aging physical plant. As our board considered its options, while keeping in mind its non-profit charter, President Elizabeth MacKenty challenged our directors, staff and residents to reimagine the perfect place to age in place. MacKenty was confident that she had a capable team and the right timing for Tockwotton to recreate its care and environment. Tockwotton had many factors in its favor – the economy was robust, we were a non-profit, and we were a small enough organization (90 employees and 66 residents) to be nimble.

GETTING STARTED AND IMPLEMENTING CHANGE

Change and adapting to residents' needs had always been a top priority in our organization. Our structure and practices have been dynamic to meet the physical, social and mental health requirements of those in our care. However, industry "culture change"[1, 2] was challenging us to think radically. Spearheaded by the Pioneer Network (https://www.pioneernetwork.net/), our focus was redirected to resident-centered care. Simultaneously, the "greenhouse" concept (thegreenhouseproject.org) was inviting us to de-institutionalize the physical structures of nursing homes. Looking ahead, we understood the need to reinvent our protocols and practices to keep pace with the changing market and resident/family expectations.

When the board's collective vision was captured on paper, the picture of a perfect home for seniors had many of the same attributes that we all strive to achieve in our own, individual home. We pictured a place where people work together to get the task done that's comfortable and suits our physical requirements, and where individual needs and wishes are recognized and accommodated.

Looking for existing models to guide us, we visited Meadowlark Hills in Kansas where the "household" model had been successfully employed. Confident that it was a step in the right direction, we adopted this model in 2008 – the first organizational milestone in embracing culture change. By incorporating this model into our philosophy, we also made a commitment to a self-organized workplace to ensure that all employees would be responsive, adjusting their work priorities and tasks (oftentimes beyond their job description) to meet the changing needs of residents, i.e. making a different meal than what's on the menu. Working with realistic financial and logistic parameters, direct care staff in a

self-organized workplace accommodate residents' wishes to help them achieve their vision of how they'd like to live.

While a self-organized workplace appears to be simple, it's a significant switch from the traditional medical model in which nurses and doctors carry out their vision of "best-in-care" practices. This institutional model meant that meals were served at a specific time, lights were out two hours after dinner and bathing happened when it was most convenient for the nursing staff. We wished for residents to regain authority over their own lives in meaningful ways. Now, under the self-organized workplace model, if a resident has ambulatory problems and wants to go on a stroll, the risks are explained but they are not prevented from taking walks. If they want to sleep until 10 and skip breakfast, they do so. If they'd like a scoop of ice cream, it's given. We've discovered that little choices – and often even just the knowledge that one has the ability for self-determination – helps individuals retain their quality of life and boosts morale.

From an employee's perspective, the changes meant that we all had to adopt flexible job descriptions and be cross-trained and certified. A nurse, for example, could be needed to prepare a meal in addition to monitoring vital signs, measuring medication and administering therapies. As families ideally work together, so do members of the direct-care team. When a housekeeper's opinions are held in equal regard with those of an RN, traditional hierarchies disappear. Cynics might have expected that this dramatic change would be rebuffed; in actuality, it was a system researched and thoughtfully implemented elsewhere, and now it's embraced by our staff. An important innovation has been implementing "consistent care," in which staff members are assigned to a small group of residents. Being greeted by a familiar face allows residents to become well acquainted with their caregivers, and (in turn) allows staff to anticipate resident needs while working as a team. Minimal staff turnover occurred because of these changes. Those that stayed were committed change agents who embraced their new roles without prejudice or hesitation. Tockwotton is not alone in its findings. Research has demonstrated the value of a "household model." Staff satisfaction and markedly reduced turnover follow implementation (artifactsofculturechange.org/Data/Documents/artifacts.pdf).[3]

OUR BUILDING

After adoption of the household model and self-organized workplace we soon recognized one insurmountable obstacle: the reality that our physical structure was still institutional. We had nursing stations, shared bedrooms, common bathrooms and long hallways. We needed a new building, but suddenly the 2008 recession hit and purse strings tightened. Donors who had taken a beating on the stock market had to reduce their personal giving. However, our board was undeterred. Strengthened by the community response from to initial changes, we forged on together.

Plans took shape for "Tockwotton on the Waterfront," a community that would resemble family households. Small gathering places were created both inside and out. Translating the concept of a household model into architectural amenities created a challenge to design intimate spaces, including private apartments, private baths, and residential kitchens. The architect, Diane Miller Dooley of DiMella Shaffer Associates, succeeded by ensuring that there are no visible signs of institutional care, such as commercial kitchens, nursing stations, long hallways or communal bathrooms.

Dooley left no detail to chance. To increase exposure to natural light, for example, she designed outdoor spaces to take advantage of the sun's path, angling the building to maximize sun exposure; created significant window area; and incorporated gardens and patios to increase residents' exposure and encourage outdoor exploration.

Unobtrusive technology was also incorporated into the Memory Care and skilled nursing households. Overhead paging was eliminated. Caregivers now use cell phones, texts and emails to communicate, and an electronic monitoring system was added to alert caregivers to potential problems behind residents' closed doors. No cameras are used; rather, motion sensors are placed on the bed and ceilings that track individual behaviors and issue a silent page if a resident's behavior deviates from normal patterns.

The medical community at large weighed in on the innovations we were proposing. RI Generations, a partnership formed to support patient-centered care, was in its infancy and embraced our plans. The Rhode Island Department of Health's Office of Facility Regulation saw the logic of our proposals, reviewed our proposal and worked alongside planners to refine designs.

Residents and their families also provided input during the design process. Family members of former residents voted to approve the changes and expenditures. Newsletters communicated resident-centered care philosophies and milestones. Families and residents who were ambulatory took hard-hat construction tours.

The $52.3 million Tockwotton on the Waterfront rose on six acres along the East Providence waterfront. When completed, the five-story, 137,754 square-foot, Nantucket-style building featured five "households" and 156 individual apartments with assisted living, memory care, short-term rehabilitation and long-term care. Each micro community features its own kitchen where food is prepared and served, allowing each resident to choose what/when they want to eat. With a host of personal amenities, care is coordinated and enables residents to "age in place" while receiving personalized services. With the new building, even couples can now remain together regardless of their disparate care needs.

Fifty-six residents made the move from Tockwotton Home in Providence to Tockwotton on the Waterfront in East Providence in January 2013, and those residents applauded (and embraced) the changes that the new building has brought. While nursing stations used to be a meeting

place for residents, they've been removed. Now residents gather in the dining room, facing each other, often lingering and socializing over meals. Residents are waking up to tend to their gardens, taking walks and ending their day dining on waterfront patios, following the sun's path. Increased light exposure, private bedrooms and lack of overhead pages and vitals checks have translated into better sleep. Our medical staff has also noted that better quality sleep has led to fewer falls and quicker recovery in the rehab household where well-rested residents are also more eager and ready to actively participate in physical therapy sessions, thereby accelerating their recovery.

While the long-term results of this move and change-in-care philosophy at Tockwotton are still being measured, a two-year study of six nursing homes that employed the household model found reductions in pressure ulcers, number of residents taking five or more medications daily, number of residents taking anti-depressants and anti-psychotics, and number of safety restraints used.[3] We are confident that our analysis over time will yield similar results.

With the opening of this new building, we have embraced culture change while acknowledging hurdles along the way. The economics of building during a significant recession, the challenge of adding and training new staff on the principles of the self-organized workplace, and the addition of new residents coming from traditional care facilities have challenged us all. And we will continue to be challenged. The foundation of a resident-centered care organization requires continuous reinvention and adaptation to meet our residents' needs. New residents will arrive and current residents will continue to age. Creating strategic plans and blueprints for our organization as we move into the future will, therefore, continue to test us as those needs and desires continue to change, both individually and collectively

We're proud of the results we've achieved along the path of this dynamic process and we're heartened by resident and family response. Recently, family member Eleanora Sordoni summarized our accomplishments best when she wrote:

> *"My husband had a birthday party…last Saturday. We had flowers, music, wine, lots of food and laughter. We watched the sun set over the water. And when we escorted him to his apartment, it was to a private and comfortable refuge. This apartment is a place where Franco and I can sit together in comfortable silence or listen to music or watch TV. We are very much at home."*

At that moment, on that day, for that resident, Tockwotton on the Waterfront had achieved its goal of resident-centered care. Tomorrow, next week, and next year, that definition of success will have changed and we will be well prepared, both physically and philosophically, to address those dynamic needs.

Change is necessary to remain relevant to the people you serve. Real change needs to be initiated by top administrators who champion the concept, believe in the direction, build a team to support their vision, persevere with the adoption of reforms and continuously re-evaluate, making adjustments to stay true to an organization's redefined mission. Based on our experiences at Tockwotton on the Waterfront, we believe that culture change is the adoption of a new philosophy to remain relevant and a commitment to adapt to meet individuals' needs to create a measurably healthier community.

Disclaimer

The views expressed in this article are those of the author and do not necessarily reflect the views of the staff or residents of Tockwotton on the Waterfront.

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The Changing World of Long-term Care in RI: One Nurse's Journey

SUSAN VINHATEIRO, LPN

ABSTRACT

This paper presents a personal look at the changing world of long-term nursing care in one facility over the course of a 38-year nursing career. The paper reviews the ways the role of "nurse" has evolved and expanded due to changes in patient populations, industry standards, and technology advancement. Though the job has changed dramatically over the decades, the most integral parts of successful nursing remain the same: Connection to patients and their families, and a commitment to quality care and patient well-being.

KEYWORDS: Nursing care, long term care evolution, nurse case management

In 1976, I finished my freshman year of college and decided not to return to school. At my father's urging, I went on my first job interview for a nurse's aide position. There was no certification required to be a nurse's aide. The entire training consisted of watching procedural film strips followed by ten days of training with an experienced nursing assistant. After working as an aide for one year, my father encouraged me to attend nursing school. I enrolled in Rhode Island Junior College and graduated in 1979, while working part time as a third shift nurse's aide.

I got my first job as a licensed nurse at the same facility where I worked as an aide. I did not realize at the time that I would spend my career in that very building. In the years since, I've worked in many positions ranging from charge nurse to infection control nurse.

At that time, working in a nursing home meant taking care of frail elders exclusively. Generally, patients resided at the facility for end-of-life care. Typically a licensed nurse's day would involve medication administration, turning and repositioning, simple wound care, nutrition via gastric tube, nasal gastric tube, or hand feeding. Anything beyond the scope of nursing would be handled by contracted professionals. In the 1970s, patients conformed to the schedules of the facility. We didn't take into account their personal preferences and habits from their daily lives before they were admitted. Patients were bathed, dressed, and groomed according to set daily schedules. At the time, we thought it was best for patients at risk for falls to be restrained. There was little flexibility. Visiting hours were scheduled, nurses wore starched white uniforms, white hose and caps. I could never have anticipated the changes that would come in the world of long-term care.

Although the way we cared for patients was rigid, I always felt personally connected to them, especially the first patients I ever cared for. Stanley was one of the patients I became fond of. Many staff would bring their children in for visits. I still have a photo of Stanley holding my daughter during a visit. He never had children of his own, but all of the nurses sensed that our children were treated as grandchildren by the patients. Today this is called intergenerational programming. At that time, we just knew our children brought such joy to the elderly.

Over the years, reimbursement changes, Medicare regulation, and evolving patient demographics have dramatically altered nursing and long-term care. The once privately owned facility where I work was purchased by a corporation. It has since been sold three more times to even larger corporations.

The nursing facility itself has also dramatically changed. In the early 1990s, we opened one of the first secured dementia specialty units in the state specializing in individualized care and a habilitation approach to dementia care. Culture change, a homelike environment, consistent assignments an extensive activity program, and a holistic focus on patients' prior lifestyles were integral to the success of the unit. Restraints became a thing of the past. Multiple industry studies revealed restraining patients actually caused more serious injury and were not effective in the prevention of falls. Staff became adept at developing creative solutions for falls prevention. The Activity Department had a vital role in developing interventions as well.

We tried to make life on the unit reminiscent of residents' prior lives. I will always remember the day we enacted a wedding ceremony for them. A nurse's aide wore her wedding gown, there were flowers donated by a local florist, music, wedding cake and dancing. And, of course, with lots of reminiscing and tears, residents were encouraged to share their words of wisdom. This was one of the most challenging yet rewarding positions I have held. I learned about behavior management, validation therapy and therapeutic activities, and these became tools in our toolbox of dementia care.

Not all of the changes we made were as lasting. There are many factors that have an impact on change. One of those factors is finances. At the same time we opened the dementia unit, we opened a Joint Commission accredited sub-acute

unit to care for short-term, medically complex patients. Initially the sub-acute unit cared for ventilator dependent patients with 24/7 respiratory therapists on staff. Changes in reimbursement later in the '90s made continuation of ventilator care unprofitable. Care for ventilator-dependent patients was discontinued, but the sub-acute unit is still thriving today. All these units required nurses to expand their areas of expertise.

Nurses in skilled nursing facilities are today caring for patients who once remained in the acute care setting for extended periods of time. They are administering intravenous (IV) meds, total parenteral nutrition (TPN), and doing advanced wound care; they are taking care of patients with new tracheostomies, patients with multidrug resistant strains of infections requiring contact precautions, poly trauma patients, and surgical patients. Consequently, units have become very fast-paced. It is not unusual to have 35-45 admissions and discharges per month. Gone are the days of the sleepy nursing home. Today's nurses are in scrubs and running shoes tending to beeping IV pumps, answering call lights, rounding with physicians, passing medications, and doing treatments.

Staff is no longer limited to nurses and outside contractors. Now, skilled nursing facilities have large complements of physical therapists, occupational therapists, speech therapists, and respiratory therapists. Nurses have more technology at their disposal: electrocardiogram (EKG) machines, automated external defibrillators (AEDs), pulse oximeters, crash carts, bladder scans, not to mention the recent requirement of electronic medical records. The clinical and technical expertise of nurses has greatly expanded. Nurses, particularly older career nurses like myself, have had to adapt from a setting that once cared for frail elders to the high-tech, medically complex nursing of today.

To meet the needs of the patients we now care for, many consultants have become a crucial part of the care team. These include palliative care nurses, hospice care clinicians, psychiatric consultants, and wound consultants. All of these changes created a need for nurse case managers to coordinate the delivery of care.

In 2010, I accepted the role of nurse case manager, a position which is becoming more popular in nursing facilities to manage the care and reimbursement for Medicare patients, managed care patients and insurance patients. Case managers act as a patient advocate and liaison with physicians and insurers. We do concurrent reviews for insurance companies to ensure timely care and proper reimbursement, and obtain prior authorizations. It is very rewarding to meet with patients and families, and work closely with the interdisciplinary team to coordinate care and set goals to ensure good outcomes and safe transitions home.

Today, performance is measured in outcomes. José (not his real name) was a patient who came to our facility from Boston following an extended and complicated hospital stay for a hip fracture, myocardial infarction (MI), and respiratory failure. On admission, he had a tracheostomy tube and was unable to speak, a percutaneous endoscopic gastrostomy (PEG) tube for nutrition, and a peripherally inserted central catheter (PICC) line for IV antibiotics. Over time, through the collaborative effort of speech therapy and respiratory therapy, José began speaking with a passey miur valve, had a blue dye test and modified barium swallow test to assess abilities. He progressed from a puréed diet with nectar liquids to a regular diet with thin liquids. He was decannulated and the PEG tube was discontinued prior to discharge. José was able to return home at his prior level of function. I felt gratified to see this once debilitated person return for a visit with his wife carrying an enormous tray of homemade goodies.

I have always treasured the connection with patients and families. Receiving a Christmas card or a random phone call from a former patient just to say "hello" are the greatest rewards. I still meet with former patients' family members, and we have built lasting friendships.

As I near retirement, it is with great satisfaction and fulfillment that after 38 years, I still come to work in the same facility. Though the entryway has changed after several renovations and expansions, it's still comforting to come back to this place and try to make a difference every day.

As I was gathering my thoughts for this article, I realized the place my nursing career was born at the urging of my father was the same place where his life would end. Three years ago, I found myself on the other side, as a family member sitting at my father's bedside in the same room where I had cared for many patients. Now I was there as a daughter with my daughters and my mother telling stories about my dad's life. We sat for 2 days with dad until he passed away. Along with it being such an emotional time, the experience gave me a different perspective on what so many patients' family members go through. I have sat with families as their loved ones were dying, thinking I was saying just the right thing. Sometimes there are just no words.

Disclaimer

The views expressed herein are those of the author and do not necessarily reflect the views of Oak Hill Nursing and Rehabilitation Center.

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Prescription Opioid Use and Misuse Among Older Adult Rhode Island Hospital Emergency Department Patients

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ABSTRACT

Because of the multitude of financial, health, and social problems associated with prescription opioid misuse, effective methods of identifying older adults who are misusing these medications are needed. We conducted a pilot investigation to determine the prevalence of previous and current prescription opioid use among older adults visiting the Rhode Island Hospital Emergency Department and their need for opioid misuse interventions. Among 88 randomly selected older adults (≥ 65 years of age) presenting to the ED with sub-critical illness or injury, 19% (95% CI: 11–27%) were current opioid users and 6% (95% CI: 4-8%) would require an intervention for prescription opioid misuse. We identified problems of improper acquisition, diversion, provider refusal to prescribe opioids, hoarding, and inappropriate use of opioids among this population. Emergency medicine clinicians should query their older adult patients about prescription opioid misuse and associated problematic behaviors.

KEYWORDS: prescription opioids, prescription drug misuse, older adults, emergency department, substance abuse, screening

INTRODUCTION

Prescription opioid misuse among older adults is a growing concern in the United States (US).[1-4] At least one in four older US adults uses psychoactive medications with abuse potential, many of which are opioids.[6] It is estimated that the number of older adults with substance abuse problems will double to over five million by 2020.[16,17] The problem of prescription opioid misuse among older US adults can be attributed in part to: (1) an aging cohort of "baby boomers," who as a group have used more psychoactive drugs than previous generations; (2) a changing pattern of abused substances over time among older adults (i.e., increase in drug abuse, less alcohol use); and (3) the increasing availability of prescription opioids for the treatment of pain.[3,7,8] In fact, hydrocodone is now the most commonly prescribed medication in the US, more than any blood pressure, cholesterol, or diabetes medication.[5] Because of the multitude of financial, health, and social problems associated with prescription opioid misuse, it is vital to develop effective methods of identifying older adults who are misusing these medications.

The emergency department (ED) is a prime environment to examine the growing problem of prescription opioid misuse among older adults. In 2009, an estimated 1.1 million US ED visits were directly related to prescription drug misuse, an increase of 98% from 2004.[14,15] Given the projected increase in the US older adult population in the coming years, it is likely that ED visits by older adults with prescription opioid misuse will also increase. Emergency medicine clinicians must be prepared to provide the appropriate care for this population in need.

The problem of prescription drug abuse has become increasingly apparent in Rhode Island in recent years. Rhode Island is in the top quintile of states for misuse of prescription drugs, specifically pain relievers and sedatives.[21] In 2010, Rhode Island had the 13th highest drug overdose mortality rate in the country, predominately from prescription drugs.[22] However, the prevalence of prescription opioid use among older adults in Rhode Island is not well known. To address this knowledge deficit, we conducted a pilot investigation to determine the prevalence of previous and current prescription opioid use among older adults visiting the Rhode Island Hospital ED and the need for opioid misuse interventions among this population using screening methods adapted from other clinical settings.

METHODS

Study Design, Setting, and Selection of Participants

This pilot study was conducted during June–July 2011 at the Rhode Island Hospital ED, which is a Level 1 trauma center with an annual census of over 100,000 adult visits per year. Trained undergraduate research assistants (RAs) collected data for the study during randomly selected eight-hour shifts scheduled between 7 am to midnight, 7 days/week over a four-week period. RAs conducted an initial eligibility review of ED patients using the ED electronic medical records (EMRs), and then conducted an in-person assessment among patients who appeared to meet study criteria. EMRs of ED patients were selected for review through a random selection process. ED room numbers were compiled in a randomized list generated before each 8-hour shift. RAs reviewed the EMRs of patients in the randomly selected rooms in the order of the list. Patients whose EMRs indicated that they were ≥ 65 years of age, had an Emergency Severity Index score of 3 to 5 (i.e., were not critically-ill or

injured), spoke English, had no contact precautions, and had no indications of dementia or cognitive disabilities (e.g., delirium) were approached for study participation. Through a brief interview, the RAs identified and excluded those who were cognitively impaired or indicated they were taking prescription opioids for cancer-related pain. Patients were considered cognitively impaired if they could not identify their name, their present location, or the approximate time of the day. The study was approved by the hospital's institutional review board.

Methods, Measurements and Data Analysis

All study participants completed questionnaires created by the study authors about their demographic and health care characteristics and their prescription opioid use behaviors on SurveyMonkey Pro™ using a tablet computer. RAs instructed study participants on use of the tablet computer. Participants who reported current daily opioid use were asked to complete the Prescription Drug Use Questionnaire, patient version (PDUQp). The PDUQp is a 31-item, 20-minute questionnaire with good internal reliability (Cronbach's α=0.81). It was designed to detect prescription drug misuse among 18–65-year-old chronic pain patients in other clinical settings.[18] Its domains assess pain, opioid use patterns, social/family factors, and substance abuse history. Affirmative responses to questions on the PDUQp receive a score of 1 (except for item 6, which is reverse scored), and the total score is a sum of all relevant items on the questionnaire. Item 1 ("Do you have more than one painful condition?") is not included in the total score. The total score for the PDUQp ranges between 0 and 30. A score of ≥ 5 has a sensitivity of 100% and a score of ≥ 15 has 100% specificity for identifying problematic opioid use. The PDUQp authors recommend using a cutoff score of ≥ 10 to detect both opioid misuse and abuse, as this score has ideal sensitivity and specificity. Participant responses to the questionnaire on demographic and health care characteristics, self-reported pain, and prescription opioid use behaviors for those with previous or current daily opioid use were stratified and summarized using medians and interquartile ranges (IQRs) or proportions and corresponding 95% confidence intervals (CIs), as appropriate. PDUQp responses were tabulated and scored as recommended.

RESULTS

Study enrollment, participant descriptions and prescription opioid prevalence and misuse

One hundred older adult Rhode Island Hospital ED patients were approached for participation. Two patients were excluded for inability to read English. Three were excluded because they were receiving prescription opioids for metastatic cancer, and 7 refused to participate. Of the 88 participants, 28 (32%; 95% CI: 22–42%) reported never having taken a prescription opioid; 43 (49%; 95% CI: 39–59%) reported prior, but not current, prescription opioid use; 17 (19%; 95% CI: 11–27%) reported current daily prescription opioid use.

The demographic and health care characteristics, self-reported pain, and prescription opioid use history of those with prior or current prescription opioid use are shown in Table 1. As compared to previous opioid users, most of those currently using prescription opioids reported problems with pain and almost half had been referred to a pain management specialist. Improper acquisition and diversion of prescription opioids, provider refusal to prescribe opioids, prescription opioid hoarding, and inappropriate use were reported with varying frequency. For all of these self-reported items, problematic opioid use behaviors were higher among current prescription opioid users than previous users. No participants reported ever having stolen prescription opioids, having had theirs stolen, having been treated for an opioid overdose, or having taken methadone or buprenorphine.

PDUQp responses by current opioid users

Composite PDUQp scores for the 17 current opioid users are displayed by age in Figure 1. PDUQp scores ranged from 3 to 12. The median score was 8 (IQR 5-10). Five of the 17 current users (6% of the 88 participants screened for opioid use; 95% CI: 4-8%) had PDUQp scores ≥ 10, which is the recommended cutoff for further intervention.

DISCUSSION

Age-related physiological changes, co-existing chronic health conditions, and social issues, such as isolation, make older adults a unique at-risk population with regards to opioid use and misuse. In addition to the development of addiction disorders, older drug misusers may be at heightened risk for adverse events often associated with opioid use, such as delirium, falls, fractures, pneumonia, and increased all-cause mortality.[9-13] Many of these conditions are first evaluated in the emergency medicine setting, which makes understanding the extent of prescription opioid use and misuse among older adult ED patients highly relevant.

Of particular significance to our community, in our sample of 88 older adult Rhode Island Hospital ED patients, we observed that over two-thirds have current or prior experience with prescription opioid use and nearly one in five are currently using opioids. Of even greater concern, 5 out of the 17 current opioid users surveyed met criteria for opioid misuse and might benefit from an intervention. This observation coincides with a disturbing trend in the US of escalating use of prescription opioids, sales of which increased 149% from 1997–2007.[5] As such, along with the growing population of older adults, EDs can expect to be taking care of more older adults with prescription opioid problems. Participant self-reported prescription opioid use behaviors also highlighted several noteworthy behaviors indicative of misuse. These behaviors suggest that even if patients do not meet

PDUQp author-recommended criteria for an intervention, a significant number of older adult ED patients currently using prescription opioids require instruction on proper medication use and screening for misuse behaviors.

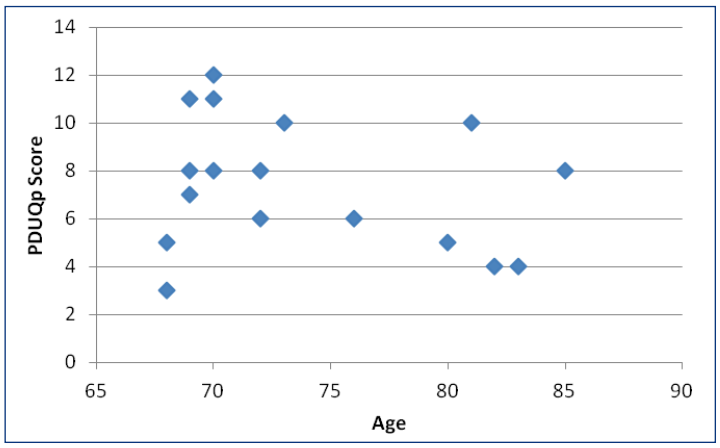
LIMITATIONS

This study had several limitations. All participants were English-speaking and white, which limits its external validity to older adult ED patients with other demographic characteristics. Because cognitively impaired patients were not included, external validity to this population is unknown. This exclusion is particularly relevant since some older adult ED patients with cognitive impairment are at greater risk of prescription opioid-related side effects, or their impairment may be related to opioid use or misuse. Future studies can investigate opioid misuse among this select group. The PDUQp, although it has been evaluated among chronic pain patients, has yet to be formally assessed among older adult ED patients, and so its validity cannot be verified. Prescription opioid misuse determination was contingent upon self-reported information and is therefore subject to recall and social acceptability biases. In order to minimize bias, the RAs ensured participants that their responses were confidential. Because this investigation was a pilot study, the sample size and scope was limited; however, these preliminary findings should motivate a more comprehensive investigation of this topic.

Table 1. Characteristics of Past and Current Prescription Opioid-Using Older Adult Emergency Department Patients and Problematic Prescription Opioid Use Behaviors

	Prior Prescription Opioid Users n=43	Current Prescription Opioid Users n=17
Demographic and health care characteristics		
Median age, IQR (years)	77 (72-82)	72 (69-80)
	%	%
Gender (female)	58.1	58.8
Race (white)	100.0	100.0
Marital status (currently married)	44.2	23.5
Education status (high school graduate)	81.4	76.5
Employment status (retired)	90.7	100.0
Housing status (living alone)	34.9	52.9
Health care insurance status (insured)	100.0	94.1
Regular health care (primary care provider)	97.7	94.1
Previous substance abuse treatment (ever treated)	4.7	11.8
Previous depression/suicide attempt treatment (inpatient)	7.0	5.9
Self-reported pain		
Pain present for more than three months	44.2	88.2
Pain preventing activities of daily living	46.5	82.4
Ever referred to a pain management clinic	7.0	47.1
Problematic prescription opioid use behaviors		
Improper acquisition and diversion		
Bought prescription opioids online	0.0	5.9
Bought prescription opioids from a place other than a pharmacy	0.0	11.8
Went to emergency department for prescription opioid refill	0.0	17.6
Obtained prescription opioids in someone else's name	0.0	5.9
Received prescription opioids from friends or family	2.3	17.6
Consumed opioids prescribed to someone else	0.0	17.6
Problems with clinical providers		
Clinician ever refused to write opioid prescription	4.7	11.8
Changed provider because inadequate pain treatment	0.0	23.5
Hoarding		
Ever saved prescription opioids for future use	18.6	58.9
Have old prescription opioids needing replacement	2.3	5.9
Inappropriate use		
Used prescription opioids when not having pain	2.3	5.9

Figure 1. PDUQp scores by age for participants currently using prescription opioids



CONCLUSION

In this small, single center pilot study among 88 older adult Rhode Island Hospital Emergency Department patients, 17 (19%) were current opioid users and 5 (6%) had PDUQp scores indicative of prescription opioid misuse. Given these findings, the increasing prevalence of chronic opioid use, and problems of opioid overdose in our state, more attention appears needed to address prescription opioid use and misuse among older adult emergency department patients in Rhode Island.

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Hypokalemic Quadriparesis Secondary to Abuse of Cocaine and Heroin

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ABSTRACT

Low plasma potassium level can cause muscle weakness, lassitude, constipation as well as rhabdomyolysis and arrhythmias, when severe. In muscle, low plasma potassium increases resting membrane potential (hyperpolarization) of myocytes that tend to make muscle more refractory to excitation, leading to muscle weakness. Hypokalemia can be associated with a myriad of causes including drugs of abuse. We present a case of hypokalemia and muscle weakness following use of cocaine and heroin.

KEYWORDS: cocaine, hypokalemia, muscle weakness, quadriparesis

CASE REPORT

A 33-year-old woman presented with 5-day history of painful weakness of all four extremities. The weakness started in the legs and ascended to the arms. Past history was significant for untreated hypertension, and recent use of heroin, cocaine and marijuana. There was no family history of periodic paralysis. Her physical examination was remarkable for systolic hypertension, exquisitely tender limbs and flaccid paresis of all limbs with a normal sensory examination and preserved deep tendon reflexes. Investigation revealed sodium of 138 meq/L, severe hypokalemia (potassium of <2 meq/L), chloride of 97 meq/L, bicarbonate of 28 meq/L, and elevated creatinine phosphokinase (CPK of 5838 IU/L, [normal 38-234 IU/L]). Serum cortisol, aldosterone, magnesium, renin activity, thyroid stimulating hormone and arterial blood gas analysis were normal. Urine toxicology was positive for opioid, cocaine and tetrahydrocannabinol (THC). The electrocardiography (EKG) revealed a prolonged QTc interval of 598 milliseconds, and ST segment depression. With a diagnosis of hypokalemia-induced quadriparesis secondary to cocaine and heroin abuse, the patient was admitted for telemetry monitoring and was started on potassium supplementation. With improvement in serum potassium, she had resolution of weakness and pain as well as normalization of her EKG and elevated CPK. She was discharged home with a referral to an outpatient substance abuse rehabilitation program. She returned to the emergency room one month later with mild paraparesis developing one day after snorting heroin. Her potassium was 2.9 meq/L and her urine toxicology was positive for opioid and THC. After potassium supplementation, she had resolution of her symptoms and was discharged home.

DISCUSSION

The etiologies of young adults with hypokalemia and weakness can be categorized into two groups: one due to transcellular shift of potassium and the other due to loss of potassium from body. Young patients who present with recurrent weakness and hypokalemia can be due to hypokalemic periodic paralysis (HPP) due to mutations of ion channels in the muscle sarcolemma.[1] HPP includes thyrotoxic periodic paralysis that is associated with hyperthyroidism, familial periodic paralysis and sporadic periodic paralysis that is not associated with family history or thyrotoxicosis. Drugs that promote transcellular shift of potassium include β2-agonists, nasal decongestants and insulin.[2] Muscle weakness due to hypokalemia can also occur after profuse diarrhea, excessive vomiting, apparent mineralocorticoid excess due to licorice ingestion.[1,3]

Cocaine and heroin are widely abused substances. Cocaine can affect multiple organ systems and may cause cardiac arrhythmias, seizures and intense sympathetic stimulation causing tachycardia, hypertension, dilated pupils, and increased psychomotor activity.[4,5] Increased sympathetic stimulation leads to increased sodium-potassium ATPase activity that causes an increased shift of potassium into intracellular space resulting in hypokalemia.[2] Cocaine's potential effect on potassium channels has also been sought as alternate mechanism. Various case reports have shown that cocaine use can result in hypokalemia and muscle weakness.[6-8] Patients with potassium level between 3.0-3.5 mEq/L are often asymptomatic but patients with potassium level below 3.0mEq/L can present with malaise, muscular weakness, restless leg syndrome and myalgia.[9] When potassium level is lower than 2mEq/L, frank rhabdomyolysis can occur with markedly elevated serum creatinine kinase and myoglobinuria.[9] Rhabdomyolysis has been reported to occur with cocaine and may lead to renal failure. Transient weakness with elevated creatinine kinase following use of cocaine in the absence of hypokalemia has also been reported with postulated mechanisms.[8,10-13] Cocaine can block transient inward flux of sodium across the cell membrane during the depolarization, increasing intracellular calcium, resulting in

tetany. Although the exact mechanism is not clear, rhabdomyolysis in patients taking cocaine has been suggested due to cocaine-induced vasospasm leading to muscle ischemia, direct toxic effects of cocaine on myocytes and hypokalemia associated with cocaine use.[14] Contracting skeletal muscle increases concentration of potassium in interstitial fluid which leads to vasodilation of arterioles supplying the skeletal muscle and hence increases in blood flow. This increase in blood flow may not be adequate when concentration of potassium is subnormal.[15-17]

Hypokalemia and muscle weakness has been reported in few cases of heroin abuse.[18] Clenbuterol (a drug used to treat airway obstruction in horses) was found as an adulterant in heroin that caused transcellular shifts of potassium leading to muscle weakness.[3] Heroin overdose was seen to be associated with hypokalemia, and hypokalemia was more severe in patients who required higher dose of naloxone to reverse the effect of heroin. In an animal study, opiate overdose was associated with hypokalemia and sympathoadrenal stimulus to acute hypoxia after opiate overdose was suggested as possible mechanism.[19,20] In our patient, we speculate that both cocaine and heroin contributed to hypokalemia.

Substance abuse should always be considered as a potential cause of hypokalemia in adolescent and young adults. Cocaine and heroin may cause hypokalemia in otherwise healthy young adults. Toxicological screening can spare a patient from unnecessary testing for alternate conditions.

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Unilateral Greater Occipital Nerve Compression Causing Scalp Numbness

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KEYWORDS: greater occipital nerve, nerve compression, scalp numbness, occipital neuralgia

INTRODUCTION

The most common disorder of the greater occipital nerve is occipital neuralgia, manifested as pain related to compression or irritation of the nerve,[1] but here we present an unusual case of greater occipital nerve compression resulting in unilateral scalp numbness.

CASE PRESENTATION

A 50-year-old male developed a painless swelling over the scalp of the right occiput following an ablative cardiac procedure. Upon waking from general anesthesia, he noticed a "bump" on the back of his head and complete loss of sensation over his right scalp, extending rostrally to behind the hairline, caudally to the nuchal line, medially to the midline, and laterally to above the ear. He also had a new soft tissue mass over his right occiput. He denied hearing loss, tinnitus, visual disturbances, or difficulty speaking or swallowing.

On physical examination, the right scalp was hypesthetic to light touch, pinprick, temperature, and vibration over the involved region. The left scalp, however, had intact sensation in all modalities. Over the right occiput, there was a mass measuring approximately 4 cm x 2 cm with overlying erythema. It was tense, non-fluctuant, and tender to palpation.

The patient was treated with warfarin, and his INR was found to be supratherapeutic to 4.7. A CT scan of head and neck showed swelling and increased subcutaneous stranding over the right occiput, rather than hematoma formation, and a known stable lipoma over the left occiput.

No intervention was undertaken to relieve the swelling. After 4 weeks, he reported that the swelling had completely resolved and the symptoms of sensory loss had subsided to approximately 80% of normal.

DISCUSSION

A hematoma was suspected due to the mass's appearance and the patient's supratherapeutic INR, but imaging suggested that the mass was mainly composed of soft tissue

Figure 1. Patient's right occiput 24 hours after development of mass and right scalp numbness.

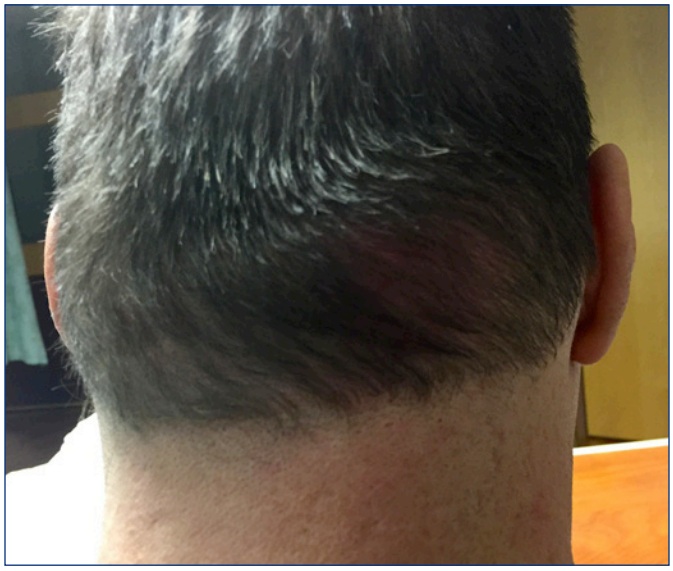

Figure 2. CT scan demonstrating swelling and increased subcutaneous stranding over the right occiput.

swelling and inflammation. We believe that the swelling was related to trauma and subsequently caused compression of the greater occipital nerve. This nerve is derived from the C2 nerve root and provides superficial sensory innervation of the posterior scalp extending rostrally to meet the territory innervated by trigeminal cranial nerve V1. The greater occipital nerve becomes superficial after insertion in the trapezius muscle at the nuchal line. It also has a close relationship with the occipital artery, which alone can compress the nerve or be the source of bleeding in a hematoma.[2]

A literature review yielded one case of an obese 48-year-old woman who developed bilateral occipital neuropathy following a 4-hour thyroid surgery during which her neck was extended.[3] Her bilateral scalp numbness and pain resolved completely by 6 weeks. This case as well as ours suggest that post-operative compressive neuropathies of the occipital nerve carry a good prognosis and would be expected to resolve spontaneously without any residual deficits. Ensuring appropriate positioning and padding during prolonged time under anesthesia may reduce the risk of developing occipital nerve compression, though no specific risk factors, other than perhaps anatomic variation, have been identified.

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Lactescent Serum and Abdominal Pain

ANATOLY KAZAKIN, MD; THOMAS HARONIAN, MD; WILLIAM BINDER, MD

From the Case Records of the Alpert Medical School of Brown University Residency in Emergency Medicine

DR. ANATOLY KAZAKIN: Today's patient is a 34-year-old man with no significant past medical history who experienced worsening abdominal pain over the past 24 hours. The pain was localized to the epigastrium and radiated to his back. The patient had one episode of non-bloody, non-bilious vomiting. He denied any increase in his alcohol consumption but routinely had 4-6 drinks per night. The patient did not report any ill contacts, and denied fever, chest pain, shortness of breath, melena, or hematochezia. The patient did not use any prescription or over the counter medications.

DR. PAUL PORTER: Could you please describe the patient's physical exam?

DR. KAZAKIN: The patient was an alert adult male who appeared uncomfortable and anxious but was in no respiratory distress. His blood pressure was 116/71 mm Hg, and he had a pulse of 130 beats per minute. His respiratory rate was 16 breaths per minute, his oxygen saturation was 95 percent on room air, and his temperature was 37.2 C, rising to 38.6 C in the ED. The patient's conjunctiva were anicteric. He had a normal S1 and S2, and his distal pulses were equal bilaterally. His abdomen was tender in the epigastrium and upper quadrants, with guarding but no rebound. He had no evidence of xanthomas, xanthelasma palpabrum, or arcus senilis and the remainder of his exam was normal.

DR. JAMES RAYNER: What were your concerns and differential? What further testing was performed?

DR. KAZAKIN: The patient's history and physical exam were strongly suggestive of acute pancreatitis. Life-threatening entities such as aortic dissection, abdominal aortic aneurysm and esophageal rupture may mimic this presentation. Alternative diagnoses such as hepatitis, peptic ulcer disease, and partial small bowel obstruction, were considered. However, during phlebotomy, we noticed the patient had lactescent, (milky) appearing serum, suggesting triglyceridemia. Appropriate studies were sent and the patient's lipase was 1235 IU/L, triglycerides 4791 mg/DL, WBC was 7.9, and creatinine was 0.99 mg/DL. Elevated triglycerides may falsely normalize amylase levels and cause pseudohyponatremia, but the patient's other labs were unremarkable.[1]

DR. ELIZABETH SUTTON: Did you perform any imaging? How do you determine the severity of this patient's presentation of pancreatitis?

DR. WILLIAM BINDER: Because clinicians routinely underestimate disease severity, a number of prediction rules have been developed regarding the course of pancreatitis and potential for complications. Ranson's and the modified Glasgow (Imrie) scores evaluate disease severity in acute pancreatitis but require 48 hours of data collection. The Acute Physiology and Chronic Health Evaluation (APACHE) II and III scoring system is poorly predictive at less than 24 hours and is cumbersome.[2] The modified Atlanta classification for pancreatitis distinguishes between mild, moderately severe, and severe pancreatitis but again, requires 48 hours and thus has limited utility in the emergency setting. The recently developed determinant-based severity classification similarly requires 24 hours of data collection to differentiate severity. About 15 percent of patients with acute pancreatitis develop severe pancreatitis.[3] Our patient's initial Ranson score was 0, and his APACHE II score was a 5. Despite these scores, the patient had evidence of the systemic inflammatory response syndrome (heart rate > 90 and temperature of 38.6) and had the onset of symptoms within the previous 24 hours. SIRS criteria and acute onset of disease are predictors of severe pancreatitis and indication for imaging.[4] An abdominal ultrasound was negative for cholelithiasis or choledocholithiasis, but a subsequent CT revealed necrosis of the pancreatic tail with peripancreatic and perihepatic low density ascites. Fluid tracked along the left paracolic gutter into the pelvis and there was a small left pleural effusion. Using both the CT severity index and the modified CT Severity index the patient's score was a 5 or 8, suggesting an associated mortality rate ranging from 7 to 20 percent.[6,7]

DR. PATRICK SULLIVAN: What is the overall incidence of pancreatitis? Was the patient's use of alcohol the cause of his pancreatitis?

DR. KAZAKIN: The estimated annual worldwide incidence of acute pancreatitis ranges from 5.4/100,000 in England to 70–80/100,000 in the United States. Since the 1980s there

has been a notable rise in the incidence of acute pancreatitis in Germany, the Netherlands, Denmark, Sweden, and Finland due, in part, to increased alcohol consumption as well as better diagnostic capabilities.[8] In the U.S., gallstone disease accounts for half of cases of pancreatitis and alcohol is responsible for approximately 30–35 percent of cases.[9,10]

Acute pancreatitis is a leading cause of hospitalization in the United States. Mortality in all hospitalized patients with acute pancreatitis is approximately 10 percent, ranging from 2 to 22 percent in various studies.[11] In patients with sterile necrotizing pancreatitis, the mortality rate is around 12 percent, but rises to 30 percent with infected necrosis, and 47 percent with multisystem organ failure. Mortality rates in necrotizing pancreatitis may be lower, however, in centers of expertise.[12,13] Less common triggers of pancreatitis include scorpion stings, ERCP procedures, and hypertriglyceridemia. Elevated triglycerides account for approximately 4 percent of acute pancreatitis cases and more than half of the cases during pregnancy.[1,14,15]

DR. THOMAS HARONIAN: Today's patient had remarkably elevated triglyceridea. What are the causes of hypertriglyceridemia? When does it manifest as acute pancreatitis and what are the complications?

DR. KAZAKIN: There are many causes of hypertriglyceridemia involving both primary and secondary disease processes. Inherited defects in the proteins or enzymes involved in the processing of lipids are defined by the Fredrickson classification system. Type I (high chlyomicrons) is autosomal recessive and presents in infancy. Type IIB (familial combined hyperlipidemia) and IV (autosomal dominant familial hypertriglyceridemia with elevated VLDL) are the most common dyslipidemias in the United States, accounting for 85 percent of cases.[16] Type IV and V (high chylomicrons and VLDL) are associated with severe hypertriglyceridemia and are predisposed to acute pancreatitis.[17] Type IV usually requires another factor – diabetes, alcohol, hypothyroidism, and numerous medications such as thiazide diuretics or beta blockers – to raise serum triglyceride levels and trigger acute pancreatitis in susceptible individuals.[14,16,18]

Over 75 percent of cases of hypertriglyceridemia-induced acute pancreatitis occur in chronic alcoholics or poorly controlled diabetics.[19] Alcohol may directly cause elevated triglycerides or simply exacerbates an underlying genetic hyperlipidemia.[20-22] In type I diabetes, the ability of LPL to reduce triglycerides into free fatty acids (FFA) is diminished, whereas in type II diabetics insulin resistance leads to increased production and reduced clearance of triglycerides.[23]

Acute pancreatitis may result from excess triglycerides when levels are greater than 1,000 mg/dl. Over five million Americans have triglycerides above this threshold.[18] There are several mechanisms postulated regarding the cause of pancreatitis in patients with hypertriglyceridemia. One theory proposes that triglycerides are hydrolyzed by pancreatic lipase, leading to increased levels of FFA that exceed the binding capacity of albumin. Subsequently, micelles are formed that attack platelets, vascular endothelium and acinar cells, thereby causing ischemia and pancreatic injury. The resulting acidic environment potentiates FFA toxicity. An alternative theory suggests that plasma hyperviscosity due to increased chylomicrons leads to ischemia and acidosis in pancreatic capillaries. There is also emerging evidence for genetic mutation in transport and regulation factors.[1,14,18]

DR. ANTHONY NAPOLI: How did you manage this patient in the emergency department?

DR. KAZAKIN: In the ED, the patient received multiple doses of hydromorphone for pain as well as three liters of normal saline. Despite this, he remained persistently tachycardic to the 120s. Aggressive fluid resuscitation is one component of Ranson's criteria but the development of a positive cumulative fluid balance has been shown to raise the risk of intrabdominal hypertension and significantly increase the risk for abdominal compartment syndrome.[24] An insulin drip was initiated and the patient was transferred to the medical intensive care unit. The use of insulin appears to be safe and effective in the management of hypertriglyceridemia-induced acute pancreatitis.[1,14,18-19,23,25-26] Insulin appears to stimulate LPL leading to acceleration of chylomicron degradation. In animals, insulin has been shown to increase mRNA of LPL. Heparin was formerly used because it stimulates the release of endothelial LPL into circulation. However, heparin increases hepatic degradation of lipoprotein lipase, thereby depleting plasma stores, causing a rebound in triglyceride levels.[1,27] Plasma exchange therapy has also been studied but debate continues regarding the timing, best exchange fluid, and cost of apheresis.[1,14-15,28]

DR. JEFF FEDEN: What was the clinical course for the patient?

DR. KAZAKIN: Insulin was continued in the ICU. Gemfibrozil was initiated on hospital day 2. Within 48 hours the patient's triglycerides decreased to 780 mg/DL. His hospital course, however, was complicated by recurring fevers. Repeat imaging did not detect an abscess or pseudocyst, and the pancreatic necrosis appeared stable. The patient's hospital course lasted 12 days and subsequent outpatient visits revealed no genetic explanation for his presentation. He has been continued on gemfibrozil and his most recent triglyceride level, one month after hospitalization, was 177 mg/dl.

FINAL DIAGNOSIS: Hypertriglyceridemia acute pancreatitis

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Prepregnancy Obesity and Adverse Health Conditions in Rhode Island

HYUN (HANNA) KIM, PHD; KARINE MONTEIRO, MPH; SOUNIVONE PHANTHAVONG, MPH; SAMARA VINER-BROWN, MS

Nearly one third of reproductive-age women in the U.S. are obese and the prevalence of obesity among pregnant women has increased dramatically over the past 30 years.[1-4] Obesity during pregnancy is a well-known risk factor for many adverse health conditions for both mother and baby, such as gestational diabetes, hypertension, preeclampsia, cesarean delivery, fetal macrosomia, preterm birth, miscarriage, and stillbirth.[3-8] It also increases the risk of certain birth defects, including anencephaly, spina bifida, and some heart defects.[3-6] Children born to obese mothers are twice as likely to be obese and to develop type 2 diabetes in life. Obesity during pregnancy is also associated with increased use of health care services, including more prenatal fetal tests, obstetrical ultrasonographic examinations, medications dispensed from the outpatient pharmacy, prenatal visits with physicians, and longer hospital stays, all of which can increase the cost of medical care.[7,8]

This report describes the prevalence and trends of prepregnancy obesity among women who delivered a live birth in Rhode Island, and examines its association with adverse health conditions during and after pregnancy.

METHODS

We analyzed data from the Rhode Island Pregnancy Risk Assessment Monitoring System (PRAMS). PRAMS is a collaborative surveillance project of the Centers for Disease Control and Prevention (CDC) and state health departments, which collects state-specific, population-based data on maternal behaviors and experiences before, during, and shortly after pregnancy.[9] Each year, about 1,300 Rhode Island women who have recently delivered a live-born infant (2–6 months postpartum) participate in the surveillance through mail or telephone survey. The 2002–2011 PRAMS data were analyzed to assess the trend of prepregnancy obesity in Rhode Island and the 2009-2011 aggregate data were analyzed to examine the associations between prepregnancy obesity and adverse health conditions.

Prepregnancy obesity is defined as having a Body Mass Index (BMI) greater than or equal to 30. BMI is calculated as weight in kilograms divided by height in meters squared (kg/m^2), using the data from the survey questions "Just before you got pregnant with your new baby, how much did you weigh?" and "How tall are you without shoes?" Mothers younger than 20 years of age (about 8% of PRAMS population each year) were excluded from the analysis since the obesity definition for children younger than 20 years is different from that of adults.

To identify disparities in prepregnancy obesity, selected socio-demographic characteristics, such as maternal age, race/ethnicity, education, marital status, health insurance type, and parity were examined. The adverse health conditions examined were gestational diabetes, hypertension/preeclampsia/toxemia, depression during pregnancy, cesarean delivery, preterm birth (< 37 weeks gestation), low birth weight (< 2,500 grams), macrosomia (> 4,000 grams), and whether the baby was put in an intensive care unit (ICU) after birth.

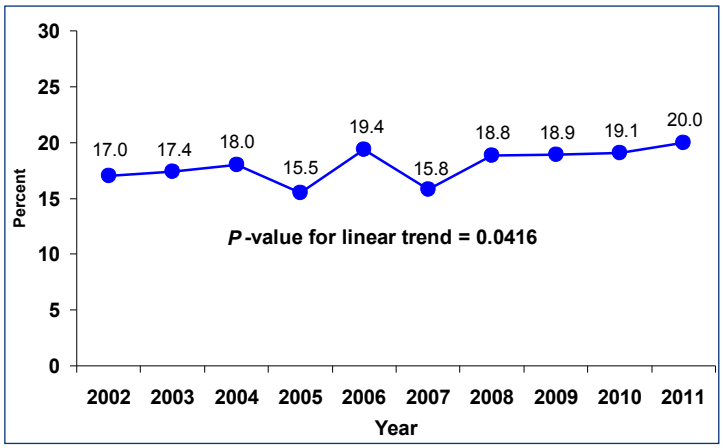
Data analyses were performed using survey data analysis (SUDAAN) software, which accounts for the complex sample design of the survey.[10] The chi-square tests and logistic regression analyses were performed to examine the association between prepregnancy obesity and each health condition. In the logistic regression model, only those factors that were significant ($p<0.05$) in the bivariate analyses were included. All unknown and missing responses were excluded from the analysis.

RESULTS

Prevalence and Trends of Prepregnancy Obesity, 2002–2011

The proportion of Rhode Island mothers 20 years of age and older who were obese prior to pregnancy ranged from 15.5% to 20.0% between 2002 and 2011. Although the prevalence of prepregnancy obesity fluctuated year by year, the linear trend analysis

Figure 1. Prevalence and trends of prepregnancy obesity by year, Rhode Island women 20 years of age and older who delivered a live birth, 2002–2011



indicated that the overall prevalence significantly increased during 2002-2011 (*P*-trend < .05) (**Figure 1**). One in five Rhode Island women who delivered a live birth in 2011 was obese when they entered pregnancy.

Demographic Characteristics, 2009-2011 Combined

The prevalence of prepregnancy obesity among women who delivered a live birth during 2009–2011 varied by population. Non-Hispanic black (26.5%) and Hispanic women (22.9%) had a higher prevalence than white non-Hispanic (18.5%) or other non-Hispanic women (14.8%). Women who had less than 12 years of education (27.5%), public health insurance (23.5%), or second or higher birth (20.8%) had a higher prevalence of prepregnancy obesity than their counterparts. (**Table 1**)

Table 1. Proportion of prepregnancy obesity by selected characteristics Rhode Island women 20 years of age and older, 2009–2011 combined

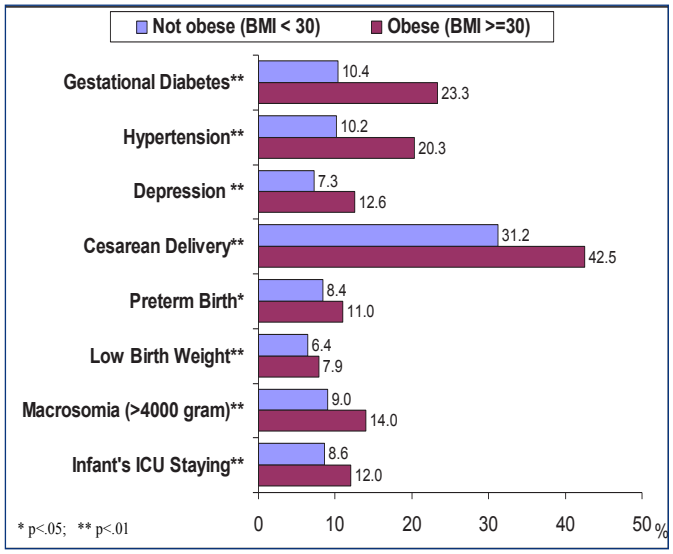
	n[a]	% Obese[b]	95% CI[c]	P-Value
State-Wide	3374	19.3	17.8-20.9	
Age				0.1025
20 - 24 years	676	18.0	14.8-21.7	
25 - 34 years	1995	20.6	18.7-22.8	
>= 35 years	703	16.8	13.8-20.2	
Race/Ethnicity				0.0100
White, non-Hispanic	2042	18.5	16.6-20.5	
Black, non-Hispanic	214	26.5	19.8-34.4	
Other, non-Hispanic	339	14.8	10.8-20.1	
Hispanic (any race)	639	22.9	19.3-26.9	
Education, years				0.0016
<12	299	27.5	21.7-34.2	
12	798	21.7	18.5-25.3	
> 12	2033	17.2	15.5-19.1	
Marital Status				0.2838
Married	2089	18.6	16.8-20.6	
Unmarried	1285	20.4	17.9-23.2	
Health Insurance				<0.0001
Public	1434	23.5	21.0-26.2	
Private	1846	16.3	14.5-18.3	
Parity				0.0027
1st Birth	1385	16.1	14.0-18.5	
2nd or Later	1900	20.8	18.8-23.0	

a: Unweighted Sample Size
b: Weighted Percentage
c: 95% Confidence Interval

Prepregnancy Obesity and Adverse Health Conditions

Mothers who were obese prior to pregnancy, compared to mothers who were not obese, were significantly more likely to report that they: were diagnosed with gestational diabetes (diabetes that started during the pregnancy) (10.4% vs. 23.3%); had hypertension (including pregnancy-induced hypertension), preeclampsia, or toxemia during their pregnancy (10.2% vs. 20.3%); were diagnosed with depression during pregnancy (7.3% vs. 12.6%); had cesarean delivery (31.2% vs. 42.5%); had preterm birth (8.4% vs. 11.0%); had babies with low birth weight (6.4% vs. 7.9%) or macrosomia (9.0% vs. 14.0%); and their baby was put in an intensive care unit after birth (8.6% vs. 12.0%). (**Figure 2**)

Figure 2. Adverse health conditions by prepregnancy obesity, Rhode Island women 20 years of age and older who delivered a live birth, 2009–2011 combined



Even after controlling for race/ethnicity, maternal education, insurance type, and parity, most of the associations remained significant. Obese women, compared to non-obese women, had higher odds of reporting: gestational diabetes (Adjusted Odds Ratio [AOR]=2.65, 95% Confidence Interval [CI]=2.00-3.50); hypertension, preeclampsia, or toxemia during their pregnancy (AOR=2.43, 95% CI=1.83–3.22); depression during pregnancy (AOR=1.66, 95% CI=1.14-2.40); cesarean delivery (AOR=1.64, 95% CI=1.31–2.05); low birth weight (AOR=1.19, 95% CI=1.02–1.38); fetal macrosomia (AOR=1.69, 95% CI=1.22–2.35); and their baby's staying in an intensive care unit (AOR=1.46, 95% CI=1.09–1.97). However, preterm birth was not significantly associated with prepregnancy obesity when controlled for confounding factors.

DISCUSSION

The data in this report show that the prevalence of prepregnancy obesity among Rhode Island women increased significantly during 2002–2011, and was more prevalent among certain populations such as, non-Hispanic black and Hispanic women, women with less education, and women with public health insurance. The data also demonstrate that prepregnancy obesity increases the risk of many maternal and fetal complications.

The prevalence and trends of prepregnancy obesity in our study substantially differ from those of the National Health and Nutrition Examination Survey (NHANES).[11] The NHANES conducted in 2011-2012 showed that the prevalence of obesity among U.S. women aged 20-39 years was 31.8%, which is much higher than our PRAMS data.[1] NHANES data also indicate that there was no increase in obesity among women in this age group during 1999–2008.[2] These differences may imply that women who delivered a live birth and all women aged 20-39 years are two distinct populations. PRAMS systematically excludes women who had stillbirths or fetal deaths, both of which are associated with prepregnancy obesity.[3] In addition, the data collection methodologies for PRAMS and NHANES are quite different: BMI from PRAMS is based on maternal self-report, which is known to underestimate BMI, whereas NHANES is based on physical measurements.

Since obesity is a well-documented risk factor of many pregnancy and fetal complications, preconception health assessment and counseling are strongly encouraged for obese women.[4] Healthcare providers should provide education about the possible pregnancy and fetal complications to their obese patients during preconception care, and encourage them to undertake a weight-reduction program, including diet, exercise, and behavior modification, before attempting pregnancy.[4] Considering the fact that nearly 40% of pregnancies in Rhode Island are unintended, obesity and healthy weight should be addressed for all women, regardless of pregnancy intention.

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Disclosure of Financial Interests

The authors have no financial interests to disclose.

VITAL STATISTICS
MICHAEL FINE, MD
DIRECTOR, RHODE ISLAND DEPARTMENT OF HEALTH
COMPILED BY COLLEEN A. FONTANA, STATE REGISTRAR

Rhode Island Monthly Vital Statistics Report
Provisional Occurrence Data from the Division of Vital Records

VITAL EVENTS	REPORTING PERIOD		
	SEPTEMBER 2014	12 MONTHS ENDING WITH SEPTEMBER 2014	
	Number	Number	Rates
Live Births	948	11,335	10.8*
Deaths	740	9,883	9.4*
Infant Deaths	4	60	5.3#
Neonatal Deaths	4	49	4.3#
Marriages	930	7,054	6.7*
Divorces	278	3,148	3.0*
Induced Terminations	212	3,099	273.4#
Spontaneous Fetal Deaths	52	596	52.6#
Under 20 weeks gestation	45	489	49.5#
20+ weeks gestation	7	75	6.6#

* Rates per 1,000 estimated population
# Rates per 1,000 live births

Underlying Cause of Death Category	REPORTING PERIOD			
	MARCH 2014	12 MONTHS ENDING WITH MARCH 2014		
	Number (a)	Number (a)	Rates (b)	YPLL (c)
Diseases of the Heart	187	2,278	216.3	3,242.0
Malignant Neoplasms	194	2,417	229.5	6,025.0
Cerebrovascular Disease	36	400	38.0	542.5
Injuries (Accident/Suicide/Homicide)	63	745	70.7	11,174.5
COPD	51	459	43.6	362.5

(a) Cause of death statistics were derived from the underlying cause of death reported by physicians on death certificates.
(b) Rates per 100,000 estimated population of 1,051,511 (www.census.gov)
(c) Years of Potential Life Lost (YPLL).

NOTE: Totals represent vital events, which occurred in Rhode Island for the reporting periods listed above.
Monthly provisional totals should be analyzed with caution because the numbers may be small and subject to seasonal variation.

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Working for You: RIMS advocacy activities

February 3, Tuesday

Legislative hearings

Attorney General Kilmartin fundraiser

February 4, Wednesday

Legislative Hearings

February 5, Thursday

OHIC Administrative Simplification Workgroup; RIMS Staff

Legislative hearings

Senate Majority Leader Ruggerio fundraiser; Michael Migliori, MD, Public Laws Chair, RIMS Staff attending

Mix and Mingle for RIMS Endorsed Providers, staff, and leadership.

February 7, Saturday

RIMS member Senator Christopher Ottiano, MD, and RIMS Director of Government Relations Steven R. DeToy, address AMA Medical Student Section regional meeting at Warren Alpert Medical School.

February 9, Monday

Department of Health Controlled Substance Regulations; President Peter Karczmar, MD, testifying; RIMS staff attending

February 10, Tuesday

Meeting with Blue Cross Blue Shield regarding legislation

Workers' Comp Advisory Council

AMA Advocacy Resource Center conference call, Bio-Similar legislation

Legislative hearings

February 11, Wednesday

Board of Medical Licensure and Discipline

Recovery Works Coalition meeting

Legislative hearings

House Majority Leader DeSimone fundraiser; Michael Migliori, MD, Public Laws Chair, RIMS Staff attending; Rafael Padilla, MD, RISA PAC representative

February 12, Thursday

DOH Health Services Council meeting

Legislative hearings

February 13, Friday

Health Care Lobbyist meeting, RIMS Offices

February 17, Tuesday

OHIC Health Insurance Advisory Committee

February 18, Wednesday

Meeting with Blue Cross Blue Shield of RI on clinical matters

DOH Primary Care Physician Advisory Committee, Dept of Health

OHIC Administrative Simplification meeting

RI Academy of Physician Assistants meeting; RIMS staff attending

February 19, Thursday

Meeting with Executive Office of Health and Human Services

DOH Health Services Council meeting

February 20, Friday

RI ACEP meeting, presentation by RIMS staff

Meeting with Hospital Association of RI

February 23, Monday

Meeting with medical students regarding political and legislative involvement

Council Meeting

February 24, Tuesday

AMA Nation Advocacy Conference and meetings with Congressional delegation; Russell Settipane, MD, President-elect, and staff

February 25, Wednesday

Legislative hearings

February 26, Thursday

Meeting with RI Quality Institute, RIMS staff

RI Coalition for Mental Health and Addiction Recovery board meeting

Mental Health and Substance Abuse Task Force meeting

Met with Chief Justice and Associate Justice of the Workers' Compensation Court regarding Recovery Works coalition

Attended Governor's press conference announcing Medicaid Task Force

Legislative hearings

February 27, Friday

Conference call with American Academy of Dermatology regarding RIMS legislation

Meeting with Naturopathic Association of Rhode Island regarding RIMS legislation

Robert Anderson, Jr, RIMS-IBC; David White, Butler & Messier; Newell Warde, PhD, RIMS

RIMS Preferred Providers Mix and Mingle

On February 5 at Mediterraneo in Providence, RIMS hosted a gathering in honor of its Preferred Providers. Representatives from Baystate Financial Advisors, Butler & Messier, Debt Management Inc, and Webster Bank had the opportunity to meet staff members from RIMS, RIMS-IBC, RIMJ, and physicians in RIMS leadership positions, and to speak about member needs.

Sarah Stevens, RIMS; Dev Singh, Webster Bank; Newell Warde, PhD, RIMS; Cheryl Turcotte, RIMS-IBC; Michael Migliori, MD, RIMS Public Laws Chair

Carmella Beroth, Debt Management Inc; Robert Anderson, Jr, RIMS-IBC

[*Below*] Guido Sacione, Baystate Financial Advisors; Megan Turcotte, RIMS

Why You Should Join the Rhode Island Medical Society

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Publications include *Rhode Island Medical Journal*, *Rhode Island Medical News*, annual *Directory of Members*; RIMS members have library privileges at Brown University

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Dr. Michael Fine Steps Down as Health Director to 'Explore New Opportunities'

Tireless public health advocate for primary care, prevention, protection

MARY KORR
RIMJ MANAGING EDITOR

PROVIDENCE – Dr. Michael Fine, the director of the Rhode Island Dept. of Health (HEALTH) since 2011, resigned his position on Feb. 24, effective March 27, "to explore new opportunities" and said he will work to ensure a smooth transition.

In a letter to Gov. Gina M. Raimondo, he expressed his gratitude to his 400-plus colleagues at the department he oversaw. "Their work is invaluable, but often unsung," he wrote.

He cited HEALTH's achievements during his tenure; among them were the following:

- Maintained or improved immunization rates for adults and children, making RI the best-immunized state with first-in-the-nation protocols for healthcare workers to be immunized or masked during the height of influenza season;
- Along with community partners developed a school-based health clinic in Central Falls, a new model for delivering neighborhood primary care;
- Effective response to threatened epidemics, most recently meningitis and comprehensive response to Ebola crisis, conducting "stress" tests with all hospitals in the state;
- Oversaw five hospital conversions;
- Addressed serious drug overdose numbers in the state, creating public awareness on addiction and treatment, and worked to develop more professional training about screening, and helped promote the use of Narcan by law enforcement, EMS, patients and families; and
- Enhanced the Prescription Drug Monitoring System for use by health professionals before dispensing narcotics.

"As Dr. Fine stated in his letter of resignation, he has spent 'every fiber of his being' protecting the health and safety of all Rhode Islanders over the past four years. I am incredibly thankful to him for this dedicated service to our state," Gov. Raimondo said.

In the letter, Dr. Fine also cited goals which remain to be achieved, including cutting HIV transmission to zero, reducing rates of colorectal cancer and cigarette smoking, and cutting the cost of health insurance while providing access to primary care for all Rhode Islanders.

Prior to being nominated director of health by former Gov. Lincoln Chafee, Dr. Fine was the medical program director at the RI Dept. of Corrections. His career has been spent in the field of primary care and healthcare reform, notably for underserved populations. He was the founder and managing director of HealthAccessRI, the nation's first statewide organization making prepaid, reduced fee-for-service primary

care available to people without employer-provided health insurance. He also founded the non-profit Scituate Health Alliance, the first community in the United States to provide primary medical and dental care to all its residents.

At Hillside Avenue Family and Community Medicine in Pawtucket, he was the founder and physician operating officer.

He also served as physician-in-chief of the Rhode Island and Miriam Hospitals' Departments of Family and Community Medicine.

Dr. Fine has served on a number of boards and legislative committees throughout the state and is a past president of the Rhode Island Academy of Family Physicians and past Open Society Institute/George Soros Fellow in Medicine as a Profession.

He has published several books and is the co-author, with James W. Peters, of *The Nature of Health* (Radcliffe, 2007), a study of healthcare services, human rights, society, technology, and industry. He also wrote *The Zero Calorie Diet* (Red House Press, 2010), a look at the culture of excess through the lens of fasting.

A graduate of the Case Western Reserve University School of Medicine in 1983, he was a resident in Brown's family medicine program at Memorial Hospital.

Dr. Fine and his wife, Dr. Carol Levitt, are Scituate residents and the parents of two grown children. ❖

South County Hospital Re-accredited Pathway to Excellence Hospital

SOUTH COUNTY HOSPITAL

South County Hospital was re-accredited as a Pathway to Excellence™ Hospital by the American Nurses Credentialing Center (ANCC). The designation identifies the elements of work environments where nurses can flourish. Above are some of the staff integral in the reaccreditation: (l-r) Maureen Pearlman, RN; Allison Hoffman, RN; Bobbie Fay, RN; Pat Towle, RN; Laura Weindel, RN; Julie Parrillo, RN; Donna Donilon, RN; Maggie Thomas, Human Resources; Suzanne Chinn, RN; Anne Schmidt, CNO; Holly Marcello, RN; Steve Juchnik, RN

South County Hospital Earns Women's Choice Award

Recognized as a top hospital for obstetric care

WAKEFIELD – South County Hospital was one of only two hospitals in Rhode Island to receive a 2015 Women's Choice Award® for outstanding care in obstetrics. This designation is one-of-a-kind and identifies the country's best healthcare institutions based on female patient satisfaction, clinical excellence, and what women say they want from a hospital.

"South County Hospital is honored to have received The Women's Choice Award," said **LISA RAMEAKA, MD**, Medical Director of the Women's Health Service Line at South County Hospital. "It speaks to the high level of patient satisfaction, quality, and personalized care that we strive to provide each woman who receives obstetrical care at South County Hospital." ❖

OHIC Adopts Revisions to Regulation 2: The Affordability Standards

CRANSTON – Health Insurance Commissioner **KATHLEEN C HITTNER, MD**, has adopted revisions to OHIC Regulation 2: Powers and Duties of the Office of the Health Insurance Commissioner, with changes specific to the "Affordability Standards." To support the agency's mission of improving the affordability of health insurance for consumers, OHIC first implemented its nationally recognized Affordability Standards in 2010.

In August 2013, OHIC evaluated the efficacy of the Affordability Standards and used the results to recommend changes to the current Standards. The assessment found that the Standards have increased primary care infrastructure in the State, accelerated patient-centered medical home transformation efforts, and reduced the rate of hospital cost increases.

In 2013 and 2014, OHIC worked diligently with health insurance carriers, its Health Insurance Advisory Council (HIAC), and other critical stakeholders to refine the recommended modifications and draft the revised regulation based on these changes.

"Through our revisions to the Affordability Standards in Regulation 2, OHIC is striving to move the healthcare delivery system in a direction that will not only slow the growth of healthcare costs, but also improve the efficiency and quality of the care that is being delivered to Rhode Islanders," explained Commissioner Hittner.

OHIC has published a technical document that details the implemented changes and the rationale behind such changes, which are designed to update the Affordability Standards by recognizing current developments in the health care sector. The standards also newly incorporate administrative simplification requirements that grew out of a legislatively established taskforce and incorporate OHIC's work on price transparency.

For more detailed information, including the referenced technical document, please visit www.ohic.ri.gov. ❖

Women's Heart Health Program Launched by Care New England

PROVIDENCE – Women & Infants Hospital of Rhode Island recently announced the establishment of a new women's cardiovascular program from Care New England Cardiovascular Care.

Women's Heart Health of Women & Infants will be co-directed by **HEATHER HURLBURT, MD, FACC**, and **ALICE KIM, MD, FACC**.

Heather Hurlburt, MD

Alice Kim, MD

PHOTOS: CARE NEW ENGLAND

Dr. Hurlburt, who also serves as director of non-invasive imaging at Kent Hospital, is board certified in internal medicine and cardiology. She has special expertise in cardiac imaging and women's heart health and completed training in advanced imaging modalities, including cardiac CT and trans-esophageal echocardiography. Dr. Hurlburt is a member of the cardiovascular division at Brigham and Women's Hospital.

Dr. Kim is director of Care New England's Advanced Valvular Heart Disease Clinic and a cardiologist on staff at Memorial, Kent and Brigham and Women's hospitals. She is board certified in cardiovascular medicine, nuclear cardiology, echocardiography and vascular interpretation. Dr. Kim specializes in the management of complex valvular heart disease, noninvasive cardiology and consultative medicine. She is a part of the advanced valve clinical team at Brigham and Women's structural heart disease clinic, working closely with interventional cardiologists and cardiac surgeons.

Services offered by the Women's Heart Health program include stress testing, personalized cardiovascular risk assessment, advanced cardiac imaging, cardiac catheterization, cardiac arrhythmia, vascular and venous ablation, advanced valvular heart disease, advanced heart failure, and pulmonary hypertension/adult congenital heart disease services, as well as weight loss, smoking cessation and nutritional counseling. Inpatient services are provided at Kent, Memorial and Brigham and Women's hospitals. ❖

Physical Therapy Foundation Awards Brown $2.5M for Research

Linda Resnik to lead new Center of Excellence

BROWN

PROVIDENCE — The Foundation for Physical Therapy has awarded Brown University a $2.5-million, five-year grant for a new center of excellence to spur research in the field. In the Center on Health Services Training and Research (CoHSTAR), Brown, Boston University, and the University of Pittsburgh will train researchers and seed new studies to build the evidence base for physical therapy care and to improve how care is delivered.

"Physical therapists are integral parts of the health care system," said CoHSTAR director **LINDA RESNIK**, a physical therapist, associate professor of health services, policy and practice in the Brown University School of Public Health, and a research career scientist at the Providence VA Medical Center. "Everyday there are 750,000 people who see a physical therapist. There's great clinical research that goes on, but there have been very few physical therapist researchers with the skills to conduct health services research. Because of that we are lacking the kind of evidence that we need to inform improvements in health service delivery and policy."

The center will focus on three areas of research: rehabilitation outcomes measurement, implementation science and quality assurance, and analysis of large datasets. CoHSTAR's faculty members will expand the capacity for research in these areas by training nine postodoctoral students and five to six visiting scientists during its five years of funding. Those programs will begin this summer and fall.

Other programs will include curriculum development and annual summer institutes and webcasts, led by Boston University, to reach many more physical therapy scholars.

"We are beginning recruitment immediately for our first cohort of trainees," said Resnik, a physical therapist who came to Brown in 2002 as a postdoctoral trainee in health services research. "We plan to be reviewing applications as soon as possible."

In addition, CoHSTAR has already selected the first three research projects to earn seed grants, to be administered by the University of Pittsburgh. One will examine the effect on care and costs of physical therapy being the first point of care — rather than, for instance the primary care doctor or chiropractor — for people with lower back pain. A second will seek to develop a linking of measures for tracking patient functioning through the many settings of post-acute care, such as inpatient rehabilitation, nursing home, and then home. The third will accelerate the development and testing of a pilot registry for management of knee pain.

Resnik said she is pleased to lead a multi-institution team in creating more opportunities for people to study physical therapy services and policy.

"I have had the opportunity to be in this kind of training environment and to launch my career in this area, but I've been one amongst a very small number of physical therapist health services researchers," she said. "Health services research has never been more important than in this era of health care reform as the United States tries to determine how to provide its citizens with the best quality care and the best value of care. As the call for others to enter the field has grown louder and louder there really have been limited opportunities for physical therapist training."

Funding for the foundation's grant came from the APTA and from dozens of physical therapists, foundations, and corporations. ❖

American College of Healthcare Executives Holds Annual Meeting, Recognizes Members

WARWICK – The American College of Healthcare Executives Rhode Island Chapter (ACHE RI) recently held its annual meeting at the Crowne Plaza in Warwick. Retired U.S. Navy Captain **ALBERT SHIMKUS, JR.** led the keynote address.

Several members of ACHE RI received awards, including:

- **EDWARD M. SCHOTTLAND**, FACHE – ACHE Service Award
- **ANN DANIELS**, FACHE – ACHE Distinguished Service Award
- **LT. CDR LISA WHITE**, FACHE – Regent's Early Careerist Award
- **MYRA J. EDENS**, MSN, RN NE-BC, FACHE – Regent's Senior Executive Award
- **KATHLEEN C. HITTNER, MD** – ACHE RI Chapter's Career Achievement Award

JENNIFER TOMASIK, MS, FACHE, principal at CFAR, was elected president of the chapter. **JOSEPH YANISH**, MHSA, FACHE, senior health systems specialist at the Providence VA Medical Center, is the immediate past president.

The ACHE annual meeting, co-sponsored by the Hospital Association of Rhode Island, also included the Chapter's year in review, a look ahead at events and opportunities in 2015, and social networking among members.

The mission of the ACHE RI Chapter is to advance healthcare leadership and management excellence; to promote high ethical standards and conduct; to promote the mission of the ACHE for its members; and to meet its members' professional, educational and leadership needs.

To learn more about ACHE RI Chapter visit: www.rhodeisland.ache.org. ❖

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South County Hospital Healthcare System, located in the coastal community of Wakefield, RI, is a full-service, not-for-profit, regional healthcare resource providing residents and visitors in southern Rhode Island with a comprehensive range of advanced inpatient, outpatient, and home health services. We're seeking dedicated, skilled individuals who share our guiding values of caring, respect, integrity, collaboration and excellence to join our community. All of our positions require Board certification or Board eligibility.

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Dr. Michael Harwood Appears on Jeopardy!

WESTERLY – Yes, he was always very good at Trivial Pursuit, and yes, he has a competitive streak, but **DR. MICHAEL HARWOOD**, a dermatologist with the L+M Medical Group in Westerly, defied the odds earlier this year, landing a spot on "America's Favorite Quiz Show," Jeopardy!

"It was extremely fun," Dr. Harwood recalls, reminiscing about his auditions and trip to Los Angeles for an appearance on the show, taped August 6 and aired last fall.

"It goes incredibly fast," he said, recounting the actual live game. "You don't realize until you're doing it how much harder it is than when you're sitting at home. For the real thing, there's such a rush to read the questions fast enough so you can buzz in…"

Dr. Harwood never seriously expected to be on the show, but one evening last January, with the kids in bed and a few minutes to himself, he took the Jeopardy! online test. An estimated 100,000 people take the same test each year, and Jeopardy! selects the top 3 percent of scorers for a second round of screening.

'For the real thing, there's such a rush to read the questions fast enough so you can buzz in…'

Sure enough, Dr. Harwood was invited to an in-person test and interview held last April in Providence. Once more, he outperformed his peers, and, in July, he was asked to appear on an upcoming show.

"The night before, I was freaking out," he admits. "I was scared to death that I was going to make a fool of myself. But, when you meet the other contestants, you realize they're nervous too. And once the game starts, it goes so fast you don't really have time to be nervous."

When the game started, Dr. Harwood quickly buzzed in with a number of correct responses. He took the lead and stayed in front as the game headed into Final Jeopardy, the point at which players bet part or all of their winnings on a final question to decide the winner.

The answer was in the category of "Eponymous Geography," and it referenced the "fifth largest island in the world and the largest named after a person," Dr. Harwood recalled. His first inclination was Baffin Island in northern Canada, home to about 11,000 people and plenty of polar bears. But Baffin seemed too obscure for Final Jeopardy, Dr. Harwood thought, especially since Final Jeopardy is often based on something well-known to the public, even if the clue is hard. He hesitated, and wrote down "What is Tasmania?"

It cost him the game, because Baffin was correct.

"Strangely," Dr. Harwood said, "I always thought I would have been more upset about not winning, but it didn't bother me at all. The questions are the luck of the draw and you just have to do the best you can. I'm glad I had the opportunity. It really was a lot of fun." ❖

L+M MEDICAL GROUP IN WESTERLY

Alex Trebek, host of the game show Jeopardy!, with contestant Dr. Michael Harwood, a Westerly dermatologist.

Research

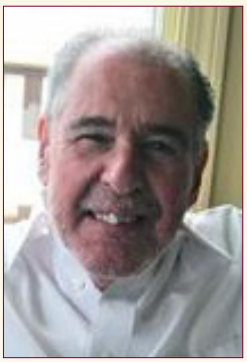
MEMORIAL HOSPITAL

Adam Olszewski, MD, Receives $150,000 Oncology Research Award

PAWTUCKET – **ADAM OLSZEWSKI, MD**, an oncologist / hematologist at Memorial Hospital is a recipient of the 2015 American Society of Hematology (ASH) Research Scholar Award. The two-year award directed at junior faculty in the amount of $150,000 will support Dr. Olszewski's research into epidemiology and health care outcomes of lymphomas and bone marrow cancers.

Dr. Olszewski is an assistant professor of medicine at Alpert Medical School of Brown University, and his mentors for this project will be Charles Eaton, MD, from Brown University's Center for Primary Care and Prevention at Memorial Hospital, and Jorge Castillo, MD, from the Bing Center for Waldenström's Macroglobulinemia at the Dana Farber Cancer Institute. ❖

Research



Dr. Barry Lester Discusses Epigenetics with International Innovation

PROVIDENCE – **BARRY M. LESTER, PHD**, professor and founding director of the Brown Center for the Study of Children at Risk at The Warren Alpert Medical School of Brown University and the Center for Children and Families at Women & Infants Hospital, was recently interviewed by International Innovation to discuss his contribution to the study of epigenetics and child development.

Epigenetics is the study of factors that change how the genetic code is carried out, what the genes do without changing the genes themselves. Dr. Lester and his team believe that "the way in which a child develops in the womb and during the early years of life is predicated not only by genes and the health of the mother, but also by the mother's lifestyle and their family environment," due to epigenetics.

Dr. Lester, along with **JAMES F. PADBURY, MD**, chief of pediatrics at Women & Infants and the Oh–Zopfi Professor of Pediatrics and Perinatal Research at Brown University, and epigeneticist, **CARMEN MARSIT, PHD**, adjunct assistant professor of epidemiology at Brown University, have been working together researching epigenetic and environmental factors that lead to the development of many mental health disorders in children.

"We know little about the specific mechanisms by which a child's behavioral development is derailed," said Dr. Lester. "We know the what, but we don't know very much about the how and the why, and that is where epigenetics comes in."

Much of the excitement around epigenetics is that epigenetic changes are not permanent and could usher in a whole new era of treatment and intervention. Dr. Lester believes the research is well thought out for future development; however it will take a lot of resources to get to the desired result.

"With sufficient resources, I think it would take about 10 years to make the kinds of advances in epigenetics that would enable us to begin improving the quality of life of our children," expressed Dr. Lester. "Epigenetics not only enables us to understand behavior at the molecular and cellular level, it also enables us to use that knowledge to develop treatments for children with behavioral or mental health problems as well as programs for pregnant women and infants to prevent the development of later behavioral or mental health problems."

About International Innovation: International Innovation publishes global insight and analysis on current scientific research and trends, as well as funding policy issues. Coverage spans the breadth of scientific disciplines, with key focus on the interdisciplinary areas of health care, environment and technology. The digital magazine also provides extensive analysis of trends at a regional level, with specialist reviews of research emanating from North America, Europe and Asia-Pacific. ❖

Appointments

SOUTHCOAST

Mark Hosley, MD, Joins Southcoast Physicians Group

DARTMOUTH, MASS. — **MARK HOSLEY, MD**, neurologist, has joined Southcoast Physicians Group, and will see patients at the Southcoast Brain and Spine Center, 480 Hawthorn St., Dartmouth. Prior to coming to Southcoast, Dr. Hosley practiced neurology at NeuroHealth, Inc., in East Providence, R.I., since 2009. He previously worked in private practice for many years at Bayside Neurology in New Bedford. His clinical interests include EMG/NCS, neuromuscular disease; sleep medicine; chemodenervation therapy for spasticity and dystonia; dizziness/vertigo; EEG interpretation; and multiple sclerosis/spinal cord and central nervous system injury.

Dr. Hosley earned his doctorate from Brown University/Alpert Medical School. He completed his fellowship in neuromuscular disease/EMG-NCS at Rhode Island Hospital, and a fellowship in spinal cord injury service at West Roxbury VAMC. He completed both his residency in neurology and his internship in medicine at the University of Massachusetts Medical Center in Worcester.

His memberships in professional societies have included the American Academy of Sleep Medicine, American Association of Neuromuscular and Electrodiagnostic Medicine, American Academy of Neurology, American Medical Association, and Massachusetts Medical Society.

Dr. Hosley is board certified in adult neurology, sleep medicine and clinical neurophysiology. ❖

CLASSIFIED ADVERTISING

MEDICAL DIRECTOR

Neighborhood Health Plan of RI

Neighborhood Health Plan of Rhode Island is currently recruiting for a Medical Director who will be responsible for activities related to the delivery of medical care and clinical services such as cost management, utilization review, quality assurance and medical protocol development. Must be a licensed RI physician with no restrictions and board certified in a primary care or other relevant specialty. For a detailed description, go to the careers section at www.nhpri.org or contact recruiter Christine Zive at 401-427-7688.

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Appointments

CARE NEW ENGLAND

David A. Carcieri, MD, to Oversee Graduate Medical Education Program at W&I

PROVIDENCE – **DAVID A. CARCIERI, MD, FACOG**, has been named designated institutional official (DIO) for Women & Infants Hospital of Rhode Island, a Care New England hospital. The DIO is responsible for the administration and oversight of all the hospital's graduate medical education programs and is responsible for assuring compliance with all Accreditation Council for Graduate Medical Education (ACGME) requirements.

Dr. Carcieri is the immediate past president of the medical staff of Women & Infants Hospital and currently serves on the board of Women & Infants Indemnity. In the past, Dr. Carcieri has served in a variety of leadership positions including serving as co-chair of the hospital quality committee as well as the Care New England board.

A native Rhode Islander, Dr. Carcieri received his undergraduate and medical degrees from Brown University where he was an honors graduate. He completed his internship and residency at Cornell University Medical Center in New York City. In 1994, he returned to Rhode Island to join the medical staff at Women & Infants. Currently, he serves on the faculty at The Warren Alpert Medical School of Brown University as a clinical professor of obstetrics and gynecology while also maintaining a private practice in North Providence, both of which he plans to continue in his new role as DIO. ❖

Paul V. Del Guercio, MD, Family Practice Physician, Joins Southcoast Health

MIDDLETOWN, R.I. — **PAUL V. DEL GUERCIO, MD**, family practice physician and owner of Valley Primary Care since 2001, has joined Southcoast Health. He will continue to see patients at the same location, now Southcoast Family Medicine, at 294 Valley Road in Middletown, R.I.

Dr. Del Guercio has been an assistant clinical professor of Family Medicine at Brown University since 2006, where he has been recognized for excellence in teaching. In 2011, he received recognition by the RI Department of Health for quickly diagnosing a case of the measles in his office and reporting it immediately to the department to help prevent the spread of this contagious respiratory disease.

Dr. Del Guercio received his doctorate from the University of Pittsburgh School of Medicine, and completed his residency in family practice at the Memorial Hospital of RI. He worked in group practice in Westport, Mass., and later in private practice in Newport prior to becoming owner of Valley Primary Care.

Dr. Del Guercio is a member of the American Academy of Family Practice, and is board certified as a family practice physician. He was the on-set physician during filming of the Steven Spielberg movie, "Amistad," in Newport. ❖

Dr. Aaron Named Research Director at Miriam's Total Joint Center

MIRIAM HOSPITAL

PROVIDENCE – **ROY AARON, MD**, has been named director of research at The Total Joint Center at The Miriam Hospital. In this new role, Dr. Aaron will manage the research component of the Total Joint Center overseeing investigator-initiated and agenda-driven clinical research programs.

"All the work we're doing now in total joint replacement emanates from research – and the pace of development of new technologies, materials and surgery is accelerating rapidly," said John Froehlich, MD, program director of the Total Joint Center. "It is important that we maintain a cutting-edge approach to the unprecedented integrated way we deliver total joint replacement surgery at The Miriam – and Dr. Aaron, with his extensive orthopedics expertise, is well positioned to lead this clinical research effort to demonstrate our value-based outcomes."

As a co-investigator of The Total Joint Center, which has earned The Joint Commission's Gold Seal of Approval for its total knee and total hip replacement programs, Dr. Aaron will work collaboratively to manage research projects, collect data and explore outcomes related to arthritis and joint reconstruction. Findings will be incorporated into best-practice guidelines for high-quality, cost-effective care at the The Miriam's Total Joint Center, a program of the Orthopedic Institute at Rhode Island and The Miriam hospitals.

Dr. Aaron completed his orthopedic training in the Harvard Combined Orthopedic Program and a fellowship in joint replacement surgery at the Robert Brigham Hospital. He completed two research fellowships at the National Institutes of Health, one studying surgical physiology and one in basic cartilage biochemistry.

Dr. Aaron's clinical interests focus on joint diseases, particularly on osteoarthritis and avascular necrosis, and conservative therapies for joint preservation. Recent clinical investigations have concerned the role of knee arthroscopy, contrast-enhanced MRI for early diagnosis of osteoarthritis, and the prevalence of coagulopathies in both osteoarthritis and avascular necrosis. In the laboratory, he has been investigating the contributions of circulatory pathology to the initiation and progression of osteoarthritis.

Dr. Aaron has served on 35 national panels, including 10 NIH study sections, and committees of the Arthritis Foundation, American Academy of Orthopedic Surgeons and Orthopedic Research Society. He has authored over 100 scientific and clinical papers, and three books. Several years ago, he received a Lifetime Achievement Award from the New England Arthritis Foundation.

In addition to serving as research director of the Total Joint Center, Dr. Aaron is also professor of orthopedics and professor of molecular pharmacology, physiology and biotechnology at Brown University and founded the orthopedic laboratory and the joint replacement service at The Warren Alpert Medical School of Brown University. ❖

Appointments

UNIVERSITY MEDICINE

Peter Hollmann, MD, Named Chief Medical Officer at University Medicine

PROVIDENCE – University Medicine (UM) has named **PETER HOLLMANN, MD**, chief medical officer, a newly created position. He joined the group this year.

Prior to coming to UM, he served as a medical director of Blue Cross and Blue Shield of RI for 25 years while maintaining a primary care practice in general internal medicine and geriatrics.

Dr. Hollmann received undergraduate and medical degrees from Brown University. He trained in internal medicine and geriatric medicine, also at Brown.

He is a board member of the American Geriatrics Society, the RI Medical Society and Chair of the AMA CPT Editorial Panel. He represented the Panel on the AMA Specialty Society RBRVS Update Committee (RUC) for 8 years and is a member of the NCQA Geriatric Measures Advisory Panel.

Dr. Hollmann is an Assistant Clinical Professor of Family Medicine at the Alpert Medical School. ❖

Charlyn Feeney, Esq., MHSA, RN, Named VP of Compliance and Privacy for CharterCARE

CHARTERCARE

PROVIDENCE – **CHARLYN A. FEENEY, ESQ., MHSA, RN**, has been named Vice President of Compliance and Privacy for CharterCare Health Partners. In this position, she is responsible for overseeing the CharterCARE system's compliance with all privacy and confidentiality laws including the Health Insurance Portability & Accountability Act.

Most recently, Feeney held the position of Director of Quality, Patient Safety and Compliance with Lahey Health Behavioral Services in Peabody, Mass. She was previously Executive Director of Risk Management and Compliance with Fallon Clinic in Worcester. She has held numerous risk management, compliance, and nursing leadership positions including Director of Patient Care Services at Brighton Marine Health Centers.

Feeney graduated Cum Laude with a degree of Juris Doctor from Suffolk University Law School. She holds a Masters in Health Services Administration from University of Michigan, where she also graduated Cum Laude. ❖

Dr. Vijay Sudheendra Named Chairman of Anesthesia for CharterCARE

CHARTERCARE

PROVIDENCE–**DR. VIJAY SUDHEENDRA** has been named system-wide Chairman of Anesthesia for CharterCARE Health Partners. In this capacity, he has leadership oversight of a team of anesthesiologists and certified registered nurse anesthetists at CharterCARE's two affiliate hospitals – Roger Williams Medical Center and Fatima Hospital.

Dr. Sudheendra has held a number of leadership roles including Chairman of Anesthesia at Saint Anne's Hospital and Medical Director of Southern New England Surgery Center. Dr. Sudheendra is a member of Narragansett Bay Anesthesia LLC, which provides services to a number of hospitals in the region.

He completed residencies in anesthesiology at the Cleveland Clinic Foundation in Cleveland, OH, and Weill Medical College of Cornell University-New York Presbyterian Hospital in New York City, followed by training in cardiothoracic anesthesia at the Cleveland Clinic Foundation.

A graduate of Karnataka Medical College in Hubli, India, he also completed a residency in anesthesiology at the Postgraduate Institute of Medical Education and Research in Chandigarh, India. He is a diplomate of the American Board of Anesthesiology and a diplomate in perioperative transesophageal echocardiography through the National Board of Echocardiology. ❖

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Appointments

Dr. Deborah Myers to Serve on FDA OB/GYN Devices Panel

WOMEN & INFANTS HOSPITAL

PROVIDENCE – **DEBORAH L. MYERS, MD**, of North Kingstown, director of the Division of Urogynecology and Reconstructive Pelvic Surgery at Women & Infants Hospital and professor of obstetrics and gynecology at The Warren Alpert Medical School of Brown University, has been selected to serve on the FDA Obstetrics and Gynecology Devices Panel of the Medical Devices Advisory Committee.

The Obstetrics and Gynecology Devices Panel reviews and evaluates data concerning the safety and effectiveness of marketed and investigational devices for use in the obstetrics and gynecology and makes appropriate recommendations to the Commissioner of Food and Drugs. Each committee consists of experts with recognized expertise and judgment in a specific field. Members have the training and experience necessary to evaluate information objectively and to interpret its significance.

A graduate of Allegheny College in Pennsylvania, Dr. Myers earned her medical degree from the State University of New York at Stony Brook. She completed a combined medical-surgical internship at Rhode Island Hospital, a residency in obstetrics and gynecology at Women & Infants Hospital, and a fellowship in urogynecology at Mount Sinai Hospital, University of Connecticut.

Dr. Myers is an acknowledged national and international leader in female pelvic medicine and reconstructive surgery and a past president of American Urogynecologic Society (AUGS). She currently serves on the executive board of the American Congress of Obstetricians and Gynecologists (ACOG) and is the co-principal investigator of the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) Pelvic Floor Disorders Network at Women & Infants and Brown University. ❖

Recognition

Drs. Allen, Hughes Recognized for Editorial Excellence

WOMEN & INFANTS HOSPITAL

Rebecca H. Allen, MD

WOMEN & INFANTS HOSPITAL

Brenna L. (Anderson) Hughes, MD

PROVIDENCE–**REBECCA H. ALLEN, MD, MPH**, an obstetrician/gynecologist with expertise in family planning at Women & Infants Hospital of Rhode Island and an assistant professor of obstetrics and gynecology at The Warren Alpert Medical School of Brown University and **BRENNA L. (ANDERSON) HUGHES, MD**, of North Kingstown, chief of the Women's Infectious Diseases Consultative Service at Women & Infants and an associate professor of obstetrics and gynecology at the Alpert Medical School, have been ranked in the top 10 percent among reviewers in 2014 for the professional journal, *Obstetrics & Gynecology*.

According to Nancy Chescheir, MD, editor-in-chief of Obstetrics & Gynecology, those who were ranked in the top 10 percent are an elite group of reviewers. To be an deemed excellent peer reviewer requires a high level of knowledge of the subject matter, scientific method, statistical analysis, and an ability to communicate one's critical thinking about a particular paper without prejudice or conflict. Dr. Chescheir thanked Drs. Allen and Hughes for their dedication to the peer review process.

Obstetrics & Gynecology is the Official Publication of the American College of Obstetricians and Gynecologists (ACOG). ❖

Recognition

Roger Williams Center Classified as Academic Comprehensive Cancer Center

PROVIDENCE – The Cancer Center at Roger Williams Medical Center has been classified by the Commission on Cancer as an Academic Comprehensive Cancer Center Program, placing it among a select group of cancer centers in New England to hold such a designation.

There are more than 1,500 Commission on Cancer-accredited cancer programs across the country. Only 13% hold the Academic Comprehensive Center Program designation, which means the Cancer Center at Roger Williams has met criteria only achieved by a small percentage of programs. Roger Williams was previously classified as a Community Cancer Center program. The new classification is a result of Roger Williams meeting the following specific set of criteria from the Commission on Cancer:

- Provides postgraduate medical education in at least four program areas, including internal medicine and general surgery;
- Accessions more than 500 newly diagnosed cancer cases each year;
- Full range of diagnostic and treatment services either on-site or by referral;
- Participates in cancer-related clinical research either by enrolling patients in cancer-related clinical trials or by referring patients for enrollment at another facility or through a physician's office.

"This designation is a reflection of both our academic and clinical efforts to provide better treatment for cancer patients in our region," said **DR. N. JOSEPH ESPAT**, director of the cancer Center at Roger Williams. "More patients are coming to our cancer program, our residency and fellowship programs continue to provide excellent training for the next generation of physicians and our clinical trials are advancing research into diagnosis and treatment of cancer."

"We are very excited about the innovative research programs that played a role in enabling this recognition," said **DR. STEVEN KATZ**, chairman of the Roger Williams' Cancer Committee. "Our immunotherapy platforms promise to bring novel treatments to patients with limited options. We look forward to launching several new T cell trials for liver tumors in the coming year."

"Our entire oncology team – including those involved with our cancer teaching and research programs – has worked tirelessly to achieve this designation from the Commission on Cancer," said **KIMBERLY O'CONNELL**, president of Roger Williams. "I want to thank Dr. Espat for his leadership and our cancer committee, led by Dr. Katz, chairman, Kathy Perry, director of the cancer center, and registrar Cheryl Raffel, for their work in compiling the reporting and performance requirements necessary for this designation." ❖

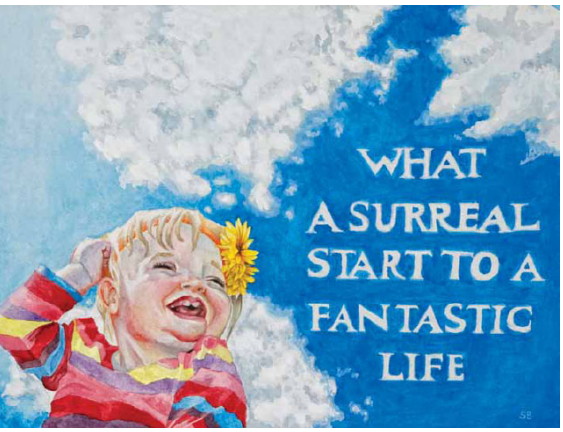
Southcoast Centers for Cancer Care Named Screening Center of Excellence

FALL RIVER, MASS. — Southcoast Centers for Cancer Care, a part of Southcoast® Health, has recently been named a Screening Center of Excellence by the Lung Cancer Alliance (LCA) for its ongoing commitment to responsible lung cancer screening. Low dose CT screening for lung cancer carried out safely, efficiently and equitably saves tens of thousands of lives a year.

Designated Screening Centers of Excellence are committed to provide clear information based on current evidence on who is a candidate for lung cancer screening, and to comply with comprehensive standards based on best practices developed by professional bodies such as the American College of Radiology (ACR), the National Comprehensive Cancer Network (NCCN) and the International Early Lung Cancer Action Program (I-ELCAP) for controlling screening quality, radiation dose and diagnostic procedures within an experienced, multi-disciplinary clinical setting. ❖

The Art of Medicine

Traveling exhibit at Alpert Medical School offers portraits of rare diseases



Sara Breslin, Harper (Angelman's syndrome)

Dan Lake, Austin (Duchenne muscular dystrophy)

Fiona Buchanan, Alyssa (spinal muscular atrophy)

PHOTOS COURTESY OF BROWN UNIVERSITY AND RARE DISEASE UNITED FOUNDATION

The Rare Disease United Foundation launched its 2015 Beyond the Diagnosis Art Exhibit at the Alpert Medical School in February. This month it will travel to medical schools and hospitals across the country.

The Foundation created the exhibit as a way of raising awareness about the many unmet needs of the rare disease community. "We believe that art leaves a lasting impression and the exhibit will be seen by those who we need most to see us, the medical community," said Patricia Weltin, founder and executive director of the Foundation.

Professional artists donated their time and talent to paint rare disease patients. In a story of the exhibit on Brown's website, two of the children are described: "There's Austin, who drums and loves spicy food, and younger brother Max, who loves building with Legos. They have Duchenne muscular dystrophy, a degenerative neuromuscular disease."

And, "There's Harper, a little girl who loves touching her baby brother and getting kisses from the family dog, at least sometimes. She has Angelman's syndrome, an autism-like disorder."

"Everyone is characterized as a disease," said Dr. Craig Eberson, a surgeon and associate professor of orthopaedics who is also a member of the Foundation board. "We're all guilty. I can picture a case. I can picture the X-rays. I can picture all the screws I put in but then 'What's that kid's name again?'

"But realize that you have an interaction with a patient for 15 minutes and they have what they have for their entire life." He added that when he treats patients with rare diseases, it has to be in collaboration with the patient and the family. They are the experts. ❖

For the complete story on the exhibit and information on the Foundation, visit: https://news.brown.edu/articles/2015/02/medart and http://www.rarediseaseunited.org.

Lucas James Xavier Kolasa, Jayson (undiagnosed)

Ian Mohan, Eliza (Sanfillippo syndrome)

Vivian McNeeley, Guiliana (Apert syndrome)

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Ramon Guiteras, MD: Surgeon, Statesman, Big-Game Hunter

Bristol native founded the American Urological Association

MARY KORR
RIMJ MANAGING EDITOR

NATIONAL LIBRARY OF MEDICINE

Like his Harvard friend and classmate Teddy Roosevelt, Ramon Guiteras, Jr., lived a life of adventure and achievement. Named for his father, a Cuban businessman, Ramon was born in 1858 and grew up in Bristol, his mother Elizabeth Wardwell's hometown.

He attended Mowry & Goff's preparatory school in Providence, and studied at Harvard, where he became a winning heavyweight collegiate boxer, much to his friend Teddy's delight. After a year at the Ivy, Ramon left for Europe to study languages and then travelled to Africa, to caravan for big game. Upon his return, he entered Harvard Medical School and graduated in 1883.

After studying in Europe under notable surgeons, Dr. Guiteras was appointed a surgeon at Charity Hospital on Blackwell's Island in New York City. He worked there for 18 months and then opened a surgical practice in New York City in 1887. Three months later he caught diphtheria from a patient and went to Cuba to recuperate for six weeks. He spent his time on the Guiteras' family coffee plantation, and rode horseback across the island. No doubt he had much to discuss with his cousin, Dr. Juan Guiteras, who would later work with Walter Reed in ascertaining the mosquito as the carrier of yellow fever.

When Dr. Guiteras returned to New York, he enjoyed the fellowship of his colleagues, and attended meetings of the N.Y. Genito-Urinary Society, a convivial group who gathered over wine and cheese to discuss the latest advancements in their chosen field. In 1902, the group disbanded and Dr. Guiteras is credited as the founder of the American Urological Association.

At this time, the Rhode Island Medical Society accepted his application to become an honorary member. President of the Latin-American Medical Association, he also served on many U.S. advisory boards. In 1916, President Woodrow Wilson sent him to Cuba to assess the country's sentiment regarding World War 1.

He died suddenly, in December 1917, of meningitis, at age 59. His friend, attorney Augustus Bourn, Jr., delivered a memoriam before the Rhode Island

[The following is an excerpt from an article by Dr. Guiteras called "Meeting Roosevelt in Mombasa," and published in various newspapers in August 1909.]

The Jungle Perils

The insects of Africa that are most dreaded are the jigger, mosquito, tick and tsetse fly. The jigger is a wingless degenerate flea. It leeches under the skin, usually about the toe nail, and breeds, giving rise to a globular mass which if not removed goes on to suppuration and results perhaps in the loss of a toe, and causing difficulties and painful walking perhaps for some time. The black boys understand removing them and pick them out whole with a pin or needle. They are found about old camping grounds, in hotels and cars.

The mosquito is the same as our own. The bite of the anopheles causes malaria as it does with us but usually in a more severe form. The most dangerous is that known as black water fever, which incurs in debilitated subjects suffering from chronic malaria…They were very numerous in Mombasa and the coast and also on the steamers coming up from Mombasa. These steamer mosquitoes were of the malarial type and a number of the passengers contracted fever on board.

The tick is another disagreeable insect, resembling a crab. It fastens itself to the surface of the body, sticks its head under the skin and fills itself full of blood. After its removal a small papule or pustule remains. In Uganda the tick bite causes a fever that on examination of the blood shows a spirillum to be present, as the result of which it is called spirillum fever. It somewhat resembles malaria in its attacks. It has complications, nervous conditions, especially of the eye and facial paralysis. It lasts about two months and leaves the patient weak and debilitated.

The sleeping sickness has been known for a long time, but has only lately excited general interest. Since leaving Africa I have been asked many questions regarding this trouble by the people that I have met in Italy, France and England. It is the result of a bite of one form of tsetse fly that inhabits the shores of the great lakes, and the streams flowing out of them, as the Nile. It is said that after the bite the onset of the disease may be from one month to several years.

…The health officials are consequently cutting away the brush and grass by the shores of the lake, moving the people back into the country and planting citronella on the lake shores, as the flies cannot live under those conditions.

Medical Society on March 7, 1918. He stated: "In looking back over his career, we are moved by the tender solicitude he exhibited for his profession, the faithful service he rendered the sick and the poor, and the generous teaching of young students in the medical sciences."

In his will, Dr. Guiteras bequeathed $325,000 for a school, in honor of his mother. The handsome limestone and pale brick building on Hope Street, opposite Bristol Harbor, is a town landmark. He also left $5000 to the Bristol Yacht Club and stipulated it was to be used to "buy catboats and rowboats for the use of guests."

Dr. Guiteras was inducted into the R.I. Heritage Hall of Fame 2009. ❖

This article on big-game hunting was written by Dr. Ramon Guiteras and published in 1909.

Feature Section

LOS ANGELES SUNDAY HERALD

August 1, 1909.

GOLD TRUTH ABOUT AFRICAN HUNTING

Dr. Ramon Guiteras, Just Back from the Roosevelt Region, Explains What the Sportsman Must Do to Bag His Game.

Result of a Good Shot.

Photos showing two large elephant tusks between eight and nine feet long. Drs. Guiteras and Seaman shown underneath.

Dr. Guiteras and Seaman Dining on Heart of Rhinoceros.

First Part of the Caravan.

Warm Bath in the Jungle.

The Kiboko Corrective.

Colonial Hospitality.

Regarding the Armament.

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