

RHODE ISLAND MEDICAL JOURNAL



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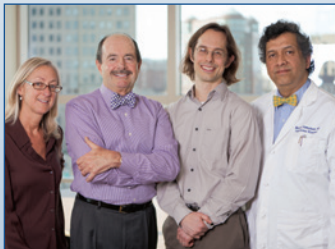
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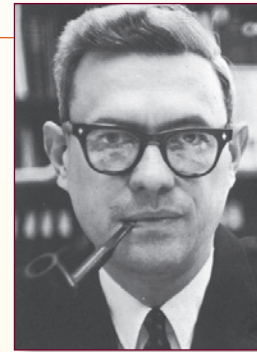
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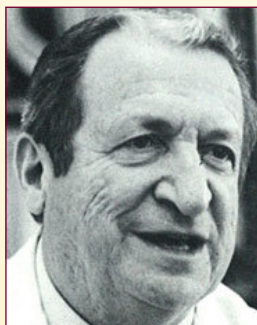
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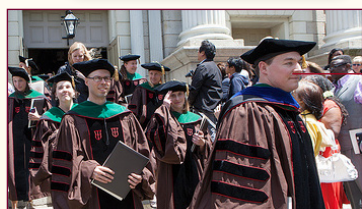


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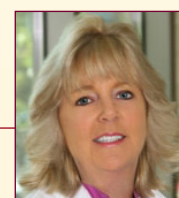
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Establishing a Legacy: The Aronson Chair for Neurodegenerative Disorders

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DESPITE THE THREE decades that have passed, I recall my first interaction with Stan Aronson, MD, quite clearly. I was a fairly new neurologist in Rhode Island, having recently finished my training in New York, and working at the Roger Williams Hospital. I was building up an out-patient practice, trying to attract patients with movement disorders, particularly Parkinson's disease, but I spent most of my time consulting on hospitalized patients. I was the only neurologist on the staff then. I responded to a page on my beeper, and found myself speaking to Stan for the first time. Quite honestly, having had no interaction with the medical school, I didn't know who he was, but he acted like there was no reason for me to know who he was, and explained that he was the neurology consultant for the Brown student health service. He was interested in turning this position over to me and hoped I'd be interested, or at least willing, since it required only a small amount of time.

I'm not sure which was my next interaction with him. It may have been when he invited me to give a lecture or two in the introductory neuroscience course for Brown medical students, or when he invited me to participate in a meeting of the Rhode Island Parkinson's Disease Support Association.



In retrospect, Stan was everywhere, although he was, in fact, "retired." It took me many years to learn that I only knew the tip of the iceberg.

Although I have a master's degree in mathematics, it was only after a brief chat with a colleague, when I mentioned that I had recently talked

with Stan, that I learned what a polymath was. The colleague mentioned, in passing, that Stan was a true polymath. Although I had studied *30 Days to a More Powerful Vocabulary* in high school, this word eluded my memory bank. A polymath is someone who knows a lot about everything, sort of the opposite of what we encounter in doctors these days, who know less and less about more and more, myself included. Stan seems not only to know everything, but is able to put things together in ways the rest of us can only marvel at. But that is only part of his attraction.

When Stan was a youthful 82 or so he seriously told me that he was wondering about his next career. As one of the leading neuropathologists in the world, he had been a leader in the fight against Tay Sachs disease, an inherited disease that killed babies via their nervous system. His approach to understanding this and other neurological disorders of children would not be possible today. Stan ran a hospital ward caring for babies and

children with some of the world's worst neurological disorders. He not only provided comfort and care, but used these unfortunates to learn about their diseases to prevent them in future generations. He was a distinguished educator, leaving behind academic generations of "Stan's children, grandchildren and great-grandchildren," who today are some of the world's distinguished neuropathologists. Perhaps most dear to him, he moved from running one of the world's largest neuropathology programs to become the founding dean of the Brown medical school. He started with a secretary and a faculty of 40. Brown now has a faculty of over a thousand, and more secretaries and administrators than it had faculty when he started. His underweight baby is now a leviathan, and considered one of the best medical schools in the world.

He helped found the R.I. Parkinson's Support Association and Home & Hospice Care of Rhode Island and served on the board of directors of both The Miriam and Butler hospitals. In addition, he was editor-in-chief of our state medical journal for 10 years. These were, of course, all unpaid positions. Meanwhile, he continued to teach at Salve Regina College as well as Tougaloo College, a historically black institution in Mississippi, introducing students to broad and challenging topics such as medical ethics and epidemiology each semester. While I did introduce this essay by stating that he was the neurology consultant at Brown student health, I did

not mention that he was not a trained neurologist. He was a trained neuropathologist. They generally study people a day too late. He, however, had spent time in clinics when he trained, and accrued more experience when he ran that ward for chronic care in Brooklyn. In his spare time for the past two decades he has been writing weekly columns for the *Providence Journal*, which appear every Monday on topics related to medicine in history. His 1,000th column appeared shortly before his 90th birthday, and he still goes strong, never having missed a week. Of course, this commitment hasn't kept him from his columns on biblical and contemporary history that run monthly in the *Jewish Voice & Herald*, or the 18th book he's writing.

Stan's life has been one of remarkable achievement and generosity. We in the Rhode Island community, to whom he has given so much, are now engaged in

establishing a lasting tribute, one that will best honor his achievements, by helping others continue them. Butler Hospital, on whose board of directors he has served for many years, is raising funds to establish the Stanley M. Aronson, MD, Chair in Neurodegenerative Diseases at the hospital as a living testimonial and legacy. Stan's and the hospital's focus has always been on bridging gaps. Brain diseases are neurological and psychiatric, not one or the other.

I am humbled and honored to be selected as the first recipient of The Aronson Chair, which will also establish an endowment fund to provide permanent financial support for the Movement Disorders Program and attract the best clinicians in the future to continue advancing our understanding and treatment of brain diseases, long after Dr. Aronson and I are gone. ▽

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, and chief of Butler Hospital's Movement Disorders Program.

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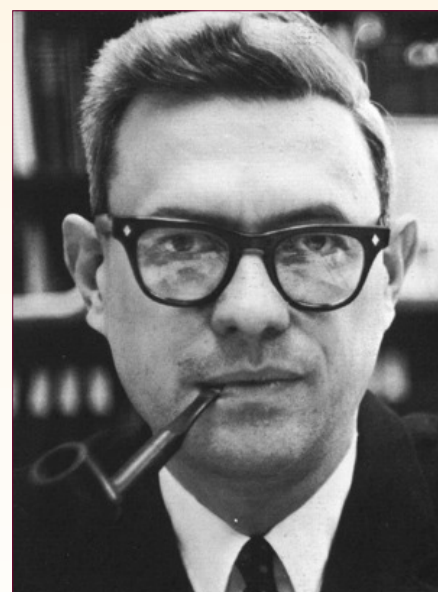
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The Aronson Chair for Neurodegenerative Disorders

FROM RIMJ'S MANAGING EDITOR: For more information on The Aronson Chair, click here: <http://www.butler.org/aronsonchaircampaign/index.cfm>



Dr. Aronson in 2007 receiving Doctor of Medical Science (DMS) at Brown in 2007.



Stan Aronson, MD, in the early years in the 1950s at Downstate Medical Center in NYC.



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*Our Passion Protects
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Pilgrimage of an Herb Named Foxglove

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HISTORY UNDULY simplifies the sequence of meaningful contributions that lead to noteworthy discoveries. Thus texts tell us that James Watts invented the steam engine and that Benjamin Franklin discovered electricity. More often than not, however, these great discoveries represent the accumulation of many smaller discoveries and insights, each contributing to an ultimate revelation, often announced by a single author, yet representing the collective labors of his predecessors and collaborators. It is much like a competitive relay race: a team effort, yet only one runner crosses the winning line.

Consider the centuries of speculations, celebrations, reversals and trials that culminated finally in the rational use of a life-saving cardiac medication called digitalis.

Somewhere in the very distant past, someone chewed on the leaves of a perennial plant native to Europe, a plant now called the purple foxglove. He, or perhaps she, remembered its harsh taste and also its tendency to provoke vomiting. And so a botanically active substance was thus added to the tribal lore of knowledge. Experience over the centuries, some bitter, led to an understanding of many plants: some easing pain, some increasing one's energy, some causing distress such as vomiting,



and those which provided basic nutrition. And so, long before writing had been invented, a pharmacological synopsis of local plants became a part of each tribe's heritable tradition, information shared with succeeding generations.

An early written accounting of foxglove

leaves is found in the Hippocratic writings, where it is identified as a poison. A 1526-Dutch treatise on medicinal herbals mentioned foxglove's merit for "feebleness of the heart."

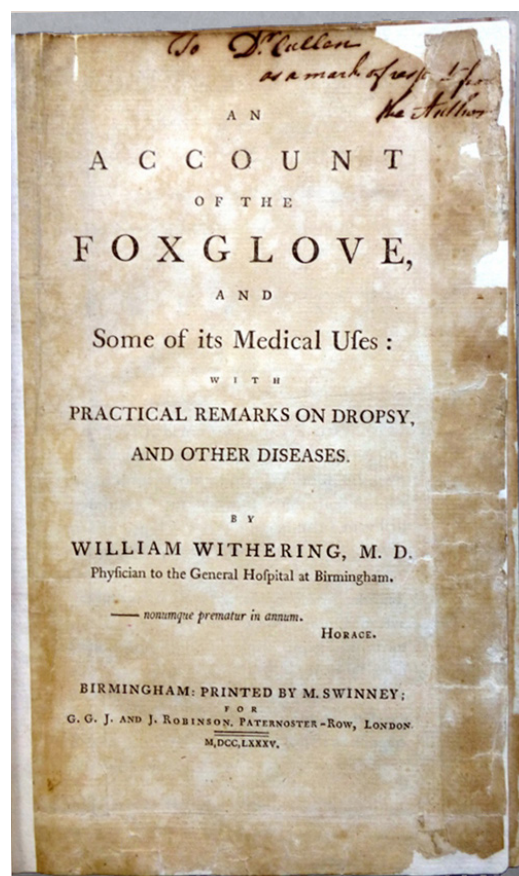
In 1542, the German physician, Leonhardt Fuchs, renamed foxglove as *Digitalis purpurea* and recounted its use as an agent to encourage vomiting. In an ambiguous sentence in his text, *De historia stirpium*, he mentions that foxglove may have some value in the treatment of dropsy.

Powdered foxglove earned some passing mention in the 1661 edition of the London Pharmacopoeia, the influential roster of recommended medications.

Powdered foxglove leaves continued beyond the Middle Ages as an occasional drug of choice, but its toxic effects (including vomiting and seizures)

outweighed its alleged benefits and by 1745 it was dropped from the London Pharmacopoeia and its employment to treat consumption (tuberculosis) was considered unwise.

The 1748 annals of the French Academy of Medicine carried an article indicating that feeding foxglove powder to experimental animals caused violent changes in their gastrointestinal tracts and that their use in humans was therefore hazardous. Foxglove as a prescribed medication then lapsed into history.





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Dr. William Withering is known as the 'father of digitalis.'

'Father of digitalis'

The English town of Wellington, in 1741, saw the birth of an infant named William Withering. His father, the local physician, was the third in a succession of Witherings tending to the medical needs of the community. William attended the medical school in Edinburgh, practiced in Shropshire, but at the suggestion of Erasmus Darwin (grandfather of Charles Darwin) transferred his practice to neighboring Birmingham.

Withering, sometimes called "the father of digitalis," is remembered for his scientific zeal, his passion for learning (he authored major texts in geology, botany and meteorology), and particularly for his concern for the impoverished of midland England. Most of his practice was confined to the care of the local indigent.

Withering's attraction to the sciences led him to membership in the Lunar Society, an informal monthly gathering

of local scientists (including Erasmus Darwin, Joseph Priestley, James Watts, Joseph Boulton and Isaiah Wedgewood; and by correspondence, Benjamin Franklin).

Withering took on the task of studying the effects of foxglove on the human body. And in 1785 he published his observations in a memorable text, *Account of the Foxglove*, which declared that foxglove (digitalis) "has a power over the motion of the heart, to a degree not observed in any other medicine, and that this power may be converted to salutary ends." Withering's immortal text included his studies on the preparation, dosage, and its effects upon heart muscle. He discussed, too, its effects of congestive cardiac failure including the collateral accumulation of body fluids, currently called edema, but formerly called dropsy (a vernacular form of the Greek word, hydropsy).

Withering, a thoughtful scientist, a shrewd observer of nature, a scholar and a compassionate physician, died of tuberculosis at age 54. His obituary, reflecting his colleague's Anglican sense of reserved humor, declared: "The flower of English medicine is withering." And digitalis? It remains – but only in proper dosage – the standard medication for heart failure.

One man's poison may be another's salvation. v

Author

Stanley M. Aronson, MD, is Editor emeritus of the *Rhode Island Medical Journal* and dean emeritus of the Warren Alpert Medical School of Brown University.

Disclosures

The author has no financial interests to disclose.

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'The doing of medicine, the being of a doctor'

JONATHAN A. TREEM, MD

(Ed. Note: The following contains excerpts from the address given by Jonathan Asher Treem, MD, to his fellow students at the Alpert Medical School graduation this year. He will shortly begin a residency in internal medicine at the University of Pennsylvania.)

Hello, my name is Jon Treem. But you can call me, Dr. Treem!

First things first. MD class of 2013, for all you have accomplished, for as brilliant as you are, and for whatever great things lie ahead of you, none of it would be possible without your family, loved ones, and friends who are here to support you. Please stand up for a moment and join me in thanking them with applause. Thank you for the entire world you have given us.

In a brief two hours, a peculiar thing will happen. From that moment on, when you meet someone, one of the first questions they'll ask is, "What do you do?" And the response you will give from now on is: I am a doctor. Simple enough. But if you pay close attention, a subtle play on language has happened. A person asks you what you DO and you respond with I AM. They asked for an action and you respond with an identity. And though this may seem innocent, it belies a true confluence, a nod to the understanding that so much of who we are is wrapped up in what we do, that even at the level of language they are interchangeable.

In no profession is this more true than in medicine. When we say I am a doctor, we mean more than I practice medicine. We are offering both a description of our job and of ourselves. And this is true of the skillset of the profession as a whole – it is a marriage between DOing medicine and BEing a doctor. DOing medicine being the practical skillset of physicianhood: the lab interpretations, the physical exam skills, the clinical decision making; and BEing a doctor being the character of a person who heals: listening, advocating for patients, caring about outcomes, treating with dignity and ministering with grace. This duality of DOing and BEing is, at its core, a description of the interplay between the science and art of healing.

What I want to talk about today is the push and pull between these two ideals: the doing of medicine and the being of a doctor, because so much of the ideal of this profession lies in maintaining a balance between the two.

The 'DO-ing'

In terms of the practice of medicine, the DO'ing of doctordom, it's mostly learned. We've started the journey here at Alpert Medical School, but there's so much more road ahead in residency and beyond. Brown has put the sword in our hand, so to speak, and we will spend a lifetime learning how to wield it. Still, it's important to look back on

Hopes for the future

...I hope we always remember to be humble in the face of what we can do and what we can't. To remember that for all the power of medicine, we are always more limited than we want to be, and that every day is a new opportunity to do something better than the day before.

...So from this day forward, remember that when you were a medical student, even when you didn't know what to do, what disease a person had, or what medicine they need, you still knew how to connect – how to talk and how to listen, and how to engage, and how to ask for help.

...Next year, when you're on the wards, and nothing is going your way, and nothing is going as planned, remember how adaptable you were as medical student: bend in the breeze.

...What I sincerely hope for all of us, going forward, is to never forget that there's so much in this profession to marvel at.

—Jon Treem

what we've learned already. Think back a ways to the first day at your community mentor's office. The first time you put on your stethoscope, and your white coat, and if you're like me, loaded up your pocket with every conceivable gadget known to medical science: otoscopes, reflex hammers, pen lights, stethoscopes, and blood pressure cuffs – I looked like the stay-puff marshmallow man of medical science. You may have looked like a doctor, but the only thing you actually knew how to do was ask someone to rate their pain on a scale from 1 to 10. You had all the compassion in the world, but wouldn't have known a physical exam sign if it slapped you in the face. Compare that to what you can intuit about a person now, just by seeing them walk down the street: trendelenburg gaits, and port-wine stains, and pill rolling tremors, epicanthal folds and telangectasias – all were just sort of weird looking things on people four years ago. Now they're important clues.

Or think about the vocabulary you've gained. All other things aside, we've pretty much learned a new language. If you need evidence of that, I'm going to read you a sentence. It'll make sense to you but to no one who hasn't been through medical school: This is a 70-year-old male with PMH of CHF, ESRD, COPD, and remote DVT, here for NSTEMI with trop bump to 15.2, now two days status post PCI with bare metal stents in LAD and left circumflex. That sentence would have made me furious as a first-year student. Now, I think it makes perfect sense. We've learned a tremendous amount. We are new practitioners in the skill, the manner, and the language of physicianhood. We are on our way to perfecting the DO'ing of medicine.

The 'BE-ing'

At the same time as this explicit education in the skillset of medicine, another more implicit education has been taking place as well. And that is the education of physician character – the BEing of medicine. These four years of experience have worked their way inside and you are not the same as you were sitting here four years ago. There's a conditioning that happens in medical school with the long days in the library and the longer nights on the wards and the constant reminders that you need to know more. There's a way in which confronting the pain of sickness, and the grief of death, and the joy of recovery, and the struggle of addiction reorients your view of the world. And it's this conditioning that shifts your character just slightly, just enough to say I AM a doctor, to mean that that is part of who you are.

...Now we go on to residency. We're leaving the days of calling ourselves students behind for the days of calling ourselves doctors. And if you're like me, you were in a rush to get there. It was easy to look forward to the responsibility, and the esteem, and the paycheck. I was in a rush to learn the practice of medicine, the dosages, and the protocols so that I didn't have to feel so lost and incompetent on the wards. And I was in a rush to slough off the skin of medical-studentness – trade my short white coat for a long one, and introduce myself as a doctor. But the truth is that I would do better to figure out how to keep my studenthood even beyond medical school. How to preserve the communication skills, and the flexibility, and the humility, and the sense of wonder that we all carry.

Each experience here was a new one

and we threw our heart into them, and the emotions of it were real – not always what you thought they would be, but real nonetheless. Joy in recovery, grief in death, despair in pain, critique in failure, pride in accomplishment, and intimacy in connection. These responses are the human side of medicine. They are the 'I AM' in I am a doctor. So in this light, finding a way to stay a medical student, to preserve the human reaction, the surprise and the gratitude and the disappointment and the fear of each moment in medicine is the greatest gift you can give yourself. The things that will teach you how to DO medicine is the training, sure, and it's the differentials, and it's the pharmacology, and it's the diagnostic acumen, but the things that will allow you to BE a doctor: humility, wonder, adaptability, humanity, these are the real lessons to take away from this place, this education. v

Orthopedic Medical Devices: Ethical Questions, Implant Recalls and Responsibility

JENNIFER RACINE, BA

ABSTRACT

The hip replacement is a surgical procedure to replace the femoral head and acetabulum with prosthetic implants to improve function, increase mobility, and relieve pain caused by damage from disorders such as osteoarthritis and fractures. In recent years, we have seen several recalls of poorly functioning implant systems, most recently, the Johnson and Johnson (J&J) Articular Surface Replacement device. Product recalls are often the results of premature failure of implants requiring additional surgery to exchange the failed device. This raises many questions – technical, medical, regulatory, ethical, and legal – that ultimately put patients at risk, compromise confidence in medicine and regulatory agencies, and important relationships including those between the physician-patient and physician-industry. Where do the responsibilities lie for the patients' suffering, morbidity, and costs of removing the failed device? This article discusses the current recall of the J&J implant, the responsibilities of the manufacturer, surgeons, and the regulatory agency.

KEYWORDS: Orthopedic implant failures, product recalls, federal regulations, medical industry responsibilities, physician-industry relationships

Why the Articular Surface Replacement Implant Failed

A metal-on-metal total hip replacement system consists of a metal acetabular component (socket or cup), a metal femoral head that articulates with the acetabular component, and a metal stem that fits into the femur (Figure 1). In recent months, J&J, one of the world's largest manufacturers of medical devices, has been under scrutiny for the failure of its Articular Surface Replacement (ASR) metal-on-metal hip implant. The implants are alleged to be defective due to design flaws. Several have been identified: (1) One flaw is claimed to be a groove on the inside of the acetabular component that limits the surface area and increases friction and wear. The limited surface area causes the head to abut against the cup's edge during movement.¹ (2) Another reported flaw is that the acetabular cup and femoral head are too small, also resulting in a limited surface area and increased frictional wear. Other design flaws include (3) very low tolerances between the socket and ball, and (4) deformation of the

socket on implantation, both of which contribute to accelerated wear and the generation of metal debris. Corrosion releases metal ions. Manufacturing errors reduce the clearance (tolerance) between the ball and socket. The crucial issue is that these flaws all contribute to metal-on-metal wear that causes the generation of metallic debris and metal-

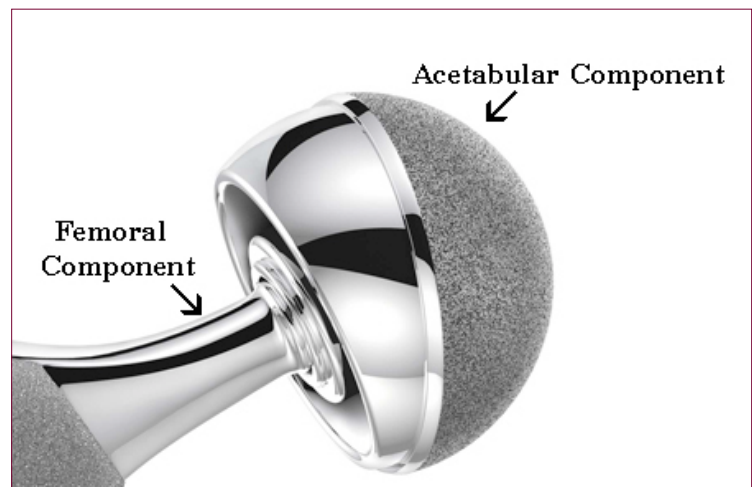


Figure 1. Hip arthroplasty device demonstrating metal-on-metal articulation with low tolerances.

lic ions. Reactions to the metal particles include local inflammation and erosions of bone resulting in implant loosening, dislocation, and cracking and popping sensations, or surrounding soft tissue masses, pseudotumors, and areas of frank necrosis.²⁻⁴ Loosening of the components requires revision surgery that is complicated and expensive and puts patients at additional risk. Systemic reactions to the metal ions (cobalt and chromium) may include hypersensitivity

reactions, cardiomyopathy, auditory or visual impairments, depression, cognitive impairment, renal function impairment, and thyroid dysfunction.²

Responsibilities of Johnson and Johnson

In 2008, executives at DePuy, the J&J subsidiary that produces the ASR implant, were told by a number of surgeons, including its own consultants, that the ASR device had design flaws. The flaws were never disclosed to other surgeons although they were implanting the device.⁵

In 2010, the National Joint Registry of England and Wales reported that the ASR hips were failing prematurely within 5 years in 12%-13% of patients.⁶ DePuy publicly challenged data from the Registry but recalled approximately 93,000 ASR hip implants, about one-third of them in the United States.^{1,7} An internal analysis conducted by DePuy/J&J in 2011 indicated that 37%-40% of the ASR hips were likely to fail within 5 years; however these findings were not made public.^{6,7} In 2011, J&J appointed Andrew Ekdahl to head its orthopaedic implant division, DePuy. Prior to the recall, Ekdahl held a senior marketing position at J&J, supervised the ASR implant's introduction in the United States, and had been told by consultants three years prior to its recall that it was faulty.⁸ At the same time, J&J failed to notify officials outside the United States that the U.S. Food and Drug Administration (FDA) prohibited the sale of one version of the ASR in this country.⁸

According to an internal engineering report in 2010, DePuy/J&J engineers found that it had used incorrect or inadequate standards for assessing implant performance before the sale

of the implant in 2003.⁹ The company only tested the *in vitro* performance on laboratory equipment at one angle of implantation and, because of the implant's design flaw, the normal variance from the single angle in which it was tested made it likely for the components to impinge upon one another, leading to wear and premature implant failure.⁹ In addition, depending on the surgical technique and the patient's body type, orthopaedic surgeons can implant the acetabular component at a variety of angles. DePuy/J&J claims that the ASR socket must be implanted at a vertical angle of 45° relative to the pelvis and that any other angle is unacceptable for this implant. However, one study of socket positioning by experienced implant surgeons demonstrated that only 63% were within this tolerance.¹⁰ Another study reported that optimal placement of sockets was achieved in only 71% of implants.¹¹ While the tolerances of implantation were acceptable for other implant devices, the ASR hip was designed with a tolerance unachievable on a consistent basis by experienced implant surgeons.

When asked about the analysis of this data, a DePuy spokeswoman confirmed that "... it was based on a limited data set that could not be used to generalize."¹² J&J maintains it acted appropriately and reacted in a timely fashion to the device's problems.⁹ The device itself required a 510(k) application to illustrate it was "substantially equivalent" to a device already on the market; the FDA approved the ASR through this channel.⁷ The company now faces at least 10,000 lawsuits due to the ASR hip implant failure. The first one has been settled with damages in excess of \$8M.

Responsibilities of the Medical Community

Implant design is a multidisciplinary undertaking with input from orthopedic surgeons, bioengineers, and materials scientists. This collaboration is critical to the design and evaluation of new devices but contains potential conflicts of interest that need to be managed. What are the responsibilities of surgeons involved in device design and what are the impediments to full disclosure? Clearly, surgeons have an ethical responsibility to the patient as well as to their peers to caution against faulty or harmful devices.¹³ However, surgeons may have financial ties to companies that are often essential to the design of new devices but can sometimes be in conflict with their clinical responsibilities. Another conflict is the compromise of professional reputation that some surgeons have alleged against device companies. One prominent orthopedic implant surgeon has reported that when he alerted peers to faulty devices, his surgical skill implanting the device was publicly criticized by the company and his reputation suffered.¹³

The ASR experience also raises disturbing questions about the monitoring of clinical science by some surgeons in a rapidly changing field. Orthopaedic researchers have been studying metal-on-metal hip implants for the better part of a decade with multiple publications concerning metal particles and ion release. In a review article in 2009, the orthopedic community was warned about the biologic consequences of metal release from metal-on-metal bearings and suggested that a better understanding of the mechanisms of wear along with premarket testing would mitigate adverse biologic responses to the metal

debris.^{14,15} In an orthopaedic forum, it was recommended that surgeons, insurers, manufacturers, and regulators engage in a continuous dialogue that respects their separate roles, while the interests of patients take precedence.¹⁶ Despite multiple alerts in professional publications and meetings, the information was, for the most part, ignored.

Federal Regulation of Medical Devices

According to the FDA's 21 CFR Part 803 (Medical Device Reporting [MDR]), if a device may have caused or contributed to a death or serious injury, the incident must be reported to the FDA. The objective is to detect and correct issues in a timely manner.¹⁷ The Safe Medical Devices Act (SMDA) of 1990 requires physicians who utilize devices to report associated serious injuries either to the manufacturer or to the FDA. This can be confusing, as regulations are amended,

so are the responsible parties; who should be reported to, the FDA, the manufacturer? It also requires the manufacturers to certify to the FDA the number of MDR reports filed or that no reports have been filed. The question arises: Did J&J file their MDR reports from the doctors who were warning them?

The FDA can impose legal sanctions and fines; however, "...it relies on the goodwill and cooperation of all affected groups to accomplish the objectives of the regulation."¹⁸ The professional responsibility is unclear. Is notification of either the manufacturer or the FDA sufficient? If the manufacturer is notified and no action is taken, has the professional obligation of the physician been satisfied? In 2007, as a result of noncompliance, the FDA required all new clinical trials conducted in the United States to post their findings on clinicaltrials.gov within a year or face

a fine. However, in 2012, one report disclosed that four out of five clinical trials covered by the regulations had disregarded the reporting requirements, and no fines were assessed.¹⁹

Several federal regulatory agencies have been criticized for compromising their regulatory functions by having inherent conflicts of interest with the industries they regulate. The FDA developed documents to assist manufacturers in the regulatory review process.²⁰ It was meant to be used as an assurance tool; however, FDA data exists which demonstrates that these documents can shorten review times for devices that are to be sold.²⁰ According to an editorial in *The New York Times*, the devices were not adequately tested due to an FDA loophole.⁵ If the processes that are in place are to protect the patient, the manufacturer, and the physicians, where is the follow-up? Where is the accountability?

CONCLUSIONS

Evidence-based medicine has become increasingly fundamental to patient care. Dr. Ben Goldacre said it best in a *New York Times* op-ed, "the entire evidence base for medicine has been undermined by a casual lack of transparency."¹⁹ To conceptualize this, Schemitsch, et al describes the medical product development process as three areas: the conscientious delivery, which implies the need for surgical expertise and cost-conscious approach, the best evidence by using the hierarchy of evidence during implant development, and patient-important outcomes by using the relevant and important measures of safety and efficacy.²⁰ As described in Figure 2, development begins in the laboratory and moves to translational

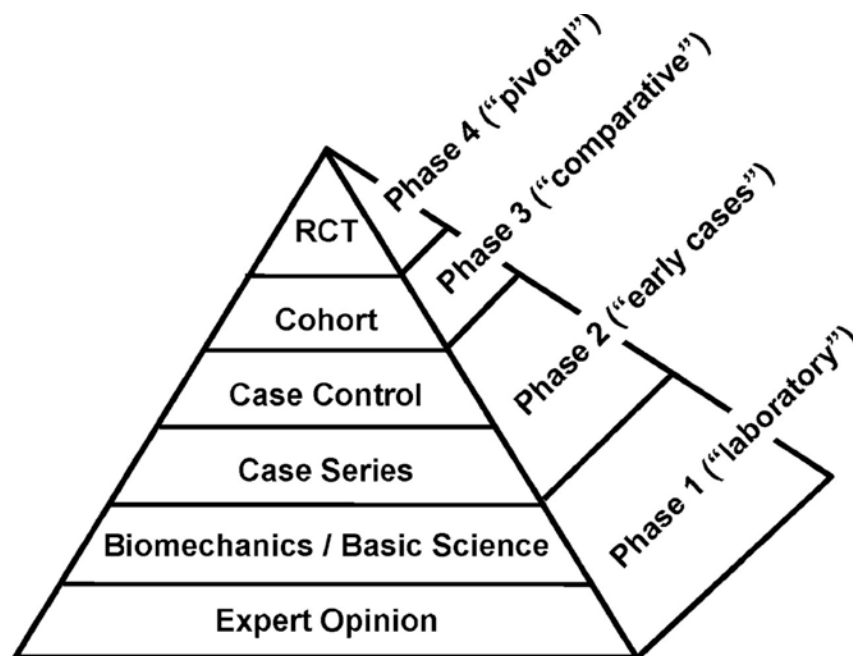


Figure 2. The orthopaedic pyramid is a proposal for an evidence-based approach to product development and assessment of new orthopaedic devices and techniques. RCT= Randomized Controlled Trial. Reprinted with permission from JBJS Volume 92-A, No 4, April 2010.

medicine. Phase I describes that the initial research begins with biomechanics, basic science, and expert opinions. Phase II provides evidence using predicate cases and case control studies. Phase III uses comparative assessment with cohort studies, and Phase IV would perform the pivotal randomized controlled trials; the final stage in translational research.²⁰

Where do the responsibilities lie for the failure of the ASR hip? The inherent design of the device appears to have had multiple potential flaws. Is there appropriate preclinical design testing in place? Are the "FDA criteria for clinical testing" sufficient? Do implant manufacturers act with appropriate scientific and clinical transparency? Is there an adequate post-market surveillance in place? Is the FDA capable of enforcing its adverse event disclosure rules and do they act responsibly with their data? What about the loophole? Are the clinical and scientific implant design communities acting in the best interests of patients and are their acknowledged conflicts of interest properly managed? Innovation of new technology is crucial; however, a high level of evidence must be demanded when adopting new technologies into clinical practice.²⁰

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The Brown School of Public Health

KRIS CAMBRA, MA; TERRIE FOX WETLE, PhD
GUEST EDITORS

ABSTRACT

The nation's newest school of public health boasts research excellence in aging, obesity, addictions, health care services and policy research, and more. The Brown School of Public Health is home to a variety of master's and doctoral programs, in addition to one of the oldest undergraduate concentrations in community health. The School plays a key role in the development of public policy at the state and national level and implements programs that benefits Rhode Island physicians and their patients.

KEYWORDS: public health; Brown; school of public health; public policy; Rhode Island; health policy

INTRODUCTION

In early April, the results of the most rigorous study to date of how much it costs to care for Americans with dementia landed on the front page of newspapers and media websites. The findings, published in the *New England Journal of Medicine*, were shocking: the financial burden of Alzheimer's disease and other forms of dementia is at least as high as that of heart disease or cancer, and is probably higher. The total monetary cost of dementia in 2010 was between \$157 billion and \$215 billion.

Even more alarming is the fact that both the costs and the number of people with dementia will more than double within 30 years, as the population of the United States ages.

Managing this uptick in the number of older citizens and their attendant health problems is just one of the issues that the Brown School of Public Health is addressing. The School's mission is to improve population health by conducting research to better understand disease risk factors and effective health promotion; educating future generations of health researchers and policy makers; and providing public service by translating research into public policy and improved practice.

The nation's newest school of public health, to be established July 1, 2013, boasts research and teaching that is collaborative, multidisciplinary, and innovative. The products of this work have real impact on people's lives. And this school, a recognized leader in public health, is right here in Rhode Island.



SCOTT KINGSLEY FOR BROWN UNIVERSITY

Brown's leadership team for the School of Public Health: Rear, from left, department chairs Christopher Kahler (Behavioral and Social Sciences), Stephen Buka (Epidemiology), and Constantine Gatsonis (Biostatistics). Front, Ira Wilson (Health Services, Policy and Practice) and Terrie Fox Wetle, inaugural dean of public health.

THE PUBLIC'S HEALTH

The field of public health has evolved since it began one hundred years ago. The discipline first addressed communicable diseases, sanitation, and food supply safety—the greatest threats to health in this country at the time. Advances in public health added 40 years to life expectancy in the United States over the past century.

During this time, there has since been an explosion of interest in public health, with increased focus on understanding the complex social determinants of disease and improved strategies to encourage healthier behaviors. With improved strategies for preventing and treating infectious diseases, lifestyle choices and behaviors have become the greatest threats to health and longevity. Tobacco use, obesity, and physical inactivity contribute to chronic diseases that limit vitality and require costly interventions. Environmental exposures are also a major concern for the public today. Although successful in delivering cleaner water supplies, we are now concerned about chemicals such as BPA in our plastic water bottles.

The Brown School of Public Health is grounded in research on these 21st-century health risks. Working at the population level, its research centers are devising interventions for substance abuse and tobacco addiction; investigating ways to help people lose weight and keep it off long term; improving the end of life for patients with terminal illness, particularly the costly and dehumanizing Alzheimer's disease and other dementias; and studying the utilization of health services that will help physicians and policymakers navigate the new frontier of health-care reform.

The substantial growth in the research enterprise and academic infrastructure led to the Brown University Corporation vote to transform the Public Health Program into a School of Public Health effective July 2013. The Brown School of Public Health will have even broader impact on national and international health policy, and will bring innumerable benefits to the state of Rhode Island, its health care system, and its citizens.

FACTS AND FIGURES

The Public Health Program was established in 2000, built on the strength of Brown University's Department of Community Health, which offered one of the first undergraduate concentrations (majors) in the discipline. The School of Public Health grew out of a decade of strategic planning that included the recruitment of new faculty, the creation of new master's and doctoral degree programs, and the establishment of four new departments that reflect the Program's specific strengths.

Figure 1. Academic Programs

Departments

Behavioral and Social Sciences
Biostatistics
Epidemiology, with an Environmental Health Section
Health Services, Policy and Practice

Doctoral Programs

Biostatistics
Epidemiology
Health Services Research
Planning: Behavioral and Social Health Interventions
(in the approval process)

Masters' Programs

Master of Public Health
Epidemiology
Biostatistics
Behavioral and Social Interventions
Clinical and Translational Research

246 Students

90 undergraduate concentrators
113 master's students
43 doctoral candidates

Figure 2. Public Health Research Centers

Date Launched

Center for Alcohol and Addiction Studies	1982
Center for Gerontology and Healthcare Research	1986
Brown University AIDS Program*	1988
International Health Institute	1988
Center for Statistical Sciences	1995
Center for Primary Care and Prevention*	1997
Centers for Behavioral and Preventive Medicine*	1998
Center for Population Health and Clinical Epidemiology	1998
Institute for Community Health Promotion	2002
Center for Environmental Health and Technology	2007
Center for Evidence Based Medicine	2012

*Hospital-based centers

Figure 3. Research Funding

\$40 million in external funding to campus-based research centers
\$18 million in external funding to affiliated hospital research centers

A SCHOOL OF PUBLIC HEALTH

During the past decade, with the support of Brown University's leadership, the Public Health Program completed strategic steps toward becoming a School of Public Health. Organization as Brown's third professional school brings with it key benefits that will allow public health research and teaching to flourish.

The first of these benefits is that the School opens doors to funding from the Centers for Disease Control and Prevention extended only to schools of public health. As a school, Brown will be invited into the national research/implementation network, giving its research findings greater reach. Schools of public health are also more attractive to the best students and faculty, so Brown will have greater appeal as a destination for leaders and future leaders in the discipline. Accreditation by the Council for Education in Public Health, a two-year process that the School has begun, is a seal of excellence and reputation—the ultimate validation of the research and teaching in public health at Brown.

BENEFITS TO THE STATE OF RHODE ISLAND

Governments play a critical role in the maintenance and improvement of the public's health. As Rhode Island's only school of public health, Brown has forged strong relationships with the executive branch of state government, including the Department of Health, and the office of the insurance commissioner, as well as the legislature. These are just some of the key government offices responsible for implementing policies and initiatives that ensure the safety and improve the health of our state.

The Brown School of Public Health's centers and institutes help develop sound, research-based public policy and improve public health practice. Our faculty are involved in public health at the local, state, national, international levels. The School is a valued community partner in improving population health, and has been involved in recent years in such statewide initiatives as:

- H1N1 flu emergency response and evaluation;
- Coordinated health planning; and
- Implementation of health reform.

In addition, the School of Public Health is training more public health professionals, whose work leads to a healthier population and improved health services. These trainees and the School's faculty engage in advocacy efforts such as improving meals in schools and community planning to promote physical activity. Their research supports advocacy at the state level to promote evidence-based programs such as Meals on Wheels, which was recently shown to be a simple, yet effective way to help senior citizens stay in their own homes and out of nursing facilities longer. Their efforts in promoting healthier behaviors can have an impact on the well-being of the entire population.

BENEFITS TO PHYSICIANS IN RHODE ISLAND

The existence of a school of public health has tangible benefits for physicians in Rhode Island. First and foremost, the School of Public Health will remain closely connected to the Warren Alpert Medical School of Brown University, ensuring rich population health training for medical students. Historically, about 17 percent of these graduates stay on to practice in the state. These ties will become even stronger in 2015 when the first students are enrolled in the Primary Care-Population Health Program, a new dual-degree program for students committed to practicing primary care that will result in MD and master's degrees. While still in the planning phases, the goal is to include incentives for these students to stay in Rhode Island to practice. The School of Public Health also offers lectures, workshops, and short-term courses to physicians and other health professionals.

The Brown School of Public Health also provides resources for the Department of Health and clinical partners for health promotion and disease prevention, which are made available to physicians. Through the School's Center for Evidence-Based Medicine, physicians have a resource for better understanding how best to apply scientific findings regarding health screening, medications and other interventions. As the Affordable Care Act is fully implemented and accountable care organizations begin monitoring health care practices, it will be vital for physicians to know which tests and treatments are most effective and cost efficient.

CONCLUSION

The Brown School of Public Health is built on a long tradition of community health research and teaching. Its research centers take a "lifelong health" approach to improving people's lives, one that begins prior to conception through research on environmental exposures that affect fertility and cause birth defects, to the very end of life, by advocating for a patient-centered approach to terminal illness that considers a person's values and beliefs in addition to the medical research. In between those points, public health at Brown targets the behavioral choices that can threaten (tobacco and substance abuse, obesity, risky sexual behaviors) or heighten (physical activity, nutrition, injury prevention) wellness. This work has an impact on people around the world thanks to partnerships forged locally and globally, from Providence's South Side to South Africa.

For more information about the Brown School of Public Health, visit <http://publichealth.brown.edu>.

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Terrie Fox Wetle is the inaugural Dean of the School of Public Health at Brown.

Educational Opportunities in Clinical and Translational Research

PATRICK VIVIER, MD, PhD

ABSTRACT

Clinical and translational research extends basic science research into the clinical realm, bringing the latest advances and potential treatments to the patients who need them. The Brown School of Public Health offers a number of educational programs that trains physicians and researchers in these research methods. The goal of these programs is to help students develop an independent research career and make important contributions in clinical and translational sciences.

KEYWORDS: translational research, master's degree, summer, clinical research, research methods

INTRODUCTION

The goal of clinical and translational research is to extend basic scientific research in the physical, biologic, and behavioral sciences into the clinical arena, including studies that will develop and evaluate clinical interventions and will ultimately improve individual and population health. This "bench-to-bedside" approach is not unidirectional, but rather "a two-way street."¹ By translating basic science research into improved clinical outcomes, clinical and translational research helps provide new treatments to patients more efficiently and effectively. In addition, the experience and findings of clinicians, clinical researchers and public health professionals can greatly inform and stimulate the direction of basic science investigations.

To make this "bench-to-bedside" approach a reality, it is essential to have training programs that help bridge the skills of clinicians, basic scientists, clinical researchers and public health professionals. In order to move the field of clinical and translational research forward in Rhode Island, a number of high quality, graduate-level training experiences have been developed at Brown University, providing a range of opportunities from taking a single course as a special student to completing a full master's degree program.

Brown's Summer Institute in Clinical and Translational Research is an intensive 6-week, full-time training program

that provides doctorally trained clinicians and basic scientists insight into clinical and translational research design, as well as the critical skills necessary for the development of successful research proposals. The Summer Institute, which occurs in May and June each year, consists of two full-credit courses: "Research Methods in Clinical, Translational, and Health Services Research" and "Scientific Writing, Research Presentation, and Proposal Development." The courses are integrated and employ a combination of readings, written assignments, and presentations through which students will learn to develop and refine research questions, design research projects, appropriately implement research methodologies, and understand research ethics, including IRB processes and HIPAA regulations. At the end of the Summer Institute, students present the proposal they have developed to classmates and faculty who provide additional



Dr. Patrick Vivier meeting with students in public health at Brown.

feedback, helping students move forward to a competitive grant application with a sound methodology. After completing the Summer Institute, students have the opportunity to take additional methods courses during the standard academic year in the Brown School of Public Health.

For doctorally trained clinicians and researchers who

would benefit from a full graduate program, Brown University offers a master's degree in Clinical and Translational Research. Students complete nine courses in key methodological areas, such as clinical trials, evidence-based medicine, and survey research, as well as biostatistics and applied data analysis. Students have the opportunity to work closely with faculty mentors from a broad range of clinical and research departments, as well as the School of Public Health research centers, Brown's affiliated hospitals, and other partner sites. The program emphasizes "learning by doing," with students developing research portfolios that include research presentations, scientific manuscripts, and research proposals. The goal is to help students develop an independent research career, making important contributions in clinical and translational sciences. For those who wish to pursue studies beyond the master's level, there are doctoral programs in biostatistics, epidemiology, and health services research, as well as a new PhD program being developed in the Department of Behavioral and Social Sciences – all areas central to clinical and translational research.

Many of the clinical and translational research educational programs focus on those who already are doctorally

trained clinicians or basic scientists. However, there are opportunities for those without advanced degrees to begin their training in clinical and translational research. This includes the Master of Public Health Program, which offers highly relevant course work, as well as the opportunity to complete an internship and thesis on clinical and translational research topics.

For more information on any of the training programs in clinical and translational research, please contact Patrick M. Vivier, MD, PhD, (Patrick_Vivier@Brown.edu) or visit www.brown.edu/academics/public-health/mctr.

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The Sum is Greater than its Parts: The Center for Evidence-Based Medicine

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ABSTRACT

The Center for Evidence-Based Medicine in the Brown School of Public Health develops computational tools to help analyze the vast amounts of data generated by medical research. By conducting meta-analyses and systemic reviews of published literature, Center researchers can tease out which treatments are most effective and efficient, helping to guide medical practice.

KEYWORDS: comparative effectiveness; evidence-based medicine; meta-analysis; systematic review; research

INTRODUCTION

In a health-care environment of many choices and finite resources, providers, insurers, and other clinical decision-makers increasingly turn to evidence-based medicine for guidance. Evidence-based medicine evaluates interventions by developing methodologies for analyzing available data. In 2012, the Brown School of Public Health launched a Center for Evidence-Based Medicine (CEBM), building on the expertise of a cadre of physician-scientists, biostatisticians, and computer scientists who are collaborating with colleagues worldwide. The Center's director, Thomas Trikalinos, MD, PhD, relocated to Brown from Tufts Medical Center, with co-director Joseph Lau, MD, and Christopher Schmid, PhD, to launch the new enterprise with Issa Dahabreh, MD, MS, and Byron Wallace, PhD.

Evidence-based medicine will be integral to the evolution of health-care delivery. Comparative effectiveness research is mandated under the federal Affordable Care Act, evidence-based methodologies play a role in developing Medicare drug formularies, and related research is encouraged by the National Institutes of Health. As more emphasis is placed on curbing wasteful spending in the health-care system, there's an increasing need to show which interventions and screenings truly make a difference in outcomes.

Part of what the Center is doing is creating an open-source, web-based tool that will use machine learning to facilitate retrieval of biomedical literature while eliminating redundancies and reconciling subtle variations in methodologies, patient population, and other elements of study design. The team is also working on open-source software for performing meta-analysis—the statistical synthesis of evidence

from independent studies—and is a driving force of global initiatives in meta-analyses software. The team also collaborates with external colleagues through two international research consortia that collectively span more than 10 scientific disciplines and 100 countries and encompasses more than 30,000 members.



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Dr. Thomas Trikalinos is the director of the Center for Evidence-Based Medicine.

GUIDING PRINCIPLES FOR PHYSICIANS AND PATIENTS

Findings from these meta-analyses translate into guidelines that physicians can follow to provide more effective and cost-efficient care to their patients. The results of the analysis can also help define the characteristics of disease and how it affects a patient population. For example, faculty from the center did the systematic reviews that informed the development of a very widely used classification for chronic kidney disease (CKD).¹ This work led to the recognition of CKD severity as a risk factor for cardiovascular outcomes, and has been a basis for describing and understanding the disease burden.

Systematic reviews can inform the decision-making process of policymakers at the national level, accelerating the translation of clinical evidence into practice. Take a question such as, 'What is the recommended daily allowance of vitamin D in various life stages, from infants to pregnant women or the elderly?' To make an informed recommendation, an Institute of Medicine panel on vitamin D relied on a large systematic review of randomized and observational studies on the relationship between vitamin D intakes and 17 outcomes led by members of Brown's CEBM.^{2,3}

Sometimes systematic reviews can help sort out facts from commonly held beliefs or myths. For instance: what is the relationship between episodic physical and sexual activity with triggering of acute cardiac events? A meta-analysis by members of the CEBM team documented that episodic physical or sexual activity increases the risk of heart attacks approximately three-fold during and for one hour after the activity.⁴ As is often the case in meta-analysis, the researchers do not have much information on the type of activities

that are more risky than others. Knowing the connection truly does exist is useful nonetheless.

The Brown School of Public Health's Center for Evidence-Based Medicine helps Rhode Island physicians to improve care of their patients. In an increasingly evidence-driven health-care system, the work of the Center is providing the analysis and deeper understanding that allows physicians to incorporate what works – and to avoid what doesn't – in their current practice.

For more information about the Center for Evidence-Based Medicine, visit <http://www.cebm.brown.edu/>.

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Creating the Future: Brown University's Executive Master of Healthcare Leadership

ELIZABETH A. KOFRON, PhD

ABSTRACT

The Affordable Care Act is ushering in a new paradigm for all aspects of the healthcare industry – from hospitals to insurers, from IT companies to physician practice groups. Brown's new executive master's degree in healthcare leadership provides the knowledge healthcare leaders need to navigate this new world. The 16-month program mixes online learning and short campus-based sessions to accommodate the working professional.

KEYWORDS: executive master; healthcare leadership; master's program; Brown; healthcare

It's impossible to ignore the dramatic and disruptive changes taking place in American healthcare. Sparked by the familiar but daunting challenges of cost, quality, and access to care, and in response to the 2010 Patient Protection and Affordable Care Act, we are witnessing experiments in healthcare delivery and financing. The goal is nothing less than a 'complete package,' with delivery systems that meet the highest standards of fairness, efficiency, and sustainability; highly effective but affordable products and services that optimize individual health outcomes; and coherent policies that foster an enviable level of population health. Transforming healthcare will be neither fast nor easy but one thing is clear: visionary leaders are needed to reach our goal. Brown University strives to prepare these leaders. In August 2013, clinicians, executives, and senior managers from across the health industry will begin a 16-month journey of intensive study in the Executive Master of Healthcare Leadership (EMHL) program. These highly accomplished professionals will broaden their perspectives, hone their leadership skills, and engage a network of peers to build sustainable solutions for their tough organizational challenges—all while earning a master's degree.

Since no single individual or organization can navigate such a dynamic environment alone, it is critically important to draw upon diverse perspectives. Brown's Healthcare Leadership program delivers a multidisciplinary experience for professionals from across

the health industry. EMHL students are physicians and nurses; top administrators from healthcare systems; executives from biotech, pharmaceutical and insurance companies; patient advocates and leaders from non-profit organizations; and those from consulting, legal, policy, and regulatory settings.

Every student who enters the Healthcare Leadership program is a skilled professional with 10 or more years of health-industry experience, and each identifies a critical organizational challenge to tackle during the program. These professionals move beyond their functional silos, expand their thinking, and create meaningful solutions with their peers. They uncover opportunities and identify partners to advance their organizations and to transform healthcare. EMHL students graduate with forward momentum, a plan to address their critical challenge, and a powerful network of peer consultants.

For executives juggling the demands of work and family, the program's blended format of online and on-campus learning is ideal. During the 16-month program, students travel to Brown four times. Strong bonds are established among the students through the online interaction that starts before they arrive on campus and in the two-week opening session; these relationships deepen further in two one-week sessions on campus, and in the two-week closing session that features the critical challenge projects. The blended format respects students' work, travel and personal commitments; fosters intense interaction; facilitates learning when and where it's convenient; and provides focused time for thinking about the future.

As an added benefit, the online experience is purposefully designed to meet Brown's highest educational standards. Every Healthcare Leadership faculty member is trained in online pedagogy, and instructional design teams prepare every course for online and face-to-face delivery. In an online learning community, all students, not just a dominant few, can engage thoughtfully with the course content and with their peers.

The EMHL curriculum includes data-driven decision making, finance, health IT and electronic records, management and marketing, policy and regulatory issues, strategic planning, quality improvement, and other core topics;



and weaves leadership development and discussions of globalization through all courses. EMHL faculty members from Brown and other universities are also health industry practitioners.

In a recent issue of *Rhode Island Medical News* (October 2012), Rhode Island Medical Society President Alyn Adrian, MD, reflected on the era 200 years ago when the Society was founded, and noted that there were no group practices, no specialties or sub-specialties, no third-party payers, and no hospitals in Rhode Island. Today we see physicians establishing Patient-Centered Medical Homes and Accountable Care Organizations, government and community leaders considering the details of the state Health Exchange, insurers designing new reimbursement strategies, and other significant changes. As health leaders face the future in

Rhode Island and across the United States, they will find opportunities to learn and to build sustainable solutions in Brown's Executive Master of Healthcare Leadership program.

The Executive Master of Healthcare Leadership program builds on Brown's proven strengths in public health, public policy, health economics, and evidenced-based medicine at the Warren Alpert Medical School and at the newly designated School of Public Health.

More information about the program is available at www.Brown.edu/executive

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Joan Teno, MD: Leader in Crusade for Quality Hospice, Palliative Care

MARY KORR
RIMJ MANAGING EDITOR

PROVIDENCE – The National Hospice and Palliative Care Organization (NHPCO) presented Joan Teno, MD, MS, with its inaugural Quality Leadership Award in April at its annual leadership conference.

In her acceptance speech, Dr. Teno described hospice as the lone voice that proclaimed dying patients and family matter and said that it initially grew outside of mainstream medical care.

“High-quality hospice care is medical care that is competent, coordinated, patient- and family-centered, and delivered with compassion,” she said. “I am honored to accept this



Dr. Joan Teno accepts the National Hospice and Palliative Care Organization's inaugural Quality Leadership Award at the group's 28th management and leadership conference held in April in Bethesda, MD.

award on behalf of the frontline hospice providers who achieve this vision on a daily basis. They are the heart and soul of hospice.”

Dr. Teno is associate director of the Center for Gerontology and Health Care Research at Brown and a professor of health services policy and practice in the School of Public Health. She is also a palliative-care physician at Home & Hospice Care of Rhode Island.

Dr. Teno described the broad scope of her life's work for the *Rhode Island Medical Journal's* special issue on the inaugural School of Public Health at Brown.

Q. What led you to specialize in geriatrics and focus your research on palliative and end-of-life care?

A. Two events greatly shaped my career direction. First, my grandfather died of lung cancer. His physician chose not to tell him that he had lung cancer. This robbed me of the chance to say goodbye. He died while I was flying from Rhode Island to San Francisco.

Second, my initial rotation as an intern at Rhode Island Hospital was in the MICU where Dr. Dan Brock, a medical ethicist, rounded with me. Dan helped me to ask the hard questions about how we were making decisions in these seriously ill patients. He encouraged my interest in specializing in geriatrics and to conduct research in end-of-life care. I feel blessed to be able to have a career that allowed me to follow my passion and hopefully make a difference to improve the quality of dying patients and their family.

Q. Here in Rhode Island, we are aging in place.

How dire is the need in Rhode Island for compassionate end-of-life care as compared to the rest of the country?

A. There are important challenges in Rhode Island. We have one of the shortest hospice median length-of-stay and nearly 40% of dying Medicare beneficiaries are on hospice for 3 days or less. Too often dying patients and family do not get the full benefit of hospice care – only 24 hours of intensive management of pain and other symptoms. This is simply wrong. We as a state should work to ensure that dying patients are informed about their prognosis, treatment options and make sure that they are aware of the important benefits of hospice and palliative care. Being the smallest state in the Union, we could be leaders in improving end-of-life care that is competent, patient- and family-centered, coordinated and compassionate.

Q. Aggressive end-of-life care is not what most patients want. But sometimes there is disagreement within families. How should physicians initiate the discussion with patients and families, who may balk when the physician in the ICU suggests a hospice or palliative-care consultation?

A. First and foremost, bringing up the issue at an early time point is key – don't wait until the patient is actively dying. Hospice is not brink-of-death care, but the full benefits of hospice can't be realized with a length-of-stay of 3 days or less. Prognostication can be difficult. Fortunately, nearly

all hospitals in Rhode Island have physicians and nurse practitioners with expertise in palliative medicine who are there to help physician and other health-care providers with this difficult conversation. So my advice is to utilize those invaluable resources to help seriously-ill patients make choices about their medical care.

Resource for MDs

Dr. Teno recommends the Education in Palliative and End-of-Life (EPEC) website: <http://www.epec.net/>

Recent study in JAMA shows hospice and aggressive care rising

The Feb. 6, 2013 issue of the *Journal of the American Medical Association* includes a study by Dr. Joan Teno and co-researchers on changes in end-of-life care for Medicare beneficiaries, aged 66 and older, who died in 2000, 2005, or 2009.

In the study, patients were classified as having a medical diagnosis of cancer, chronic obstructive pulmonary disease, or dementia in the last 180 days of life. The study cohort included 848,303 fee-for-service Medicare decedents.

Among the findings:

- About 33.5% of Medicare beneficiaries died at home in 2009, 10% more than in 2000.
- 42% died in hospice care in 2009; of these, 28.4% used hospice for 3 days or less.
- Transitions from one care setting to another in the last 90 days of life increased by 50%, from an average of 2 moves in 2000 to 3 in 2009.
- 24% of those who died used the ICU in 2000; the number rose to 29% in 2009.
- Dementia patients spent more time in intensive care in 2009 than in 2000.

In this interview with RIMJ, Dr. Teno stresses the need for physicians and hospitals to focus more on delivering high-quality, patient-centered care that is based on the needs and expectations of an individual approaching the end of life.

Full-study reference:

Joan M. Teno, MD, MS, et al. Change in End-of-Life Care for Medicare Beneficiaries. Site of Death, Place of Care, and Health Care Transitions in 2000, 2005, and 2009. *JAMA*. 2013;309(5):470-477.

Q. If Medicare pays for a skilled nursing facility and not for an extended stay in an in-patient hospice facility, what's a family to do as they seek compassionate end-of-life care for a loved one?

A. The greatest challenge that we face in health care is that we pay for procedures, we pay for another day in ICU, but we don't provide financial incentives that adequately reward high-quality medical care that includes talking with patients about their prognosis and treatment options. For me, high-quality medical care for a seriously-ill person must educate that patient and their family about their prognosis and treatment options, to help them arrive at their goals of care, and then the physician works with a multidisciplinary team to develop a plan of care that honors those goals.

Q. What opportunities will be created by the transition from the program in public health to the School of Public Health at Brown in terms of your research? And in preparing a new generation of palliative-care physicians, academicians and researchers?

A. Brown University has played a very important role in research on the quality of end-of-life care, starting with the National Hospice Study run by former medical school Dean David Greer. At the formulation of hospice in the United States, Dean Greer, Dr. Vince Mor and others played a critical role in evaluating hospice from its onset.

Since that time, my colleagues in the public health program have conducted a number of important studies. Susan Miller has evaluated the role of hospice in the nursing home (NH), producing key research that provides the justification for hospice in the NH. Pedro Gozalo has evaluated the potential cost saving of hospice. Dean Fox Wetle and Renee Shield conducted qualitative research that highlighted the important unmet needs and suffering of dying patients in nursing homes.

I have been very fortunate to partner with the National Hospice and Palliative Care Organization to create the Family Evaluation of Hospice Care Survey that has allowed hospice to audit and improve their quality of care.

And, working with Dr. Mor and Gozalo, we have produced a number of studies that have examined the role of feeding tubes in persons with advanced cognitive impairment – this research has been cited by the American Academy of Hospice and Palliative Medicine (AAHPM) and the American Geriatric Society (AGS). It showed that physicians should offer hand feeding rather than a feeding tube, given the evidence that feeding tubes do not improve survival. And our research found that insertion of a feeding tube during hospitalization may increase the risk of a pressure ulcer by more than twofold.

The School of Public Health will provide an opportunity for Brown to continue in our role of conducting policy-relevant research focusing on the important needs of seriously-ill and dying patients.

Kahler's Research Bridges Behavioral/Social Sciences and Medical Care

MARY KORR
RIMJ MANAGING EDITOR

PROVIDENCE — For Christopher Kahler, professor of behavior and social sciences at Brown, the path from poet to psychologist intersected in New Mexico. Upon graduation from Brown in 1991, with a concentration in literature and creative writing, he drove cross-country, stopped to visit a friend in Santa Fe, and decided to stay awhile.

He found a job working with adolescents in an addiction treatment center. "I learned pretty quickly that just as the purely creative process of writing poetry wasn't a good match for me, purely clinical work wasn't either," he reflected. "I missed the academic connection."

He decided to pursue a career in clinical psychology, and earned his master's and doctoral degrees in that discipline at Rutgers University. His final year was spent interning at Brown, which he described as having "one of the best research-focused clinical psychology internship programs in the country."

In his office overlooking the Providence Riverwalk, Kahler reflected on his serendipitous career choice. "What I do now is a creative process but it's also a scientific and quantitative process. Working as part of a team in a helping field ended up being a good middle ground for me."

That is somewhat of an understatement. In 2011, two decades after graduating from Brown, Kahler was appointed the inaugural chair of the Department of Behavioral and Social Sciences at Brown. It is one of four departments within the Brown School of Public Health. He enumerated the benefits of the program-to-school transition.

"For the Department of Behavioral and Social Sciences, connecting with a school of public health clarifies our identity across the kinds of behaviors we address. We can attract faculty and students as we leverage the different sciences that fall under the umbrella of the social sciences. And it's a real help for us in defining our areas of expertise within the state and nationally," Kahler said.



MIKE COHEA/BROWN

Alcohol and HIV (ARCH) grant collaborations

Kahler's area of expertise is on the etiology, assessment, and treatment of excessive drinking and alcohol dependence and the comorbidities between alcohol and smoking.

As the associate director of the Center for Alcohol and Addiction Studies (CAAS) at Brown, he works on a wide array of multidisciplinary research related to these areas.

Currently, he is scientific director and primary investigator of the research components of a five-year, \$7.5 million grant, funded in 2010 by the National Institute on Alcohol Abuse and Alcoholism (NIAAA). The Alcohol Research Center on HIV (ARCH) study is focused on reducing the impact of alcohol on the HIV epidemic.

"The interesting part of ARCH as compared to other grants is that we took a very strong Center for Alcohol and Addiction study that's been at Brown for almost 30 years now and aligned it with Lifespan/Tufts/Brown Center for Aids Research (CFAR)," Kahler said.

One of CFAR's directors, Dr. Kenneth Mayer, adjunct professor of epidemiology at the Brown School of Public Health, has had a long-standing research relationship with the Fenway Community Health Center (FCHC) in Boston, and it serves as the main primary-care site for ARCH's randomized clinical trial of brief interventions for excessive drinking among HIV-infected men who have sex with men (MSM).

In addition, at the Immunology Center at The Miriam Hospital, ARCH researchers are investigating how alcohol use affects changes in brain structure and function, and examining how much those changes result from HIV versus the affects of alcohol over time. Within that, Kahler said, "we bring in expertise in liver function, and how that may be affected by HIV and alcohol, looking at basic factors in immunology and replication of the virus and how alcohol may be involved there."

Kahler expects the NIAAA to compile ARCH's "broad

'The interesting part of ARCH compared to other grants is that we took a very strong Center for Alcohol and Addiction studies that's been at Brown for almost 30 years now and aligned it with Lifespan/Tufts/Brown Center for Aids Research (CFAR)...'

— Christopher Kahler

sweep" by synthesizing the results of nationwide clinical trials at the completion of the grant cycle in 2015 and assessing its impact on population health and costs nationwide.

Pharmacotherapy, behavioral approaches in smoking cessation

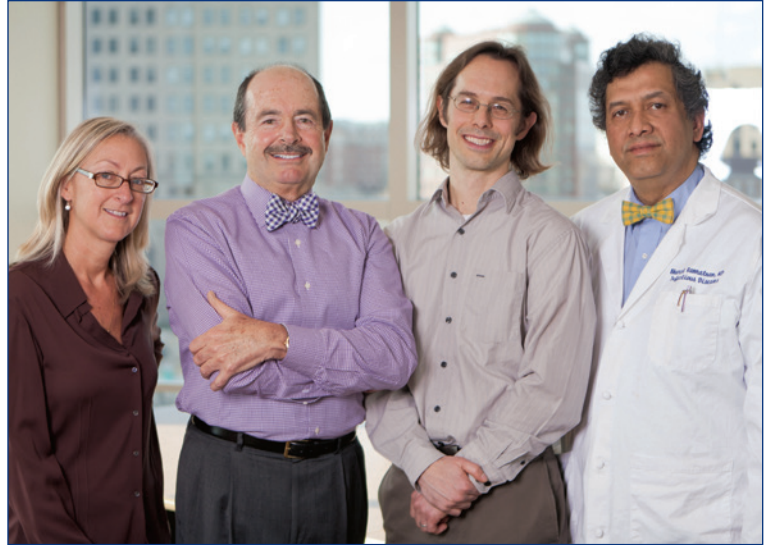
In the area of smoking cessation, Kahler's research focuses on pharmacotherapy and/or behavioral interventions. "One of the things we are doing right now is looking at heavy drinkers who want to quit smoking. Can we treat the alcohol use at the same time with a medication, in this case naltrexone, so that their alcohol use is reduced while they're quitting smoking? The goal is to increase the likelihood that they quit smoking successfully but also down the road this lays the groundwork for making and retaining changes in their drinking," he said.

Another area under investigation in smoking cessation is the use of what is known as positive psychology. "We are examining strength-based interventions for people who are trying to quit smoking," Kahler said. "We're looking at traits that help people adapt and cope. It could be humor, gratitude, spirituality, leadership, or willingness to help others. The question is: Can we harness those traits, to help them change health behaviors?"

Public health momentum

In addition to his research, Kahler has played a key role in teaching and training students. He said the master's program applicant pool in public health continues to increase each year and he expects his department to offer a doctoral program in 2014.

He also noted the program-to-school public health transition will give Brown undergraduate students exposure to a wider breadth of public health experiences. For example, he



SCOTT KINGSLEY

Faculty and research collaborators at the Center for Alcohol and Addiction Studies include, from left:

Suzanne Colby, PhD, Associate Professor of Psychiatry and Human Behavior (Research), Director of Postdoctoral Training, CAAS;

Peter M. Monti, PhD, Donald G. Millar Distinguished Professor of Alcohol and Addiction Studies, Director of CAAS, Director of ARCH;

Christopher Kahler, PhD, Chair of the Department of Behavioral and Social Sciences and Scientific Director of ARCH, and

Bharat Ramratnam, MD, Associate Professor of Medicine and Director of the Laboratory of Retrovirology, Department of Medicine

said, "students could be learning how to get antiretrovirals distributed to HIV-infected people in Africa, or how to address obesity in inner-city kids." In addition, students will see a broader and diverse spectrum of health career options.

And Kahler expects fruitful and interdisciplinary teaching and research partnerships to flourish between the Brown School of Public Health and the Alpert Medical School.

A Case of Intracranial Hemorrhage Causing Stress-Induced Cardiomyopathy

LESLIE RUSSELL, MD; PHILIP STOCKWELL, MD

ABSTRACT

The classic finding of Takotsubo's cardiomyopathy is left ventricular systolic dysfunction with echocardiographic evidence of apical ballooning in the absence of significant coronary disease. Intracranial hemorrhage is a known cause for stress-induced cardiomyopathy with a similar echocardiographic presentation. This diagnostic finding suggests a similar pathophysiologic mechanism between neurogenic cardiac damage and the wide array of medical and psychosocial disorders that are known to cause stress-induced cardiomyopathy (Takotsubo's syndrome). The neurogenic-cardiac variant of stress-induced cardiomyopathy is associated with good cardiovascular prognosis; the hallmark feature of the disorder is complete echocardiographic resolution of systolic dysfunction within a short period of time. While malignant presentations are rare, the disorder can present as severe heart failure or ventricular tachyarrhythmias. We report a case of a near life-threatening episode of polymorphic ventricular tachycardia due to a subarachnoid hemorrhage (SAH)-induced stress-cardiomyopathy.

KEYWORDS: Takotsubo's cardiomyopathy, intracranial hemorrhage, arrhythmia, echocardiogram

CASE

A 58-year-old woman presented to the emergency department with acute-onset confusion and headache. CT scan of the brain showed diffuse intracranial hemorrhage (Figure 1). Her mental status improved until day four when she was found unresponsive. Cardiac telemetry showed polymorphic ventricular tachycardia (Figure 2), which degenerated to ventricular fibrillation. Cardiopulmonary resuscitation was performed with successful return of spontaneous circulation.

ECG obtained after the cardiac arrest showed T wave inversions in leads I, II, aVL, and V2-V6 (Figure 3). Echocardiogram

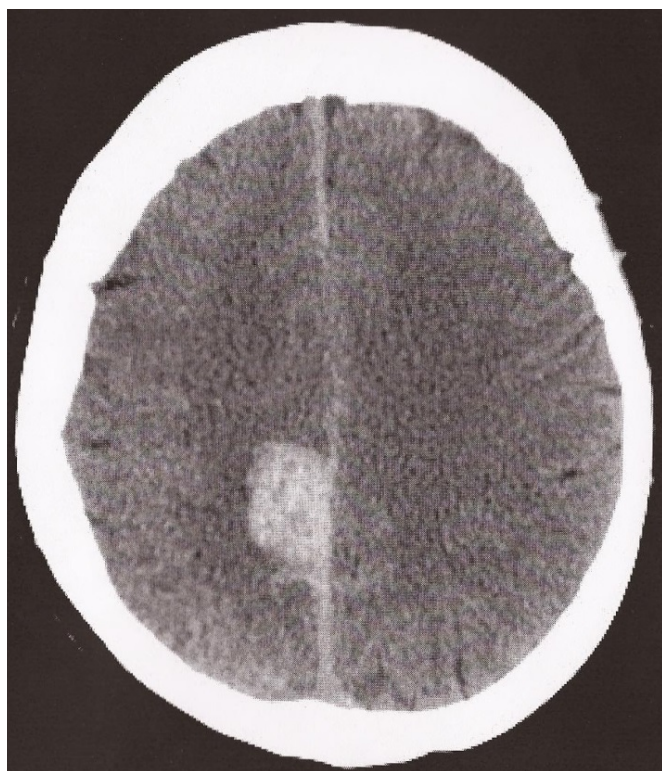


Figure 1. CT scan of brain demonstrating right intraparenchymal hemorrhage.

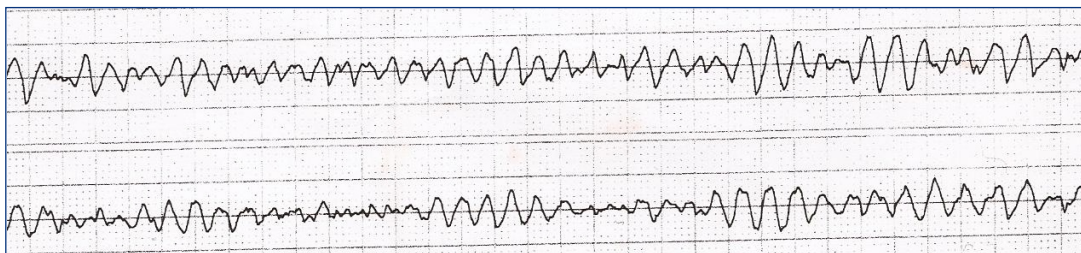


Figure 2. Cardiac telemetry strip demonstrating polymorphic ventricular tachycardia

showed a left ventricular ejection fraction of less than 30% with apical and lateral wall akinesis. Serum troponin level was 4.8 [reference range 0.00-0.15]. Due to the SAH, cardiac catheterization was not performed. The patient improved and had no further arrhythmias. Repeat echocardiogram one week after the arrest showed normal left ventricular systolic function with resolution of lateral and apical akinesis.

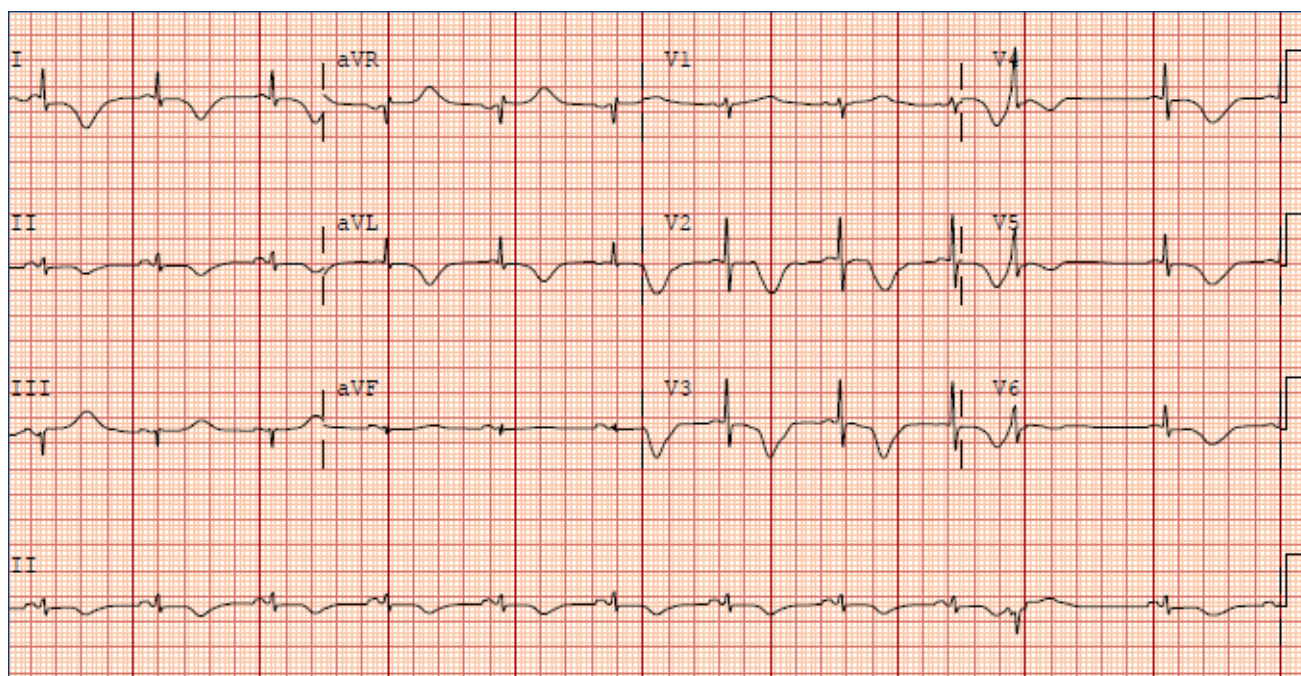


Figure 3. ECG after cardiac arrest illustrating T wave inversion in leads I, II, aVL, and V2-V6

DISCUSSION

Stress-induced cardiomyopathy is characterized by transient left ventricular systolic dysfunction. It is classically referred to as Takotsubo's cardiomyopathy as echocardiogram findings of the left ventricle demonstrate apical ballooning which resembles the historic Japanese octopus catcher or "tako-tsubo." It is known that intracranial hemorrhage can lead to a variant of stress-induced cardiomyopathy. The similarities between the traditional stress-induced cardiomyopathy and the neurologic related Takotsubo-like variant suggest these two disorders are on a spectrum of a single disease. The hallmark feature of both disorders is complete systolic recovery on echocardiogram within a short period of time.

Takotsubo's cardiomyopathy results from severe physiologic or psychological stress. Presenting features include chest pain, elevation in serum troponin levels, and ECG changes suggestive of ischemic heart disease. The neurogenic variant of Takotsubo-like cardiomyopathy is associated with specific physical stressors such as subarachnoid hemorrhage. Mild troponin elevation is seen in 20-30% of patients.¹ Echocardiogram in both entities usually demonstrates left ventricular apical ballooning with akinesis and basal hyperkinesis, though numerous variants have been documented.² Cardiac catheterization typically reveals no significant coronary obstruction in the distribution of these wall motion abnormalities.

While there are numerous etiologies to stress-induced cardiomyopathy, the pathophysiologic mechanism remains elusive. Studies suggest catecholamine excess as the most likely cause of the disorder, but other hypotheses include

microvascular damage and coronary vasospasm.³⁻⁵ Intracranial hemorrhage has been shown to cause catecholamine surge that persists for 7 to 10 days.⁶ As it is known that catecholamines result in cardiac toxicity, it is believed that this surge contributes to the left ventricular dysfunction.² Evidence implicating catecholamine excess comes from animal models, in which rats with induced subarachnoid hemorrhage were noted to have resilience against development of Takotsubo's-like ventricular dysfunction after undergoing pharmaceutical or surgical sympathectomy.⁷ Furthermore, another study illustrated that rats subject to immobilization stress had attenuation of subsequent development of left ventricular apical ballooning if receiving adrenoceptor blockade.^{4,5,8}

Greater than 75% of stress-induced cardiomyopathy occurs in postmenopausal women.⁴ This suggests estrogen depletion has a contributing role.³ It has been shown that female rats that had undergone ovariectomy were less likely to have stress-related left ventricular dysfunction if receiving supplemental estrogen.^{2,3,5} Though more research needs to be done, these findings suggest a possible role for estrogen in primary prevention.

The treatment of stress-induced cardiomyopathy is supportive. Complete myocardial recovery is typically seen within several weeks. Complications are rare, but include left ventricular wall rupture, atrial and ventricular arrhythmias, and apical thrombus formation.² In the case documented above, the patient experienced ventricular tachyarrhythmia. The arrhythmia likely occurred from severely reduced left ventricular function resulting in increased arrhythmogenic potential. In one retrospective study it was noted that close

to 1% of patients with stressed induced cardiomyopathy suffered from a ventricular arrhythmia.⁹ As these arrhythmias can be fatal, more research needs to be done to ascertain which patients are at higher risk for these events. By determining the exact mechanism of the cardiomyopathy, treatment can be established to prevent or attenuate the left-ventricular dysfunction and thus circumvent complications.

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Adult Suicide and Circumstances in Rhode Island, 2004–2010

YONGWEN JIANG, PhD; JEFFREY HILL, MS; BEATRIZ PEREZ, MPH; SAMARA VINER-BROWN, MS

The Rhode Island Violent Death Reporting System (RIVDRS) collects violent death data from death certificates, medical examiner reports, and law enforcement reports and is a joint project of the Office of State Medical Examiners and the Center for Health Data and Analysis in the Rhode Island Department of Health.¹

Suicide is the third leading cause of injury death in Rhode Island. In 2010, there were more deaths due to suicide in Rhode Island than due to car crashes.² The number of suicides has increased each year in Rhode Island during 2005–2010, making suicide one of the top four injury priorities identified in the 2013 Rhode Island Injury Prevention Plan. An understanding of suicide and its associated risk factors is important for planning public health interventions. RIVDRS is the only data base that collects comprehensive information regarding circumstances surrounding a suicide such as mental health/substance abuse, interpersonal, life stressor, and suicide event circumstances. Early identification of high-risk individuals may successfully prevent suicide. RIVDRS data provide insight into common risk factors that can inform early identification by health care providers. This study explores adult suicide and circumstances by gender in Rhode Island during 2004 – 2010.

METHODS

Data sources

RIVDRS captures data on all suicide deaths that occur in Rhode Island. The data are incident-based rather than victim-based.^{1,3} Suicide death is a death resulting from the intentional use of force against oneself as defined by the World Health Organization.³ The seven-year period 2004–2010 was selected for analysis due to yearly fluctuations in the number of Rhode Island suicides in each year. There were a total of 731 suicides in RI in that seven-year period. A majority of cases (713) were adult suicides ages 18 years old and older. Only 18 cases of youth suicide (ages 13–17) were identified in the data base. Our final analysis is focused on adult suicides and includes data on 556 men and 157 women.

Data analysis

Circumstance data included in this report were collected from death investigations conducted by the Office of the State Medical Examiner and law enforcement reports. RIVDRS allows for more than one circumstance to be recorded

for a person who dies by suicide. For the purposes of this study, circumstance information on suicide deaths is summarized into the following four categories: 1) mental health/substance abuse; 2) interpersonal conflict including intimate partners; 3) life stressor such as a loss of employment, illness, sexual or physical abuse, or family death; and 4) suicide event.⁴ Percentages show distributions in the underlying population relative to circumstance characteristics by gender. The statistical software used for the analysis was SAS version 9.2 (SAS Institute, Cary, NC, 2010).

RESULTS

Overall, there is an increasing trend of total suicide deaths across the seven-year period 2004–2010 in Rhode Island. The highest percentage of suicide was observed among adults aged 45–64 years (321 deaths or 45.0% of all adult suicides). More than 78% of adults who died by suicide in that time period were men, and 22% were women. Information about suicide circumstances was available for 95.8% (N=713) of all adult suicides; 95.5% of men (N=556) and 96.8% of women (N=157).

Similar percentages of adult male and female suicide decedents were reported to have a depressed mood at the time

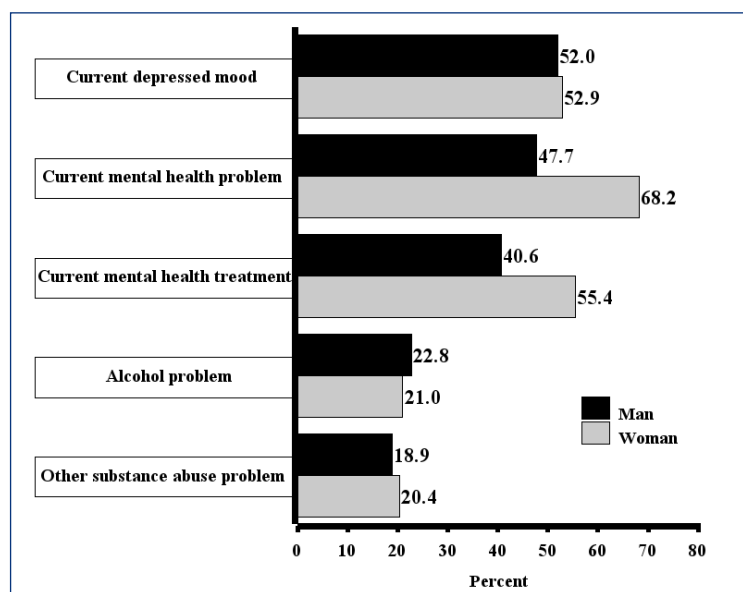


Figure 1. Percentage of mental health/substance abuse circumstances of adult suicide by gender in Rhode Island, 2004–2010

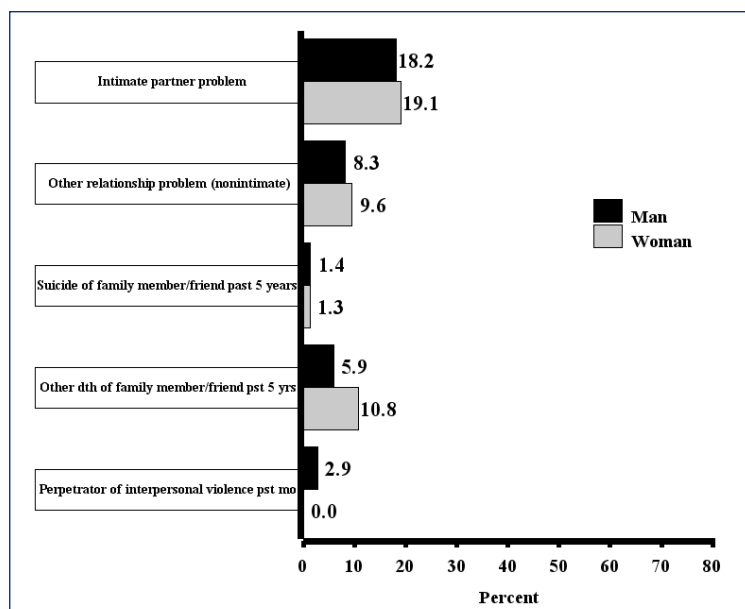


Figure 2. Percentage of interpersonal circumstances of adult suicide by gender in Rhode Island, 2004-2010

of death. However, a majority of female suicide decedents (68.2%) were reported to have a current mental health problem compared to males (47.7%); and more than half of all females (55.4%) were currently receiving mental health treatment compared to males (40.6%). Gender differences were not found in alcohol use (22.8% females and 21.0% males) and other substance use (18.9 and 20.4%) (Figure 1).

Intimate partner/ interpersonal problems were identified in a slightly higher percentage of female suicides than male suicides (19.1% and 18.2%, respectively) (Figure 2). A larger percentage of males were reported to have a crisis in the past two weeks, physical health problem, job/financial problem, and recent criminal/ legal problem compared to females (Figure 3). Females were more likely to leave a suicide note, disclose intent to commit suicide, and have a history of suicide attempt(s) than their male counterparts (Figure 4).

DISCUSSION

Over a seven-year period, 713 Rhode Island adults committed suicide, approximately 100 each year. Adults aged 45-64 and men accounted for most of these deaths (45.0 % and 78.0%, respectively). These findings have important implications for state suicide prevention efforts.

The most common circumstance recorded for adults who died by suicide was having a current mental health problem and the majority of them (84.1%) were receiving treatment. Most suicide decedents had mental distress with multiple stresses (e.g., a recent crisis, physical health/job/financial problems) preceding death. These additional stresses may contribute to mental health treatment non-compliance. RIVDRS data suggest that mental health treatment alone

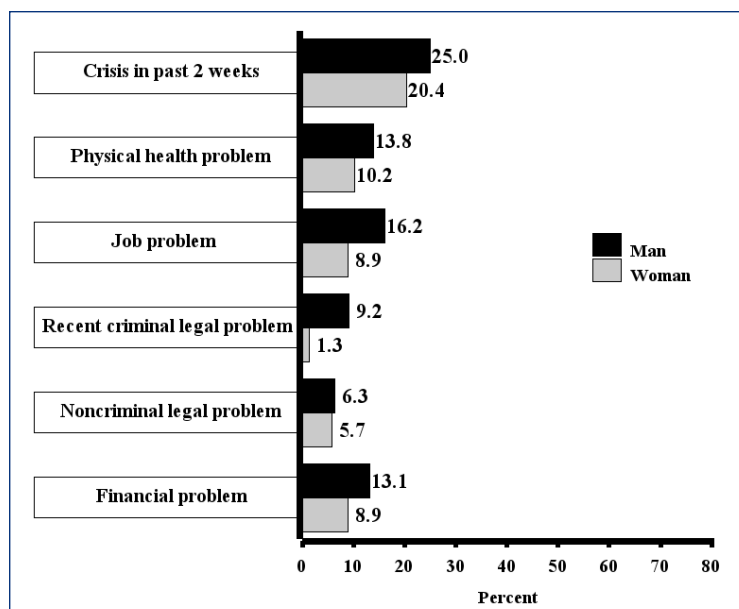


Figure 3. Percentage of life stressor circumstances of adult suicide by gender in Rhode Island, 2004-2010

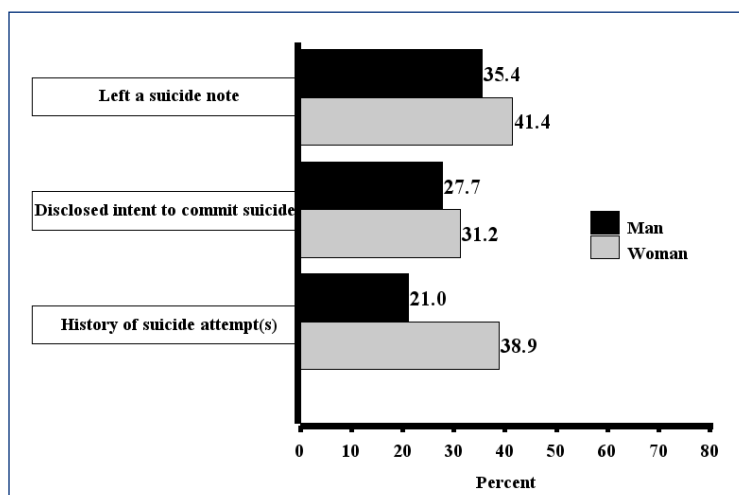


Figure 4. Percentage of suicide event circumstances of adult suicide by gender in Rhode Island, 2004-2010

might not sufficiently address all the circumstances that contribute to suicide. A range of social supports are also needed to prevent suicide.

In Rhode Island 13.8% of all adult male suicides are related to physical health problems (Figure 3). Suicide prevention practitioners should be aware that males experiencing physical health problems might be at increased risk of suicide. Job/financial problems were also more common among male suicide victims. Job loss can trigger a series of negative events such as relationship and financial problems. Particularly during difficult economic times, prevention programs need to incorporate financial planning and provide social support for those unemployed persons.⁴

For the seven-year period 2004-2010, a large percentage of adult suicide decedents had disclosed their intent to commit suicide to others, and had history of suicide attempt(s). These indicate that we need to educate the public on how to respond when someone discloses suicidal intentions, and monitor those who attempt suicide.⁴

Suicides associated with mental and physical health problems tend to be less impulsive, and will be more likely to involve planning. Suicides related to intimate partner/ interpersonal problems and recent life crises are typically more impulsive, and therefore less likely to involve planning.⁵

The findings in this study are subject to at least three limitations. First, RIVDRS may miss some suicide cases due to undetermined intent cases. Certain suicides might not be identified, for example, when no suicide note is present. Second, circumstance information is collected through medical examiner and law enforcement reports as second-hand information. For instance, some information such as depressed mood is based on family reports. Family members might not reveal all the circumstances to the investigators, possibly resulting in incomplete reports.⁶ Third, because of small death counts in some circumstance categories, findings should be interpreted with caution.

In conclusion, suicide is a serious, but preventable public health problem. Understanding the circumstances surrounding suicides is critical for developing suicide prevention programs and policies.⁷ Statewide suicide prevention efforts should focus on reducing the underlying circumstances that lead to suicide in the most high-risk populations. Given the multiple and complex factors that contribute to suicide, there is not one approach or one agency alone that can effectively prevent suicide. A comprehensive and coordinated "public health approach" is needed from all sectors and at all levels. Important steps our state can take to reduce suicide deaths include:

- Screen patients early and often for risk of suicide, exposure to violence, and substance abuse, and, make referrals to treatment as appropriate.
- Advocate for coverage and reimbursement for routine screening services.
- Coordinate patient care with behavioral health professionals as needed.
- Encourage owners of guns to use common-sense safety measures and safe storage practices, such as using gun safes and trigger locks, storing guns and ammunition in separate locations, and immediately reporting lost or stolen guns to law enforcement.

Acknowledgements.

We gratefully appreciate Mr. Edward F. Donnelly and Dr. Deborah N. Pearlman who reviewed our work and provided helpful comments. This brief was funded, in part, by a Centers for Disease Control and Prevention (CDC) grant (U17CE123104) awarded to the Rhode Island Department of Health, Office of State Medical Examiners; and a federal Substance Abuse and Mental Health Administration (SAMHSA) grant (5U79SM060447) awarded to the Rhode Island Department of Health Violence and Injury Prevention Program.

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Disclosure

The authors have no financial interests to disclose.

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Epiploic Appendagitis: An often-unrecognized cause of acute abdominal pain

LINDA RATANAPRASATPORN, LISA RATANAPRASATPORN, TERRANCE HEALEY, MD



Figure 1. Axial CT scan without contrast shows an oval shaped epiploic appendage with stranding of the adjacent mesentery (arrow) diagnostic of epiploic appendagitis, a non-surgical cause of abdominal pain.

CASE

A 54-year-old woman presented to her primary care physician with acute left lower quadrant abdominal pain. She had no fever or chills but did have nausea for several hours. She was on no medication and had no surgical history. On physical examination there was focal left lower quadrant tenderness with palpation but no rebound tenderness. The differential diagnosis for acute abdominal pain is vast and includes conditions treated both medically (such as gastroenteritis) and surgically (such as appendicitis). The patient was sent for a CT scan of the abdomen and pelvis which showed classic imaging features of epiploic appendagitis (Figure 1). The referring clinician was called and appropriate conservative management with NSAIDS was used. The patient was educated by the radiologist about the disease and the expected outcome prior to leaving the office.

DISCUSSION

Imaging plays a crucial role in triaging patients with abdominal pain toward appropriate treatment. One diagnosis to add to the differential diagnosis for acute abdominal pain is epiploic appendagitis (EA). First introduced by Lynn et al¹ in 1956, EA is a benign and self-limited inflammatory condition usually caused by torsion of an epiploic appendage or spontaneous venous thrombosis. EA may mimic surgical

causes of acute abdominal pain, such as acute appendicitis or diverticulitis. Before the advent of CT imaging, EA was most commonly diagnosed at surgery. In 1986, Danielson et al² described the CT findings. The use of emergency abdominal CT scan can aid in the diagnosis of EA and its differentiation from other causes of lower quadrant abdominal pain in order to avoid unnecessary antibiotics, hospital admission, and surgical intervention. Here we review the significant signs, symptoms, radiologic findings, and treatment of EA.

Epiploic appendages are fatty pedicular structures found on the serosal surface of the normal colon. Each person has an estimated 50-100 epiploic appendages, most commonly found on the sigmoid colon and cecum. Although usually 3 cm in length, some can be up to 15 cm long.³ The function of epiploic appendages is not known.

Symptomatic EA can occur in any part of the colon and most commonly presents in adult males and females in their second to fifth decade.⁴ EA is thought to be more common in obese patients and those with recent significant weight loss.⁵ Presenting symptoms are nonspecific. Abdominal pain is the leading symptom, often mimicking appendicitis and diverticulitis. In general, patients do not appear systemically ill and are afebrile. Nausea, vomiting, and diarrhea may occur. Rebound tenderness is usually not present. There are no pathognomonic diagnostic laboratory findings. The white blood cell count with differential and ESR are normal or moderately elevated.⁶

Early radiologic examination with an abdominal CT scan is essential to making the diagnosis. EA should be considered in the differential diagnosis of patients presenting with localized lower abdominal pain without associated leukocytosis or fever and in patients when exploration of the abdomen reveals none of the more common causes of acute abdomen. On CT, findings specific for EA are:⁷

1. Oval-shaped, well-defined focus of hypodense fat tissue
2. Thickened peritoneal ring (ring sign)
3. Periappendageal fat stranding (inflammatory change)
4. Central dot sign (thrombosed vessel)

On ultrasound, EA appears as an oval noncompressible hypoechoic mass at the site of maximal abdominal tenderness with no color Doppler blood flow.

When the diagnosis is not made before the patient undergoes surgery, the inflamed appendage is ligated and resected.⁸ Otherwise, treatment is supportive and non-operative. Pain control should be provided. Antibiotics are not indicated. Most cases resolve in 3-14 days. Patients should be advised to seek medical attention if symptoms worsen after 2 days. Complications of EA are uncommon but include intestinal obstruction, intussusception, and abscess formation.⁹

CONCLUSION

The correct diagnosis of epiploic appendagitis can prevent unnecessary surgical intervention, hospitalization, and antibiotic use. This article describes the clinical and laboratory features of patients with epiploic appendagitis. History and physical examination characteristics in selected patients should prompt the clinician to consider the diagnosis of EA in patients with abdominal pain and to perform a CT scan examination to provide a definite diagnosis.

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Make a House Call at the State House!

We invite you to make a "House Call at the State House" this legislative session. For the past several years, members of RIMS leadership have volunteered to spend an early evening at the General Assembly. With our new, online Member Portal, we are now able to welcome all RIMS members to observe the General Assembly in action.

Given the vagaries of legislative scheduling, your House Call you may offer you the opportunity to: attend a committee hearing; assist RIMS with testimony; get a tour of the State House; and hopefully meet your legislators. This has proven to be a worthwhile and informative opportunity for those RIMS members who have attended in the past.

It is impossible to overstate the importance and impact of real life physicians being at the State House. Every year, RIMS' Public Laws Committee puts together a broad legislative agenda and works with allies on health care legislation, and naturally "plays a lot of defense" on behalf of physicians and their patients. Your presence at the State House can truly make a difference in support of RIMS' efforts.

Registration is easy through the RIMS website, rimed.org. Enter the Member Portal of the RIMS website, log onto your account, and click "Events" on the Portal menu. Once you connect to this page, you may select a date on the "Event List" on this page and follow the prompts to complete the process. Should you have questions about your Member Portal log-in information, please email rims@rimed.org.

You will not need to be at the State House until 4:30–5:00 pm. The registration page will request contact information, both email and a cell phone or pager. We will send you a reminder a few days prior to House Call date along with instructions where to meet Steve DeToy, RIMS' lobbyist, who will be your guide.

Tar Wars® Poster Contest and Bike Helmet Distribution

On Saturday, May 11, the Rhode Island Medical Society, in partnership with the Rhode Island Academy of Family Physicians and the Rhode Island Chapter of the American Academy of Pediatrics, hosted the **20TH ANNUAL TAR WARS RHODE ISLAND POSTER CONTEST** at The Community School in Cumberland.

The winner was Kinjal Gupta from the Metcalf School in Exeter. Second-place winner was Robert Colomey from The Community School in Cumberland; and the third-place winner was Adelina Steinmetz from St. Paul School in Cranston, daughter of Medical Society member, Dr. Gregory Steinmetz.

The Community School was also the setting on May 11 for the Medical Society's **ANNUAL BIKE HELMET DISTRIBUTION** to eligible Rite Care families. RIMS volunteers distributed more than 150 helmets to children ages 5–8 years of age.



2013 Tar Wars® Poster Contest winner, Kinjal Gupta.



NEW Share your thoughts on RIMS "Communities" online forum

The RIMS website offers a password-protected Member Portal with access to an online "Communities" forum. This is a unique opportunity to express your opinions with RIMS leadership who work to advocate on behalf of Rhode Island physicians and patients.

COMMUNITIES TOPIC-OF-THE-MONTH

A discussion of the Rhode Island Department of Health's RI Primary Care Trust

Save the date! RIMS Annual Banquet & Inauguration of Officers

Saturday, September 21, 2013
Warwick Country Club

Watch for your invitation in the mail.
For more information contact
Sarah Stevens at 401-331-3207.

Stay informed

Make sure RIMS has your current email address or you could be missing out on timely information of interest that most physicians are unlikely to receive as quickly from other sources.

Please contact Sarah Stevens with additions or changes, or visit RIMS' Member Portal to update your contact information.



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

Member Portal on www.rimed.org

Password access to pay dues, access contact information for colleagues and RIMS leadership, RSVP to RIMS events, and share your thoughts with colleagues and RIMS



Above: State House press conference on health care, Brown MSS at the AMA, CPT update seminar, bike helmet distribution; Upper right: RIMS staff meets with physicians to discuss concerns.

Ellenbogen speaks on head injuries in youth, the NFL, military

Co-chair of the NFL Head, Neck and Spine Committee since 2010

MARY KORR
RIMJ MANAGING EDITOR

PROVIDENCE – When Brown alumnus Dr. Richard G. Ellenbogen, MD'83, was a second-year medical student, he found himself bored and proffered his resignation letter to then-Dean Stanley M. Aronson, MD. At this year's Brown commencement weekend, Dr. Ellenbogen, who delivered the Charles O. Cooke, MD, Distinguished Visiting Lectureship, recalled the incident.

"The Silver Fox put the letter aside without opening it, listened to me, and said: 'I want you to perform to the best of your ability. That's all I ask of any medical student at Brown – to live up to the ability that brought you here,' and he summarily dismissed me."

Alpert Medical School Dean Edward Wing, MD, welcomed Dr. Ellenbogen and noted the Cooke lecture spotlights branches of medicine which "hold promise of significant and lasting benefit to medical education at Brown and in the community."

Dr. Ellenbogen, chairman of the Department of Neurological Surgery at

'When in doubt, sit them out.'
— Richard Ellenbogen, MD

the University of Washington School of Medicine, spoke on "Concussion: A Perfect Storm – A Call for Education and Advocacy." The perfect storm refers to the coalescence of attention on traumatic brain injuries (TBIs) in veterans returning from Iraq and Afghanistan, the



Dr. Richard G. Ellenbogen, '83 MD, spoke on reducing the risk of concussions among professional and student athletes, and as a public health issue, during commencement weekend at Brown.

longterm injuries seen in professional athletes, and the incidence of concussions in youth sports.

Dr. Ellenbogen, who served in the military and was awarded the Bronze Star during his service in Operation Desert Storm, said the wars in Iraq and Afghanistan have exacted their toll on soldiers' brains and mental health. "Sixty-eight percent of the wounded have TBI or PTSD."

Since March 2010, Dr. Ellenbogen has been co-chair of the NFL Head, Neck and Spine Committee, an unpaid position. "But with all due respect, this is much more than an NFL issue," he said.

He has been a fierce advocate for the passage of youth sports concussion laws, now enacted in 47 states and the District of Columbia. The first law was passed in Washington in 2009 as a result of a devastating injury on a middle-school football field. Dr. Ellenbogen treated the youth involved, Zackery Lystedt, who in 2006 suffered a brain injury following his return to the game after sustaining a concussion. The boy collapsed after the game and almost died.

"In the OR, both sides of his skull were taken out," Dr. Ellenbogen said. The case "changed my life."

Youth concussion laws

The Lystedt law contains three core elements: education, removal, and proper clearance.

- Athletes, parents and coaches must be educated about the dangers of concussions each year.
- If a young athlete is suspected of

having a concussion, he/she must be removed from a game or practice and not be permitted to return to play. The maxim, Dr. Ellenbogen repeated throughout his talk: "When in doubt, sit them out."

- A licensed health care professional must clear the young athlete to re-

turn to play in the subsequent days or weeks.

Today, Zackery is a high school graduate and is taking a college class. He is able to take about 10 steps, and speaks in halting speech, Dr. Ellenbogen said. But he has become an advocate for preventing concussions as well.

Dr. Charles O. Cooke: Brown hockey hero (1898)

Cooke scored hat trick in first intercollegiate hockey game – Brown vs. Harvard

The Charles O. Cooke, MD, Distinguished Visiting Lectureship Cooke lectureship was endowed through a bequest from Ruth Cooke Peterson '14 in memory of her brother, class of 1899.

The late Dr. Cooke, a prominent surgeon and member of the Rhode Island Medical Society (RIMS) who frequently contributed to the *Rhode Island Medical Journal* in the first half of the 20th century, scored a hat trick in the first intercollegiate hockey game held in this country.

Held on January 19, 1898, on Franklin Field in Boston, the game was played in two 20-minute periods. According to collegehockeynews.com: "The players wore only crude leg pads and goalie pads were no different than the skaters' pads. They played in uniforms consisting simply of baseball trousers and turtlenecks, with leather or woolen gloves and six-dollar clamp-on skates. Hockey sticks were rounded, and despite costing only 60 cents to a dollar each, could take the



The *Boston Herald's* report of Brown's victory over Harvard in the first intercollegiate hockey game, which was held in Boston on Jan. 19, 1898.

punishment of many games."

The inaugural game was a rout. Reported the *Boston Herald* the following day: "The first goal came at 7 minutes on a pretty pass by Cooke to Day ... Day and Cooke came in for their share of glory: the latter snapped three goals in the second period."

As the headline proclaimed: "Brown plays brilliantly." The final score: Brown buries Harvard, 6-0.

The rivalry continues to this day. v



Brown's first hockey team defeated Harvard on January 19, 1898 on Franklin Field in Boston. From left to right are team members Robert Steere, Harris Bucklin, Jesse Povar, Captain Irving Hunt, Albert Barrows, Charles Cooke and Horace Day.

Figure 1. Signs and Symptoms of a Concussion

Thinking/Remembering	Physical	Emotional/Mood	Sleep
Difficulty thinking clearly	Headache, fuzzy or blurry vision	Irritability	Sleeping more than usual
Feeling slowed down	Nausea or vomiting (early on) Dizziness	Sadness	Sleep less than usual
Difficulty concentrating	Sensitivity to noise or light, balance problems	More emotional	Trouble falling asleep
Difficulty remembering new information	Feeling tired, having no energy	Nervousness or anxiety	

Signs and Symptoms of TBI/Concussions

Dr. Ellenbogen defined concussion in lay terms as “a violent shaking of the brain inside the skull. When I was in medical school, concussion meant you were knocked out. That’s no longer the case. In 90 percent of the concussions, the person is not knocked out.”

He said the severity of a TBI may range from “mild,” i.e., a brief change in mental status or consciousness to “severe,” i.e., an extended period of unconsciousness or amnesia after the injury. The majority of TBIs that occur each year are concussions or other forms of mild TBI.

He said TBI/concussions are a big public health issue, not confined to professional sports. He offered the following statistics:

- The World Health Organization predicts that by 2020 TBI will be the 3rd leading cause of death and morbidity in the world.
- Right now TBI is the No. 1 killer of adolescents in this country. In the United States, 1.3M people come to the ER with TBIs in a year and it is estimated twice that many with concussions never come at all.

- Leading causes of TBI: falls, motor vehicle accidents, struck by something, assaults
- Among those from sports injuries, the No. 1 cause is falls from bicycles and boards, such as skateboards
- TBI is not gender-biased. A study of nine sports showed that severe concussions, when youth athletes are out of school for 21 days, were

Culture change/research

“Culture change will reduce the amount of traumatic brain injuries,” Dr. Ellenbogen said. “Get rid of term concussion and call it a traumatic brain injury because that’s what it is. And changing the rules makes sports safer.”

He said changes that have occurred in the NFL include making helmet-to-helmet contact illegal, with a \$75,000

highest in boy’s soccer and girl’s volleyball. He noted that while 3 million kids play football, 300 million play soccer.

- In all NCAA sports, the highest rate of concussions is in women’s hockey. “Why do women athletes do worse than men?” Dr. Ellenbogen asked. “Girls report better, my daughter says.”

Tools to assess concussions

Heads Up to Clinicians: Addressing Concussion in Sports among Kids and Teens

Free Online Training for Health Care Professionals

<http://www.cdc.gov/concussion/headsup/clinicians.html>

During his lecture, Dr. Ellenbogen recommended the following CDC course for clinicians, noting it is a fast and free 20-minute online course. “Heads Up to Clinicians: Addressing Concussion in Sports among Kids and Teens”:

- Examines current research on the brain after a concussion
- Shows why young people are at increased risk
- Explores acute concussion assessment and individualized management of young athletes to help prepare for diagnosing and managing concussions on the sidelines, in the office, training room, or in the emergency department
- Educates about the 5-Step Return to Play progression
- Focuses on prevention and preparedness to help keep athletes safe

SCAT3: Tool to evaluate for concussion

<http://bjsm.bmj.com/content/47/5/259.full.pdf>

The SCAT3 is a standardized tool for evaluating injured athletes for concussion and can be used in athletes 13 years and older. For younger persons, ages 12 and under, use the Child SCAT3. The SCAT3 is designed for use by medical professionals.

fine; moving the kickoff line 5 yards, which has dropped the concussion rate 40 percent; and limiting to 14 the number of padded practices during the year, thus decreasing repeated concussions in a season. He is hoping that the trickle-down effect reaches Pop Warner football.

In addition, the NFL, in a new initiative with GE, will focus on developing specializing imaging equipment to detect head trauma and improving equipment.

Dr. Ellenbogen noted the research of J.J. "Trey" Crisco, director of the Bioengineering lab for Orthopaedic Research at Rhode Island Hospital, whose team developed helmets with embedded sensors to measure head acceleration during impact, including frequency, direction and severity, in order to better understand the mechanism of injury.

He also mentioned the research out of Boston University which reported that chronic traumatic encephalopathy, a degenerative disease affecting athletes, soldiers and others who have sustained repeated blows to the head and concussions, has been diagnosed in all 12 former college and NFL players it had tested.

'Heads-Up' tool

Dr. Ellenbogen also urged the medical professionals in the lecture audience to take the CDC online course, "Heads-Up" online concussion training and become familiar with a concussion-assessment tool SCA3 (*See sidebars.*)

He told them: "On the field, don't ask kids if they are concussed. They don't know. One example I use is when my son, a 6-foot 5-inch high school football player, collided with another player and went down. I ran to the sidelines and said, 'Zach, that's it, it's your second concussion of the season, you're out.' He looks at me and says: 'What do you know about concussions? Get mom, she's a nurse, she'll know what to do.' I was stunned for a second and realized he was concussed." v

CONCUSSION
A Must Read for NFL Players | Let's Take Brain Injuries Out of Play

CONCUSSION FACTS

- Concussion is a brain injury that alters the way your brain functions.
- Concussion can occur from a blow to the head/body:
 - following helmet
 - contact with the ground, object, or another player.
- Most concussions occur without being knocked unconscious.
- Severity of injury depends on many factors and is not known until symptoms resolve and brain function is back to normal.
- All concussions are not created equally. Each player is different, each injury is different, and all injuries should be evaluated by your team medical staff.

CONCUSSION SYMPTOMS

Different symptoms can occur and may not show up for several hours. Common symptoms include:

- Confusion
- Headache
- Amnesia/difficulty remembering
- Balance problems
- Irritability
- Dizziness
- Difficulty concentrating
- Feeling sluggish, foggy, or groggy
- Nausea
- Sensitivity to noise
- Sensitivity to light
- Double/fuzzy vision
- Slowed reaction time
- Feeling more emotional
- Sleep disturbances
- Loss of consciousness

Symptoms may worsen with physical or mental exertion (e.g., lifting, computer use, reading).

WHY SHOULD I REPORT MY SYMPTOMS?

- Your brain is the most vital organ in your body.
- Practicing or playing while still experiencing symptoms can prolong the time it takes to recover and return to play.
- Unlike other injuries, there may be significant consequences to "playing through" a concussion.
- Repetitive brain injury, when not managed promptly and properly, may cause permanent damage to your brain.

What Should I Do if I Think I've Had a Concussion?

REPORT IT. Never ignore symptoms even if they appear mild. Look out for your teammates. Tell your Athletic Trainer or Team Physician if you think you or a teammate may have a concussion.

GET CHECKED OUT. Your team medical staff has your health and well being as its first priority. They will manage your concussion according to NFL/NFLPA Guidelines which include being fully asymptomatic, both at rest and after exertion, and having a normal neurologic examination, normal neuropsychological testing, and clearance to play by both the team medical staff and the independent neurologic consultant.

TAKE CARE OF YOUR BRAIN. According to CDC, "traumatic brain injury can cause a wide range of short- or long-term changes affecting thinking, sensation, language, or emotions." These changes may lead to problems with memory and communication, personality changes, as well as depression and the early onset of dementia. Concussions and conditions resulting from repeated brain injury can change your life and your family's life forever.

Work smart. Use your head, don't lead with it. Help make our game safer. Other athletes are watching...

www.cdc.gov/Concussion

Alpert Medical School mints 113 new physicians

PROVIDENCE – One hundred and thirteen students officially became medical doctors when The Warren Alpert Medical School of Brown University held its 39th Commencement May 26 in the First Unitarian Church.



Dr. Edward J. Wing, dean of medicine and biological sciences, presided over the Alpert Medical School graduation and led the recessional.

"It is wonderful to see another graduating class from the Alpert Medical School, as well as the program in biology and the new School of Public Health," said Dr. Edward J. Wing, dean of medicine and biological sciences, who will step down as dean June 30. "Brown produces the finest doctors and researchers in the nation and I am proud to have been able to influence their educational experiences in a positive way for the last five years as dean."

Dr. Wing led the 113 graduates in the Physician's Oath, a version of the Hippocratic Oath that has been a tradition in the Alpert Medical School since the



Graduates emerge from the First Unitarian Church in Providence.

students of the Class of 1975 prepared it. At their graduation the 58 women and 55 men heard from two speakers: Dr. Bethany Gentilesco and fellow student Jonathan Asher Treem.

Dr. Gentilesco, a clinical assistant professor of medicine, works with

students both before and after they graduate from medical school. She is the site director for the internal medicine clerkship and associate program director for the internal medicine residency program. She struck a dualistic theme when she gives an address titled

PHOTOS BY A. SCOTT KINGSLEY FOR BROWN

“Everyone Has Two Secrets” that traces the path from undergraduate study through residency and ultimately into professional practice.

At Brown, Treen pursued the scholarly concentration in aging, conducting research in functional neuroimaging in Alzheimer’s disease. After graduation

he will begin a residency in internal medicine at the University of Pennsylvania. He addressed the importance and difficulty of preserving an expansive sense of self at the beginning of one’s medical career.

Another Commencement tradition—the Medical Senior Citation—is

an award voted upon by the graduating medical class to honor a member of the faculty. The MD Class of 2013 honored Dr. Paul George, a 2005 graduate of the Alpert Medical School, associate director of pre-clinical curriculum, and assistant professor of family medicine. ▽



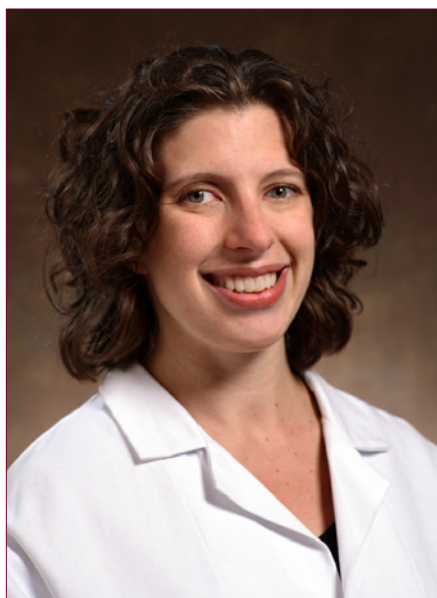
The Alpert Medical School graduation was held inside the First Unitarian Church in Providence.



The Brown Medical School Alumni Association march to the ceremony.

In Editorial, RIH's Dr. Ranney Calls for Research into Gun Violence

UNIVERSITY EMERGENCY MEDICINE FOUNDATION



Megan Ranney, MD

PROVIDENCE – A Rhode Island Hospital emergency medicine physician says in a new editorial that gun violence is a public health issue, and needs to be addressed in the same way as other causes of injury. The editorial, written by Megan Ranney, MD, MPH, is published online in advance of print in the *Annals of Emergency Medicine*.

Dr. Ranney writes that when it comes to firearm violence, physicians are limited in their ability to make evidence-based recommendations due to federal bans on the research of the nature, causes and potential prevention of firearm injuries. Since 1996, the Centers for Disease Control and Prevention has been banned from using funds to research gun violence, and in 2011, this ban was extended to the National

Institutes of Health. These bans were lifted by President Obama's executive order of January 16, 2013, but there is still a lack of appropriated money to do this research.

"It's ironic, really," Dr. Ranney noted, "that James Holmes, the alleged shooter in the Aurora, Colorado, theater massacre, received \$21,600 from the National Institutes of Health to pursue his education. Yet using that money to fund research that may have prevented the massacre would have been illegal. It simply doesn't make sense."

Dr. Ranney also noted in the editorial that in Florida a bill has passed the House that subjects physicians to potential sanctions, including loss of their medical license, if they discuss or record gun safety information with their patients. The Affordable Care Act also contains language (subsection 2727(c)) that limits the ability of physicians and researchers to keep data on patient gun ownership.

"Emergency medicine physicians are on the front lines when it comes to gun violence," Dr. Ranney said. "We are the first doctors to see these patients – the victims of gun violence – and we see them every day. We therefore have a unique perspective on the issue."

She added, "It stands to reason that just as we are permitted, and indeed encouraged, to ask patients about their use of drugs and alcohol, similarly we should be able to ask if they have a gun at home, especially if the patient is

particularly distraught and at possible risk of self-injury or injuring others."

In the editorial, Dr. Ranney calls for physicians to take action to increase research funding for firearm-related violence. She also encourages her peers to advocate for an immediate ban on assault rifles and high-capacity magazines; mandatory background checks for all firearm transfers; immediate restoration of funding for research on firearm-related injuries; improved access to mental health services; and for protection of the First Amendment Rights of physicians.

"Based on the limited data we have, all of these changes in legislation would make a difference in rates of gun violence," she says. "Change is never easy, but the road we are on is dangerous," she added. "Changes must be made if we are to make any progress in reducing gun violence in our country." ▼

Bradley Hospital starts OCD program

For children, teens with moderate to severe OCD

EAST PROVIDENCE – Bradley Hospital recently launched a new program aimed at helping children with Obsessive-Compulsive Disorder (OCD), a condition that affects one in 200 children nationwide.

The Intensive Program for Obsessive-Compulsive Disorder, the first of its kind on the East Coast, uses a milieu-based model to treat kids who experience a significant disruption to their daily lives due to OCD and obsessive-compulsive spectrum disorders.

The evidence-based program helps children, from five to 18 years old, alleviate symptoms, such as extreme anxiety, unreasonable thoughts and fears, and repetitive behaviors or rituals, all while improving daily functioning. The program also helps kids stay involved in school and family activities.

“For children and teens with severe OCD, the disruption to their daily lives can be profound,” said Jennifer Freeman, PhD, clinical co-director of the Intensive Program for OCD. “This program can be an effective care option for youth who have not responded to traditional outpatient treatment or who lack specialized OCD services where they live.”

In addition to Freeman, the program is led by a team of child behavioral experts, including medical director Brady Case, MD, and clinical co-director Abbe Garcia, PhD. Freeman and Garcia also co-direct the Pediatric Anxiety Research Clinic at the Bradley Hasbro Children’s Research Center.

Patients are treated utilizing a specific form of cognitive behavioral therapy called exposure and response prevention (EX/RP), which has been found to be the most effective form of treatment for OCD. This therapy strengthens a child’s ability to manage anxiety by helping him or her gradually face fears and ultimately reduce the repetitive rituals of OCD.

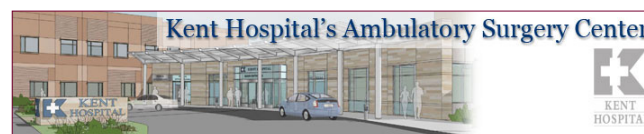
Patients in the program receive treatment after school for daily three-hour sessions at Bradley Hospital, as well as twice weekly EX/RP sessions at their home, school and other community settings. The integration of community- and hospital-based treatment helps to avoid academic and social disruption, and help children and teens return to family life as quickly as possible. ▽

Kent Hospital opens Ambulatory Surgery Center

WARWICK – Kent Hospital recently held a ceremonial ribbon cutting and community open house marking the completion of construction on the new 30,000 square-foot Ambulatory Surgery Center.

The surgery center is equipped with eight surgical suites, five expansive and three smaller rooms, designed specifically for endoscopic technology and interventional spine procedures.

Located on the second floor of the Ambulatory Services Pavilion, it has 28 oversized pre- and post-operative bays for a patient’s preparation and recovery. The waiting room offers free Wi-Fi, a café, and monitors so friends and family can privately track a patient’s progress.



The cost of the surgery center, which was completed in approximately 24-months and on budget, was \$15 million and also includes the cost of the next phase of the project – a 10-bed short stay unit, renovations to the existing main hospital lobby and a new connector to join the two buildings together. The short stay unit and lobby renovation work are slated for the fall. Additionally, work continues on the first floor of the new building to construct a one-stop facility for patient centered medical care, housing physician offices, lab, pre-op testing and specialty care clinicians.

“This is an exciting day for Kent Hospital and our community,” said Sandra L. Coletta, COO, Care New England and Kent president and CEO. “It marks an important milestone in the care and services offered here with a facility that was designed to efficiently and effectively provide patients, physicians and staff with an optimum outpatient surgical experience.”

Coletta also thanked J. Winslow Alford, MD, chief medical director of the new facility and Rene Fischer, RN, Kent Hospital senior vice president and chief nursing officer for their joint leadership in the Ambulatory Surgery Center operational oversight process. In addition, she also thanked Joseph DiPietro, Esq., Kent’s senior vice president and chief administrative officer for his leadership in overseeing the project. ▽

Home & Hospice Care of RI named Hospice Honors recipient

Award recognizes top 100 hospice agencies in patient care

PROVIDENCE — Home & Hospice Care of Rhode Island (HHCRI) has been named a 2013 Hospice Honors recipient, a prestigious award recognizing hospice agencies providing the best patient care as rated by the patient's caregiver.

Established by Deyta, the annual honor recognizes the top 100 agencies that continuously provide the highest level of satisfaction through their care as measured from the caregiver's point of view. Deyta used the Family Evaluation of Hospice Care (FEHC) survey results from over 1,200 partnering hospice agencies contained in its national, FEHC database with an evaluation period of January through December 2012. Deyta used the five key drivers of caregiver satisfaction as the basis of the Hospice Honors calculations.

"We are beyond thrilled to learn that Home & Hospice Care

of Rhode Island has received the 'Top 100' award and is now included among the best hospices throughout the country for family satisfaction," said Diana Franchitto, president and CEO of Home & Hospice Care of Rhode Island. "With over

5,000 hospices in the country - we are clearly a leader in family satisfaction. This award means that families rank HHCRI at the very top when it comes to keeping them informed of their loved one's care, recommending us to others, responding to the needs of their loved ones and having the confidence in us to do what was needed to care for their loved ones," she added.

The award was announced at the National Hospice and Palliative Care Organization's Management and Leadership Conference, which took place at the end of April in National Harbor, Maryland. ▽



From left, Diana Franchitto, president & CEO of HHCRI, Kevin Porter, president & CEO of DEYTA, and Sandy Dubey, HHCRI's chief clinical officer, at the April meeting of the National Hospice and Palliative Care Organization (NHPCO), where HHCRI picked up the 2013 Hospice Honors award.

Greenhealth recognizes The Miriam for environmental efforts

Blue Wrap Recycling Program noted

PROVIDENCE – The Miriam Hospital recently received the "Partner Recognition" Award from Practice Greenhealth. The award – one of the Environmental Excellence Awards given each year to honor environmental achievements in the health care sector – recognizes health care facilities that have begun to work on environmental improvements, have achieved some progress and have at least a 10 percent recycling rate for their total waste stream.

Leading The Miriam Hospital's sustainability efforts is its "Greenways" team, which includes both hospital employees and community members. One of the team's most successful programs is the Blue Wrap Recycling Program, which was piloted in 2012 in the hospital's operating room, in an effort to recycle "blue wrap" – the plastic-coated material that keeps surgical instruments

sterile prior to surgery. Because it is a No. 5 plastic, blue wrap is not widely accepted at many recycling centers in the United States, including Rhode Island, even though it is often recycled in other states. Blue wrap is opened just before the patient is brought into the operating room and is immediately thrown away in the regular trash.

The Greenways team worked to identify a community partner who would agree to pick up the wrap for baling and recycling, and also educated and encouraged OR staff to recycle the material by placing it in a designated container, rather than the trash. Since launching this pilot program, The Miriam Hospital was able to successfully

divert 2,500 pounds of blue wrap from entering the state landfill from April to December 2012.

The award was presented in Boston on April 25. ▽



Hasbro sees upsurge in all-terrain vehicle accidents

Recent influx of patients admitted with severe orthopedic trauma

PROVIDENCE – As the weather continues to warm and families are spending more time outdoors, Hasbro Children's Hospital has experienced an unsettling increase in the number of children coming in to the hospital with severe injuries sustained from all-terrain vehicles (ATVs). Unfortunately, these types of injuries are not new. In the past five years, 29 children between seven and 16 years old were admitted to Hasbro Children's Hospital following ATV accidents. Three of those admissions have occurred within the past few weeks.

ATVs are powerful, motorized vehicles that can weigh several hundred pounds and reach speeds of more than 60 mph. Even experienced drivers can lose control of ATVs, or suffer accidental collisions or rollovers. Children are at a higher risk of accidental injury because they are frequently passengers on these vehicles, which are meant for single riders.

"Families need to understand that significant injuries can occur as a result of an ATV accident," said Jonathan Schiller, MD, a pediatric orthopedic surgeon at Hasbro. "In the past month alone, three children have required hospital admission due to injuries sustained while riding an ATV. Their injuries included severe bleeding in the brain, and spine and long bone fractures. All required surgery and in one instance, multiple trips to the operating room and continuing care in a rehabilitation facility."

Dina Morrissey, MD, program coordinator at the Injury Prevention Center at the hospital added, "The American Academy of Pediatrics recommends that no one under 16 years old ride ATVs or other motorized vehicles; and manufacturers warn that full-sized ATVs are not toys, and are not designed to be operated by those younger than 16. But, yet, about one quarter of the fatalities seen nationally as a result of ATV injuries are children who are 16 or younger."

The Injury Prevention Center at Hasbro Children's Hospital urges parents to never allow children to drive or ride on ATVs, but offers the following tips for all ATV riders:

- Attend an ATV driver's safety course.
- Never use a 3-wheeler. They are unsafe and are no longer manufactured.
- Ride an age-appropriate ATV.
- Provide constant supervision if a child is operating an ATV.
- Never carry passengers. ATVs are designed for one person.
- Do not use ATVs on the streets or at night.
- Always wear an approved helmet with eye protection.
- Wear non-skid, closed-toe shoes.
- Wear long pants and a long-sleeve shirt.
- Never operate an ATV under the influence of drugs or alcohol.

Lifespan, Gateway to partner

PROVIDENCE – Lifespan and Gateway Healthcare have received state approval for a partnership that will create new models of coordination for behavioral health services for Rhode Island residents. The partnership brings Gateway under the Lifespan umbrella and will enhance coordination of services, improve access and promote efficiencies.

This move is especially important considering recent data that shows Rhode Island residents struggle with mental health and substance abuse issues at higher rates than the national average.

For the past four years, Gateway has provided behavioral health triage services in the emergency departments of Rhode Island Hospital and Hasbro Children's Hospital. Recently, Gateway and Bradley Hospital, a Lifespan partner, launched a joint program called KidsLink, a hotline for children in emotional crisis.

In addition, Richard J. Goldberg, MD, senior vice president for Psychiatry and Behavioral Health for Lifespan, noted, "The capabilities that Gateway brings to Lifespan will help us to re-integrate psychiatric, behavioral and medical issues. This is especially important because of the impact of behavioral issues on the course and outcome of so many medical disorders."

The two organizations plan to finalize the partnership on July 1, 2013. **v**



Lifespan opens pharmacy at Rhode Island Hospital

Adult vaccinations also offered

PROVIDENCE – On May 1, Lifespan opened a retail pharmacy, owned by Lifespan, on the campus of Rhode Island Hospital in the hospital's Davol Building.

Patients at Rhode Island Hospital will have the option of picking up their medication in the Lifespan Pharmacy at the time of discharge, or they can have it delivered directly to their home, or in some instances, delivered to the bedside. The pharmacy is staffed by pharmacists who are able to answer questions about dosages, interactions with other medicines, side effects and medication safety, as well as technicians who can assist with questions about prescription coverage. The pharmacists and technicians are using the latest in dispensing technology to help ensure prescriptions are filled quickly and accurately.

According to Christine Collins, MBA,

RPh, director of pharmacy for Rhode Island, The Miriam and Bradley hospitals, Lifespan wants to remove the obstacles patients face when it comes to their medications and make sure patients know how to take them correctly. "Medication adherence is critical to the health of our patients," Collins said. "Far too many patients are readmitted to the hospital when they don't take their medication correctly or at all. Not only do we want patients to leave the hospital with their medications, but also we want them to know how to take them correctly. This is why we've built such a strong education component into the Lifespan Pharmacy. We become part of the patient's health care team."

In addition to serving inpatients being discharged, the Lifespan

Pharmacy will also be available for patients in the emergency department, ambulatory surgery center and outpatient clinics, as well as for Lifespan employees and their families, physicians, and walk-ins, who would like to utilize the convenient, state-of-the-art services. Staff can also provide several adult vaccinations, including those for flu, pneumonia and shingles.

Prescriptions, including refills, can be ordered online at www.lifespanpharmacy.org, by phone at 401-444-4909 or fax at 401-444-2263. The pharmacy is also able to receive prescriptions electronically through e-prescribing systems. Medications can be picked up at the pharmacy or can be delivered to a patient's home without an additional cost. **v**

Bridging Neurology & Psychiatry: Movement Disorders

Saturday, October 12, 2013

The Joseph B. Martin Conference Center
at Harvard Medical School
Boston, Massachusetts

This full day course is aimed at reviewing the interface between neurology and psychiatry to enhance the clinician's ability to recognize and classify movement disorders in psychiatric patients and psychiatric problems in movement disorder patients. Behavior problems are the major determinants of quality of life in Parkinson's disease yet they are often not recognized. Similarly, movement disorders caused by antipsychotics frequently go unrecognized.

World renowned experts in movement and psychiatric disorders will review drug-induced movement disorders, psychogenic movement disorders and movement disorders associated with primary psychiatric disorders.



This course is designed for neurologists, psychiatrists, primary care physicians, nurses, psychologists, pharmacists, physician assistants, social workers, medical students and fellows.

Click to download the Course Program.

Register Online: <http://www.worldwide-medicalexchange.org/content/movement-disorder-course>



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Collaborative Office Rounds 2012–2013 Series (CME credit)

Motivational Interviewing for Adolescent Alcohol and Marijuana Use

All are welcome to attend sessions at South County Hospital and Westerly Hospital or participate online via webcast.

Wednesday, June 12, 2013

7:30 a.m.–9:45 a.m.

Anthony Spirito, PhD, ABPP

Professor of Psychiatry & Human Behavior

Director, Division of Clinical Psychology

Warren Alpert Medical School of Brown University

Webcasted and Live

<http://med.brown.edu/cme/brouchure/COR-2013%20Sessions.pdf>

Best Practices for Your Career Success in Medicine and Science

Thursday, June 13, 2013

7:30 am – 3 pm

Alpert Medical School Building, Lecture Hall 170
222 Richmond Street, Providence

The Office of Women in Medicine and Science and The Office of Continuing Medical Education present a professional development conference for faculty, trainees and house staff officers with keynote speaker Reshma Jaggi, MD, DPhil, Associate Professor, Associate Chair for Faculty Affairs, Department of Radiation Oncology, University of Michigan Health System

Description

Through a keynote presentation, panel discussions and individual workshops, this educational program will offer attendees strategies and skills to support their academic advancement by ways such as: building a strong mentoring network, working with their department chair, creating a grant proposal that stands out, fostering paths to leadership and speaking up effectively.

CME/CE Credit

Physicians: The Warren Alpert Medical School designates this live activity for a maximum of 4.25 AMA PRA Category 1 Credits™.

Psychologists: This activity is approved for 4.25 Category 1 CE Credits. (Credits available to RI licensed psychologists only.)

Cost: \$10–\$25

Contact: Office of Women in Medicine, 401-863-7960/2450

<http://med.brown.edu/cme/brouchure/OWMIS2013AnnualConference>

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provides an excellent opportunity to work with nationally known experts in the field in a collaborative manner and to present at conferences, conduct research and publish. Whitney Academy is a dynamic program committed to clinical excellence serving challenging, complex patients. Salary to \$124,000.00 depending upon experience. Excellent Health and Dental Plans. Please send resume to: George E. Harmon, Executive Director, geharmon@whitneyacademy.org.

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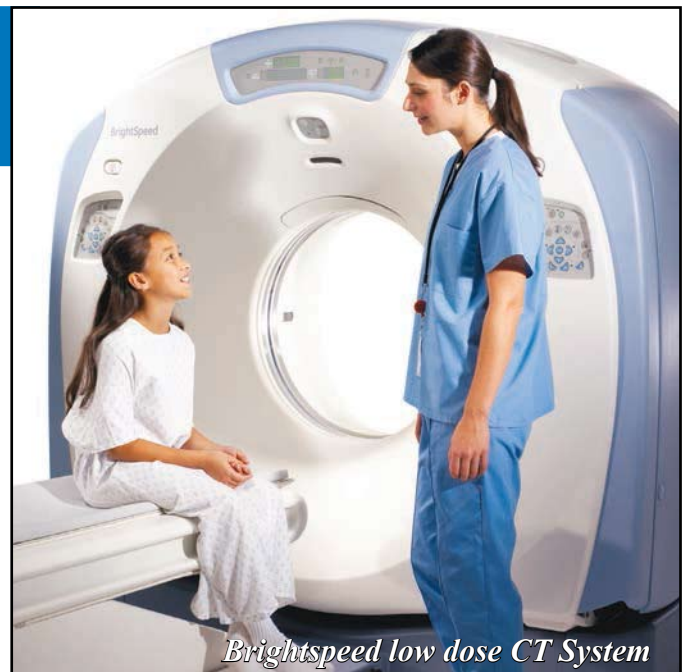
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Area Appointment

Health Dept. names W&I's Dailey commission chair

PROVIDENCE – **TANYA L. DAILEY, MD**, director of the Maternal-Fetal Medicine Clinic at Women & Infants Hospital and a clinical assistant professor of obstetrics and gynecology at The Warren Alpert Medical School of Brown University, has been named chair of the Rhode Island Department of Health's Commission for Health Advocacy and Equity.

The Commission is comprised of the former members of the Department of Health's Minority Health Advisory Committee, members of the public, and 10 ex-officio members from other state agencies. The purpose of the Commission is to advise the Department of Health about racial, ethnic, cultural or socio-economic health disparities; to advocate for the integration of the activities that will help achieve health equity; to help develop a health equity plan that addresses



Tanya L. Dailey, MD

social determinants of health across state government; to align statewide planning activities in developing health equity goals and plans, and to educate other state agencies and organizations on health disparities.

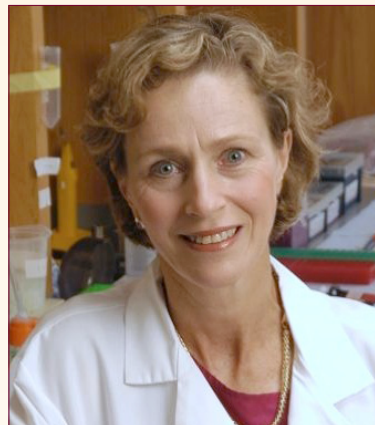
Dr. Dailey said, "I am honored to be asked to chair the Commission for Health Advocacy and Equity. With the help of the many dedicated individuals and community partners who have been selected to serve on this commission, it is my hope to bring attention and healthy change to Rhode Island's underserved populations."

According to Michael Fine, MD, director of the Rhode Island Department of Health, "We need the Commission for Health Advocacy and Equity because we continue to see substantial health disparities in our state, because of the documented evidence of treatment inequality that exists throughout our current medical system, and because we need a comprehensive and multi-level strategy to identify and eliminate disparities."

A graduate of Boston University and Tufts University School of Medicine, Dr. Dailey completed her maternal-fetal medicine fellowship at Women & Infants. She is board certified in obstetrics and gynecology, as well as maternal-fetal medicine. Her research interests include preterm labor and cervical insufficiency. ▽

Recognition

RI chapter of ACP recognizes Drs. Cyr, Kizirian



Michele G. Cyr, MD

and professional standards for which the College is known.

The Chapter presented **MICHELE G. CYR, MD, FACP**, with this year's Milton Hamolsky Lifetime Achievement Award. This award recognizes Dr. Cyr's outstanding contributions to the field of internal medicine and to the Rhode Island Chapter. ▽

CRANSTON – At the scientific meeting of the Rhode Island Chapter of the American College of Physicians held May 9 at Rhodes on the Pawtuxet, **JANICE KIZIRIAN, MD, FACP**, was presented with this year's Irving Addison Beck Laureate Award. Laureate winners are long-standing and loyal supporters of the College who have rendered distinguished service to their chapters and community and have upheld the high ideals

Gordon earns 'Early Achievement Award'

PROVIDENCE – **LESLIE GORDON, MD'98**, co-founder and medical director of The Progeria Research Foundation, received the 2013 Early Achievement Award given by the Brown Medical Alumni Association during commencement weekend. It is presented to an alumnus who has graduated within the past 15 years in recognition of his/her outstanding service to the medical school, their local community, or a scientific or academic achievement.



Leslie Gordon, MD

Dr. Gordon is the co-founder and medical director of The Progeria Research Foundation. The mother of a child with progeria, she is principal investigator overseeing the PRF Diagnostics Testing Program, Cell & Tissue Bank and Medical & Research Database.

An assistant professor of pediatrics at the Alpert Medical School and Hasbro Children's Hospital, she is also co-chair for the Progeria Clinical Drug Trial at Children's Hospital Boston. Dr. Gordon assembled the PRF Genetics Consortium and was among those members who discovered the gene defect in progeria. ▽

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Area Appointments

W&I appoints Dibble to head women's GI health



Christy L. Dibble, DO

PROVIDENCE – Women & Infants Hospital of Rhode Island recently appointed **CHRISTY L. DIBBLE, DO**, division director of the Center for Women's Gastrointestinal Health, part of its Department of Medicine.

Dr. Dibble is board-certified in gastroenterology. She has been part of the all-female staff at the Center for Women's Gastrointestinal Health since 1997 and sees patients with a wide range of gastrointestinal disorders at

the Center's Providence and Woonsocket offices. She expanded the concept of women's gastrointestinal health by establishing one of the nation's only endoscopy units dedicated to women.

A graduate of the University of New England College of Osteopathic Medicine, Dr. Dibble completed a residency and a fellowship in gastroenterology through the Warren Alpert Medical School of Brown University. She is an assistant clinical professor at Brown now, and chairs the Women & Infants Multidisciplinary Gastrointestinal Tumor Board. She chairs a committee for the Partnership to Reduce Cancer in Rhode Island, part of the Rhode Island Department of Health. ▽

Southcoast names Martelly to post

FALL RIVER, MASS. — Southcoast™ Health System recently announced the appointment of local obstetrics and gynecology (OB/GYN) physician, **PETER D. MARTELLY, MD, FACOG**, as associate chief medical officer for the Southcoast Hospitals Group,

which includes Charlton Memorial Hospital in Fall River, St. Luke's Hospital in New Bedford and Tobey Hospital in Wareham.

Dr. Martelly currently serves as the associate director of medical education for Southcoast Hospitals Group and will continue to do so in his new position.

In his new position, Dr. Martelly will assist in overseeing Southcoast's quality improvement and patient safety programs as well as assist in the day-to-day

operations of the medical staff, medical staff services, continuing medical education and library departments.

Dr. Martelly received his MD from Tufts University School of Medicine and completed his residency and internship at Women's & Infant's Hospital. ▽



Peter D. Martelly, MD

Roberts to lead Roger Williams' transplant unit

PROVIDENCE – **TODD F. ROBERTS, MD, MSc**, has been named director of the Blood and Marrow Transplant Unit and Section of Hematologic Malignancies at Roger Williams Medical Center. Dr. Roberts most recently led the hematologic malignancy group at Southcoast Center for Cancer Care and was associate attending in the Blood & Marrow Transplant program at Tufts Medical Center, Boston.

Prior to this position, he was a clinical associate professor of medicine in the Bone Marrow Transplant Program at Tulane University Hospital, New Orleans. He has special expertise and interest in stem cell transplantation and treatment of leukemia, myelodysplasia, lymphoma and multiple myeloma.




Todd F. Roberts, MD

Dr. Roberts is a member of the Society of Blood and Marrow Transplantation, American Society of Clinical Oncology, and American Society of Hematology and is board certified in medical oncology. Dr. Roberts also is involved in clinical cancer trials in the areas of reduced-intensity ("mini") stem cell transplant approaches as well as clinical trials in leukemias and lymphomas.

Since 1994, Roger Williams Medical Center has been home to Rhode Island's only Blood and Marrow Transplantation Program. In this comprehensive transplant center, autologous, allogeneic (related and unrelated) and cord blood transplantation services are offered. ▽

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Obituaries

JOHN JOSEPH O'BRIEN, MD, (Jack), 79, beloved husband, father, grandfather and respected friend, of Longboat Key, FL and North Kingstown, RI, passed away peacefully on May 25, 2013.

Raised and educated in Ireland, he graduated from medical school at University College Cork. After graduation, he crossed the Atlantic to serve his internship at St. Vincent's Hospital in Worcester, MA. It was in Worcester that he met his beloved wife of 52 years, Maureen. Jack and Maureen moved from Worcester to Rhode Island in 1960, for his three-year residency in radiology at Rhode Island Hospital, where he was on staff for his entire career.

From 1966-1968, he proudly served in the U.S. Navy as Lt. Commander and was based out of Bethesda Naval Hospital. In 1968, he and Maureen moved back to Rhode Island to raise their four kids and to continue his career at the Rhode Island Hospital. He was one of the founding partners of what is now Rhode Island Medical Imaging. He was a proud member of the practice until his retirement in June of 1997.

During his lifetime, Jack was a member of the R.I. Medical Society and the Radiological Society of North America. In 1981, he was awarded Fellowship by the American College of Radiology.

He is survived by his wife, Maureen, his four children, John, Kevin, Diana, her husband Marc and his youngest daughter Michelle, his grandchildren, John III and Katherine; as well as many dear friends. Jack always had a contagious smile and laugh, was truly selfless, and will be missed by all. In lieu of flowers donations may be made to the American Cancer Society or to St. Jude Children's Research Hospital.



WARWICK – **DR. JANUSZ E. STARAKIEWICZ**, 50, passed away at his residence on April 6, 2013. He was the beloved husband of Maria Z. (Nawrocka) Starakiewicz, MD. He was born in Poland and lived in Warwick for the past 15 years.

Dr. Starakiewicz was a pathologist and director of the Blood Bank at Pawtucket Memorial Hospital. He received his medical degree from Jagiellonian University in Krakow, Poland and served his medical residency at Brown University.

Dr. Starakiewicz was a member of the American Medical Association, Canadian Academy of Pathology and the College of American Pathologists.

He is survived by his two sons, Piotr "Peter" and Pawel "Paul" Starakiewicz, both of Warwick, and a brother and sister in Poland.





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A Tendency Toward Wordiness

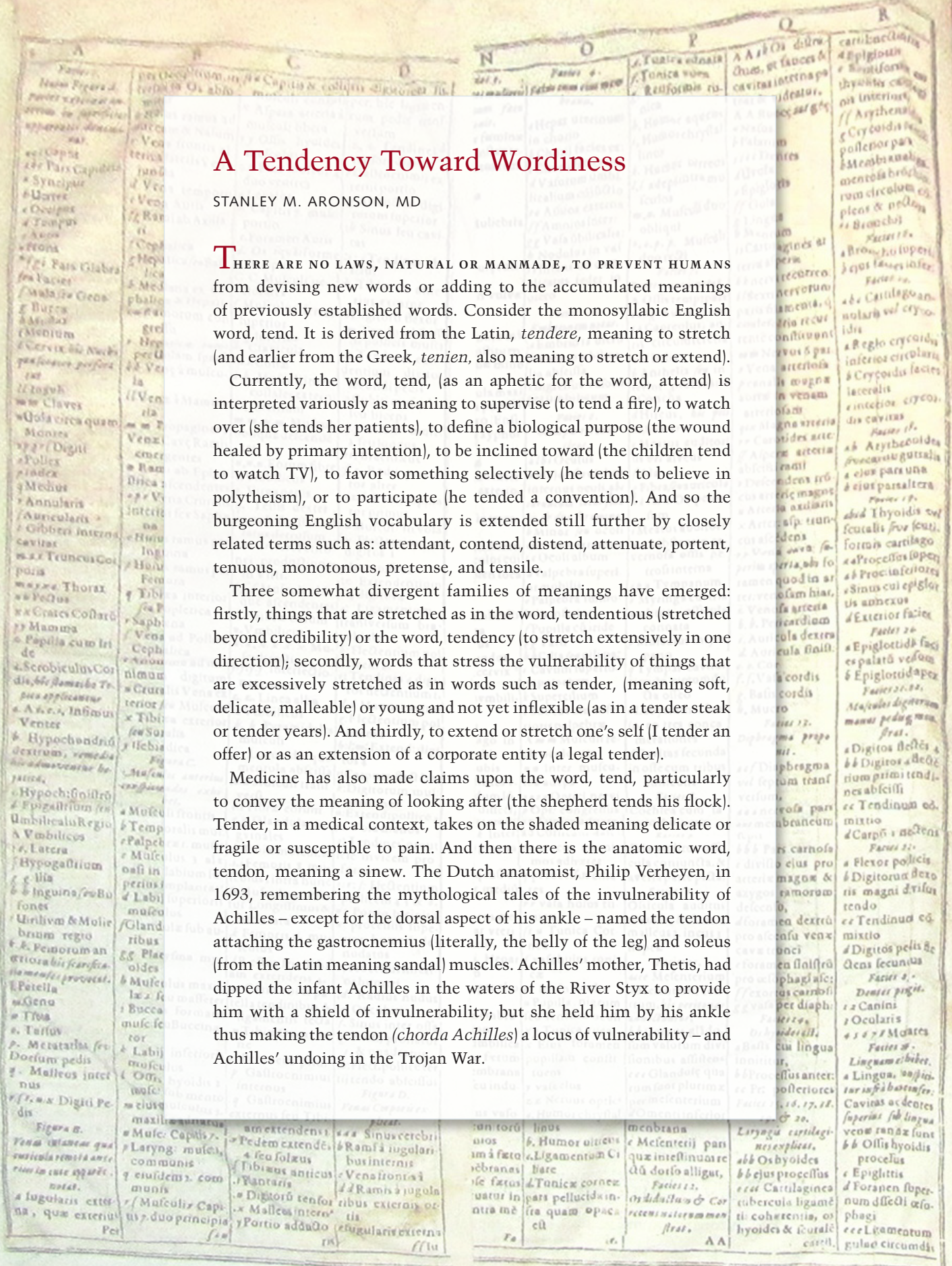
STANLEY M. ARONSON, MD

THERE ARE NO LAWS, NATURAL OR MANMADE, TO PREVENT HUMANS from devising new words or adding to the accumulated meanings of previously established words. Consider the monosyllabic English word, *tend*. It is derived from the Latin, *tendere*, meaning to stretch (and earlier from the Greek, *tenien*, also meaning to stretch or extend).

Currently, the word, *tend*, (as an aphetic for the word, *attend*) is interpreted variously as meaning to supervise (to tend a fire), to watch over (she tends her patients), to define a biological purpose (the wound healed by primary intention), to be inclined toward (the children tend to watch TV), to favor something selectively (he tends to believe in polytheism), or to participate (he tended a convention). And so the burgeoning English vocabulary is extended still further by closely related terms such as: attendant, contend, distend, attenuate, portent, tenuous, monotonous, pretense, and tensile.

Three somewhat divergent families of meanings have emerged: firstly, things that are stretched as in the word, *tendentious* (stretched beyond credibility) or the word, *tendency* (to stretch extensively in one direction); secondly, words that stress the vulnerability of things that are excessively stretched as in words such as *tender*, (meaning soft, delicate, malleable) or young and not yet inflexible (as in a tender steak or tender years). And thirdly, to extend or stretch one's self (I tender an offer) or as an extension of a corporate entity (a legal tender).

Medicine has also made claims upon the word, *tend*, particularly to convey the meaning of looking after (the shepherd tends his flock). *Tender*, in a medical context, takes on the shaded meaning delicate or fragile or susceptible to pain. And then there is the anatomic word, *tendon*, meaning a sinew. The Dutch anatomist, Philip Verheyen, in 1693, remembering the mythological tales of the invulnerability of Achilles – except for the dorsal aspect of his ankle – named the tendon attaching the gastrocnemius (literally, the belly of the leg) and soleus (from the Latin meaning sandal) muscles. Achilles' mother, Thetis, had dipped the infant Achilles in the waters of the River Styx to provide him with a shield of invulnerability; but she held him by his ankle thus making the tendon (*chorda Achilles*) a locus of vulnerability – and Achilles' undoing in the Trojan War.



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This advertisement for the upcoming car models appeared in a 1913 issue of the *Providence Medical Journal*. Charles Frederick Herreshoff of the famed Bristol yachting family designed the Herreshoff Model 30.

100 Years Ago: The Automobiles Doctors Drove



RI JEWISH HISTORICAL ASSOCIATION

Dr. Samuel Starr of Providence is shown at the wheel of his Morris touring car, circa 1912, perhaps on his way to a house call.

50 Years Ago: Dr. Hamolsky of Boston Joins Brown Faculty To work in six-year medical program

The June 1963 issue of the *Rhode Island Medical Journal* announced in its "Through the Microscope" section that **DR. MILTON W. HAMOLSKY**, who had recently been named chief of medicine at Rhode Island Hospital, would join the Brown faculty and hold the title Professor of Medicine at Rhode Island Hospital.

The report stated: "He will share responsibility for clinical research and teaching at the hospital in connection with the university's new medical program. The six-year medical course, leading to a degree of Master of Science,

will begin in the fall. Graduates of the program will be able to enroll elsewhere for the last two years of medical education leading to the Doctor of Medicine degree or pursue further graduate study for the PhD. degree."

The account stated that Dr. Hamolsky is "now an assistant professor of medicine at Harvard Medical School and a member of the full-time staff at Beth Israel Hospital in Boston. He will begin his duties at the university and at Rhode Island Hospital on July 1.

Dr. Hamolsky has made a specialty of thyroid disease."



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