

RHODE ISLAND MEDICAL JOURNAL



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and FOCUS ON OPIOID PRESCRIBING

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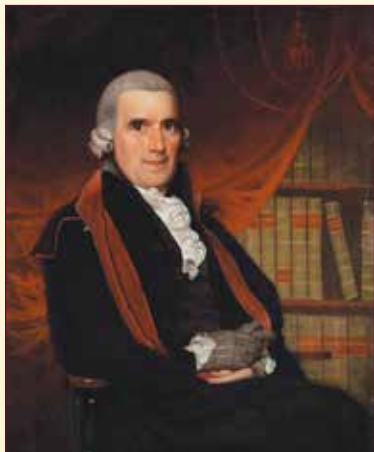


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RIMS thanks **Pfizer** for supporting the transformation of the 96-year-old *Rhode Island Medical Journal* into a 21st-century vehicle to serve the health care community in Rhode Island. A grant from Pfizer enabled the Rhode Island Medical Society to redesign the Journal for electronic distribution to a much wider audience, endowing it with an attractive new design and more diverse content, while making more efficient use of RIMS' resources and sparing the environment.

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United's October Surprise

ELAINE C. JONES, MD
PRESIDENT, RHODE ISLAND MEDICAL SOCIETY

THE RHODE ISLAND Medical Society has challenged, on both state and federal levels, United Healthcare's abrupt de-selection of hundreds of physicians from its Medicare Advantage network in Rhode Island. The medical societies of Connecticut, New York, New Jersey, Florida and Indiana, with support from the AMA, have also swung into action in response to United's threat to disrupt hundreds of thousands of patient-doctor relationships in those states – an event that should provide an epiphany to anyone who still thinks that having insurance means having access.

Thanks to RIMS' effective advocacy back in the 1990s, Rhode Island has some of the nation's best managed-care legislation, including requirements for network adequacy and for advance notice of insurers' plans to implement "material modifications" in their networks. For its part, the Centers for Medicare and Medicaid Services now also require Medicare Advantage plans to maintain responsible networks. Those legal and regulatory requirements are some of the tools at our disposal in responding to United's sudden move against a significant segment of our Rhode Island community, including both doctors and patients.

Network adequacy is just one of many



questions raised by United's unheralded action. RIMS will be looking for answers face to face with United's leadership in a few days, hopefully even before you read this letter.

One question is why United is cutting its Medicare Advantage network so brutally right

now. The company's reticence about its rationale leaves plenty of room for speculation. United's full-page ad in the October 19 *Providence Journal* says the issue is money (surprise!); specifically, it is the federal government's "severe funding reductions for Medicare Advantage plans." Now, it is true that Medicare Advantage plans have been targeted for cuts ever since it has become common knowledge that they cost the government more per beneficiary than standard Medicare. In fact, much of the cost of expanding Medicaid under the Affordable Care Act was always supposed to be offset by cuts to the Medicare Advantage program (officially known as Medicare Part C). But those cuts were famously postponed during the last presidential election campaign, and they still haven't really happened. Still, over the next ten years the government does intend to nudge Medicare Advantage plans toward per-capita parity with regular Medicare, and next year an effective cut of about two percent will begin to take effect.

When I compare that two percent with the absurd cuts Medicare's SGR formula has routinely threatened for doctors' fees (most recently in the range of 30%), I find it hard to take seriously the industry apologists who predict that Medicare Advantage insurers will be forced from the market en masse. Do they really have so little confidence in their vaunted ability to manage cost and care at least as well as standard Medicare? (Incidentally, in 2013 for the third quarter alone, UnitedHealthcare Group netted profits of \$1.6 billion.)

Perhaps cutthroat market competition is a more plausible explanation for United's move. The ultimate objective may be to stick the competition

We do not know what algorithm United is using to cull 15 to 30 percent of its Medicare Advantage physician panel, but they have at least made it clear that money is the leading criterion.

with the poorer risks. United is highly sophisticated in managing data, and they know their bottom line. While they are now barred from dropping expensive patients or denying coverage to those with pre-existing conditions, they can still achieve the same effect by dropping doctors who care for expensive panels of patients. Granted, we do not know what algorithm United is using to cull 15 to 30 percent of its

Medicare Advantage physician panel, but they have at least made it clear that money is the leading criterion.

Given that patients (especially older patients) are known to be far more attached to their physician(s) than to their health plan, and given the fact that Medicare Advantage subscribers are mostly free agents, it seems likely that many United insureds will jump ship before December 7, the date when Medicare open enrollment closes, in order to stay with their doctors. United subscribers who happen to like the format of Medicare Advantage do have one other option in the Rhode Island market, and that option (still) has a robust physician network. But do the Blues really want these particular patients, who may represent so many high-cost Trojan horses?

Incidentally, one factor that may inhibit some patients from leaving United is AARP's national seal of approval for United's Medicare Advantage plan. As recently as October 15, AARP's embarrassment (if any) over their business partner's aggressive dumping of doctors

and patients was apparently not great enough to inhibit AARP from entering into a new agreement with United (in return for still more of the insurer's undisclosed largess) for co-branding a new portfolio of UnitedHealthcare products through the year 2020.

Another question: Why is United doing this so precipitously right now? Limited networks per se are nothing new. They grew out of the insight that it is possible to have any two, but never all three, of healthcare's trifecta: affordability, quality and choice. Conventional wisdom says we haven't seen anything yet, that the transformation of healthcare will bring a proliferation of new products built on limited networks. But note that what United is doing is radically different: it is pruning the network of an existing product. How many subscribers will notice that the value of what they bought is being substantially diminished by United's action?

Several years ago, the American Medical Association established policies on limited networks. Those AMA policies include:

- Payers should disclose in plain language the criteria by which they construct tiered, narrow or restricted networks.
- Law and/or regulation should require that before plans establish new networks, they must disclose the criteria for participating in those networks and afford physicians sufficient advance notice to permit them to satisfy the criteria.
- Patient access to care should not be unduly limited by the confines of a network.
- Limited networks should not be inappropriately driven by economic criteria.
- Law and/or regulation should prohibit the formation and operation of networks based solely on economic criteria.

Clearly, United is transgressing egregiously against at least some, and perhaps all, of these well-considered national standards. ❖

Rating Scales

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I HAVE BEEN IMPRESSED many times by a discrepancy between some neurological drugs' commercial success and their actual clinical efficacy. I occasionally consult for venture capital funds interested in investing in companies that appear poised for a major killing. What is the market for a drug that is supposed to have this effect? they want to know. What if the effect is smaller or larger? What side-effect profile would make the drug more or less likely to be effective? How much better/worse would the intervention have to be compared to the drugs already on the market?

I am not allowed to share inside information, and I have none anyway, so it's all on the up and up. When asked about marketability, I always point out that in most cases marketing determines sales. Some crummy drugs are big hits and some good drugs go down the drain. Although my doctor colleagues won't want to read this, it's the free dinners, the coffee and donuts for the secretary, the wining and dining of KOL's ("Key Opinion Leaders" in the *lingua franca* of the drug reps) and the solicitous opinion-seeking that help drive sales, at least for the average neurological drugs.

I got to thinking about this as I prepare for a paid consultation with a drug company interested in choosing a scale



for a study in Parkinson's disease (PD). This is, of course, an important part of the methodology of any study; but as I thought about it, I recalled a statement made by a biotech company executive I also consulted for, many years ago, when the discussion turned to how likely the product was to be a com-

mercial success as a function of various possible reasonable trial outcomes. Obviously if the product was a failure it would never even be approved for sale by the FDA. But what if it just worked a little, like the dementia drugs? How much improvement in a test score would assure commercial success? What would insurers be willing to pay? He noted that when dialysis was first begun, the results weren't great but people lined up to have it done. Dialysis results improved and it became standard treatment. If the biotech product was as good as its theoretical promise, it shouldn't matter much how we measured the outcome. It should speak for itself. He wasn't worried about what measures we used for evaluating his product. In his mind, it either "worked," in which case it was a slam-dunk, or it didn't, and the business folded.

I've given a lot of thought to this. In contemporary FDA policy, a lot of credence is given to small gains. We see cancer drugs approved that provide

a very modest benefit over existing treatments. Dementia drugs, used in widespread fashion in the United States, aren't thought sufficiently worthwhile to enter the British national formulary.

What does it mean if a drug produces a "statistically significant" benefit over placebo, and, hopefully over currently existing treatments, on some measure but not others? I was the principal investigator for the first multi-center trial for the treatment of any behavioral problem in PD, completed many years ago. Having no accepted, validated measure for assessing psychosis in PD, we used four different measures, two of which were aimed at schizophrenia, a very different entity, hoping that we'd see improvement in all. And we did. Recently, another study in PD also used four distinct measures, also achieving uniform success. This can be a risky business. What if two measures are successes and two are not? This had, in fact, been the problem with a previous trial of this new drug.

It is obvious that choosing an appropriate metric is crucial for any study. But it's not always so easy to decide what represents a good measure. In the last decade, the development of new assessment tools and sophisticated validation techniques has become a cottage industry, with publications reporting the validity of Test X in Norway, Test Y in Japan, etc. While boring to read, these are, in fact, important. For example, how should one "measure" PD? Unlike

amyotrophic lateral sclerosis (ALS), where there are clear-cut markers like death or time until ventilator dependency, PD is a disorder that affects different motor, behavioral and autonomic functions in very variable ways that progress at very variable rates. We can use objective measures of motor function: how long it takes to walk a certain distance; how much tremor occurs in a limb over 30 minutes using accelerometers; how fast a task can be performed, etc. PD not only varies among individuals, it varies in the same patient from minute to minute, hour to hour and day to day. The assessment of activities of daily life, quality of life, mood, which are more meaningful problems, unfortunately is highly subject to bias.

I believe that if the treatment benefit will only show up on the “right”

measuring instrument, assuming there are choices that, a priori, seem to be measuring the same thing, then there is a problem. For example, there are several measures of schizophrenia, depression, fatigue, apathy, anxiety, etc. Obviously one wouldn't use a schizophrenia scale in a study of depression, but of the many depression scales, what would it mean if a drug was successful with one scale but not with another? Does it mean that the study should be repeated using only the “correct” scale so the results support efficacy? Or does it mean simply that biodiversity is great enough to have produced a faulty positive outcome, $p < .05$? We clinicians, who are encouraged to rely increasingly on evidence-based medicine, need to understand the quality of the evidence we base our decisions on. In this age of increasingly

sophisticated statistical analyses, it has, unfortunately, become more, rather than less difficult, at least for this physician. ♦

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.

Disclosures

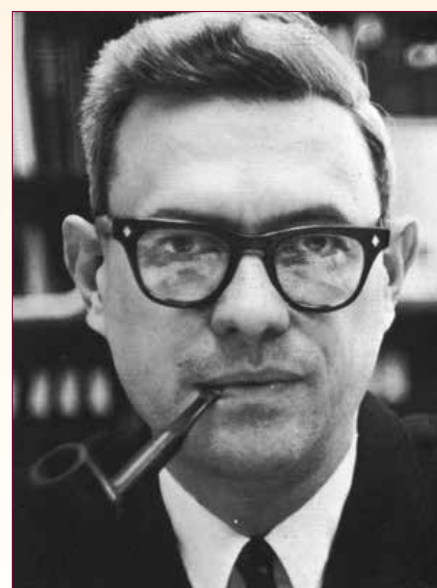
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Dr. Aronson in 2007 receiving Doctor of Medical Science (DMS) at Brown in 2007.



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

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A Platanus Tree Grows in Providence

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AS ISLANDS GO, KOS IS little more than a small, inconspicuous piece of land in the eastern Aegean Sea, perhaps 110 square miles in area and with a resident population of about 33,000. And yet, in a curious way, it has a tenuous connection, perhaps only botanical, with Providence, Rhode Island.



Kos, a living history-book of successive invasions, is part of an archipelago populated since prehistoric times and consisting of twelve major islands (the Dodecanese) as well as about 150 minor islets. These islands are in the midst of the eastern Mediterranean trade paths and hence have been fought over repeatedly during the last three millennia. The dominion over these islands has passed,

successively, to Minoan Crete; then to Mycenaean Greece; to the Anatolian mainland; to the Dorians; then, briefly, to the Persian Empire; then to the Macedonians under Alexander the Great; then to the Ptolemy Dynasty of Egypt; then the Constantinople-based Byzantine Empire; then the Ottoman Empire; thence to the Italians, especially the mariners from Genoa; briefly the British; then back to Greece; and all of these episodes of suzerainty intermixed with intervals when the islands ruled themselves. As entrepôts in the eastern Mediterranean Sea, and despite their succession of foreign rules, the islands prospered as major cultural and mercantile centers.

Nor have these many islands been ignored by history. The largest, Rhodes, was taken over by the Knights Hospitallers during the Crusades beginning in the 11th Century. And even idyllic Patmos, a small island at the northern extremity of the Dodecanese, populated by some 3,000 folk, is famous for its Byzantine seminary, with Greek Orthodox scholars, and for the Cave of the Apocalypse, said to have been the sanctuary of John the Apostle where he wrote the Biblical Book of Revelation.

Kos is best known, however, as the likely birthplace and certainly the site where Hippocrates (c.460–370 BCE) educated young physicians in a secular cult usually called Asklepiian. Medicine, in the Hippocratic school, became an independent profession, with its own prescribed education, regulations, discipline and prevailing philosophy.



BROWN UNIVERSITY

The Tree of Hippocrates is the plane tree under which, according to the legend, Hippocrates of Kos taught his pupils the art of medicine. Photos show the Hippocratic tree on the island of Kos in Greece and one nurtured from a seedling in front of Brown University's Arnold Laboratory on Waterman Street.

Hippocrates is said to have educated a generation of young physicians in a newly contrived form of the healing arts, now separated from religion, and based on careful diagnosis, minimal use of herbals, reliance upon natural healing forces and the underlying belief that illness was not divinely fashioned but represented, rather, the manifold forces of the environment, improper sanitation, dietary indiscretions, excessive wines and imprudent living. In Hippocrates' words when referring to epilepsy: "Men believe only that it is a divine disease because of their ignorance and amazement."

Hippocratic medicine relied heavily upon the art of foretelling, distilled from careful observation and the outcomes of prior patients with similar histories, what today is called prognosis. And in one of the books ascribed to Hippocrates, we read: "He will carry out the treatment best if he knows beforehand from the present symptoms what will take place later." Much of what we know of Hippocrates today is derived from the later writings of Aristotle, Plato, Soranus of Ephesus, Polybus and Galen.

Much of the criticism of Hippocratic medicine, expressed centuries later, was its passive, nihilistic concept of how medicine should be practiced, demanding a respect for "the healing power of nature" rather than the intensive interventions invented by Hippocrates' successors. In Latin, centuries later this fundamental Hippocratic doctrine was called, "*vis medicatrix naturae*."

Where then, in all of this, is the tangible connection with Providence, Rhode Island?

Hippocrates was said, by tradition, to have taught his students beneath the branches of a great, spreading tree on the plains of the Dodecanese island called Kos. And indeed, there exists today an ancient tree sited approximately where this teaching had been undertaken. This tree, identified as *Platanus orientalis*, is botanically related to the London plane tree (which adorns countless American boulevards) and the American sycamore. It is a tree of incredible longevity and has been an integral part of the Hindu religion as the earthly representation of the Goddess Bhavani; and in Persian mythology the tree is known as Chenar.

In 1972, the inaugural year of Brown University's school of medicine, a seedling from the Hippocratic tree on Kos was presented to the medical dean's office wishing the newly opened school much prosperity and success in its educational and healing mission. The seedling was nurtured carefully and now stands proudly before the Arnold Laboratory Building, 97 Waterman St. Seeds from this secondary *Platanus* tree now grow in various places in Rhode Island and neighboring Massachusetts. ❖

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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

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It's Not Just Getting Your 'Bell Rung'

JEFF MANNING, MD

I'VE HEARD THE EXPRESSION "getting your bell rung" ever since I started playing football, in 3rd grade. It never struck me as a particularly ominous expression. The phrase, uttered by my coaches in a light-hearted tone, was often used to minimize the effects of a big hit. As a high school football coach in Florida, I clearly remember players and coaches alike using phrases like "he just got his bell rung; he'll be fine." It wasn't until medical school and the more recent media attention on concussion that I started to think about what this phrase communicates.

Despite all of the current focus on concussion, I find that many of my patients and their families don't know exactly what it means to have a concussion. Contrary to the harmless image of a ringing a bell, a concussion is a disturbance in brain function caused by direct or indirect forces to the head. Concussive forces disrupt neural processes in the brain and affect the way the brain functions.

That's right, a concussion is a disturbance in the way the brain functions!

I spend hours each week trying to explain to frustrated athletes why it is important to rest and take time out of their sport. There are certainly more coaches, athletes, and parents who take concussion more seriously now than there were five years ago, but the continued use of phrases like "he just got his bell rung" really do make an impression on young athletes and minimize the seriousness of concussion.



KENT HOSPITAL

Many states, including Rhode Island, have passed laws addressing concussion. Under the Rhode Island law, coaches must remove any player who exhibits signs or symptoms of a concussion from a game or practice. That player must obtain written medical authorization by a licensed physician before being allowed to return to play.

As a medical community we are doing a better job of recognizing and appropriately treating people with concussion than we have in the past. Nevertheless, athletes are still sometimes making it back to practices and games without resolution of their symptoms or a gradual return to activity protocol. According to the 2012 Zurich Consensus Statement on Concussion in Sport: "The cornerstone of concussion management is physical and cognitive rest until the acute symptoms resolve and then a graded program of exertion prior to medical clearance and return to play."

The consensus statement goes on to recommend a sample graded program of exertion otherwise known as a

"return to play protocol" as outlined in the table below. With the stepwise progression shown in the table below, the athlete should proceed to the next level only if he or she has NO symptoms at the current level. Generally each step should take 24 hours. Therefore, as long as an athlete remains symptom free he or she would take approximately 1 week to proceed through the protocol. If any post-concussion symptoms occur during the protocol the athlete should drop back to the level where there were no symptoms and discuss the protocol with their physician.

The next time you hear the words "he only got his bell rung," think of the translation: "he only suffered a traumatic brain injury which has caused a disturbance in the way his brain functions" – sounds a little different that way, doesn't it? ❖

Editor's note: Jeff Manning, MD, specializes in sports medicine and is the medical director of Affinity Sports Medicine, an affiliate of Kent Hospital, in East Greenwich. He is also a faculty member with the departments of Family Medicine at Brown University and the University of Massachusetts. In addition, Dr. Manning sits on the Sports Medicine Advisory Committee of the Rhode Island Interscholastic League.

Graduated Return to Play Protocol		
Rehabilitation Stage	Functional Exercise at that Stage of Rehabilitation	Objective of Each Stage
1. No Activity	Physical and cognitive rest	Recovery
2. Light Aerobic Exercise	Walking or cycling sub-maximal effort	Increase heart rate
3. Sport Specific Exercise	Running drills (field sports) or skating drills (ice hockey); no contact drills	Add movement
4. Non-contact Training Drills	Progression to more complex training drills (passing drills in football); may start progressive resistance training	Exercise and coordination
5. Full Contact Practice	Following medical clearance, participate in normal training activities	Restore confidence and assess functional skills
6. Return to play	Normal game play	

The Meaning of 'Integrity' in the Health Professions

MICHAEL FINE, MD

DIRECTOR, RHODE ISLAND DEPARTMENT OF HEALTH

GUEST EDITOR



This issue of *The Rhode Island Medical Journal* calls out a conflict in our concept of the integrity of health professions. The typical construction of integrity of health professionals – *Primum non nocere* (first, do no harm – an expression of the ethical precept of non-maleficence) – dates from the pre-scientific age, before the as-

sociation of science, health and public health was understood. *Primum non nocere* was likely the mid-nineteenth century Latinization of the Greek promise, ἐπι δηλήσει δὲ καὶ ἀδικίῃ εἶρξεν (to abstain from doing harm). Set in the context of the Hippocratic Oath, that promise helped professionals and the public understand that there were activities that were carried on for the profit of the professional but which might pose risk to patients, and created the first professional obligation to put the good of patients and public health above self interest. In the pre-scientific age, before well-designed double-blinded clinical trials (that incorporate appropriate endpoints and statistical power), much of what professionals did was as likely to be harmful as it was beneficial, and only the ethical professional, who had years of experience, could tell the difference. The location of the principal of non-maleficence in an oath, overseen, at least theoretically, by a higher power, created a sacred space around health professionalism, and made it clear that health professionalism stood apart from the activities of the marketplace. The marketplace exists for the profit of individuals. Health professionalism, the Oath seemed to say, exists for the common good, even though the Oath was created when there was no way to establish what that good represented.

But since the beginning of *scientific* medicine and *scientific* public health, *beneficence*, another ethical principle, has been understood to be important to the notion of integrity in health professionalism, and to be part of the meaning of medicine as a profession itself. Beneficence, or un-self-interested advocacy, suggests that health professionals have an ethical obligation to effect affirmative good, instead of just refraining from doing measurable harm, and



This image of the Hippocratic Oath was used by the 3rd General Assembly of the World Medical Association in 1949 in London, when it adopted the international code of medical ethics.

is a construct that has become meaningful only during the scientific age of medicine and public health, an age in which we have tools for measuring the personal and public health impact of what we do. In order for the health professions to be beneficent, we need to be able to show how our activities create measurable benefits to individuals and the society itself. The principle of beneficence, then, requires a science

that is evidence-based, that chooses meaningful endpoints, that include a population-based analysis and measures and reports the cost benefit of our activities, since society has a responsibility to weigh the benefits of the service we provide against the cost of other services and activities that it might consider in the public interest. Thus, accountability and transparency, as well as fidelity (truth telling about risks and data) and advocacy, have become part and parcel of the integrity of health professionalism, as the power of scientific medicine has evolved. Beneficence also means that over-treatment, the self-interested misuse of data, and the use of advertising to purvey false or misleading data, has become unethical on its face. In addition, the affirmative obligation for advocacy, for health professionals to come into the public arena and explain our science and to advocate for its widespread use in making public choices and changing behaviors, has become part of the ethical obligation of health professionals (again, as the evolution of scientific medicine has changed our ethical obligations, and changed the meaning of medicine as a profession itself).

In this special edition of *The Rhode Island Medical Journal*, six important contributions help us understand the difference between non-maleficence and beneficence in the practice of today's health professionals. **LORI KEOUGH, PhD, MEd, FNP-BC**, lays out the ethical responsibility of health professionals to be immunized against common infectious diseases, and sketches the logic behind the influenza vaccination mandate for health professionals who practice in health care institutions. **JEFFERY BORKAN, MD, PhD**, addresses the affirmative need for primary care health professionals to

practice in teams, in order to achieve best patient and population health outcomes. **ROSA BAIER, MPH; LORI KEOUGH, PhD, MEd, FNP-BC**; and **JAMES McDONALD, MD, MPH**, look at transitions of care as an area of professional responsibility, but one which sometimes has been abandoned by the health professional community, leaving the US to become a place where 20 percent of our frail elderly are readmitted to the hospital with 30 days of hospitalization, surely an example of a glaring health professional failure. James McDonald, MD, MPH correctly construes appropriate prescribing of opiates as an affirmative professional responsibility, where the lack of health professionals' understanding of the full import of the need both to do good and to do no harm has led to an epidemic of prescription drug overdose deaths in the US and in Rhode Island. **CATHERINE CORDY, RPh**, and **PATRICK KELLY, RPh**, explain the functioning of the Rhode Island Prescription Monitoring Program, a new tool that helps health professionals to do good (as they do no harm) when it comes to opiate prescribing, a tool whose use is imperative before opiates are prescribed. And finally, **JAMES McDONALD, MD**, explicates best practices around opiate prescribing, so that health professionals can use this powerful class of medication in the interest of patients, without incurring huge public health risk.

We hope this issue of *The Rhode Island Medical Journal* will help all health professionals understand how the meaning of integrity in the health professions has changed, and how science allows us to go beyond "do no harm" and move into the realm of helping patients, and all Rhode Islanders, live better lives. ❖

Failure to Become Immunized When Caring for Patients: An Ethical and Professional Obligation

LORI KEOUGH, PhD, MEd, FNP-BC

In late September 2012, changes to the Rules and Regulations Pertaining to Immunization, Testing, and Health Screening for Health Care Workers (R23-17-HCW) were proposed to reflect the most current (2011) recommendations of the Center for Disease Control's (CDC) Advisory Committee on Immunization Practices (ACIP). One of the proposed changes drew many people to a public hearing: the requirement that all Health Care Workers (HCW) either receive seasonal influenza vaccine or wear a mask when providing face-to-face patient care during "period(s) in which flu is widespread." A brief review of the rationale for mandating seasonal influenza vaccination among HCWs follows, along with ethical implications. The risks and benefits of seasonal influenza vaccination are reviewed as well.

Who Must Be Vaccinated And Why?

HCWs make valuable contributions to our health care system and are essential in meeting patients' health care needs. HCWs, broadly defined, are those individuals who are employed or volunteer in a health care facility and have direct contact with patients, including, but not limited to, physicians, physician assistants, nurses, nursing assistants, pharmacists, clinicians and therapists from all disciplines (for a complete definition see RI Regulations: R23-17-HCW, 2012). When individuals become licensed HCWs, they accept the responsibility to uphold professional standards of care and practice, defined by a specific code of ethics. Regardless of professional discipline, all HCWs are obligated to adhere to the general ethical principles of *non-maleficence*, the duty "to do no harm," and *beneficence*, to behave in way that promotes patients' best interests. These principles imply an obligation not to expose patients to vaccine-preventable illnesses which HCWs may themselves contract and transmit to patients, in short, to make provisions (e.g., vaccination of HCWs) to avoid doing harm to patients and to enable HCWs to continue giving care to patients (by themselves avoiding illness).

The notion that HCWs may spread pathogens dates back to Ignaz Semmelweis' 19th-century data on the infection of patients whose providers had not washed their hands. Since that time, HCWs have been enjoined to minimize the risk of disease transmission to patients (and vice versa) by washing



hands before and after patient encounters, by allowing themselves to be screened for communicable diseases such as tuberculosis, and by allowing themselves to be vaccinated against vaccine-preventable communicable diseases such as rubella. (See, for example, relevant Rhode Island regulations: <http://www.health.ri.gov/immunization/for/healthcareworkers/index.php>).

Why Vaccinate?

Seasonal influenza is a significant public health issue. In the United States alone, it causes more than 200,000 hospitalizations and 36,000 deaths annually.¹

Fortunately, seasonal influenza vaccines have proven to be effective in preventing illness onset in a majority of exposed-but-vaccinated people, with the exception of those who are immune-compromised or immune-suppressed. Several random control trials have demonstrated significant reductions in influenza-related mortality – as high as 44% among nursing home residents and hospital inpatients – when HCWs are vaccinated.²⁻⁹ Similarly, mathematical models of seasonal influenza vaccination of HCWs in nursing homes suggest a 60% prevention of influenza virus infections among vulnerable patients.¹⁰

Reasons to vaccinate *both* patients *and* HCWs against influenza are well documented. HCW vaccination *indirectly* protects high-risk patient populations for which *direct* immunization does not suffice to reduce risk, e.g., infants, elders, and patients who are immune-compromised or immune-suppressed.⁶ As well, vaccination reduces the risk that HCWs will become infected, thus contributing to societal immunity ("herd immunity"), and reducing workforce attrition during influenza outbreaks.^{10,11}

In fact, many scientific and government organizations have recognized the importance of HCW seasonal influenza vaccination, and have supported efforts to increase the proportion of HCWs thus vaccinated. Since July 2007, for example, the Joint Commission has required some hospitals and long-term care centers to establish onsite influenza vaccination programs, including education and the evaluation of coverage. In this vein, the Centers for Medicaid and Medicare Services is likely to require hospitals (beginning in 2013) to report influenza vaccination coverage as part of inpatient quality reporting. Furthermore, many professional

societies have endorsed influenza vaccination requirements for HCWs: the Infectious Diseases Society of America, the National Foundation for Infectious Diseases, the Society for Healthcare Epidemiology of America, the Association for Professionals in Infection Control, and the American College of Physicians. (See: <http://www.immunize.org/honor-roll/>)

Table 1. Benefits and risks associated with administration of influenza vaccine

Costs	Benefits
Vaccine Side Effects: Soreness at the injection site, low-grade fever, aches, Guillian Barre Syndrome, allergic reaction	Patient Safety and Public Health: • Decreased morbidity and mortality • Increased safety and quality of care
Economics: Upfront costs for employers offering vaccines at no cost to employees	Economics: Savings in influenza related health care expenditures and time missed from work due to illness

The Historical and Scientific Aspects of Vaccine Controversy

The controversy surrounding mandatory vaccination, in general, dates back almost a century (Stern, 1927), and perhaps even further. The controversy incorporates issues of individual rights *as well as* ethical obligations to do no harm and to promote the best interests of patients, and the costs and benefits of seasonal influenza vaccination for various groups (Table 1).

Safety Issues

Safety concerns (vaccine side effects) likely represent the most commonly cited reason to not be vaccinated. Although seasonal influenza vaccine is both safe and effective *most* of the time, adverse reactions can and do occur. These events are closely monitored and researched by the CDC's Vaccine Adverse Events Reporting System (VAERS). In 1990, VAERS was established as a national passive reporting system, accepting reports from the public on adverse events associated with vaccines licensed in the United States. According to VAERS (<http://www.cdc.gov/flu/professionals/acip/adverse-tiv.htm>), serious adverse events are rare, often 1 or 2 per million, and in clinical trials, serious adverse events associated with the use of seasonal influenza vaccine were reported to occur in less than 1% of all vaccinations.^{12,13} Similarly, although it is true that an individual can be vaccinated and still contract the flu, being vaccinated significantly decreases the chance of disease transmission.²⁻⁹

Why Mandate?

Significant precedents for mandatory vaccination are well established in the United States.¹⁴ In the early 20th century, for example, the country was ravaged by communicable diseases that have been virtually eliminated since that time because of mandatory vaccination (Table 2).¹⁴

Specific to seasonal influenza vaccines, the CDC has *recommended* that health care workers get yearly influenza vaccine

since 1981, with a national goal of 90% of HCWs vaccinated (CDC, 2012). As noted, some health care organizations *offer* no cost vaccines to their workforce and others *assure* high vaccination rates by *mandating* vaccination. Nonetheless, during the 2009-2010 influenza season, an estimated 61.9% of HCWs were vaccinated, and during the 2010-2011 influenza season – the season *after* the 2009 H1N1 pandemic – an estimated 63.5% of HCWs were vaccinated. In comparison, 98.1% of HCWs whose employers *assured* vaccination were vaccinated in the 2010-2011 influenza season.¹⁵⁻¹⁷

Given the history of vaccine uptake percentages in HCWs whose employers offer optional influenza vaccination, it is unlikely that voluntary programs will achieve vaccination rates sufficient to protect the health and safety of patients. Therefore, in line with licensed health professionals' obligation "to do no harm" (non-maleficence), on the one hand, and to promote health (beneficence), on the other, mandating seasonal influenza vaccination is essential.

We should note that In the United States, HCWs are not the only group required to be vaccinated against communicable diseases. Children, for example, are required to be vaccinated prior to enrollment in school, camp or child care settings – a requirement that dates back to the 1850s in Massachusetts for smallpox vaccination.¹⁵⁻¹⁷

Why Regulate?

In the past, seasonal influenza vaccination has been left in the hands of individual health care organizations, under the aegis of quality and safety standards. Some *offered* vaccination; others *required* it. Some *offered vaccine at no cost* to HCWs, while others *passed on the cost* to HCWs. In a situation such as this, rules and regulations, under the aegis of strong laws, are a good way to achieve uniformity.

Newly promulgated (December 2012) regulations in Rhode Island do not require HCWs to obtain annual vaccinations for seasonal influenza, but rather, require HCWs to protect their patients against influenza transmission one way or another: *either* by being vaccinated, *or* by wearing a mask for direct patient contact during periods in which flu is widespread. This approach places responsibility on the individual HCW, who, not withstanding possible medical exemptions, is accountable for his/her choice to obtain, or not obtain, the influenza vaccine.

Ever since society began understanding the mechanisms of communicable disease transmission, HCWs have had an

Table 2. Early 20th Century Reports of Communicable Disease Cases and Deaths in the United States¹⁴

Year of Reporting	Communicable Disease	Number of Cases	Number of Deaths
1900	Smallpox	21,064	894
1920	Measles	469,924	7,575
1920	Diphtheria	147,991	13,170
1922	Pertussis	107,473	5,099

ethical obligation to protect themselves and their patients from exposure. Now, the obligation to protect patients from seasonal influenza has been enshrined in Rhode Island law and its accompanying rules and regulations. This development will work to protect patients, enhance the public's trust, and protect a much-needed healthcare workforce.

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Training the Primary Healthcare Team for Transformed Practices

Healthcare in America is being transformed, but is the healthcare workforce prepared?

JEFFREY BORKAN, MD, PhD

ABSTRACT

Sweeping changes are taking place in American healthcare, with new practice models rapidly emerging such as Patient Centered Medical Homes and Accountable Care Organizations. Payment mechanisms, so long based on fee for service, are being augmented and in some cases supplanted by “per member per month” and “pay for performance” approaches, as risk contracts become more common – and normative. Is the health workforce ready for these changes? What professional skills and competencies are needed for “transformed practices?” This paper addresses these questions, examining the current state of training for the health professions today, exploring the development of skills, attitudes, and knowledge across the educational continuum, and suggesting future directions for professional development.

KEYWORDS: Patient Centered Medical Homes (PCMHs), Accountable Care Organizations (ACOs), healthcare transformation

INTRODUCTION

Sweeping changes are occurring in American healthcare, accelerated by the implementation of the Accountable Care Act. These range from new practice models such as Patient Centered Medical Homes (PCMHs) and Accountable Care Organizations (ACOs), to innovative payment mechanisms. New norms are being created as fee for service is being augmented and in some cases supplanted by “per member per month” and “pay for performance” approaches and as risk contracts become prevalent. The further implementation of the Affordable Care Act will ensure that more patients and families have health insurance coverage. This likely will bring a greater focus on primary care and prevention, as well as a vastly increased demand for comprehensive, whole-person, first-contact care, provided by generalists such as family physicians, primary care inter-
nists, and pediatricians.

However, achieving optimal health and well-being for patients, their families, and communities may demand more than what an individual physician can provide. Institute of Medicine reports, including *To Err is Human—Building a Safer Health Care System*,¹ *Crossing the Quality Chasm*,² and *Integrating Primary Care and Public Health*,³ have underscored the critical need for developing new approaches to patient care that focus on patient safety, primary care, and population health in order to deliver high-quality care.

New emerging models, which promise to transform practice with improved quality, outcomes, and patient experience at lower cost, such as PCMH and ACO, will require that primary care doctors act in teams with a range of other providers in caring for individuals, communities and populations. To be successful, these teams – composed of physicians, nurses, behavioral health specialists, pharmacists, medical assistants, and others – will need to know how to work together in an integrated, coordinated, seamless fashion. In addition, tomorrow’s healthcare teams must be as facile in matters such as population health, information technology, and care coordination as they are in measuring blood pressure, diagnosing ailments, or writing prescriptions.

The goal of this article is to examine the current state of healthcare workforce training for “transformed practices” in the new healthcare environment, to suggest key skills and competencies that are required for success, and to stimulate both discussion and action. The focus of analysis is the preparation of members of healthcare teams for work primarily in *Patient Centered Medical Homes* and secondarily in *Accountable Care Organizations*, but the skills thus examined are generalizable to other integrated, coordinated settings. (Table 1)

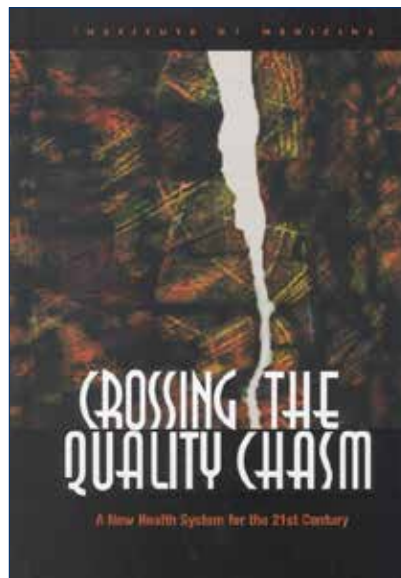


Table 1. Characteristics of Patient Centered Medical Homes and Accountable Care Organizations

Patient Centered Medical Homes ¹	Accountable Care Organizations ²
<ul style="list-style-type: none"> • Personal physician • Physician directed medical practice • Whole person orientation • Care is coordinated and/or integrated • Quality and Safety • Enhanced access • Payment reform 	<ul style="list-style-type: none"> • Group of physicians, other healthcare professionals, hospitals and other healthcare providers that accept a shared responsibility to deliver a broad set of medical services to a defined set of patients across the age spectrum and who are held accountable for the quality and cost of care provided through alignment of incentives. • Primary care should be the foundation of any ACO • The goals of an ACO structure are to improve the quality and efficiency of care provided and to demonstrate increased value from health care expenditures.

Table 2. Domains of Skills and Competencies Required for Transformed Practices such as PCMH and ACOs^{5,6}

Essential Skills
<ul style="list-style-type: none"> • Patient Centered / Whole Person Care • System-Based Care • Practice-Based Learning • Communication & Professionalism • Teamwork & Interprofessional Training • Chronic Disease, Practice & Population Management • Coordination & Transitions of Care • Quality, Performance, & Practice Improvement • Information Technology • Integrated Behavioral Health
Additional Skills
<ul style="list-style-type: none"> • Facilitative Leadership vs. Authoritarian Leadership • Aligned Vision for Clinical Care, Operations, and Financial Function • Healthy Relationships Characterized by Rich Communication, Shared Trust, and Regular, Protected Time to Reflect and Learn

What are the skills and competencies needed for transformed practices?

Multiple new essential skills and competencies will be needed for members of the healthcare team to function effectively in transformed practices. *Essential skills and competencies* are defined as skills and competencies which enable people to perform tasks required by their jobs, as well as to adapt to changing job requirements.

Table 2 lists important domains of essential skills and competencies.^{1,2} Though many of these elements are present in the curriculum of a broad range of medical schools, students often have limited exposure to them. For example, though inter-professional teamwork is often critical in the professional lives of physicians, irrespective of discipline, Alpert Medical School of Brown University devotes only two half-days to the topic through a recently established program. Furthermore, systematic review of training in these skills and competencies is lacking in the main.

Where in the educational continuum can skills, attitudes, and knowledge be obtained?

One of the key questions in preparing the healthcare workforce for transformed practices is how to reach them for training. No one has as yet designed a single, unified system that can improve skills and competencies efficiently, effectively, and generally, i.e., across *all* types of healthcare professionals, irrespective of level. As transformed practices become more widespread, new skills and competencies will be required, not only of students in the various health professional schools, but also of persons in the vast professional workforce currently deployed. Ideally, the knowledge, skills and attitudes required for such work would be included at multiple points in “educational spirals” – with greater depth and complexity at each level of training. Professional schools would offer theoretical and experiential learning in key skills and competencies right at the start of training, and continue the formation process through graduate and post-graduate training, residencies, and fellowships. Lifelong learning would be encouraged with further opportunities for continuing education/professional development, incentivized with regulatory certification and recertification. As well, healthcare professionals would learn about transformed practices *through their own experiences as patients* in such settings.

What is the current state of training for specific professions?

Physician Assistants (PAs) and Nurse Practitioners (NPs)
Many essential skills and competencies required for transformed practices are intrinsic to PAs’ and NPs’ training and roles, including a focus on team-based care, care coordination, and integration of the various elements of care. Currently, major differences exist in the variously defined roles of PAs and NPs in the PCMH, varying from being considered a part of the healthcare team (PCPCC definitions)

to capacity for independent practice in states where this is allowed (NCQA standards). Nonetheless, "The American Academy of Physicians Assistants (AAPA) supports the medical home concept as a means to expand access and improve the quality of patient care." [Adopted 2008 and amended 2010], and as a result, continuing education sessions are offered at PA educational conferences regarding the PCMH, and recently, an online community of PAs involved with PCMHs has been initiated.

Nursing

As with PAs and NPs, many essential skills required for transformed practices are intrinsic to training and role – from team nurse to nurse care manager. Traditional nursing skills have been put to the test by the demands of the new roles in transformed practices, for example, the role of the "nurse care manager." Although the majority of nurses in such new roles have little or no additional training, they have expanded access to continuing education through collaborations and online courses. One of first of these opportunities was offered by John Hopkins and is composed of online learning modules. The Hopkins' "Guided Care" program is designed to produce a "specially educated registered nurse" who "plays a critical and central role in ensuring that patients receive high-quality and coordinated care."³ Another interesting development has been the establishment of new national standards for master's level programs in nursing that incorporate criteria for Quality Improvement and Safety, Translating and Integrating Scholarship into Practice, Informatics and Healthcare Technologies, Health Policy and Advocacy, Interprofessional Collaboration for Improving Outcomes, and Clinical Prevention and Population Health.

Medical Assistants, Medical Office Assistants, Coaches, and Patient Navigators

Few training programs provide medical assistants, medical office assistants, coaches, or patient navigators with the skills and competencies needed for transformed practices. Individuals in these roles who work in transformed practices such as PCMHs must get upgraded mostly through on-the-job training. However, some collaborative and working groups help to facilitate training for these crucial workers, and a few programs, such as one offered by the University of Utah, are designed specifically for new models of practice.

Pharmacists

Pharmacists, perhaps more than any other professional group, have engaged in training in the skills and competencies needed to serve transformed practices through innovative educational programs at select schools of pharmacy in Ohio, New Jersey, Minnesota, Washington State, and Connecticut, among others. Interdisciplinary team training in schools of pharmacy is common. In addition, advanced continuing education is frequently offered by professional groups with efforts to encourage expanded roles to include

provider/medical service functions. A concerted effort has been made to enhance the patient-pharmacist-physician collaborative relationship with the pharmacist as a physician extender, using evidence-based practice in areas such as chronic disease management.

Behavioral Health

Behavioral health professionals, whether psychologists, psychiatrists, social workers, or other therapists, have had particularly good access to training for collaborative practice and interprofessional teams. Given the high incidence of psychosocial complaints and the connection of health and behavior, integrated behavioral health services is considered to be one of the essential requirements of any meaningful primary care initiative. The American Psychological Association provides multiple opportunities to train the psychological services workforce. Other groups, such as Collaborative Family Healthcare and the Society of Teachers in Family Medicine, provide relevant annual conferences and training opportunities, as well. Although formal specialty in primary care psychology has yet to emerge, increasing numbers of formal training experiences, including postdoctoral fellowships, rotations on internships, and practicum experiences at the doctoral level have appeared. Psychology residency training in "primary care psychology" is available at a few locations (including the Department of Family Medicine at Brown University).

The field of social work has given much thought to the role of social workers in the patient centered medical home. There are natural parallels in traditional social work skills and competencies, such as comprehensive case management for the whole person – medically, socially, psychologically, functionally and economically – within the context of his/her support system. Social workers are trained to assess, intervene, and consult at multiple levels – individual, family, community – and to provide care coordination and patient navigation. Social workers not only provide essential support to patients and patients' families, but also tend to know *what* services are available in a given community and *how* to access them – capabilities that are critical to transformed practices.^{4,5}

Medical and Osteopathic Students

Medical and osteopathic students around the US are beginning to get exposed to PCMH clinical sites and curricular modules at a number of schools, including the Alpert Medical School of Brown University. A growing number of PCMH-relevant clerkship programs are in place and scores in the planning phase. One medical school, the University of Oklahoma at Tulsa, may represent a "best practice." In 2009, the OU President announced, "...new models of care such as patient centered medical home... must be taught to physicians in training if we are to create a high quality and more efficient health care system in the US." OU has proceeded to provide such training in their medical schools, with others

planning to follow. The proposed *Primary Care-Population Health Program* at the Alpert Medical School will expand the OU model even further. Twenty-four students per year will receive a unique education that integrates basic science with medical science and population health.

Residency Education & the PCMH

Individual and networked pediatrics, family medicine, and internal medicine residency programs around the country have converted their training sites to patient centered medical homes, with improvements in the curriculum to provide necessary skills. A 2012 survey of Departments of Family Medicine reveals that nearly 90% are actively involved in transforming the care model in at least one of their residency program teaching clinics to a PCMH model.⁶ Their approaches vary widely, however, from focusing on special populations for the PCMH, such as the homeless (e.g., Jefferson Medical), to creating a PCMH with single third party incentives (e.g., Michigan Blue Cross Blue Shield), to creating a PCMH with multiple third party incentives (Brown-CSI-RI), to whole-system reform with incentives (Cleveland Clinic, Kaiser, and Group Health). A few areas have organized regional collaboratives to transform primary care residencies into medical homes. The best known of these initiatives are Washington State's Medical Home Collaborative (11 residencies), the "I3 Collaborative" in South Carolina, North Carolina, and Virginia (23 programs: Family Medicine, Internal Medicine, Pediatrics), and a Colorado initiative (7 Family Medicine programs).

Fellowship Programs

At the present few fellowship programs prepare recent residency grads for PCMH and other transformed practice and leadership. Four exceptions include:

- "Transforming Primary Care" Fellowship in PCMH at UCLA-Harbor
- Individual fellowship with Dr. Perry Dickinson at U of Colorado, Denver
- Einstein School of Medicine Fellowship (includes PCMH team building)
- Healthcare Hot-Spotting and Super-Utilizer Fellowship, Crozer Keystone Health System, Department of Family Medicine, Camden Coalition of Healthcare Providers, Cooper University Hospital

Suggestions for the Future

We will have to do more if we expect to prepare the healthcare workforce to meet the needs of emerging transformed practice models. Healthcare professional training programs in all fields need to be involved and need to work together. Although we appear to be in a rapid-expansion phase in education, training, and consultation, we need additional demonstration and full-scale projects at the local, state, and national levels. In addition, we will likely need new educational models that reach learners and veteran staff where they live and work. These will have to be tailored to specific professional roles and settings. New efforts to collect, disseminate, and evaluate curricula, teaching methods, and educational mediums should be encouraged.

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Transitions of Care: Professional Expectations

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ABSTRACT

Successful cross-setting care transitions require timely, accurate and sufficient communication of clinical information between healthcare providers, so that downstream providers can immediately assume responsibility for patient care. However, despite our desire to provide the highest quality care to our patients, much variability exists in the frequency and effectiveness of communication during transitions. This article describes care transitions using case studies and a review of current policy, and then proposes professional standards. To define professional standards for care transitions, the authors draw upon their combined experience with licensure, regulation and quality improvement. They also present information about the Department of Health's Continuity of Care Form and Healthcentric Advisors' Best Practice Measures for Safe Transitions. Both tools establish core expectations for communication that can improve patients' experiences and health outcomes, as well as facilitate cross-setting collaboration, relationship building, and referral patterns.

KEYWORDS: Care transitions, communication, professional standards, patient safety, cross-setting

TRANSITIONS IN CARE

A care transition occurs when a patient moves from one healthcare provider or setting to another.^{1,2} Successful transitions require timely, accurate and sufficient communication of clinical information between healthcare providers, so that downstream providers can immediately assume responsibility for patient care.^{3,4} Well-executed transitions can improve outcomes and patient satisfaction, decrease costs and ensure that patients understand how, when and where to seek help.^{4,5,6} But how do providers know what is their responsibility regarding care transitions? And how can we build a healthcare system in Rhode Island that ensures that providers have the knowledge and means to implement such expectations? Although both the American Nurses Association (ANA) and national medical associations⁷ have endorsed a care transitions consensus policy statement that calls for clear communication, timely information transfer and professional accountability (see Table 1),⁸ a great deal of

variability exists among providers (by role and setting) in the frequency and effectiveness of communication during transitions – despite our desire to provide the highest quality care to our patients.

Case Studies

Case 1: A 39-year-old woman presents to an outpatient clinic complaining of headache, fever and neck pain. The provider conducts an exam and assessment. The nurse takes vitals, administers medications and obtains labs. The provider tells the patient to go to the nearest emergency department (ED). He offers directions to the emergency department; the patient knows how to get there and travels there by personal vehicle. In the ED after triage, registration and sitting in the waiting room for two hours, the patient has a generalized tonic-clonic seizure. The patient is evaluated by ED staff immediately and, after appropriate diagnostic evaluation, determined to have meningitis.

Case 2: An 82-year-old male had cardiac bypass surgery last year and now admitted for an aorta-femoral bypass. The surgery is complicated and unexpected complications, pneumonia, wound infection and atrial fibrillation lead to a prolonged hospital stay. Upon discharge late Friday night, he is given a list of his medications. Although mentally quite sharp, he is confused regarding the dosage of the beta blocker: the cardiologist in the hospital told him to take two tablets twice a day and the prescription says one tablet once a day. He is confused about the dose of the antibiotic as well that was written by the hospital physician. He leaves messages for the cardiologist, the hospital physician and his primary care provider seeking clarity. Not knowing what to do, he does not take any medication. Three days later, he is readmitted for shortness of breath.

State of the Science:

Evidence to Support the Need for Transitions in Care

In our increasingly fragmented healthcare system, providers often do not have the information we need to ensure seamless care delivery within or between settings. For patients discharged from the hospital, for example, this can result in medication errors,⁹ incomplete transfer of discharge information to downstream providers (including community

Table 1. Transitions of Care Consensus Policy Statement

National Recommendation ¹	Current Status Rhode Island	Future State
1. Accountability	Based on individual organizations' policies and procedures.	Well established professional standards for relevant disciplines
2. Communication: clear and direct communication of treatment plans and follow-up expectations	Communication standards (content and timing) are set forth in Healthcentric Advisors' Safe Transitions project's setting-specific care transitions best practices (available upon request).	Communication occurs in real time, is multidirectional and is interoperable with various interfaces.
3. Timely feedback and feed forward of information		
4. Involvement of the patient and family member, unless inappropriate, in all steps	Based on individual organizations' policies and procedures	Patients have up to date personal health record and achieved optimal level of health literacy.
5. Respecting the hub of coordination of care	Fragmentation across settings of care Pockets of successful coordination of care	Patients are routinely part of a PCMH where care is transparently coordinated. Infrastructure is supported by up to date technology.
6. All patients and their family/caregivers should have and be able to identify who is their medical home or coordinating clinician (i.e., practice or practitioner).	Recent legislation requires patients to self-identify their primary care physician, although requirements to print the PCP's name on insurance card were eliminated.	PCMH is fully integrated into a health care system.
7. At every point along the transition the patient and/or their family/caregivers need to know who is responsible for their care at that point and who to contact and how.	Healthcentric Advisors' care transitions best practices incorporate the four patient activation concepts pioneered by Dr. Eric Coleman, ² including ensuring that patients understand their conditions, the "red flags" that should prompt outreach and whom they should call for help.	Patients/Caregivers optimize secure media for multidirectional relevant communication.
8. National standards should be established for transitions in care and should be adopted and implemented at the national and community level through public health institutions, national accreditation bodies, medical societies, medical institutions etc., in order to improve patient outcomes and patient safety.	National standards do not yet exist, but Healthcentric Advisors' care transitions best practices establish local standards. The Office of the Health Insurance Commissioner has directed local health plans to incorporate the hospital best practices into contracting.	Well established and accepted national standards which incorporate professional expectations, appropriate reimbursement and technology
9. For monitoring and improving transitions, standardized metrics related to these standards should be used in order to lead to continuous quality improvement and accountability.	Healthcentric Advisors' care transitions best practices include metrics that are driving the quality improvement activities underway by the Safe Transitions project's five community coalitions. The hospital and physician best practices are also incorporated into some providers' contracts with local health plans.	Quality metrics are used continuously and tied to health outcomes.

1 Snow V, Beck D, Budnitz T, et al. Transitions of Care Consensus Policy Statement American College of Physicians-Society of General Internal Medicine-Society of Hospital Medicine-American Geriatrics Society-American College of Emergency Physicians-Society of Academic Emergency Medicine. Gen Intern Med 2009 August;24(8):971-976.

2 Coleman EA, Parry C, Chalmers S, et al. The care transitions intervention: results of a randomized controlled trial. Arch Intern Med 2006 Sept 25;166(17):1822-8.

physicians)^{10,11} and increased healthcare utilization,¹² all of which reduces the likelihood of optimal patient outcomes. In 2009, the Commonwealth Fund's State Scorecard on Health System Performance ranked Rhode Island 49th out of 51 for ambulatory care-sensitive hospital admission among Medicare beneficiaries¹³ and Rhode Island Department of Health data demonstrate approximately one in five hospitalized adults are readmitted to the same hospital within 30 days of discharge.¹⁴ Both measures are considered somewhat preventable with high-quality care, and are often used as proxy measures for care transition outcomes.

Numerous efforts are underway in Rhode Island to improve care transitions, including the Rhode Island Department of Health's long-standing Continuity of Care Form,¹⁵ required for facility-to-facility transitions, and Healthcentric Advisors' Medicare-funded Safe Transitions project,¹⁶ which includes multi-stakeholder collaboration to implement systems change that improves care coordination and reduces unplanned care and costs.¹⁷ Since the project began in 2008, readmissions have decreased from 31.7 to 25.1 per 1,000 Medicare beneficiaries.¹⁸ This translates to 802 fewer Medicare patients readmitted to the hospital between June and December 2011 and \$8.4 million in cost avoidance to Medicare during just that six-month period. These successes illustrate Rhode Island's leadership to date and the potential for collaboration to further improve the quality of care we provide.

To define professional standards for care transitions, the authors drew on their combined experience with licensure, regulation and quality improvement. Our methods included reviewing the care transitions literature and consensus statements, case studies from disciplinary issues, and qualitative input collected throughout the Safe Transitions project and during a November 2012 group discussion with the project's community advisory board. The board includes inpatient and outpatient physicians and representatives from commercial health plans, Medicaid, and the home health, hospice, hospital, nursing home and physician office settings. We also drew from Healthcentric Advisors' setting-specific care transitions best practices, developed via stakeholder consensus between 2009 and 2012.* The best practices (available upon request) are based on Rhode Island providers' preferences and the medical evidence, where it exists, and establish expectations and metrics for clinician-to-clinician communication and patient activation.

The appropriate transition of care of a patient is not an obscure vexing patient safety issue. Although at times complex and involving multiple entities, this patient safety issue can be solved with purposeful coordination and appropriate infrastructure. Facilities and institutions can create, maintain and refine the infrastructure needed to facilitate appropriate transitions. Ultimately, it is the professionals involved, whether nurses or practitioners who are accountable for the coordination and safe transition of the patient.

Minimum Expectations and Roles of Clinicians

Clinicians practice in different settings; e.g., acute, home health, nursing homes and urgent care settings. Further, patients come into care under a variety of circumstances planned or unplanned. Navigating the health care system for most patients has challenges and is not intuitive.¹⁹ At times, patients expect and need the provider's expertise regarding the next setting of care. Initiating a transition of care is usually a medical decision and at times, urgent or emergent (unplanned).

Successful transition toward a different setting of care is affected by several predictable variables. Practitioner consideration of the acuity and complexity of the patient, as well as nature of setting (scheduled or unplanned) are just some of the essential questions that need to be addressed. The transition should be viewed as a complex act and requires thoughtful action and direction for its success.

Common Transitions of care include:

- Outpatient to higher level of care (emergency department visit, observation stay or inpatient visit)
- Inpatient to higher level of care (ICU)
- Inpatient to residential type setting (assisted living, skilled nursing or long-term care)
- Inpatient to outpatient (return to specialist or primary care office, with or without home health services)

Although the actual transition might look different for each setting, minimum expectations are common to all transitions. This minimum expectations includes:

- The medical diagnosis
- Updated medication list
- Results of tests
- Pending tests
- Name of the treating clinician
- Phone number to call if more information is needed
- Follow up or Discharge instructions
- Professional to professional communication at time of transition

The Role of Health Professionals

These minimum expectations lend themselves to essential content that can be incorporated into the care delivery process. Who communicates the essential components to ensure a seamless transition is not as important as that the essential components take place effectively. It is imperative that practitioners, organizations and related entities integrate this practice into their normal everyday practice.

The Table below illustrates one way of looking at this issue regarding roles and settings of care. Note that in some cases, redundancy is warranted (seeking a higher level of care) and in other cases redundancy is not needed (lower level of care).

Table 2. Professional Standards to Ensure Timely and Adequate Information Transfer

Best Practice	Provider referring a patient for unplanned care	Provider receiving a patient	Provider discharging a patient ¹	Regular provider, ² if aware of recent unplanned care ³	Professional Standards
Send summary clinical information when referring patients.	X		X		<ul style="list-style-type: none"> Should include the reason for referral, results of tests, pending tests, and the name and contact information of the referring clinician.
Respond to time-sensitive questions from next provider, as needed.	X		X		<ul style="list-style-type: none"> Should include immediate contact with staff (a clinician or clerical staff who can address the specific question) or a return call within one hour.
Notify primary care physician (PCP) about unplanned care, if not referred.		X			<ul style="list-style-type: none"> PCP: Any clinician identified by the patient as their regular doctor. For hospital visits, should occur at the beginning of the hospitalization. For ED and urgent care visits, can occur with the summary clinical information sent at discharge. Should include contact information for a clinician (physician, nurse practitioner or physician assistant) who cared for the patient or has access to the patient's medical record.
Perform medication reconciliation.		X	X	X	<ul style="list-style-type: none"> Excludes ED patients admitted to the hospital. Includes, at a minimum, identifying which medications the patient should stop, start or adjust after discharge. Should occur in every provider encounter.
For hospitalized patients, schedule outpatient follow-up appointment prior to discharge.			X		<ul style="list-style-type: none"> Should include the date, time, location and contact information for questions or to reschedule. Should incorporate patient feedback, e.g., when the patient can obtain transportation. If the patient has no known PCP, should assign the patient to a PCP and schedule a new patient appointment.
Provide patient with effective education.			X	X	<ul style="list-style-type: none"> Excludes ED patients admitted to the hospital. Should include the diagnosis, any medication changes and reason for change, condition-specific "red flags" that should prompt outreach (including a contact name), activity and other limitations, and needed follow up. "Effective" education: Should assess the patient's understanding of the information provided (e.g., teach back) and incorporate health literacy and cultural competence.
Provide patient with written instructions.			X		<ul style="list-style-type: none"> Excludes ED patients admitted to the hospital. Should include the information provided verbally as part of effective education (see above) as well as the name and phone number of the clinician (physician, nurse practitioner or physician assistant) who cared for the patient, if more information is needed after the visit.
Send summary clinical information to next provider.	X		X		<ul style="list-style-type: none"> Recipients should include the PCP and other home care or nursing home provider, if applicable. Should be sent within 24 hours. It should include the medical diagnosis, updated medication list, results of tests, pending tests, name of the treating clinician, phone number to call if more information is needed, discharge instructions, and recommended follow up.
Outreach to high-risk patients via phone.				X	<ul style="list-style-type: none"> High-risk patients: aged 80 years or older; with a diagnosis of cancer, chronic obstructive pulmonary disease, or congestive heart failure; with polypharmacy (≥8 medications); or with a hospitalization in the previous six months. Includes an outpatient clinician (physician, nurse practitioner, physician's assistant or nurse) phone call with the patient, family or caregiver to assess the patient's condition and adherence to recommended care and to reinforce follow-up.
Conduct follow-up appointments with patients discharged from the ED or hospital to the community.				X	<ul style="list-style-type: none"> For hospital visits, should be scheduled by the hospital prior to hospital discharge; if not, the physician office should outreach. Within 14 days of discharge from the ED or hospital, unless the timeframe is otherwise specified and documented in the medical record. Can be with a clinician (physician, nurse practitioner, physician's assistant or nurse) at the community physician's office or with a specialist, such as cardiologist, who cares for the patient in an outpatient setting.

¹ From any setting, including hospital, home health agency, nursing home or urgent care setting

² Regular provider: The primary care physician or any other clinician identified by the patient as their regular provider

³ Unplanned care: Emergency department, hospital or urgent care center utilization

Minimum Standards of Professional Conduct vs. Aspirational Standards of Professional Conduct

Arranging for a seamless transition of care may seem like a novel concept to some, unobtainable to others and long overdue to many. This important patient safety issue is essential to the responsible practice of medicine and nursing.

Currently the Boards are taking a proactive role and educating health professionals regarding transitions of care. It is anticipated that in time, challenges will be overcome and this will become a seamless part of the health care experience.

Ideally transitions of care will surpass the minimal data set and transitions will be multidisciplinary, multi-directional, concise and customized to the patient-transition experience.

There are existing tools for patients and practitioners regarding appropriate transitions²⁰ which include medication lists, checklists and validated evidence based risk assessment tools.

Challenges & Opportunities vs. Barriers and Facilitators?

There are several challenges that face healthcare providers in facilitating best practices in transitions of care and, by virtue, are often the same challenges providers face in meeting professional standards of transitions of care. It is our argument that the resources expended in achieving and maintaining optimal transitional care for patients will ultimately save resources beyond what is expended implementing them. Here are some of the common barriers to safe and quality care transitions and some workable solutions to facilitate transitions.

All healthcare providers are challenged by time, especially in an increasingly complicated health care environment. There is little or no financial reimbursement for providers to send or receive patients in an optimal fashion. Currently, transition care is largely subsumed in current reimbursement schedules for routine evaluation and management of patient conditions or as part of the overall hospital cost. Moreover, in many settings, there is no longer a single practitioner responsible for communication and follow-up of transition and coordination of care, blurring the roles and responsibilities of the multiple healthcare providers typically involved in care. However, transitions are an essential part of patient care and healthcare providers have a legal, ethical and moral obligation to utilize every opportunity to ensure patient transitions meet, at the least, the minimal standards for quality and safe patient care. Although there are systems barriers that impede successful patient transitions, there are pragmatic solutions that an individual provider can employ to ensure they uphold professional standards of transitioning care for their patients. It is understood that communication, verbal, written and electronic, is an essential attribute of professional practice and care transitions across the continuum. These are skills that are individual skills that can be enhanced. All healthcare providers are accountable for communication and ensuring that pertinent information is relayed

in a timely fashion when sending or receiving patients.

Collaboration and communication are essential attributes of transitions, but institution infrastructures often function in silos, making it problematic to delineate responsibilities between care providers and institutions. Even within affiliated institutions, vertical transitions are often not well executed.²¹ For example, hospital care providers may not be available after discharge, even when the primary care provider is employed at the same organization. This is problematic when a community provider is trying to clarify or understand a patient's post-discharge plan of care. Similarly, acute-care institutions struggle with poor medical histories and lack understanding of the patient's community plan of care. Further, the professionals involved in patient care may not have practiced in the settings from which they have received or are sending patients, and, as such, may not understand the capacity or infrastructure of these settings. A viable solution is to ensure that the patient, care givers and the receiving provider have accurate up-to-date contact and a covering provider to answer questions for periods when not available.

Patients and families an important element

Patients and their families are also important elements of transition care. While patients have rights to receive safe and quality transitional care, they also have responsibilities to assist and participate in the process. However, patients often do not understand their plan of care for many reasons. Primarily, the plan is often multi-faceted and complicated; patients may be impaired, both cognitively and/or physically, thus limiting their ability to participate at an optimal level. Family may or may not be involved and may also be limited in their understanding of the plan of care. There may be health literacy, cultural and language barriers. Healthcare providers can practice with a patient centered care model and should encourage patient and family/caregiver involvement, when appropriate, and reinforce patient responsibilities to help develop, understand and be able to communicate their plan of care and who their providers are in different settings. Care and consideration should be exercised when determining the plan of care for a patient. The plan of care should be simplified to the extent possible without decreasing quality or jeopardizing safety. Clear written and verbal communications are essential, and providers should use tools that already exist to facilitate transitions such as medication reconciliation and the continuity of care form.²² Care instructions should be simple and clear, including a distinct plan for post transfer care, resources and who to direct questions to. Healthcare providers can be leaders in their institutions and in their fields to educate, and bring to the forefront, the standard of care for their profession as it relates to transitioning their patients. Checklists and follow-up protocols can be adapted for each setting to assist clinicians to understand their roles and accountability within settings. This will assist clinicians to understand their roles

and also to share responsibility for transition care among clinicians. In addition, it would help educational programs to implement discipline specific transition principles in their curriculum and training.

CONCLUSIONS

Transitional care is an essential attribute of any patient plan of care. Although each profession is accountable for discipline specific elements of transitional care, prior to specific regulatory requirements being implemented, standards for discipline specific best practices need to be developed and implemented in the health care system. Both the RI DOH Continuity of Care Form¹⁵ and best practices guidelines¹⁶ are available to guide providers on how to best meet patient transition needs. Further, these tools assist to improve communication and patient activation by establishing core expectations based on clinicians' preferences and evidence, where it exists, and by creating measures that can be tracked over time. They also establish core expectations for communication that can improve patients' experiences and health outcomes, as well as facilitate cross-setting collaboration, relationship building and referral patterns. Implementing the best practices acknowledges the reciprocal nature of the healthcare system and the collective need for communication between healthcare providers to ensure delivery of high-quality care.

The time has come for interested stakeholders to further develop transitions of care to a more codified position. The logical next step might be a collaborative endeavor to modify and create regulatory changes that definitively address transitions of care.

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The authors thank the members of Healthcentric Advisors' Safe Transitions project's community advisory board, who met to discuss professional standards. The advisory board encompasses inpatient and outpatient physicians and representatives from commercial health plans, Medicaid, and the home health, hospice, hospital, nursing home and physician office settings. We also thank the providers and stakeholders who collaborated with the Safe Transitions project to develop the care transitions best practices.

Through collaboration with the Rhode Island Department of Health and other community stakeholders, Healthcentric Advisors' Medicare-funded Safe Transitions project aims to transform the Rhode Island healthcare system into one in which discharged patients and their caregivers understand their conditions and medications, know who to contact with questions, and are supported by healthcare professionals who have access to the right information, at the right time. This is our vision statement.

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Footnote

*After testing evidence-based care transitions interventions locally and systematically gathering input on providers' preferences and needs, Healthcentric Advisors collaborated with physicians, nurses, health plans and community leaders to develop care transitions best practices for six provider settings: community physicians, emergency department, home health agencies, hospitals, nursing homes and urgent care centers.

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Appropriate Prescribing of Opiates as Professional Conduct

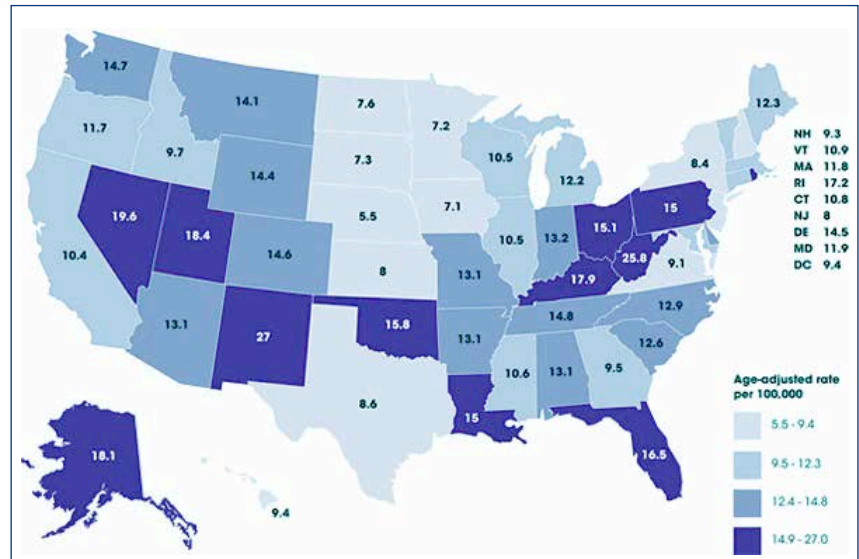
JAMES V. McDONALD, MD, MPH

ABSTRACT

Prescription drug abuse/misuse in Rhode Island and the US is an epidemic. Chronic pain is often treated with prescription opiates which offer some relief, yet present risks to the patient of dependence, addiction and overdose. Physicians find themselves at times at odds with their patients regarding the management of pain and may feel bullied or pressured regarding prescribing. The Rhode Island Board of Medical Licensure and Discipline recognizes the value of established parameters for responsible and safe prescribing.

KEYWORDS: Prescription drug abuse, responsible prescribing, www.health.ri.gov/saferx

Drug Overdose Rates by State, 2008



A PROBLEM OF PAIN

Relieving pain, healing the sick, caring for people, lending an ear and helping others are perhaps some of the reasons we chose to go to medical school in the first place. No one desires to have an adversarial relationship with a patient, yet the issue of long-term opiate use can create conflict in the exam room. Patients are in a difficult position as is the prescriber. All too often the problem of treating pain can lead to an unintended vicious cycle of pain, opiate use, addiction and all that comes with the disease of addiction.

Most physicians did not see the prescription drug abuse epidemic coming. A common teaching years ago was to “treat pain” and that patients will not become addicted. It is clear addiction to pain medication does occur, that addiction is a disease¹ and chronic pain is challenging to manage. Physicians can find themselves between the proverbial “rock and hard place” as they try to manage pain, yet protect their patients from a remedy known to be addictive and currently responsible for 4 deaths weekly in Rhode Island.²

In 2008, Rhode Island ranked 7th among states regarding deaths from overdose of prescription drug abuse.³ Prescription drug abuse has been declared an epidemic by the CDC,⁴ perhaps the most vexing epidemic of our generation. The purpose of this article is to highlight expected practices and standards when it comes to responsible opioid prescribing.

STATUTORY AUTHORITY

The Board of Medical Licensure and Discipline derives its statutory authority from § RI 5-37⁵ and is charged with its mission: “To protect the public through enforcement of standards for medical licensure and ongoing clinical competence.”⁶ The Board has long advocated that pain be treated appropriately and responsibly.⁷ There is no prohibition from using opiates; rather the expectation is that opioid medications be prescribed responsibly⁸ and thoughtfully. It is the expectation that prescribers will meet minimum expectations regarding standards of care and understand that treatment goals are tailored to the patient. Elimination of pain may not be possible without undue risk to the patient and control of pain maybe the best achievable goal.

EXPECTED PRACTICES AND STANDARDS

Minimum standards when prescribing opiates are appropriate to establish boundaries and clearly communicate expectations of the physician community.

Medical Records

It is expected that the physician will maintain appropriate medical records⁹ and more specifically, the medical record should contain the following elements:

1. appropriate medical history and physical examination
2. diagnostic, therapeutic and laboratory results
3. consultations
4. treatment objectives
5. coexisting disorders, alcohol, substance use history
6. informed consent
7. controlled substance log
8. medications (including date, type, dosage and quantity prescribed)
9. narcotic/pain management agreements
10. problem summary list

Medical records should be current, immediately available for review, and stored securely for at least 5 years.

Physician Patient Relationship

An appropriate physician patient relationship should exist. Evidence of this should be readily apparent in the medical record. Prescribing opiates without physically seeing a patient is inappropriate unless for a brief (less than 5-day period) for an emergency.

Prescribing to Self and Family

In accordance with the policy set forth by the AMA,¹⁰ it is inappropriate to treat immediate family members or oneself with controlled substances of any type.

Informed Consent

Informed consent is an interactive process and involves at a minimum a meaningful exchange of information regarding the proposed treatment or non-treatment. This is important before prescribing opiates, particularly if for longer than 5 days. Attention should be directed to indication for treatment, side effects, risk of addiction and the patient's responsibility in preventing diversion. Patients should be specifically directed that this medication has potential for dependence and is intended only for the patient and never to be shared with a family member. Sharing prescription drugs is a violation of state¹¹ and federal law.¹² Non-opiate options including no treatment for pain should be part of the dialogue. Documentation of this consent is expected in the medical record and should be periodically updated if opiates are used long-term.

Pain Agreement

The use of a pain contract, pain agreement, provider patient agreements, controlled substance agreement or a similar agreement is expected when prescribing opiates for long term use.¹³ These tools are available from multiple sources and often can be tailored to your practice.¹⁴

Pain specialists should consider a trilateral opioid contract¹⁵ which includes the patient, pain specialist and primary care provider. This promotes transparency, reduces the risk of diversion and can effectively bridge the pain clinic and primary care provider.

Establishing clear boundaries help frame outcomes, expectations, as well as allow treatment to be started in a non-judgmental and objective manner. The agreement should be reviewed periodically and updated to reflect changes. Some may consider the practice of *Universal Precautions*,¹⁶ having an agreement with every patient who is prescribed a controlled substance.

When to Refer

Periodically patients will exceed the scope of your practice and appropriately need to be referred. Understanding your strengths and limitations is wise and should consider the patients' best interests. Some have advocated strong consideration of referral to pain medicine, addiction medicine or other appropriate entity when morphine equivalent dose is 120mg/day.¹⁷ Referral can certainly occur before that dose and perhaps should occur sooner than later. Strong consideration should be considered to a multidisciplinary¹⁸ approach to the treatment of chronic pain and refer to appropriate disciplines as clinical judgment dictates.

Treatment Plan

The treatment plan should state objectives by which treatment can be evaluated. Performing a functional assessment prior to treatment and as treatment progresses tailors therapy to the individual needs of the patients. Additionally, addressing the functional impact of pain and translating it to objective relevant goals which are verifiable encourages prescribing decisions connected to outcomes demonstrated by the patient.¹⁹ Complete analgesia may not be possible nor in the patient's best interest, yet efforts should be directed at optimizing functional outcomes.

DIVERSION

Diversion occurs when a prescribed medication for one person is given to another person. Diversion is common; it occurs in many patients who may be diverting opiates to support their own addiction, for financial gain or for other reasons. Physicians need to be cognizant that opiates are frequently diverted, often by friends or family of the patient.²⁰ Periodically monitoring the patient with urine toxicology screens is expected as well as using existing tools to monitor patient's utilization. Patients who frequently refill medications early, lose medications, or have negative urine screens should raise suspicions.

Prescription Monitoring Program

Rhode Island is one of 42 states that currently has an active prescription drug monitoring program (PDMP).²¹ The PDMP allows prescribers to currently see what schedule II and III drugs their patients are taking. There are limitations to this tool – it does not show schedule IV and V medications routinely and the data may be up to 30 days old. Currently, prescribers can only see patient's activity in one state. There is

presently not a national PDMP. The PDMP has been shown to positively impact prescribers' habits and reduce in some states opioid misuse.²² A best practice is to review the PDMP before prescribing any controlled substance to a patient. It is expected that every prescriber of controlled substances will use the PDMP often and incorporate it into daily practice.

ADDICTION

Addiction is a disease, often chronic, relapsing and challenging to diagnose and treat. Physicians should periodically review their treatment and differentiate if they are treating chronic pain, dependence, addiction or a combination. Honest discussions are appropriate for the exam room and making a diagnosis of addiction may not be well received by a patient, yet that does not make it less true. Patients often need to hear this message multiple times from multiple sources before they seek help.

CONCLUSIONS

The prescription drug abuse epidemic is perhaps our greatest public health challenge. Regulatory agencies such as the RI BMLD can establish guidelines, enforce law and continue to educate the professional community. No physician has ever been disciplined by the BMLD for responsible opioid prescribing. Physicians are highly encouraged to treat pain appropriately, yet to do it responsibly and transparently.

The vast majority of Rhode Island physicians are conscientious, caring and compassionate and trying to manage this issue as best they are able. There are consequences, however, for those who do not prescribe opiates responsibly. The BMLD takes very seriously those who prescribe irresponsibly or are complacent with this serious issue. Physicians are well advised to keep up to date on current practices regarding prescribing opiates and exhaust all other reasonable options before initiating therapy.

Physicians must practice responsible opioid prescribing, collaborate and refer as needed while using existing tools and resources. Perhaps most important is to remember the exam room represents a sacred space where trust, honesty and healing are the most valuable currency we have with our patients. The exam room should be a "safe place" for the patient and physician. Although physicians are under enormous pressure from external entities, respecting the patient and determining what is best for the individual in front of you should hearken back to why you entered this profession in the first place.

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Patterns of Prescribing – The Rhode Island Prescription Monitoring Program

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ABSTRACT

Drug overdose and abuse is a growing epidemic nationally and for Rhode Island. The Rhode Island Prescription Monitoring Program (PMP) is a web-based system that collects all schedule II and III prescription information for prescriptions dispensed in or into Rhode Island. The Rhode Island Board of Pharmacy at the Rhode Island Department of Health operates this program and uses the information for investigative purposes to curb drug overdose and professional misconduct. Two case studies are presented to illustrate the use of PMP in Rhode Island.

KEYWORDS: Inappropriate Prescribing (E02.3193490), Opioid-Related Disorders (F03.900.675), Public Health (N06.850), Pharmacy (H02.646)

INTRODUCTION

The Rhode Island Prescription Monitoring program (PMP) of the Rhode Island Department of Health (HEALTH) is a perpetually updating database of all schedule II and III controlled substance prescriptions dispensed within and into the state. Rhode Island first enacted legislation authorizing HEALTH to collect and use this information in 1997, and with recent software upgrades in 2012, this information is now widely available for external use by prescribers, pharmacists, and law enforcement officials.

Matters involving narcotics or prescribing are under the jurisdiction of the Rhode Island Board of Pharmacy, the entity responsible for operating the PMP and enforcing the laws and regulations pertaining to prescription drugs. Pharmacy Board investigators have been active and engaged in the investigation of inappropriate prescribing, diversion of drugs, and misconduct involving narcotics, assisting other licensing Boards within HEALTH. Prior to the advent of PMP, Board of Pharmacy investigators were tasked with monitoring a growing prescription drug abuse epidemic with a paucity of timely prescription data. Investigators now have the capability to centralize and analyze data once scattered throughout 200 independently operating retail pharmacies into one condensed database.

Rhode Island suffers heavy costs from prescription drug abuse. About two percent of all deaths in the state (about one-fourth of all “accidental deaths”) are “drug-related,”

and of these, more than half involve opioids, either alone or in combination with other drugs.¹ In addition, prescription drug abuse not only harms patients, but also has a devastating effect on families, neighborhoods, and the health care system. In response, investigators from the Rhode Island Board of Pharmacy are utilizing the full potential of the PMP to curb this epidemic and protect the health, safety, and welfare of the public.

Case Studies

Two recent cases illustrate the effectiveness of the PMP in an investigatory capacity.

Case 1 (Excessive Prescribing): This case began with several seemingly unrelated reports of multiple patients filling prescriptions for high dose opiates at local pharmacies. Although the patients in question initially appeared to be unrelated, based on age, address, and apparent diagnosis, investigators were able to determine that they had a common prescriber. The PMP can isolate a single prescriber and consolidate all prescriptions under that registration independent of pharmacy location, third party payer status, or drug type. Investigators subsequently developed a prescriber-specific report which revealed that the prescriber was authorizing prescriptions for 30 days of identical high dose opiates to the same patient in 10-15 day cycles. The patients frequented multiple pharmacies on a complex schedule, never visiting the same pharmacy prior to the expected due date of the prescription, and paying out of pocket for the cost of the medication. (Previous to development of the PMP, this behavior would go unnoticed, since patients and prescribers were able to circumvent the safeguards of third party payer reporting. Using the PMP, however, investigators can analyze prescribing patterns even when patients or prescribers are actively attempting to deceive the system.) Eventually, investigators were able to determine that some patients received close to 900 days worth of narcotics in a single calendar year through the issuance of identical prescriptions. Furthermore, investigators observed instances where the prescriber wrote identical prescriptions, up to 3 in a single day, resulting in hundreds of dosage units being diverted. Findings were transmitted to the prescriber’s licensing board and the prescriber’s license was suspended, dismantling an opiate ring, and drying up a source for illicit prescription narcotics.

Case 2 (Excessive Dispensing): Pharmacy Board investigators conducted a review of a pharmacy's dispensing history to analyze dispensing patterns over a period of time. Excessive dispensing of narcotics was found. One patient, for example, obtained refills of high dose narcotics earlier than scheduled, based on the prescription's quantity and directions, ultimately receiving over 500 days worth of narcotics in one calendar year. Problematic dispensing such as this led investigators to examine the behavior of pharmacy staff regarding drug utilization reviews and the questioning of early narcotics refills, and found them wanting, raising concerns about professional competency. As with other PMP investigations, this matter was referred to the appropriate licensing board, where responsible parties faced disciplinary sanctions and were forced to address system failures to prevent excessive narcotics dispensing in the future. Thus the PMP was used not only to prevent the diversion of narcotics, but also to enforce practice standards, leading to improved quality of care.

CONCLUSION

The PMP is a critical tool in the effort to prevent drug abuse and diversion in order to ultimately promote better health outcomes for patients and to improve professional standards in the licensing community. PMP use will be able to close the net on the pharmacy world, increasing transparency, and curbing the inappropriate distribution of prescription opiates. In concert with the overarching mission of the Department of Health, investigators will continue to use the PMP to dry up the flood of inappropriate narcotics in our communities while concurrently promoting a higher standard of care among health care professionals.

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Opioid Prescribing: Guidelines, Laws, Rules, Regulations, Policies, Best Practices

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*"Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."*¹

ABSTRACT

Prescription drug abuse, misuse and unintentional overdose deaths are major public health concerns and have captured the attention of regulators at every level. There is no shortage of guidelines, laws, rules, regulations, and policies regarding opioid prescribing. Physicians struggle with their duty to treat pain, and yet balance this against the risk to patients as well as the potential for diversion. There are gaps in policy and resources such as lack of interdisciplinary pain clinics, addiction treatment, and education for prescribers and patients.

KEYWORDS: Prescription drug abuse, accidental deaths, www.health.ri.gov/saferx, www.health.ri.gov/painmeds

INTRODUCTION

Physicians struggle with the duty to treat pain, specifically non-cancer related pain and the growing problem of diversion of prescription drugs. The statistics on prescription drug abuse are sobering if not shocking. In 2009, there were over 15,500 deaths from prescription drugs and 30% of those involved methadone.² 2010 data from the Substance Abuse and Mental Health Administration (SAMSHA) reveals 13.7% of individuals over age 12 have used prescription pain killers for non-medical reasons in their lifetime.³ The most common pharmaceuticals people use for non-medical purposes are: hydrocodone, oxycodone, and fentanyl.⁴

This has all occurred during a time when efforts have been increased from multiple entities to assess pain as a "5th vital sign,"⁵ and to treat pain more aggressively, and when direct advertising to consumers for pain medication has increased.⁶

Regarding controlled substances, the World Health Organization "considers the public health outcome to be at its maximum (or balanced) when the optimum is reached between maximizing access for rational medical use and minimizing substance abuse."⁷ This balance is elusive and underscore's the relationship between analgesic efficacy and its potential for abuse⁸. It is important to emphasize that the opiate drugs that are most effective in relieving pain are also the ones with the highest risk of abuse. It is no secret

this entire issue is a dilemma for clinicians and represents a significant challenge to the every day practice of medicine.

What's out there?

The Rhode Island Board of Medical Licensure and Discipline is concerned about prescription drug misuse, dependence and related deaths. We should further explore what can be learned from existing efforts of policymakers, and what common ground and gaps in policy exist.

Federal Entities	State Governments	Professional Societies	Pharmaceutical/ NGO
DEA ⁹	Washington ¹⁰	American Pain Society ¹¹ American Academy of Pain Management ¹²	Federation of State Medical Boards ¹³
CDC ¹⁴	Ohio ¹⁵	American Academy of Pain Management ¹⁶	Cares Alliance ¹⁷
FDA Blueprint ¹⁸	Colorado ¹⁹	American Society of Anesthesiologists ²⁰	Endo Pharmaceuticals ²¹
White House ²²	Iowa ²³	American Academy of Family Physicians ²⁴	American Chronic Pain Association ²⁵
DOD/VA ²⁶	Arizona ²⁷	American College of Physicians ²⁸	Purdue Pharmaceuticals Pain education ²⁹

The extensive variety of guidelines, toolkits, regulations, etc., highlights the significance and pervasiveness of this issue. Clearly, from the perspective of prescribers, patients, regulators, payers and government this is one of the most important issues of our day. Each entity above has addressed this issue to some extent; the State of Washington took the unique step of creating very specific legislation focusing on prescribers.

Washington Pain Rules

The Washington pain rules were enacted into law 7/1/2011 in response to the epidemic of prescription drug abuse in this state³⁰ yet recognizing the important role in the appropriate treatment of pain. These pain rules are specific to non-cancer treatment of pain and specifically address several aspects of chronic pain management. These include:

1. evaluation of the patient
2. detailed documentation requirements
3. treatment goals/plan
4. informed consent
5. highly detailed written agreement for treatment of pain and monitoring
6. periodic review of the patient
7. appropriate treatment for episodic care
8. recommendations for when to obtain consultation, including a mandatory threshold based on morphine equivalent dose
9. defines who can be considered a pain management specialist
10. strongly recommends use of prescription monitoring program

The Washington Pain Rules are specifically addressed to prescribers and attempt to balance the need for appropriate pain management while recognizing the public health threat from diversion, dependence and addiction.

The pain rules are not without their critics with some expressing that patients with legitimate pain needs are not having these needs addressed.³¹ The American Academy of Pain Management has supported these rules, yet highlighted that confusion, misinterpretation and clarification is needed.³²

Although the Washington pain rules were initially a practice guideline,³³ the main criticism of the pain rules is they were ultimately enacted as law. It has been suggested that physicians leery of the legal burden and expense of this law on their practice have chosen not to treat chronic pain in their patients, leaving the patient caught in the middle.³⁴ Some physicians have chosen to interpret these rules as so restrictive as to stop prescribing narcotics.³⁵ This may be an unintended consequence of this legislation, although the legislation clearly highlights as one of its goals that patients with chronic pain be appropriately treated.

The Washington Pain Rules have not been around long enough for a thorough evaluation, yet were constructed in a collaborative manner and with an evidenced-based³⁶ approach. Time will tell if such a legislative approach has effectively turned the tide in Washington.

Common themes among many regulators

After a review of many of these guidelines and statements, there are several common themes which should be noted.

1. Recognition of balance and responsibility to appropriately treat pain while also recognizing that opioid medications are addictive and subject to diversion.
2. The morbidity and mortality from opioid medications is a national epidemic.
3. There are standard practices that reflect responsible opioid prescribing.

4. There are accepted tools that reflect responsible monitoring of patients who take opioid medications.
5. There is often a need for an interdisciplinary/multidisciplinary approach to pain management.

Role of Regulatory Agencies

Regulatory agencies, like the Rhode Island Board of Medical Licensure and Discipline (BMLD), are charged with a specific mission: *"To protect the public through enforcement of standards for medical licensure and ongoing clinical competence."*³⁷ Establishing and enforcing regulations, promoting and conducting education and ensuring a competent workforce reflect the major activities of the BMLD.

Limitations on regulatory agencies and the problem of prescription drug abuse highlights one of our most significant limitations. Regulatory agencies do not get in the exam room with the prescriber, their reach is from a different level and their regulation or guidance is expected to be interpreted in the context of a legitimate prescriber-patient relationship. Regulatory agencies are counting on the prescriber to have exercised sound professional judgment and made the best effort to construct the most appropriate treatment decisions for the individual patient.

Unique Challenges

Opioid addiction/dependence/abuse presents several challenges due to the addictive nature of the medication and the unpleasantness of pain. Additionally, accumulating evidence indicates that opiates may cause an additional problem, opioid induced hyperalgesia (OIH).³⁸ Paradoxically, this therapy which alleviates pain has the potential to make patients more sensitive to pain and may make matters much worse for the individual patient.³⁹ Patients with OIH typically experience this after escalating doses of opiates which are not controlling their pain and often report the pain to be different in character than previously reported pain.⁴⁰

What Can Rhode Island Learn From All of This?

Policy Gaps and Bridges

There are gaps that exist when it comes to the appropriate management of pain. Patients with chronic pain and prescribers perceive our health care marketplace lacks an alternative for pain control with opioid medications. Although there is debate on the business case for interdisciplinary pain clinics, they have been shown to be cost effective; yet uncertainty exists on the optimal combination of professionals in an interdisciplinary pain clinic.⁴¹ It should be noted that an interdisciplinary clinic differs from a multidisciplinary clinic in that in the former, all professionals share the patient and collaborate with the patient on treatment goals and outcomes. There is a place in the health care system for an interdisciplinary non-pharmacologic approach to chronic pain.

Another gap is the relative shortage of resources for patients with addiction and reluctance of some in viewing addiction as a chronic disease. Effective treatment for

addiction does exist yet is not effective for all patients. Additionally, addiction is a chronic disease and relapse is part of the disease process. Addiction is a complex disease that requires time, collaboration and perseverance not just for the patient, but the treating team.

Although many resources exist for providers in managing chronic pain, what is missing is a simple tool kit specific to various common clinical settings. Providers need practical tools they can easily implement and incorporate into their work flow.

Additionally, prescribers would benefit from targeted training in conflict resolution, bullying and how to handle manipulative patients. Patients who are addicted or dependent often exhibit aberrant behavior and physicians are generally not prepared to handle this in the time- constrained, busy and complex clinical milieu.

Additionally, there is a profound lack of patient education regarding this public health epidemic. Patients are not typically informed of the risk of taking opioid medication and do not have an opportunity to do their own risk/benefit analysis. This suggests the need for more explicit regulation which defines the terms when informed consent shall be obtained when prescribing opiates. It is difficult to reliably assess which patients are at risk for addiction; therefore many have advocated an approach which incorporates "universal precautions."⁴² This approach destigmatizes the issue of addiction and allows for a frank discussion of the risks and benefits of the proposed treatment for pain.

CONCLUSIONS

The complex issue of pain, opioid dependence, addiction and abuse represents a multifaceted and difficult issue. There is no rapid solution forthcoming and the clinical landscape for this is uncertain and problematic. This issue reflects one of the largest barriers to patients with chronic pain achieving a state of optimal health. There are plenty of policy gaps and opportunities to address for the foreseeable future.

The prescription drug abuse epidemic cries out for collaboration from prescribers, policymakers, payers, law enforcement, behavioral health, complementary and alternative medicine providers, educational professionals and more. Each generation has its mountains to climb; this issue will not be solved with Herculean efforts by any single entity; rather a combined and coordinated approach that may redefine health care as we know it to accomplish a sustainable solution.

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The Link Between Poverty and Type 2 Diabetes in Rhode Island

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Type 2 diabetes is a major public health concern. Adults with type 2 diabetes are up to five times more likely to develop heart disease or have a stroke. Because of this, the risk of death among people with type 2 diabetes is about twice that of people of similar age but without diabetes, regardless of sex, age, or other factors.¹

As of 2012, over 9.8% of Rhode Island's adult population, or 81,000 Rhode Islanders aged 18 and older, had been diagnosed with diabetes, a percentage similar to the estimated 9.7% of U.S. adults with diagnosed diabetes.² The percentage of adults with diagnosed diabetes is projected to rise, as rates of type 2 diabetes track closely with obesity and population aging patterns. By 2050, it is projected that as many as one in three U.S. adults could have diabetes,³ 42% of U.S. adults will be obese,⁴ and 20% of the population will be older than age 65, up from 13% in 2010.⁵

More worrisome is the striking gap between the high prevalence of diabetes among the low-income population compared with the average prevalence in the general population. Chaufan and colleagues call this public health problem the twin epidemics of poverty and diabetes to explain the higher rates of type 2 diabetes in low-income populations.⁶ Low-income people also have higher rates of uncontrolled diabetes and complications. Data on the relationship between poverty and hospital discharges show that hospitalized patients from the poorest U.S. communities (median household income \leq \$38,000) were 77 percent more likely to be admitted for diabetes with complications compared to people residing in all other communities.⁷ While these data provide valuable insight for addressing disparities with respect to diabetes, they do not fully capture health disparities at the state level.

We designed an analysis of diabetes that also accounts for the social determinants of health based on place of residence. In this article we examine the association between neighborhood-level poverty and hospital admission rates for type 2 diabetes in Rhode Island and outline potential policy options.

METHODS

We extracted records of hospital admissions for diabetes (2007–2011) from the Rhode Island Department of Health's Hospital Discharge Data. In Rhode Island all acute-care general hospitals are required to report discharge data to the

state health department. Rhode Island's Hospital Discharge Data are event-level files that include demographic information, patient residence at the time of admission coded at the census tract level, clinical data coded to the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and summaries of hospital utilization and charges.⁸

Criteria for inclusion in our study were a primary diagnosis of type 2 diabetes (ICD-9-CM 250.x0, 250.x2) for patients aged 18 and older with a valid census tract. Census tracts are small, relatively homogeneous statistical subdivisions of a county, which usually have between 1,200 and 8,000 people, with an optimal size of 4,000 people.⁹ The majority of cities and towns in Rhode Island have more than one census tract.

Five-year poverty rate estimates came from the 2007–2011 American Community Survey (ACS). The U.S. Census Bureau conducts the ACS by sampling a percentage of the U.S. population every year.¹⁰ The Census Bureau defines a poverty area as a census tract where 20% or more of the residents live at or below the federal poverty level.¹¹ Census tracts with poverty rates of 40% or more are extreme poverty areas.¹² We matched 85.7% of the ACS census tracts to census tracts in the hospital discharge files.

Adult diabetes hospital admission rates were age-adjusted to the 2010 U.S. adult population, using 3 age groups (i.e., 18–44, 45–64, and ≥ 65 .) We calculated a five-year average (2007–2011) for both poverty percentage and diabetes age-adjusted admission rate.

We estimated a correlation coefficient (denoted by r) with a range of between “-1” and “1” to measure the strength of the linear relationship between neighborhood-level poverty status and diabetes inpatient admissions. An r of 0 indicates no linear relationship, and 1 indicates a perfect positive linear relationship. A relationship is considered weak if values are between $0 \leq r < 0.3$; moderate, if $0.3 \leq r < 0.7$; and strong, if $0.7 \leq r \leq 1$.¹³ The squared correlation coefficient (r^2), also known as the coefficient of determination, is one of the best means for evaluating the strength of a relationship. This is the proportion of variance in diabetes inpatient admission rates that can be accounted for by knowing census tract poverty levels. Conversely, it is the proportion of variance in census tract poverty levels that can be accounted for by knowing diabetes hospital admission rates.¹³ SAS version 9.1 (SAS Institute, Inc, Cary, North Carolina) was used for all analyses.

RESULTS

Between 2007 and 2011, 8,312 hospital discharges occurred in Rhode Island where type 1 and type 2 diabetes were listed as the principal diagnosis, representing 1.17% of all admissions to acute-care hospitals (data not shown). Of these discharges, 5,742 hospital admissions met our study inclusion criteria.

Fifty-five census tracts qualified as poverty areas and nine as extreme poverty areas. Census tract 7 (Upper South Providence) had the highest poverty, with 66% of the residents living at or below the federal poverty level and an age-adjusted diabetes hospital admission rate of 8.04 per 1,000 residents (Table 1). Of the eight additional extreme poverty areas shown in Table 1, four had correspondingly high age-adjusted diabetes admission rates ranging from 7.76 per 1,000 residents to 11.23 per 1,000 residents. These

were census tracts 5 (Lower South Providence), 8 (Downtown Providence), 27 (Providence) and 152 (Pawtucket). The remaining four extreme poverty neighborhoods had age-adjusted diabetes admission rates ranging from 1.90 per 1,000 residents to 6.6 per 1,000 residents (data not shown). These were census tracts 12 (Providence: 6.61/1,000 residents), 4 (Providence: 6.08/1,000 residents), 9 (Providence: 2.45/1,000 residents), and 183 (Woonsocket: 1.90/1,000 residents). The age-adjusted diabetes admissions rates in these extreme poverty neighborhoods were considerably higher than the rates shown in Table 2 for Rhode Island's census tracts with the lowest percentage of residents living in poverty.

Two exceptions to the relationship between neighborhood poverty and diabetes admission rates were census tracts 36.02 (College Hill, Providence) and 132.01 (Scituate).

Census tract 36.02, with a high proportion of university students, had a low diabetes admission rate (0.68/1,000 residents), but a high percentage of residents in poverty (37.9%). Census tract 132.01 had a high age-adjusted diabetes admission rate (9.04/1,000 residents) but a low percentage of residents in poverty (5.8%).

The neighborhood with the lowest poverty percentage in Rhode Island was census tract 114.02 (Cumberland; Table 2). This census tract had a very low diabetes age-adjusted admission rate of 1.40 per 1,000 residents (data not shown). Of the 19 census tracts with less than three percent of residents living in poverty, five had correspondingly low diabetes age-adjusted admission rates of 1.08 per 1,000 residents or lower. These were census tracts 133 (Foster), 143 (Cranston), 216 (Warwick), 302 (Barrington), and 504.02 (North Kingstown). No low-poverty census tracts were in Providence (Table 2). Providence had only one census tract with a very low diabetes age-adjusted admission rate. In census tract 35, 12.4% of the residents live at or below the federal poverty level.

The correlation analysis between admission rates for diabetes and census tract-level poverty provided a correlation coefficient of 0.5561, indicating a moderate positive linear relationship. The squared correlation coefficient (r^2) was 0.3092. Thus, 30.92% of Rhode Island census tracts with high diabetes hospital admission rates were high-poverty neighborhoods, and conversely, 30.92% of high-poverty census tracts had high hospital admission rates for diabetes (Figure 1).

Table 1. Neighborhoods with the 20 highest poverty percentage and diabetes age-adjusted admission rate in Rhode Island, 2007-2011^{1,2}

Rank	Poverty Status			Diabetes age-adjusted admission rate per 1,000 residents		
	Census Tract	Town/City	% in poverty	Census Tract	Town/City	Rate per 1,000
226	7	Providence	66.11	25	Providence	28.53
225	5	Providence	57.18	161	Pawtucket	17.09
224	27	Providence	50.54	2	Providence	13.32
223	12	Providence	50.53	178	Woonsocket	12.88
222	152	Pawtucket	48.24	5	Providence	11.23
221	4	Providence	48.16	1.02	Providence	10.31
220	183	Woonsocket	42.97	8	Providence	9.75
219	9	Providence	41.27	132.01	Scituate	9.04
218	8	Providence	40.36	111	Central Falls	8.92
217	2	Providence	39.40	27	Providence	8.66
216	31	Providence	38.93	6	Providence	8.48
215	151	Pawtucket	38.32	31	Providence	8.16
214	36.02	Providence	37.95	184	Woonsocket	8.14
213	180	Woonsocket	37.93	7	Providence	8.04
212	161	Pawtucket	37.90	152	Pawtucket	7.76
211	174	Woonsocket	37.40	104	East Providence	7.35
210	111	Central Falls	37.23	151	Pawtucket	7.24
209	166	Pawtucket	35.59	1.01	Providence	7.22
208	14	Providence	34.74	13	Providence	7.20
207	22	Providence	34.50	3	Providence	6.96

¹ The majority of cities and towns in Rhode Island have more than one census tract.

² Admission rates were restricted to type 2 diabetes and adults 18 years of age and older. Both poverty percentage and diabetes age-adjusted admission rate were five-year averages in Rhode Island, 2007-2011.

Table 2. Neighborhoods with the 20 lowest poverty percentage and diabetes age-adjusted admission rate in Rhode Island, 2007-2011^{1,2}

Rank	Poverty Status			Diabetes age-adjusted admission rate per 1,000 residents		
	Census Tract	Town/City	% in poverty	Census Tract	Town/City	Rate per 1,000
1	114.02	Cumberland	0.99	303	Barrington	0.50
2	146	Cranston	1.20	401.01	Portsmouth	0.54
3	513.04	S. Kingstown	1.45	401.02	Portsmouth	0.54
4	127.01	Smithfield	1.84	510	Westerly	0.60
5	219.01	Warwick	1.94	511.02	Charlestown	0.66
6	143	Cranston	1.95	403.02	Middletown	0.70
7	301	Barrington	1.95	143	Cranston	0.73
8	145.01	Cranston	2.00	515.02	Narragansett	0.79
9	504.01	N. Kingstown	2.07	168	Pawtucket	0.84
10	304	Barrington	2.10	515.03	Narragansett	0.85
11	209.04	East Greenwich	2.29	407	Newport	0.88
12	504.02	N. Kingstown	2.38	413	Jamestown	0.93
13	216	Warwick	2.38	35	Providence	0.95
14	302	Barrington	2.46	416.02	Tiverton	0.98
15	507	Hopkinton	2.61	504.02	North Kingstown	0.98
16	113.02	Cumberland	2.62	216	Warwick	0.99
17	126.01	Smithfield	2.62	302	Barrington	1.02
18	133	Foster	2.66	133	Foster	1.08
19	131.02	Glocester	2.73	405	Newport	1.14
20	224	Warwick	2.80	128.01	North Smithfield	1.16

¹ The majority of cities and towns in Rhode Island have more than one census tract.

² Admission rates were restricted to type 2 diabetes and adults 18 years of age and older. Rates were not computed for diabetes admission counts containing fewer than 5 cases. Both poverty percentage and diabetes age-adjusted admission rate were five-year averages in Rhode Island, 2007–2011.

DISCUSSION

Type 2 diabetes is a common, growing, and costly disease,¹⁴ with direct medical costs estimated at \$176 billion (2012 dollars), of which the largest component is inpatient hospital care.¹⁵ Until recently, poverty was under-recognized as a contributor to type 2 diabetes. The findings presented in this paper underscore the burden of type 2 diabetes among Rhode Islanders living in poverty. Our results showed that 30.9% of census tracts with high admission rates for type 2 diabetes also had high poverty rates. Moreover, we found a positive poverty-place gradient for diabetes hospital admissions. As neighborhood poverty levels increased from less than 3% to over 40%, the corresponding diabetes admission rates went from less than 2 per 1,000 residents to nearly 30 per 1,000 residents.

Previous research has found disparities in diabetes

prevalence and hospital admissions rates by individual- and neighborhood-level poverty. A study conducted in New York City found that diabetes disproportionately affected adults living in low-income households and neighborhoods. Diabetes hospitalization rates per 100,000 residents were almost three times higher in New York City's low-income neighborhoods than in high-income communities.¹⁶ A recent analysis of the Canadian Community Health Survey and the National Population Health Survey found that living in poverty was a significant predictor of developing type 2 diabetes. Further, the prevalence of type 2 diabetes in the poorest income groups was more than four times higher than that of the wealthiest income group, even when education, body mass index and physical activity levels were taken into account.^{17,18} A survey of Latino immigrants living in Northern California found high rates of type 2 diabetes among individuals trapped by poverty.⁶ Our analysis extends these results to show strong differences in diabetes hospitalization rates at the census tract level.

Although a combination of physical activity, healthy eating, weight loss, and medication adherence can help prevent diabetes,¹⁹ the environment in which one lives may pose barriers to achieving these measures that are difficult to overcome. Previous health inequities by place are well-documented.²⁰⁻²² A study designed to examine the relationship between neighborhood walkability and risk of developing diabetes, for example, found that the risk of developing diabetes was three times higher among adults living

in a low-income/low walkability neighborhood than in a high-income/high walkability area.²³ We found the most consistent relationship between neighborhood poverty and high diabetes admission rates in Providence. Providence has one of the highest poverty rates in the nation with 27.7% of the population living below the poverty level, more than twice the national rate of 12.8%.²⁴ Our study found the largest concentration of poverty in census tracts 5, 7, 12 and 27 (Figure 2), where 50% or more of the residents live below the poverty level and between 40 to 65% of the adult residents are Hispanic.²⁵ Poverty coupled with discrimination, insufficient employment opportunities, zoning restrictions, and local tax structures can all exacerbate disparities between neighborhoods.²⁵ Inadequate housing, food insecurity, and

Figure 1. The correlation between poverty level and diabetes admission rate, data from the 2007–2011 American Community Survey and the 2007–2011 Rhode Island Hospital Discharge Data.

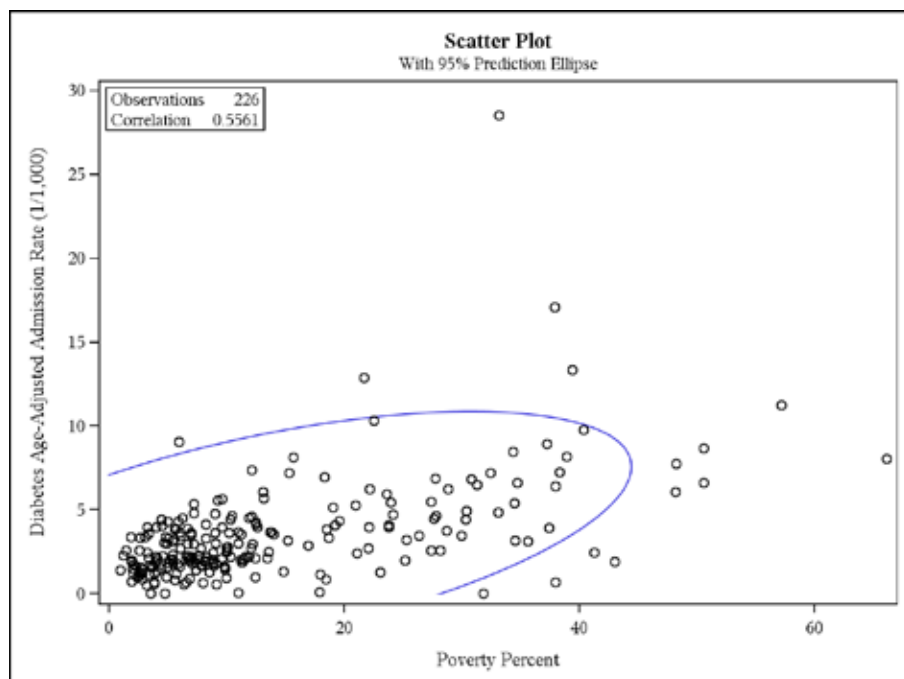
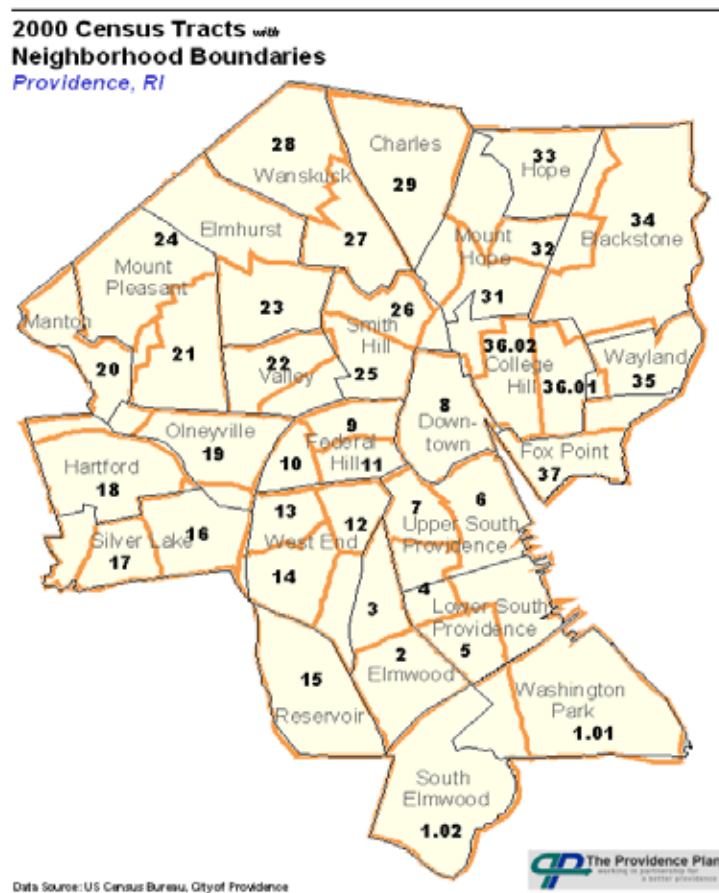


Figure 2. Census tracts in Providence, Rhode Island



intermittent health care coverage, make it extremely difficult for low-income people with diabetes to manage their disease.

There are some limitations to our study. Approximately 30% of census tracts were missing or incorrect in the 2010 Rhode Island Hospital Discharge Data compared to less than 10% in earlier years of hospital data. Many factors are significantly associated with type 2 diabetes, but only census tract poverty was available in the linked files used in this study.

A major strength of our study was that neighborhood-level poverty was assessed by two population-based surveys, not by patients themselves. Promising policy initiatives to improve health in high-poverty neighborhoods include tax incentives and federal funding to build healthier communities that support greater access to healthy foods, a safer environment more conducive to exercise, and the coupling of access to health care with local community-based resources for

diabetes self-management. A five-year federal grant awarded to the Rhode Island Department of Health is supporting the establishment of a statewide clinical-community referral network to more efficiently identify and refer people with diabetes and other chronic conditions to evidence-based lifestyle programs. By 2014, the Patient Protection and Affordable Care Act (ACA) of 2010 will likely improve access to services and quality of care, particularly for people who were previously under- and uninsured.

In 2010, Congress passed a federal menu labeling law requiring chain restaurants with 20 or more outlets to list calories and other nutrition information on menus and menu boards.²⁶ The Food and Drug Administration is implementing the law despite legal challenges in state and local legislative bodies and the courts. Initial evaluations of menu labeling laws have found that they influence some, but not all, consumers to purchase healthier meals.²⁷ More research in this area is needed, especially with respect to the efficacy of menu labeling laws in high-poverty neighborhoods with a concentration of fast food restaurants.

Data on population- and policy-level approaches to address inequalities in diabetes prevalence and hospital admission rates are limited. The good news is that the Centers for Disease Control and Prevention (CDC) and the National Institute of Diabetes and Digestive and Kidney Diseases are jointly funding a five-year

multicenter research network to examine the effectiveness of large-scale population-level health policies on diabetes prevention, control, and inequalities.²⁸ As clinicians and public health practitioners, our job is to focus on how we can best address modifiable diabetes risk factors and leverage community partnerships to eliminate health disparities.

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Disclosure

The authors have no financial interests to disclose.

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Rhode Island Monthly Vital Statistics Report

Provisional Occurrence Data from the Division of Vital Records

VITAL EVENTS	REPORTING PERIOD		
	MAY 2013	12 MONTHS ENDING WITH MAY 2013	
	Number	Number	Rates
Live Births	1,033	11,646	11.1*
Deaths	803	9,856	9.4*
Infant Deaths	8	82	7.0#
Neonatal Deaths	7	61	5.2#
Marriages	552	6,226	5.9*
Divorces	287	3,376	3.2*
Induced Terminations	No data available		
Spontaneous Fetal Deaths	No data available		
Under 20 weeks gestation	No data available		
20+ weeks gestation	No data available		

* Rates per 1,000 estimated population

Rates per 1,000 live births

Underlying Cause of Death Category	REPORTING PERIOD			
	NOVEMBER 2012	12 MONTHS ENDING WITH NOVEMBER 2012		
	Number (a)	Number (a)	Rates (b)	YPLL (c)
Diseases of the Heart	204	2,323	220.6	3,474.5
Malignant Neoplasms	190	2,205	209.4	5,817.0
Cerebrovascular Disease	38	448	42.5	667.0
Injuries (Accident/Suicide/Homicide)	39	656	62.3	8,749.5
COPD	42	510	48.4	437.5

(a) Cause of death statistics were derived from the underlying cause of death reported by physicians on death certificates.

(b) Rates per 100,000 estimated population of 1,052,567 (www.census.gov)

(c) Years of Potential Life Lost (YPLL).

NOTE: Totals represent vital events, which occurred in Rhode Island for the reporting periods listed above.

Monthly provisional totals should be analyzed with caution because the numbers may be small and subject to seasonal variation.

Splenosis: An Unusual Cause of Massive Gastrointestinal Bleeding

NEHA ALANG, MD

A 54-year-old woman with a past medical history of total splenectomy 37 years ago presented to the emergency department (ED) after she developed a pre-syncopal episode at home. She had a large tarry bowel movement earlier and reported feeling dizzy and weak. Her home medications included aspirin/ butalbital/ caffeine and NSAIDs for migraine headaches.

In the ED her blood pressure (BP) was 80/60 mm Hg, heart rate (HR) of 130, afebrile and she was saturating 100% on non-rebreather. She was noted to be pale, having cool and clammy extremities and a melanotic stool which was guaiac positive. The laboratory studies showed hemoglobin (HG) of 7.0 with a hematocrit (HCT) of 21.4, normal coagulation profile and normal electrolytes.

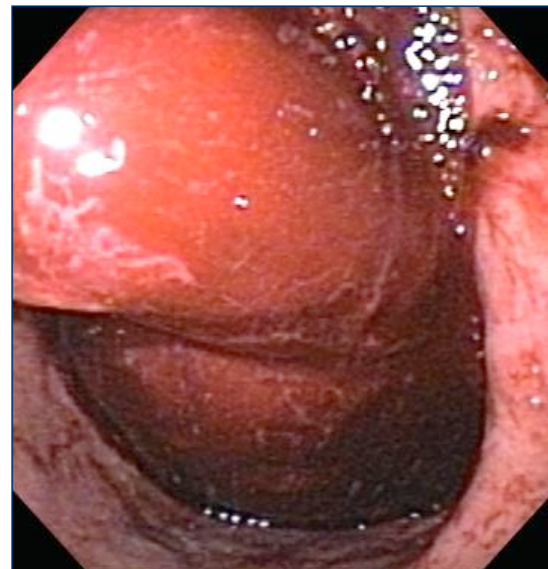
Two 18G peripheral IV access was established. She received 4 liters of normal saline, 2 units of typed and cross-matched packed red blood cells (PRBCs), and 4mg protonix intravenously (IV). A nasogastric (NG) tube was placed and return of frank blood was visible. She was transferred to Medical Intensive Care Unit (MICU). She became short of breath and ABG showed Ph 7.27, CO₂ 25 mm Hg, O₂ 77 mm HG, bicarbonate level of 11 meq/L on 94% room air.

Massive hematemesis ensued. She was intubated and sedated. HG after 2 units of PRBCs was 5.9. A right intra-jugular catheter and an arterial-line were placed. An emergent esophago-gastro-duodenoscopy (EGD) showed a giant clot in the fundus of the stomach. (Figure A)

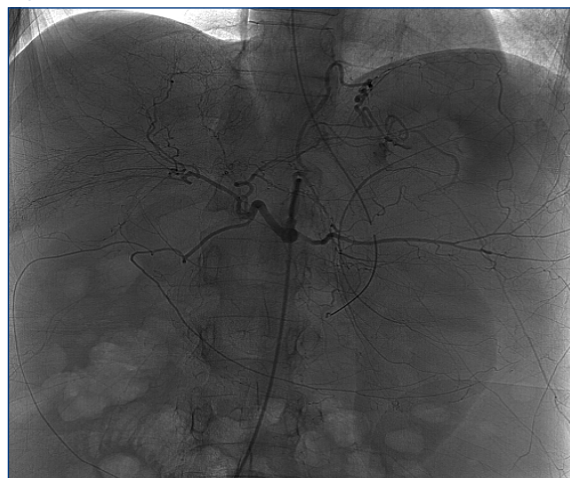
Irrigation and suctioning could not clear the clot. Pylorus and duodenum appeared clear with no active bleeding. She was started on protonix drip. Soon after the EGD, she started vomiting frank blood around her nasogastric tube. Interventional Radiology (IR), Gastroenterology (GI) and General Surgery (GS) were contacted. A massive transfusion

protocol was initiated. She received 14 units of PRBCs, 5 units of fresh frozen plasma, 5 units of platelets, 2 units of cryoprecipitate and 2 doses of 3 grams of intravenous calcium gluconate intravenously in the MICU. The IR found active bleeding in the fundus of the stomach from the left gastric artery which was embolized. (Figures B, C)

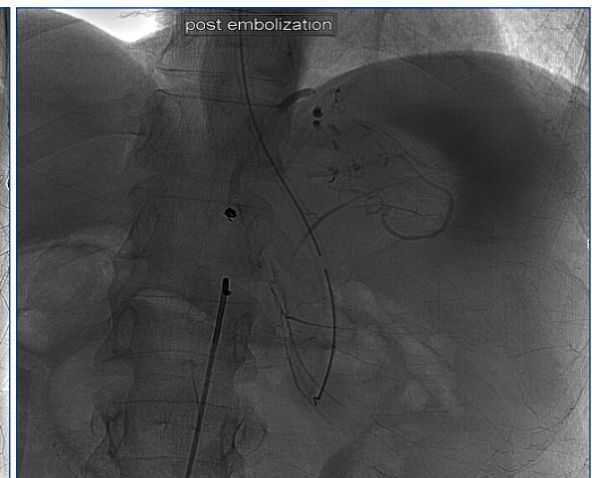
Figure A. An emergent esophago-gastro-duodenoscopy (EGD) showed a giant clot in the fundus of the stomach.



Figures B and C. The IR found active bleeding in the fundus of the stomach from the left gastric artery which was embolized.

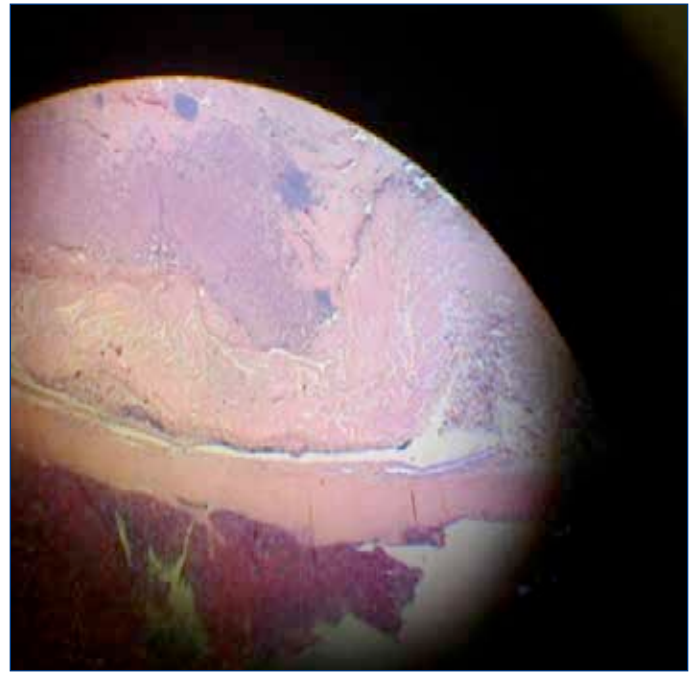
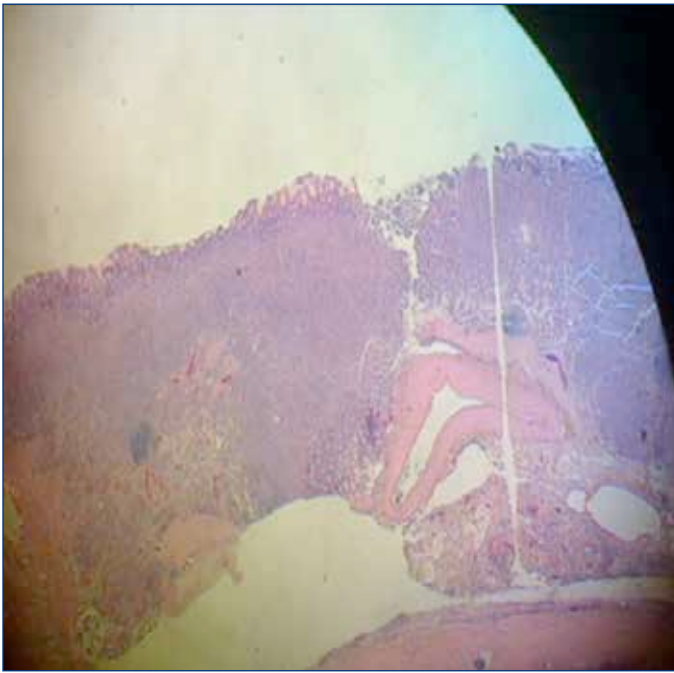


Pre-embolization (Angiogram)



Post-embolization (Angiogram)

Figures D and E. The specimen was reported by the pathologist as “an ectopic spleen with large vessels in the ectopic surface of the stomach.”



Following the procedure, the patient continued to bleed profusely and was taken to the operating room for exploratory laparotomy. She underwent wedge resection of the stomach, which was left open with retention sutures in place. During this procedure a 5 cm invasive tumor was found which was resected and sent to the pathologist. The specimen was reported by the pathologist as “an ectopic spleen with large vessels in the ectopic surface of the stomach.” (Figures D, E) The patient was transferred to the Surgical Intensive Care Unit post-operatively. The patient recovered and was discharged after she remained stable.

DISCUSSION

Splenositis must be considered in the differential diagnosis of patients with a history of splenic trauma and splenectomy who present with one or more masses of unknown etiology or bleeding from an unknown site.¹ Splenositis can cause symptoms of hematemesis, pleurisy, symptoms similar to myocardial infarction, gastrointestinal bleeding when auto-implantation occurs in the small bowel or the stomach, flank pain and hydronephrosis from ureteral compression, and pelvic or abdominal mass.

The mechanism behind auto-transplantation initiated with the splenic rupture involves mainly seeding of damaged splenic pulp into the adjacent cavities.² Scintigraphy using heat damaged Tc-99m-labelled autologous RBCs is a reliable noninvasive diagnostic method of choice in this rare condition and may allow to avoid unnecessary abdominal surgery.²

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Disclosures

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Practice Transformation: A Practical Roadmap

PROVIDENCE — **ELAINE C. JONES, MD**, president of the Rhode Island Medical Society (RIMS), welcomed more than 60 physicians and health care professionals to a workshop on Practice Transformation: A Practical Roadmap held Oct. 5 at Brown University. It was sponsored by RIMS and the Alpert Medical School in collaboration with the Office of Lt. Gov. Elizabeth H. Roberts.

Those present heard medical and legal colleagues discuss the shifting landscape of medicine in the Affordable Care Act era to better understand how to respond to changes to the practice environment in the emerging “Obamacare” world.

The session provided insights and guidance from three expert panels: physicians who are already making the shift in their practices from fee-for-service payment to value-based payment; from insurers who are entering into new payment arrangements with providers; and from attorneys who specialize in helping physicians navigate these complex waters.



Elaine C. Jones, MD, President of the Rhode Island Medical Society (RIMS), welcomed attendees to the session.



Lt. Governor Elizabeth Roberts, Chair of the RI Healthcare Reform Commission, with panel expert Richard J. Migliori, MD, Executive Vice President and Chief Medical Officer UnitedHealth Group, prior to the discussion.



Don E. Wineberg, Esq., Chace Ruttenberg & Freedman, and Jeffrey F. Chase-Lubitz, Esq., Donoghue, Barrett, & Singal, spoke on the legal structures for practice transformation.



Augustine A. Manocchia, MD, Blue Cross Blue Shield of RI, offered the insurers' perspective and initiatives on shared cost savings and data analysis.



Edward McGookin, MD, Chief Medical Officer, Coastal Medical, spoke on practice transformation at Coastal, through the lens of an ACO and the Patient Centered Medical Home concepts.



Why You Should Join the Rhode Island Medical Society

The Rhode Island Medical Society delivers valuable member benefits that help physicians, residents, medical students, physician-assistants, and retired practitioners every single day. As a member, you can take an active role in shaping a better health care future.

RIMS offers discounts for group membership, spouses, military, and those beginning their practices. Medical students can join for free.



Above: State House press conference on health care, Brown MSS at the AMA, CPT update seminar, bike helmet distribution, medical student volunteers; Upper right: Meeting of RIMS membership committee



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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

SPECIAL NOTICE: 2014 AMA DUES PAYMENTS

The American Medical Association (AMA) will direct bill its Rhode Island members for their 2014 dues. Beginning August 2013, AMA members will receive a separate dues statement from the AMA instead of paying AMA membership dues through the Rhode Island Medical Society (RIMS) membership invoice. This is simply an operational change so that both RIMS and AMA can concentrate on their respective member satisfaction. There remains no requirement for RIMS members to join the AMA.

Please let us know if you have questions concerning this change by emailing [Megan Turcotte](mailto:Megan.Turcotte@rimed.org) or phoning 401-331-3207.

Dr. Villalba introduces the Integrated Therapies Program at Butler

New program expands Butler's partial hospitalization programs

BY MARY KORR
RIMJ MANAGING EDITOR



Dr. Rendueles Villalba II is a Clinical Associate Professor of Psychiatry and Human Behavior at the Alpert Medical School.

PROVIDENCE – In September, Dr. Rendueles Villalba II arrived at Butler Hospital to direct its new Integrated Therapies Program offered within a partial hospital setting. Three other partial hospital programs are already in place; this latest addition provides an existential and interpersonal psychotherapeutic approach to treating patients in crisis or who have reached an impasse in their outpatient treatment.

Patients attend a combination of tailored individual and group therapy and educational sessions for six hours each day over a compressed period of treatment. The average time in the program is five days, but sometimes can extend to several weeks. Patients range in age from 17 to 80-plus.

“The program is a hybrid between inpatient and outpatient care,” Dr. Villalba said. “Our patients receive all the services of an inpatient facility, but they go home in the evening. We have found that patients attending the partial hospitalization program are often more ready and capable to engage in in-depth psychotherapy than their inpatient counterparts. So when the custodial role of an inpatient service is unnecessary, an acute care partial hospital program like ours can offer a more elective, empowering, psychotherapeutically advantageous alternative.”

Previous to his arrival at Butler, Dr. Villalba directed Rhode Island Hospital's partial hospital program for 17 years. He trained at both Cornell and Dartmouth

in psychiatry and neuropsychiatry. He leads an interdisciplinary team which includes psychiatrists, social workers, mental health counselors, a program manager and a service utilization reviewer. His partial hospital practice includes an extensive quantitative outcome measurement protocol, which has received national recognition.

In an interview with RIMJ, he elaborated on his chosen field and the new program.

Q. What led you into psychiatry as a specialty?

A. Psychiatry presents a compelling challenge to wrestle with the ever mysterious relationship between the mental and the physical. Part science, part art, part applied philosophy, it is arguably the most intimate form of medicine. To do it well requires a presence of mind in the healer that becomes its own reward. I believe I am a far more enlightened human being for having shared in the inner lives of my patients. It is deeply gratifying to help a person grow emotionally and existentially.

Q. Your program is held within a partial hospital setting. Is that a relatively new concept?

A. It actually dates back to the 1940s, when it was first conceived of in Russia. I don't believe it caught on here in America till the 1960s and '70s. Butler Hospital has one of the oldest partial hospital programs in the country, of which there are about 700.

Q. Are the third-party payers willing to pay for this?

A. Yes. It is a less expensive alternative to inpatient care. Everybody wins – insurance company pays less, patients get a more intensive psychotherapy experience and families get to have mom or dad at home with them at night.

Q. Who are candidates for this program?

A. The vast majority of our patients present with mood or anxiety disorders. Many have been suicidal, or are experiencing some other crisis – debilitating grief, trauma related symptoms, a psychotic break, panic over a destabilizing life transition.

In addition to crises, we see patients who have reached an impasse in their outpatient treatment. An outpatient clinician may seek a second opinion about diagnosis or wish to try a more evocative psychotherapy intervention for a patient that seems “stuck.” What makes us unique is our focus on existential and interpersonal therapy. The Integrated Therapies Program combines these particular approaches because we have found them to reciprocally reinforce each other. The existential content amplifies the experiential learning of interpersonal therapy.

Q. Can you elaborate on the meaning of existential therapy?

A. A simple answer to this tough question is a focus on the concept of time – how we live in time or how we live with the limits of time – the ticking clock. Commonly we push our finiteness out of our routine awareness – largely to function in our day-to-day lives without paralyzing fear or grief. In this way, death becomes a taboo rarely addressed,

even in medicine. The existentialist will tell you this is a profound disservice. This “denial” of death leads to frankly dishonest living that will move toward the mundane or toward hollow heroics. These in turn, will produce crises of meaning of their own right, ultimately landing a person in a deeper dilemma than what the denial presumably meant to spare them. Denial of this sort causes great harm to everyone. Think of it as a type of self-inflicted blindness, and think of all the preventable bad things that happen in our world because of this blindness. Healthy awareness of mortality humbles us, clarifies priorities, frees us of trivial worry, orients us towards an empathic awareness of the vulnerability we all share, peeks our hunger for meaningful experience, prods us to work toward the common good.

Q. How do you broach this concept within the context of the patient setting?

A. Here’s an example. A woman in her late 30s came to our program with a depression brought on by a break-up with her boyfriend. For five years she had engaged in a cycle of repeated break-ups and reunions with the same man. She was both sad and angry that she could not seem to rise above this trap. When she was with “Joe” she could only think of her freedom, as she found him overbearing and abusive. However, as soon as she left him a crushing fear of isolation would take over and she would rush right back. While painfully aware of feeling angry, she was confused as to why or with whom. At first, she thought she was angry with Joe for “manipulating” her. Then she would get angry with herself for letting him have this control over her. It was obvious in

her mind, that this was a reflection of her self-perpetuating low self-esteem that she should “settle” for such a dysfunctional and frankly unloving relationship. However, as we explored how she was living in time (or its limits), she discovered a deeper source of grief and anger. For as long as she could remember, she had dreamed of being a mother. Still childless at the age of 35 and mindful of her “ticking clock,” she suddenly appreciated how sad and angry she was for being cheated of her dream. This awareness helped her to find the conviction to not fritter any further time in her current relationship and to act more decisively toward a path that would make her dream of motherhood a more likely possibility. So, while she came to the program hoping for a “cure” of her depression or at least some of its symptoms, what she ultimately went home with was a deeper understanding of what really mattered to her and the courage to act accordingly. She came to see her depression as a call of her conscience to align her life with her core values.

Q. Have you done studies which show evidence of success in this approach?

A. We have collected outcome data on our patients for many years. We have examined over 10,000 admissions and seen substantial improvement in depression, anxiety, and suicidal risk. One study of sexually traumatized patients with PTSD and depression also found that our program helps to correct an exaggerated external locus of control – the feeling that chance or other people are in more control of your life than you yourself are. A person who has been victimized commonly has an

externalized locus of control. This is one of the sad consequences of trauma. To achieve an improvement in this area is very rewarding.

Q. In your years in practice, do you see it's more and more urgent to have programs like this today?

A. Psychiatry is growing in its needs and demands. The World Health Organization reports that incidents of depression are rising worldwide. It's the most prevalent medical problem throughout the world. This epidemic likely has to do with the profound changes underway in our global society. In the last few years in America alone, a spike in suicide correlates with the downturn in

our economy. Poverty, unemployment, and war are obvious sources of adversity. But even things that many of us consider positive, such as technological advancement, can have very damaging unintended consequences. Take the invention of the cell phone for instance. Some would say this thing isolates us as much as it connects us. Think of all the face-to-face conversations that don't happen, that are texted and tweeted away because this is a more "efficient" form of communication. When we need a friend to "be there," do we really want them to arrive as a Facebook "like?" We are at risk of trading-in the actual for the virtual. People used to play in bowling leagues. Now they play video games.

Q. So we should put aside our mobile devices and bowl to feel better?

A. Yes, but not alone – with a friend!

Q. In your view, what is the trajectory in dealing with mental health issues in the 21st century?

A. We are making headway in understanding the biological foundations of mental illness and how psychotherapy works. Psychiatric outcome research is showing that the best results are produced when care is delivered by an empathic clinician, mindful of the therapeutic alliance, and who is skilled at making use of a patient's readiness to change. ♦ www.butler.org/itp

Rhode Island Medical Journal Submissions

The Rhode Island Medical Journal is a peer-reviewed, electronic, monthly publication, owned and published by the Rhode Island Medical Society for more than a century and a half. It is indexed in PubMed within 48 hours of publication. The authors or articles must be Rhode Island-based. Editors welcome submissions in the following categories:

CONTRIBUTIONS

Contributions report on an issue of interest to clinicians in Rhode Island. Topics include original research, treatment options, literature reviews, collaborative studies and case reports.

Maximum length: 2000 words and 20 references.

PDFs or Jpegs (300 dpis) of photographs, charts and figures may accompany the case, and must be submitted in a separate document from the text. Color images preferred.

CREATIVE CLINICIAN

Clinicians are invited to describe cases that defy textbook analysis. Maximum length: 1200 words. Maximum number of references: 6.

PDFs or JPEGs (300 ppi) of photographs, charts and figures may accompany the case, and must be submitted in a separate document from the text.

POINT OF VIEW

The writer shares a perspective on any issue facing clinicians (eg, ethics, health care policy, patient issues, or personal perspectives). Maximum length: 600 words.

ADVANCES IN PHARMACOLOGY

Authors discuss new treatments. Maximum length: 1000 words.

ADVANCES IN LABORATORY MEDICINE

Authors discuss a new laboratory technique. Maximum length: 1000 words.

IMAGES IN MEDICINE

Authors submit an interesting image or series of images (up to 4), with an explanation of no more than 400 words.

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AG, health department, approve Landmark acquisition by Prime

PROVIDENCE – On Monday, Oct. 28, Attorney General Peter F. Kilmartin announced that he has approved, with conditions, the proposed sale of Landmark Medical Center and Rehabilitation Hospital of Rhode Island (Landmark) to Prime Healthcare Services, Inc., and affiliated entities (Prime), pursuant to the Hospital Conversions Act (HCA).

“Cleary, a five-year special master-ship for any business is not an ideal

situation,” Kilmartin said.

Prime will be Rhode Island’s first for-profit hospital corporation. The California hospital management company, founded in 2001 by cardiologist **PREM**

REDDY, MD, owns and/or operates 23 acute care hospitals/medical centers in California, Kansas, Nevada, Texas and Pennsylvania.

The conditions laid out in the decision include, but are not limited to, that Prime transfer certain charitable assets to the Rhode Island Foundation or a similar entity for disbursement, provide information about any actions taken against Prime or any final resolution to the investigation currently being conducted by the Department of Justice and Office of Inspector General regarding coding at Prime’s hospitals, and that Prime inform the Attorney General of any actions taken against it or any of its hospitals or affiliates by any governmental entities.

On October 25, Rhode Island Health Dept. Director Dr. Michael Fine announced the department’s approval of both the change in effective control application, which was recommended for approval by the Health Services Council, and the hospital conversions application. It approved both applications with a set of conditions.



Dr. Prem Reddy, founder, chairman, and CEO of Prime Healthcare Services, completed his residency training in internal medicine and cardiovascular disease at Down State Medical Center in Brooklyn, New York.



Landmark Medical Center in Woonsocket will become Rhode Island’s first for-profit hospital once the acquisition by Prime Healthcare Services, Inc., of California is completed, expected by the end of the year at the latest.

“We did our due diligence in reviewing these applications, and found that Prime met the criteria for approval,” said Dr. Fine. “We are very pleased to welcome Prime to Rhode Island.”

In the approval documents, the health department found that the acquisition by Prime was in the public interest, albeit taking into consideration “written comment from at least two sources expressing concern about the number of excess hospital beds in Rhode Island...Still, the alternative to the acquisition of Landmark by Prime is an expected closure of the hospital, and considerable adverse economic impact on the Hospital’s catchment area. Given this reality, and the consequent likely adverse impact of economic hardship on the health of the people who live in the Hospital’s catchment area, the Department accepts the contention that, taken as a whole, this acquisition is in the public interest.”

In a statement issued after Dr. Fine’s decision, Landmark President and CEO Richard Charest said Landmark views the initial approval as “welcome news for our employees and the Greater Woonsocket community. It has been a long and winding road these past five years, and we are now starting to see some light at the end of the tunnel,” he said.

The 214-bed acute care hospital will remain as such for the next several years.

OVERVIEW

Key components of the Prime-Landmark asset purchase agreement include the following:

- In the first five years, Prime will make investments in technology and capital improvements, and expand services in an amount equal to \$30 million.
- For no less than five years after the closing, Prime will provide no less than \$4.5 million in funding for the recruitment of physicians.
- Prime will provide funding of no less than \$15 million for routine replacements at the hospital.

Prime's planned improvements

At a Health Services Council public meeting on July 9, 2013, Prime summarized its planned improvements at Landmark as follows:

Pre-conversion

- Renovate/update four nursing units, main lobby, diagnostic services, and the emergency department waiting room
- Replace existing cardiac telemetry monitoring system throughout the hospital
- Add a new telemetry system to the nursing unit currently without telemetry

Post-conversion

- IT System Conversion – electronic medical record (\$10 million)
- Replace major imaging equipment as follows:
 - Radiology/Fluoroscopy equipment (\$363,000)
 - Nuclear Medicine Cameras (\$250,000)
 - Magnetic Resonance Imaging (MRI) (\$1 million)
 - Vascular imaging equipment

- Replace a cardiac catheterization lab (\$900,000)
- Replace all furniture and fixtures
- Total investment in first five years: \$30.56 million

Other commitments

Additionally, Prime has made the following commitments:

- Establish a local governing board with representation from the Landmark service areas
- Assume substantially all physician contracts and strengthen physician relationships
- Retain substantially all employees
- Maintain positive relationship with labor unions
- Improve patient care quality metrics

Following the completion of the transaction, subject to agreement by state-appointed special master, Jonathan N. Savage, Landmark will become a wholly owned subsidiary of Prime. ❖

HealthSource RI releases metrics through October 26

1,110 have completed applications for health benefits exchange

PROVIDENCE – HealthSource RI, Rhode Island's health benefits exchange, has released certain metrics from its fourth week of operation, Sunday, October 20, through Saturday, October 26:

- Contact Center calls: 3,301
- Contact Center walk-ins: 437
- Unique Website visits: 19,745
- Total Website visits: 23,134
- Accounts Created: 2,206
- Completed and processed applications: 1,110

An "account created" is defined as an individual who has created a username and password.

A "completed and processed application" is defined as an individual who has supplied all of the necessary information, had that information verified, and has selected a plan. Payment was either made or is pending.

Coverage for all plans begins on January 1, 2014.

Since open enrollment began on October 1, HealthSource RI has reported:

- Contact Center calls: 15,469
- Contact Center walk-ins: 1,240
- Unique Website visits: 89,310
- Total Website visits: 105,574
- Accounts Created: 9,687
- Completed and Processed Applications: 3,762

Monthly enrollment data reporting will begin in November.



Brown event assembles network of healthcare leaders, innovators

BY MARY KORR
RIMJ MANAGING EDITOR

PROVIDENCE – At the recent Rhode Island Healthcare Showcase, Gov. Lincoln Chafee noted the Alpert Medical School on Richmond Street was once “a jewelry building where foot-press machine operators worked.”

The Jewelry District is now the Knowledge District which, like its predecessor, also fuels the state’s economy, he told the audience of innovators, entrepreneurs, healthcare and business leaders.

Brown University Provost **MARK SCHLISSEL, MD, PhD**, echoed Gov. Chafee with a timely announcement – that a trio of university scientists, **JOHN DONOGHUE, ARTO NURMIKKO** and **LEIGH HOCHBERG**, had just been awarded Israel’s inaugural B.R.A.I.N. (Breakthrough Research And Innovation in Neurotechnology) prize of \$1



PHOTOS BY MARY KORR

Keynote speaker John Brooks III, president and CEO of Joslin Diabetes Center in Boston.



Gov. Lincoln Chafee and Brown University Provost Mark Schlissel, MD, PhD, introduced the Healthcare Showcase held recently at the Alpert Medical School.

million for their BrainGate system. (See sidebar next page.)

“What begins as basic medical research can end up not just driving the local and national economy but taking that knowledge and using it for the purposes of innovation for the benefit of society,” Dr. Schlissel said. “That’s the real sweet spot.”

He said the prize will be used to further develop BrainGate to make it viable for commercialization, “which is part of our motivation here today. Academic institutions are drivers,” he said, but “the private sector is important to this pipeline. The federal government and even disease foundations have limited capacity to help institutions take advantage of decades of progress in biomedical research and help it bear fruit for patients.”

Keynote speaker

Dr. Schlissel introduced the keynote speaker, entrepreneur and venture capitalist **JOHN L. BROOKS III**, the president and CEO of the Joslin Diabetes Center. Brooks spoke on macro trends, innovations, and forces shaping healthcare, not just in the future but “now playing out in prime time.”

The following are highlights of his presentation.

On Personalized Medicine/ Genomic profiles

Brooks said today people diagnosed with cancer get a full genetic analysis to tailor treatment protocols and that this is spreading into other areas of medicines. “How do we start harnessing the power of the genomic profile?” he asked, and noted healthcare providers

CHEN GALILI



Arto Nurmikko, left, and John Donoghue accepted the B.R.A.I.N. Prize, the first to be awarded, from Israeli President Shimon Peres at the BrainTech 2013 Conference held in Tel Aviv, Israel, in October.

BrainGate team wins \$1M prize in Israel

PROVIDENCE — The team that created the investigational BrainGate brain-computer interface has won a major international award, the \$1-million Moshe Mirilashvili Memorial Fund B.R.A.I.N. Prize, at a brain science technology conference in Israel Oct. 15, 2013.

Israeli President Shimon Peres presented the prize, including a bronze brain statue, to John Donoghue and Arto Nurmikko, two Brown University researchers who represented the BrainGate collaboration in the competition for the prize.

"We are deeply honored to receive this award," said Donoghue, co-director of the BrainGate team, a researcher at the Providence V.A. Medical Center and the Henry Merritt Wriston Professor at Brown, where he directs the Brown Institute for Brain Science. "It will support our continued research to help people with paralysis, some of whom cannot speak, to restore their connection to the world around them."

The prize is awarded "for a recent breakthrough in the field of brain technology for the betterment of humanity," according to a statement by Israel Brain Technologies (IBT), a nonprofit organization inspired by Peres that grants the award. The contest's panel of judges — experts in neuroscience and technology, including two Nobel laureates — considered presentations from 10 finalists before selecting BrainGate.

Clinical trials

The investigational BrainGate system, initially developed at Brown and now being studied in clinical trials with partners including Massachusetts General Hospital, Stanford University and Case Western Reserve University, employs a baby aspirin-size device with a grid of 96 tiny electrodes that is implanted in

the motor cortex. The electrodes are close enough to individual neurons to record the neural activity associated with intended movement. An external computer translates the pattern of impulses across a population of neurons into commands to operate assistive devices, including robotic arms.

More recently the team has advanced the work by developing and testing a novel broadband wireless, rechargeable, fully implantable version of the brain sensor. The prototype system, which has been tested in animal models, is designed to allow greater freedom for users of the BrainGate system, who currently must be connected to the system's computers via a cable. Nurmikko, a neuroengineer, has led the effort to develop the wireless implant.

The co-leader of the BrainGate team, Dr. Leigh Hochberg, was not able to join Donoghue and Nurmikko in Israel, as he was in New Orleans to deliver a Presidential Symposium Lecture at the American Neurological Association. He said he shared the team's excitement in winning the prize.

"All of us on the BrainGate research team are deeply honored to receive this award," said Hochberg, associate professor of engineering at Brown, a neurologist at Massachusetts General Hospital, and a researcher at the Providence V.A. Medical Center's Center of Excellence for Neurorestoration and Neurotechnology. "Our team of clinicians, scientists, engineers, and the extraordinary participants in our ongoing pilot clinical trial, continue to work every day toward developing a technology that will restore communication, mobility, and independence for people with neurologic disease or injury." ❖

and payers are saying: 'Let's match treatments that are going to be effective for the individual.'

He said the traditional pharmaceutical model of one drug or one-way fits all patients is "no longer the way we ought to be thinking."

Shortage of physicians/ role of healthcare extenders

Brooks addressed the issue of physician shortage worldwide, exacerbated by the macro trends of a rapidly aging

'...Retailers are putting themselves in a position to become primary healthcare sites – going from just offering flu shots to becoming a healthcare destination.'

population, obesity, and people living longer with chronic diseases.

"Major retailers are putting themselves in a position to become primary healthcare sites – going from just offering flu shots to becoming a healthcare destination. It's one-stop shopping – you'll get your healthcare, prescriptions, food, and think about your health and wellness in the big box stores. Healthcare extenders, not MDs, are delivering this care a lot more. That phenomenon is fast upon us and again it creates some interesting opportunities. How do traditional providers respond to that?"

Data meets healthcare

"We're also seeing the impact of big data," he said. "There are opportunities around analytics and interest in doing deep dives in electronic medical records and finding outliers and identifying anomalies."

"Where do we see problems with patients or patient cohorts or providers that may be not be following the best practices? Where are the opportunities for improvement?"

"We think a lot about risk strat-

ification – again the concept of no-one approach fits all. A lot of companies large and small are starting to help drill into EMRs. There is a lot of power in information; insights can be gleaned.”

Connectivity: Apps, portals, cell phones

“How do we use the power of cell phones, connectivity, apps, to basically try for efficiency and give patients more connectivity around their health and wellness?” he asked and then used the example of a program at Joslin geared to college students with diabetes, which uses virtual visits to keep them connected to their healthcare team and endocrinologists.

He said patients (and their families) are now able to fully connect to their healthcare teams through protected email exchanges and secure portals to access their electronic medical records.

He saw innovative needs in building enhanced artificial intelligence into

devices people use, such as glucose meters, to better manage their care with the hope of keeping them healthy at home, and avoiding expensive ED visits and re-visits, “which are no longer covered by many healthcare plans.”

Clinical decision making is absolutely critical, he said, but the challenge is to take the “ton of information” that is coming off diabetes monitors, pumps, Fitbits, and turn it into something actionable, clinically relevant, giving more tools to primary care physicians to drive that. Lots of start-up companies are working on this, he said.

Economic forces

“We’re seeing a lot of risk-based, capitated, global and bundled payments – putting economic constraints around care,” he said.

He said payment to providers is going to be based on how well they actually deliver value and this is extending to device companies and pharmaceutical

firms. “They are no longer going to be paid for just selling a product. They need to be part of the ecosystem that says my products, along with the other services, collectively are going to take costs out of the equation.”

Brooks also spoke of increasingly high deductibles employees are choosing to keep down their health plan payments. “We’re seeing a lot of tiered healthcare. In Massachusetts, for instance, some of the big teaching hospitals are basically in Tier 3, which means that patients who want to go to those hospitals are going to have to pay a lot more money out of their own pocket if they want to continue to go to those providers, since their deductibles are so much higher today.”

And, he added, medical tourism continues, where “employers are packing up their workers and spouses and putting them on planes to India or China for ortho or cardiac procedures because it’s cheaper.” ❖

NIH awards Cardiovascular Research Center at RIH \$7.3M

Will support research into prevention of sudden cardiac arrest

PROVIDENCE – Rhode Island Hospital’s Cardiovascular Research Center (CVRC) has been awarded a \$7.36 million research project grant (R01) from the National Heart, Lung and Blood Institute of the National Institutes of Health to study sudden cardiac arrest. The research will be focused on mechanisms to develop new therapies and strategies to prevent sudden cardiac arrest and to measure the impact of genetic and environmental factors on risk for sudden cardiac death. The grant will be paid out over five years and is the largest grant of its kind to be paid to a Lifespan partner hospital.

The grant will be approximately \$1.5 million per year, and is specific to the research project, A Multi-Scale Approach to Cardiac Arrhythmia: from the Molecule to the Organ.

“R01 grants from the National Institutes of Health are incredibly

difficult to come by and are highly competitive,” said **GIDEON KOREN, MD**, director of the center, who was recruited in 2005 to launch it.

The CVRC is home for 43 investigators including undergraduate students, graduate students, post-doctoral fellows, research associates and faculty, and receives over \$3.8 million in direct costs from the federal government. It will work in collaboration with researchers at Brown University, Northeastern University, Pennsylvania State University, and the University of California, Los Angeles.

“This award from the NIH is a remarkable achievement,” said **PETER SNYDER, PhD**, senior vice president



RHODE ISLAND HOSPITAL

Gideon Koren, MD, director of the Cardiovascular Research Center at Rhode Island Hospital with Gov. Lincoln Chafee at a press conference held to announce the \$7.36 million grant.

and chief research officer for Lifespan. “It underscores the quality of the research at Rhode Island Hospital and provides our researchers with the means to continue to explore new treatments and preventative measures of an illness that takes thousands of lives each year in the U.S.” ❖

Health Dept. reports illicit drug overdose deaths doubles in 4 years

About four overdose deaths per week investigated by the medical examiners

PROVIDENCE – The Office of the State Medical Examiners has preliminary data that show accidental deaths caused by illicit drug overdoses nearly doubled in Rhode Islanders between 2009 and 2012. Illicit drug overdose deaths involving street drugs like heroin and cocaine increased from 53 in 2009 to 97 in 2012, according to preliminary data from the State Medical Examiners' Office.

All overdose deaths, whether caused by illicit or prescription drugs, remain

People ages 40 through 60 accounted for most of the drug overdose deaths overall.

a leading cause of accidental death in Rhode Island, with about four overdose deaths per week investigated by the medical examiners.

Data collected in 2013 show a reduction of accidental deaths involving prescription medications, such as Vicodin and Oxycodone. Also, alcohol was found to be a common contributing factor when combined with either illicit drugs or prescription medication. Complete data is available to view at health.ri.gov/data/death/drugoverdoses.

"These data give us a better understanding of how this epidemic is affecting Rhode Islanders and who is most at risk," said Michael Fine, MD, director of the Department of Health (HEALTH). "The upward trend in illicit drug overdose deaths is especially of concern because we know that IV drugs pose other health risks, such as HIV and Hepatitis C. Thankfully, through key partnerships and effective strategies, we are making some progress in preventing prescription overdose deaths. However we still have a big drug problem in Rhode Island."

On Oct. 9, HEALTH and the Department of Behavioral Healthcare, Developmental Disabilities and Hospitals (BHDDH) held a press conference to announce the findings and to raise public

awareness about prevention and treatment strategies in place. They were joined by the Rhode Island State Police and other addiction recovery advocates.

The State Medical Examiners' data show that contrary to common assumptions, Rhode Island's drug overdose epidemic is not limited to younger adult males. While men accounted for twice as many accidental drug overdose deaths from 2009-2012, people ages 40 through 60 accounted for most of the drug overdose deaths overall.

"These data are of great concern to our department," said Craig Stenning, Director of BHDDH. "We are committed to continuing to develop effective prevention strategies and increasing access to treatment and recovery support services in an effort to help improve these statistics."

In Rhode Island, three key intervention strategies have been implemented over the last year in a concerted effort to address medication addiction, illicit prescription diversion, and accidental drug overdose deaths:

- Naloxone, a medication that reverses an overdose from opioids (e.g. heroin, morphine, oxycodone) is now available without a prescription so that a layperson can help reverse a drug overdose of a friend or loved one. Emergency medical professionals have used this safe and effective antidote for decades. In 2013, Walgreens became the first and only pharmacy chain to make Naloxone available without a prescription.
- Rhode Island expanded its Good Samaritan Law. Callers to 911 now have immunity from prosecution if illicit drugs are involved in the emergency.
- HEALTH launched its Prescription Monitoring Program (PMP) in September of 2012. The PMP enables doctors, other prescribers, and pharmacists to monitor and protect patients from dangerous drug combinations and quantities, and helps reduce the amount of prescription drugs that can get into the hands of people without a prescription. ♦

More information for prescribers: Safe Opioid Prescribing health.ri.gov/saferx



Ikenna Okereke, MD

MIRIAM HOSPITAL

Miriam surgeon performs state's first robotic thoracic surgical procedure

PROVIDENCE – **IKENNA OKEREKE, MD**, chief of thoracic surgery at Rhode Island Hospital and The Miriam Hospital, has become the first surgeon in Rhode Island to perform a thoracic (chest) surgical procedure using minimally invasive robotic technology.

The technology allowed Dr. Okereke to remove and biopsy what turned out to be a benign tumor in the patient's mediastinum.

"The surgical robot gives us access inside the chest cavity and mediastinal tissues through tiny incisions, providing better, three-dimensional visualization and improved dexterity and manipulation," he said, adding that the procedure

has been shown to result in significantly less post-operative pain, less blood loss, less scarring and shorter recovery times than traditional open mediastinal surgery.

The use of robotic thoracic surgery, currently offered by Dr. Okereke and fellow thoracic surgeon Thomas Ng, MD, is evaluated on a case-by-case basis. Both are members of University Surgical Associates. ♦

Brown adopts strategic plan

PROVIDENCE – At its first formal meeting of the 2013–14 academic year, the Corporation of Brown University unanimously adopted Building on Distinction: A New Plan for Brown, a strategic plan presented by President Christina H. Paxson.

In the medical and healthcare area, the following programs, appointments and initiatives were announced:

Approval of a new doctoral program –

The Board of Fellows approved the recommendation of the faculty to establish a PhD Program in Behavioral and Social Health Sciences. The program will focus on developing and evaluating health behavior interventions, research on behavior and health outcomes, and collaboration both across academic disciplines and between researchers and communities.

Funding for neuroscience professorship

– From the estate of Grace Kennison Alpert, a 1951 graduate, a gift of \$3 million to fund a professorship at the Warren Alpert Medical School of Brown University for a faculty member in the clinical neurosciences

Professorship in public health – From Matthew I. Sirovich, a 1987 graduate, and Meredith A. Elson, a 1991 graduate, a gift to provide current-use support

for the School of Public Health and an additional gift to establish the Carole and Lawrence Sirovich Professorship for Public Health.

New track in Primary Care and Population Health

for students in the Warren Alpert Medical School. Already under development, the new program has attracted national attention for its goal of providing a cadre of physicians with the understanding of medicine and population health needed to be effective leaders in our evolving health care environment.

Expanding clinical relationships and community partnerships

– With an expanded medical school class and the development of innovative teaching modalities, it is necessary to expand relationships with Lifespan and Care New England, our current partners, and to develop new relationships with physician practices and other hospital partners. We will strengthen collaborations with organizations and clinics that provide care to the underserved and enhance our partnerships with Rhode Island health professional schools.

Brown's hospital partners – Lifespan and Care New England, as well as the V.A. Medical Center – are integral to the success of our medical school and

biomedical research. In the last five years, Brown has also developed a range of partnerships with international universities. In the coming decade, we will devote increased attention to the cultivation and stewardship of partnerships as well as the careful assessment of the quality of prospective partners.

Brown's role in the Jewelry District

is to be a partner in the development of a vibrant mixed-use environment with medical education, scientific research, administrative offices, residential space for graduate and medical students, and retail space.

Deciphering Disease and Improving Population Health

– Improving human health requires an integrated approach to understanding the causes of disease and translating that knowledge into new modes of diagnosis, treatment, and ultimately prevention – from bench to bedside to population. This theme will rely upon the close alignment of Brown's Alpert Medical School and School of Public Health and synergies with faculty across the campus to create the knowledge on which population health can be improved, and educate skilled professionals to use this knowledge for the benefit of people in Rhode Island and around the world.

Appointment of faculty to named chairs:

SAMUEL DUDLEY, MD, the Ruth and Paul Levinger Professor of Cardiology, effective July 1, 2013

MAUREEN PHIPPS, MD, the Chace-Joukowsky Professor of Obstetrics and Gynecology, effective Sept. 1, 2013

JACK ELIAS, MD, the Frank L. Day Professor of Biology, effective Sept. 1, 2013

Transitions

Howes steps down as president of Women & Infants

Executive V-P, COO Marcantano named acting president

PROVIDENCE – With more than 30 years of leadership influence at Women & Infants Hospital, **CONSTANCE A. HOWES, FACHE, ESQ.**, president and CEO of Women & Infants Hospital, recently announced her decision to step down from the position.

In her place, **MARK MARCANTANO**, currently executive vice president and chief operating officer at Women & Infants, has been named acting president of the hospital by Care New England President and Chief Executive Officer Dennis D. Keefe. The organizational changes were announced to the Care New England family and became effective October 1.

Howes will assist Marcantano with the transition over the next six months and then will continue to serve at the Care New England system level as executive vice president of women's health where she presides over the multidisciplinary Women's Health Council which guides program development in women's health for the system.

She was recently elected to the Board of Trustees of the American Hospital Association (AHA) and will also continue to serve in a number of industry and civic leadership posts, including chairing the Governor's Workforce Board and chairing Innovation Providence which is working to advance the state's knowledge economy and economic development.

"We are so grateful to Connie for her numerous contributions to Women & Infants. Under her leadership, Women & Infants has become an institution of international distinction," said Keefe. "We look forward to her ongoing role advancing women's health at the system level, and we welcome Mark Marcantano to the helm at Women & Infants."

Howes commented, "When I started as president and CEO at Women & Infants, I believed that I should serve about 10 years, long enough to make an impact

and then step aside. Mark Marcantano will give the hospital the benefit of a fresh perspective and high energy," said Howes. "I am fortunate that I can continue my association with these wonderful organizations and at the same time advance women's health and workforce and economic development. This is truly a best of both worlds situation for me."

"There is no doubt that I have some very big shoes to fill," said Marcantano.

Marcantano has been executive vice president and chief operating officer of Women & Infants since January 2010. He came to Women & Infants from Children's Hospital in Boston where he served as vice president of ambulatory and network services.

Prior to his position at Children's Hospital, Marcantano was executive dean, senior vice president and chief operating officer of Albany Medical College, affiliated with Albany Medical Center, in New York.

Marcantano earned a bachelor of science degree in finance from New York University and went on to earn his juris doctor from Albany Law School of Union University. He currently serves as a member of the Board of Meeting Street.

Howes, 60, of Providence, has been president and chief executive officer of Women & Infants Hospital since 2002, formerly serving as executive vice president and chief operating officer. Prior to this role, Howes was vice president and general counsel for Care New England Health System and vice president and general counsel for Women & Infants Hospital. Before joining Women & Infants, Howes was an attorney with Tillinghast, Collins & Graham for 17 years where she practiced primarily in the area



Constance A. Howes

PHOTOS: CARE NEW ENGLAND



Mark Marcantano

of business law and served as chairman of the Corporate Department.

Among her other community posts are member of the Board of Trustees of the Hospital Association of Rhode Island, Roger Williams University Law School, the Greater Providence Chamber of Commerce, and the Rhode Island Public Expenditure Council. She served on the National Institutes of Health (NIH) Advisory Committee on Women's Health Research, the AHA Regional Policy Board and is active with CWISH, the Council of Women and Infants Specialty Hospitals. She graduated magna cum laude from Kenyon College and received her juris doctor degree from the University of Virginia School of Law. ❖

Transitions



Deepthi Deconda, MD

Dr. Deconda joins Southcoast

NEW BEDFORD, MASS – **DEEPTHI DECONDA, MD**, recently joined Southcoast® Health System and will see patients in Fall River.

Dr. Deconda earned her medical degree from the Deccan College of Medical Sciences in Hyderabad, India. She completed an internship in categorical internal medicine at New York Medical College in Valhalla, N.Y., and a residency in categorical internal medicine at Yale University in New Haven, Conn. She also completed a fellowship in gastroenterology at Rhode Island Hospital,

where she serves as a teaching fellow in the division of gastroenterology.

She is board certified in internal medicine and is fluent in Telugu and Hindi. She currently resides in Providence with her husband and their two children. ❖

Schottland named acting president, CEO at Memorial

PAWTUCKET – Care New England President and Chief Executive Officer Dennis Keefe recently announced that Arthur J. DeBlois III has stepped down as interim president and chief operating officer of Memorial Hospital of Rhode Island effective Oct. 18.

ED SCHOTTLAND, who has been directing the health care system's Integration Management Office and overseeing the work groups addressing the integration of Memorial into Care New England, has moved into the role of acting president and chief executive officer.

"Art is a man of great talent and integrity who was a trustee at Memorial when he was asked to step into the CEO role as the hospital began the thoughtful process of choosing a strategic partner," Keefe said. "He more than rose to the occasion, working with the Memorial board to maintain hospital quality and work to improve efficiency. With the selection of Care New England as Memorial's partner, Art diligently advocated for the affiliation and partnered with Care New England leadership to secure regulatory approval."

DeBlois' resignation was planned as part of the transition. He will return to private business as chair at Vistage International, Inc., where he provides strategic advice to CEOs of privately-held companies, and managing director of Tameracq Partners, Inc., an investment banking company.

Schottland – who earned a master's of professional studies degree in hospital and health services administration from Cornell University – has extensive experience in health care. He was executive vice president and chief operating officer at Saint Joseph Health and Tufts-New England Medical Center, where he successfully led improvement plans resulting in significant financial turnarounds after years of loss.

In addition, he was a senior vice president and chief operating officer at Lifespan, where he helped create processes to manage and control staffing and budgets for Rhode Island, Hasbro Children's, and Miriam hospitals. He also held the position of senior vice president of system development and integration at Lifespan. Most recently, he served as the principal of Schottland Advisory Services and partner at Carl Marks Advisory Group, where he provided leadership assistance and general consulting in health care operations improvement, strategic planning and program development. ❖

Recognition

Physician accepted into national scholars and leaders program

PROVIDENCE – **ASHLEY STUCKEY, MD**, a gynecologic oncologist and breast surgeon in the Program in Women's Oncology and Breast Health Center at Women & Infants Hospital was recently accepted into the prestigious Scholars and Leaders Program of the Association of Professors of Gynecology and Obstetrics (APGO) for 2013–2014.

Dr. Stuckey is a graduate of Louisiana State University School of Medicine and completed a combined breast and gynecologic oncology fellowship at Women & Infants. She

also works at The Breast Health Center at Kent Hospital, a collaborative program with Women & Infants, and is an assistant professor of obstetrics and gynecology at The Warren Alpert Medical School of Brown University.

APGO is a national organization dedicated to the promotion of excellence in women's health care by providing optimal resources and support to educators who inspire, instruct, develop and empower women's health care providers of tomorrow.

"This is fabulous news and a credit to Dr. Stuckey's commitment, talents and the innovative work she is currently doing," said Maureen Phipps, MD, chief of obstetrics and gynecology at Women & Infants Hospital. "The Scholars and Leaders Program identifies the most promising physician educators through a very competitive national selection process. We congratulate Dr. Stuckey for being recognized with this prestigious award."

"My goal is to improve upon not only my skills as an educator but also my leadership and administrative qualities," Dr. Stuckey explained. "Upon completion of the APGO program, I hope to bring these new skills back to Women & Infants to enhance the scholarship of both the ob/gyn residency as well as the breast and gynecologic oncology fellowships." ❖



Ashley Stuckey, MD

WOMEN & INFANTS



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Recognition

Mor receives Distinguished Researcher Award from National Hospice and Palliative Care Organization

PROVIDENCE – Home & Hospice Care of Rhode Island (HHCRI) recently announced that **VINCENT MOR, PhD, MED**, a member of its board of directors, was awarded the National Hospice and Palliative Care Organization's (NHPCO) 2013 Distinguished Researcher Award. The award was created by NHPCO to recognize an outstanding body of research that has contributed to the enhancement of hospice and palliative care.



J. Donald Schumacher, NHPCO president and CEO, at left, with Vince Mor, PhD, Recipient of the 2013 NHPCO Distinguished Researcher Award.

Dr. Mor, a member of the HHCRI board of directors since 2009, is a professor of Medical Science, Health Services, Policy & Practice at Brown University. HHCRI is the major teaching affiliate for hospice and palliative medicine of The Warren Alpert Medical School of Brown University.

"We are thrilled to learn about this prestigious award Dr. Mor has received for his many years of innovative research," said Diana Franchitto, President & CEO of HHCRI. "We are extremely fortunate to have him as a member of our board of directors. His commitment to excellence in the hospice and palliative care field and the insight he brings to HHCRI are tremendous."

He was presented with the award by NHPCO President and CEO J. Donald Schumacher, PsyD, at an NHPCO conference in late September. The conference brought together more than one thousand hospice and palliative care professionals to explore innovation and excellence in clinical end-of-life care delivery.

"For thirty years, Vincent Mor's research has focused on the impact of health care services on quality of care and outcomes for frail and chronically ill patients and his many contributions have improved the care many people have received," Schumacher said. "One of the most important things we as a professional community can do is to shine a light on individuals who have contributed much to the work we are doing to care for those at life's end."

In the mid-1980s Dr. Mor headed the National Hospice Study – the initial evaluation of the impact of hospice care under the then new Medicare hospice benefit – on the cost and quality of life outcomes experienced by terminal care patients. Most recently, he and his Brown colleagues have documented large regional variation in hospitalization rates, including end-of-life transitions and the use of hospice and palliative care.

Dr. Mor has been principal investigator of nearly 30 NIH-funded grants as well as awards from the Robert Wood Johnston Foundation, The Commonwealth Fund, and other private foundations. ❖

Women & Infants named Green Hospital

Becker's Hospital Review names W&I to annual list of top 50

PROVIDENCE – Women & Infants Hospital of Rhode Island, a Care New England hospital, has been named to Becker's Hospital Review list, "50 of the Greenest Hospitals in America," which recognizes hospitals that are among the greenest health care organizations in the country.

According to Becker's Hospital Review, these 50 hospitals lead by example through mass-scale and local carbon-cutting efforts, and they also demonstrate how environmental sustainability is everyone's responsibility.

"Being named to this list underscores Women & Infants' commitment to sustainability in construction and operations, which is a commitment to our community," says Mark Marcantano, acting president of Women & Infants. "Our South Pavilion, which opened in 2009 and earned LEED ® Gold certification in 2010, represents a new era in construction – one in which sustainability is as important as being on time and under budget. Women & Infants was the first hospital building in New England to achieve this level of certification, and certainly was a consideration in being named to Becker's list."

To develop this list, the Becker's Hospital Review team conducted research and analyzed sustainability information from sources such as Health Care Without Harm, Practice Greenhealth, Healthier Hospitals Initiative, the US Green Building Council's Leadership in Energy and Environmental Design (LEED) program, the Environmental Protection Agency, and other health care sustainability organizations and experts. ❖

Appointments

VA New England Healthcare System announces new Medical Center Director

BEDFORD, MASS. — The Department of Veterans Affairs recently announced the appointment of **SUSAN MACKENZIE, PhD**, as the new director of Providence VA Medical Center in Providence. She started in her new role on Oct. 20.

"We are pleased to appoint Dr. MacKenzie as the new director of Providence VA Medical Center," said Dr. Michael Mayo-Smith, Veterans Integrated Service Network (VISN) 1 Director. "Her sound leadership qualities and proven experience will be valuable assets for the facility, the employees and volunteers, and for the veterans we are honored to serve."

Dr. MacKenzie has nearly 30 years of health care experience holding progressive leadership positions includes Assistant Chief, Medical Administration Service and Quality Management Coordinator for Accreditation, VA New England Healthcare System (HCS), Deputy Network Director, VISN 1, and has been serving as Deputy Director for VA Boston HCS since July of 2004. ❖



Susan MacKenzie, PhD

Dr. Greenwood joins Memorial Hospital staff

PAWTUCKET — Memorial Hospital of Rhode Island recently appointed **NICOLE GREENWOOD, MD**,

to its medical staff in the Department of Pediatrics.

A Johnston, RI, resident, Dr. Greenwood earned her medical degree at Saba University School of Medicine, Saba, Netherland Antilles. She completed her pediatric residency at The Children's Hospital at Albany Medical Center, Albany, NY, and a fellowship in adolescent medicine at Miami Children's Hospital in Miami, FL.

Dr. Greenwood is board certified in pediatrics. She is a member of the American Academy of Pediatrics. Her clinical interests include adolescent medicine, eating disorders, menstrual disorders, pediatric advocacy and community outreach. ❖



Nicole Greenwood, MD



Renee Eger, MD

Dr. Eger joins Women & Infants' Health Care Alliance

PROVIDENCE — **RENEE EGER, MD**, of Sharon, MA, has joined Bayside Ob/Gyn, a private practice affiliated with Women & Infants Health Care Alliance.

Dr. Eger is one of five gynecologists in Rhode Island who recently achieved certification by the Center of Excellence for Minimally Invasive Gynecology (COEMIG) of the Surgical Review Corporation, an affiliate of the American Association of Gynecologic Laparoscopists (AAGL). She is performing all surgeries at Women & Infants Hospital, a COEMIG committed to offering women the most effective diagnostic and therapeutic techniques in minimally invasive surgery.

"In addition to providing general ob/gyn services, I continue to perform both major and minor gynecologic surgery in the most minimally invasive fashion," said Dr. Eger.

Women & Infants Health Care Alliance, LLC, is a partnership with Women & Infants Hospital and private practice obstetrician-gynecologists, midwives, nurse practitioners and other caregivers designed to foster continuous quality improvement in the women's health services available in the community and to improve hospital and physician alignment in the age of health care reform. The organization allows the participating providers to enter into a hospital-affiliated partnership while still retaining the autonomy of their private practices, including maintaining their own office sites and staff. ❖

Appointments

Maternal-Fetal Medicine and Obstetric Medicine specialists join Women & Infants High-Risk Pregnancy Program

PROVIDENCE – Two physicians have joined the team of specialists in Women & Infants' Integrated Program for High-Risk

Pregnancy, New England's only fully integrated center for the care of women with high-risk pregnancies and their developing fetuses. On October 1, obstetric medicine and infectious disease specialist **ERICA HARDY, MD, MA, MMSC**, returns to Women & Infants and maternal-fetal medicine specialist **ERIKA WERNER, MD, MS**, joins the staff.



Erica Hardy, MD

Dr. Hardy, a resident of Cranston, is a graduate of Mount Holyoke College and received her medical degree at George Washington University School of Medicine. She earned a master's degree in philosophy with a concentration in medical ethics at the University of Maryland, a certificate in the Program in Clinical Effectiveness at Harvard School of Public Health, and a master's of medical science degree at Harvard Medical School. She completed an internship and residency in internal medicine and pediatrics at The Warren Alpert Medical School of Brown University and a clinical fellowship in infectious diseases at Beth Israel Deaconess Medical Center in Boston.

Board certified in internal medicine, pediatrics and infectious diseases, Dr. Hardy's research and clinical interests include infectious disease issues in obstetric and gynecologic patients, including congenital infection, complicated sexually transmitted infections, as well as outcomes, post-exposure prophylaxis and follow-up care of sexual assault survivors.

A resident of Barrington, Dr. Erika Werner joins the staff at Women & Infants from Johns Hopkins. A graduate of the University of Virginia with a bachelor's degree and also a master's degree in environmental engineering, Dr. Werner earned her medical degree at the Medical



Erika Werner, MD

College of Virginia at Virginia Commonwealth University. She returned to the University of Virginia for her residency in obstetrics and gynecology and completed a fellowship in maternal-fetal medicine at the Yale University School of Medicine.

Board certified in obstetrics and gynecology and in maternal-fetal medicine, Dr. Werner's research and clinical interests include obstetrical complications of obesity, gestational diabetes, operative deliveries and preterm birth. She has also published extensively on cost effective medical practices. ❖

PHOTOS: WOMEN & INFANTS

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Obituaries

GEORGE K. BOYD, MD, passed away peacefully at home Sept. 30, 2013 surrounded by his family, a day before his 85th birthday.

He was born in Lawrence, MA, and grew up on the family dairy farm. He started his education in a one-room schoolhouse in Andover and ended up a well-respected physician practicing in Providence for 35 years, first on Lockwood Street and then on Pitman Street. He excelled in academics as well as music, playing the French horn in an orchestra at Hampton Beach, NH, during high school and college and was a member of the Tufts College band, orchestra and brass choir. He graduated from Tufts College in 1951 and Boston University Medical School in 1955.

Dr. Boyd served as a naval medical officer on a destroyer in the Pacific and was stationed at Camp Pendleton (San Diego, CA) where he met his future wife, Jean Strumski, the only nurse on base who did not smoke and liked to go to the movies. They were married within three months of meeting and returned back to the East Coast to continue his medical training at a Boston hospital and then at Rhode Island Hospital, where he specialized in pediatric allergies.

Dr. and Mrs. Boyd provided medical and nursing care to Algerian children during the Cuban Missile Crisis in 1961 after the French left the country bereft of medical care. Throughout his medical career, he helped thousands of R.I. children breathe easier and also trained Brown University medical residents at Rhode Island Hospital.

Dr. Boyd was a resident of Barrington for over 50 years and hosted a 4th of July Fun Run for friends before riding his bike to the Bristol Parade with his daughters. Other interests included writing (and typing with 2 fingers), movie reviews for friends, HO Model railroading, baking sourdough bread, tending the vegetable garden, sailing in Narragansett Bay, and attending live theater and music performances. He also had a special place in his heart for Mickey Mouse who was also "born" in 1928.

He is survived by his loving wife of 54 years, Jean (Strumski) Boyd, two daughters, Gayle Sommer and Sharyn Klaiman; two grandsons, Nicholas and Benjamin, and several nieces and nephews.

Donations in his memory may be made to: Asthma & Allergies Foundation of America/New England Chapter, www.asthmaandallergies.org, or Home & Hospice Care of Rhode Island, www.hhcri.org.



MAXIM DAAMEN, MD, 65, died unexpectedly while walking with his dog on a Fire Island beach on September 29. The son of Gradus and Elizabeth Daamen, he was born in The Netherlands and moved with his family to Vermont when he was 12. He earned an undergraduate degree from MIT and his MD from Tufts University School of Medicine.

Dr. Daamen was active in a number of professional societies. He was a clinical associate professor of psychiatry and human behavior in the Alpert Medical School at Brown University and former associate dean of the College. His professional erudition, empathy and diagnostic acumen were equaled only by his personal empathy for, and his dedication to, those near and dear to him. He loved entertaining his many friends, design and construction projects, gardening, food, the outdoors, sailing and traveling, and particularly his dog Enzo.

Dr. Daamen is survived by six siblings, 13 nieces and nephews and a host of dear friends. A memorial gathering was held at the Manning Chapel at Brown University on October 12.

Contributions in his memory may be made to: Rhode Island Foundation, Maxim Daamen Fund, One Union Station, Providence, RI 02903.



ROBERT LEO FARRELLY, MD, 82, of Mashpee, MA, died peacefully in the arms of his loving wife on Oct. 6, 2013. He was born in Providence, on November 15, 1930 to the late Peter Leo Farrelly and Anna (Osman-ski) Farrelly.

The first in his family to attend college, he graduated from Providence College with honors in 1952. There, he developed a lifelong passion for reading

great books, considering works by C.S. Lewis and Elmore Leonard among his favorites. In 1956, he graduated from Tufts Medical School and entered the Army Medical Corps, where he rose to the rank of Captain. In 1959, Dr. Farrelly started a family medicine practice in Cumberland, and joyfully went on to deliver thousands of babies. During his long medical career, he taught at Brown University Medical School where he mentored many students, but it was the enduring relationships he fostered with his patients that he considered his greatest medical achievement.

A longtime member of New Seabury Country Club, "Docky" was an avid golfer and a Boston sports fan, displaying an undying devotion to the Boston – now Atlanta – Braves. Since retirement, much of his time has been spent fundraising for charities, notably the Cape Cod Center for Women and Best

Buddies International. He also made frequent cameos in his sons' movies – his favorite being his role as Uncle Willy in *Kingpin*. Often known to take credit for his children's senses of humor, he was proud to instill in them a commitment to education, service to others, and an insistence on being the best versions of themselves possible.

A man who valued family over all else, he leaves behind the love of his life, his wife, Mariann; daughter Beth (John) Jordan of Duxbury, MA; son Peter (Melinda) Farrelly of Ojai, CA; son Bobby (Nancy) Farrelly of Duxbury, MA; daughter Kathryn Farrelly of Duxbury, MA; daughter Cindy (Zen) Gesner of Malibu, CA; his precious grandchildren, John, Kelsey, Thomas, Harrison, Anna, Finn, Alicia, Bob, Rory, Apple, and Tuck. He also leaves behind his loving sister Marilyn (Edward) D'Andrea of Raynham, MA, and bountiful extended family and loved ones. He is predeceased by his beloved grandson, Jesse Farrelly.

Donations may be made to the children's charity named for his grandson, "Cuz of Jesse" (www.cuzofjesse.org) or Falmouth Hospital (<http://givetocapecodhealth.org/>).



JOHN FORBES HOGAN, MD, 89, of Rumford, died peacefully October 26, surrounded by his family. He is survived by his beloved wife of 61 years, Margherita "Peggy" (Gilbane) Hogan of Rumford, formerly of Pawtucket; children John F Hogan of Seattle, Washington; Mary Pat Hogan Knorr of Santa Barbara, California; Sheila Longerbeam of Lafayette, California and Richard M. Hogan of

Cranston, 10 grandchildren and two great-grandchildren. He was pre-deceased by his son, Paul L Hogan and his granddaughter, Angelina Folco.

He was born in Pawtucket, son of the late John F. Hogan, who was a noted architect of churches, academic buildings and other institutional buildings, and the late Martha (Sutcliffe) Hogan.

He will always be remembered for his love of the Cape and all it had to offer. He was an avid fisherman and crabber, but most of all, he loved digging quahogs and continued to maintain an active shellfish license at the Cape late into his seventies. He took his children to the same crab holes he frequented with his own father and taught his grandchildren how to seine for minnows and carefully bait them on a hook to catch snapper blues.

A graduate of St Raphael's Academy in Pawtucket, The College of Holy Cross in Worcester, Mass., and Harvard Medical School, he was a beloved pediatrician. He continued to practice medicine for 50 years, retiring in 1998 and throughout his life,

took care of numerous generations in some of the same families. Fresh from his residency in pediatrics at Massachusetts General Hospital, he moved to the Southwest with his wife where he worked for the Public Health Service, treating patients on the Navaho Reservation. They moved to Nashville, Tenn., where he worked for the Public Health Department.

Starting a family, he and his wife returned to Pawtucket, where he set up a private practice. Pediatrics was a different world then, and he routinely made house calls late into the night, many days of the week. He went on to work at the Rhode Island Group Health Association, later Harvard Pilgrim Healthcare. He was a corporator of Providence Lying-In Hospital, now Women and Infants. He was a clinical associate professor of pediatrics at the Brown University Medical School, an assistant professor of community medicine at the Tufts Medical School and a teaching fellow in pediatrics at the Harvard Medical School. He was an active member of the American Academy of Pediatrics, Rhode Island Chapter; the American Medical Association, the New England Pediatric Society and the Pawtucket Medical Association, where he also served as president, secretary and treasurer. He also served on the Governor's Commission on Handicapped Children.

He had such a zest for life and an insatiable curiosity that were contagious and will really be missed.

In lieu of flowers, donations may be made to St Raphael's Academy, 123 Walcott St., Pawtucket.

VAHEY M. PAHIGIAN, MD, 95, of Providence, passed away peacefully on Thursday, October 17, 2013. He was the beloved husband of the late Elizabeth S. (Champlin) Pahigian, RN.

He attended Lowell High, the University of Rhode Island, and Tufts Medical School. He was a U.S. Army veteran, serving in the 3rd Army Medical Corps during World War II as a field-hospital surgeon. Dr. Pahigian was the former Chief of General Surgery at Women & Infants Hospital and consulting surgeon at Rhode Island Hospital. He ran his own private practice until retiring in early 2013. He is survived by his loving children; Beth Pahigian of Berlin, NH, and Craig Pahigian of Auburn, NH.

Memorial contributions may be made to: Sts. Sahag & Mesrob Church, 70 Jefferson St., Providence, RI 02908.





DR. SUI YEN WANG, 90, a long-time resident of North Scituate, died of pneumonia on Friday, Sept. 27, 2013 surrounded by her loving family. She was the beloved wife of the late Dr. James K. C. Wang for 54 years.

She was raised and educated in Shanghai. After receiving her medical degree in 1947, Dr. Wang came to the United

States to continue her medical studies. She then moved to North Scituate with her husband to settle and raise their family and open their medical practice. She became a US citizen in 1957.

For over 30 years, Dr. Wang practiced medicine jointly with her husband out of their home. Their practice was known to be open every day, at all times of the day, to all of their patients. She was dedicated to her patients, giving each one all the time and attention needed. A general practitioner, she focused her practice on the care of women and children. Her patients admired her compassion, kindness, intellect, and diagnostic acumen.

Dr. Wang strove for excellence and was a role model for many


young girls. Some consider her a pioneer – a woman successfully balancing family and career in a profession dominated by men during the early years of her practice. She was a member of the American Medical Association, the Rhode Island Medical Society, and the Chinese Medical Association.

Many who met her called her friend or auntie and her patients often called her their second mom. As a mother, she instilled in her children and grandchildren the importance of education and family values. She sponsored nieces and nephews from China to support their education in the United States. Dr. Wang enjoyed entertaining family and friends and playing the piano. Her greatest passion was cooking gourmet Chinese cuisine. She passed her love of food and cooking to her children and grandchildren.

She is survived by her children and their spouses, Dr. Victoria Wang of Honolulu, HI; Dr. Elizabeth Wang and Dr. Paul Ho of Carlisle, MA; Dr. Christine Wang of Bedford, MA; Dr. Roberta Wang and Dr. Wallace Akerley of Salt Lake City, Utah; and Dr. James Wang and Ms. Andrea Bugbee of Southwick, MA; by 12 grandchildren and one great-grandchild; and three siblings.

In lieu of flowers, memorial donations may be made to the Perkins School for the Blind, 175 North Beacon Street, Watertown, MA 02472 or the North Scituate Baptist Church, 619 W Greenville Road, North Scituate, RI 02857.

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Those Id- Words

STANLEY M. ARONSON, MD

PSYCHIATRISTS HAVE CAPTURED THE LATIN WORD, *ID*, WHICH THEY DERIVED from the ancient Greek word, *es*, meaning self. They have then expanded its meaning to encompass the primal emotional urges of humans as well as their idealized source of instinctive energy. The root, *id-*, has then become etymologically central to a variety of medical and general terms.

A cluster of commonly employed words (identify, identity, idem) then became available in general discourse. A derivative English word, *idea*, originally meant form or nature or even species. In Latin, it broadened its meaning to include image or shape. And in English, then, to signify learning or seeing (in the sense of understanding). Again, a cluster of currently used words arose, including uncommon terms such as eidograph, idol, idolatry, idyll and even kaleidoscope. (The Greek root, *eido-*, is secondarily derived from *es*.)

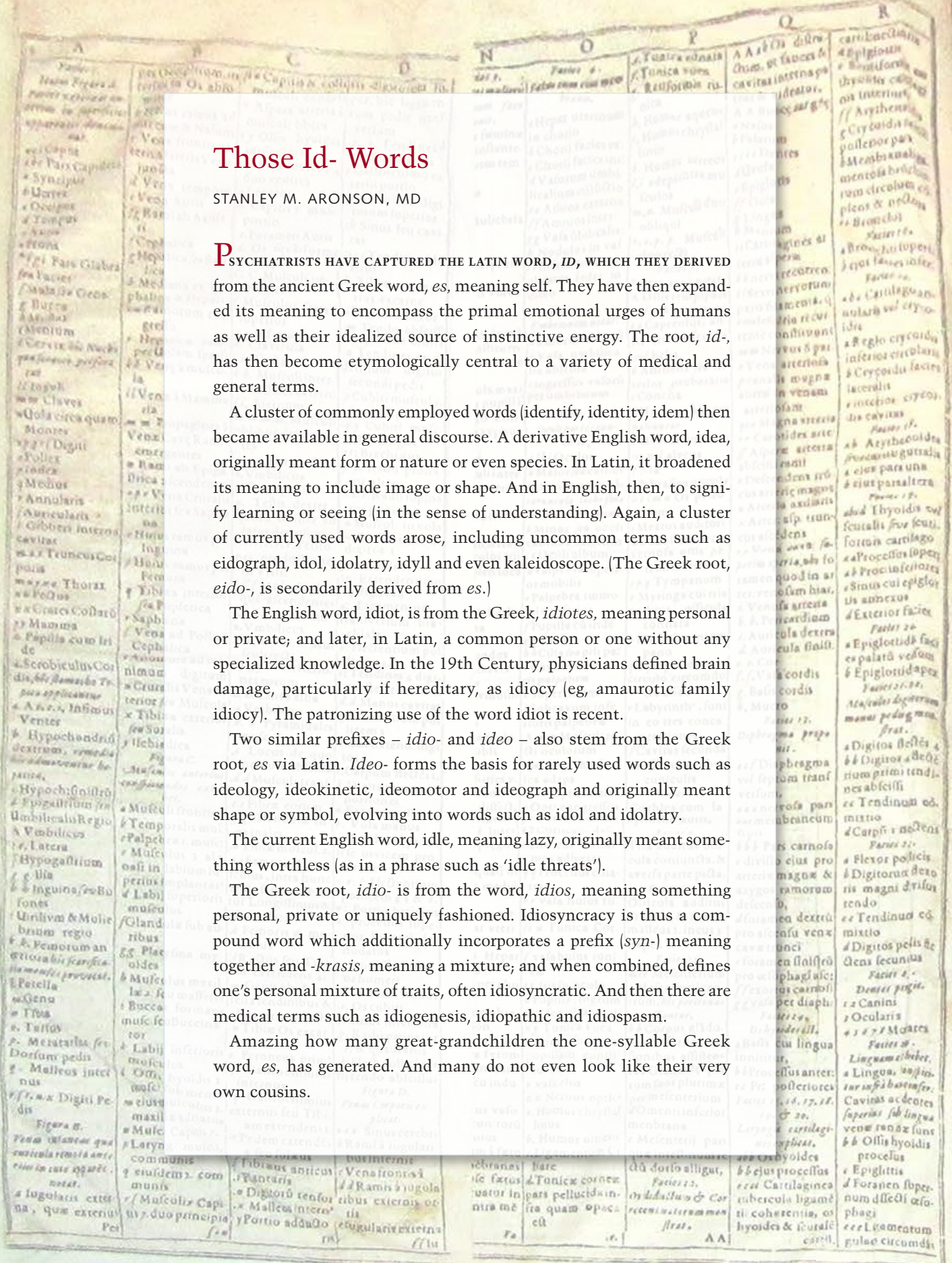
The English word, idiot, is from the Greek, *idiotes*, meaning personal or private; and later, in Latin, a common person or one without any specialized knowledge. In the 19th Century, physicians defined brain damage, particularly if hereditary, as idiocy (eg, amaurotic family idiocy). The patronizing use of the word idiot is recent.

Two similar prefixes – *idio-* and *ideo* – also stem from the Greek root, *es* via Latin. *Ideo-* forms the basis for rarely used words such as ideology, ideokinetic, ideomotor and ideograph and originally meant shape or symbol, evolving into words such as idol and idolatry.

The current English word, idle, meaning lazy, originally meant something worthless (as in a phrase such as 'idle threats').

The Greek root, *idio-* is from the word, *idios*, meaning something personal, private or uniquely fashioned. Idiosyncrasy is thus a compound word which additionally incorporates a prefix (*syn-*) meaning together and *-krasis*, meaning a mixture; and when combined, defines one's personal mixture of traits, often idiosyncratic. And then there are medical terms such as idiogenesis, idiopathic and idiospasm.

Amazing how many great-grandchildren the one-syllable Greek word, *es*, has generated. And many do not even look like their very own cousins.





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Dr. Throop exemplifies new RISD Museum show: Making It in America

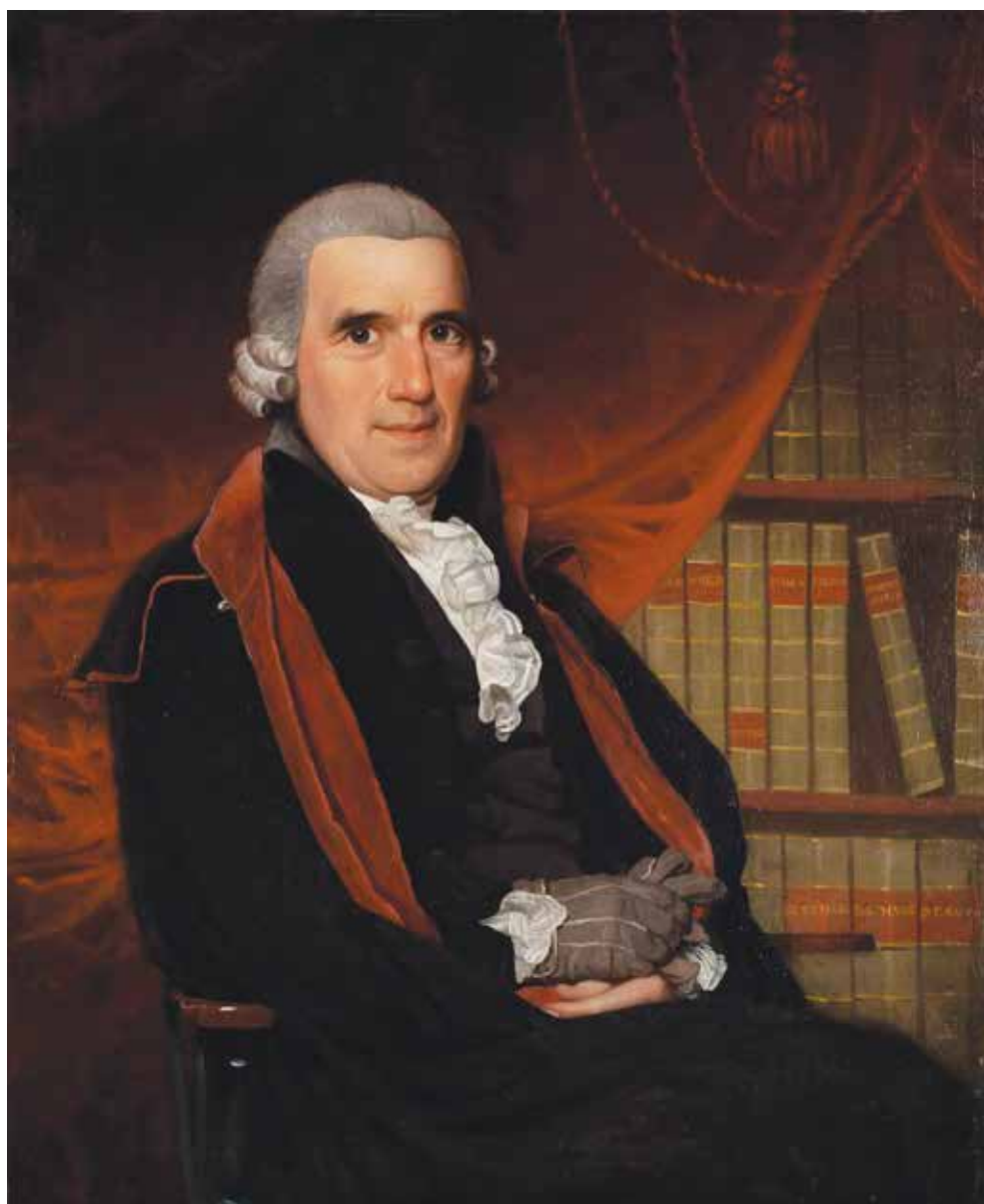
BY MARY KORR
RIMJ MANAGING EDITOR

PROVIDENCE – For more than a century, the portrait of Dr. Amos Throop, a founder and the first president of the Rhode Island Medical Society (1812–1814), has occupied a wall in various RIMS' offices, casting a benign and learned countenance on the comings and goings of Society members over the millennia.

The portrait is now on display at the RISD Museum's new exhibition, "Making It in America," which contains paintings, sculpture, furniture and decorative arts from the museum's collection. The selections illuminate the connection between American ambitions and the making of art from the pre-Revolutionary era to the early 20th century.

In this context Dr. Throop played a central role, not just as patriarch of the medical society, but as a member of the General Assembly who argued for ratification of the Constitution during his first term in the GA in 1788. His efforts did not convince the majority of staunch anti-Federalist politicians or populace, who rejected the Constitution in March 1788 by popular referendum. However, faced with threatened treatment as a foreign government, a ratifying convention was called in 1790, and Rhode Island ratified the Constitution by the narrowest margin (two votes) on May 29, 1790, the last state to do so.

Dr. Throop was also engaged in finance, and was a founder and president of the Exchange Bank in Providence.



The portrait of Dr. Amos Throop, first president of the Rhode Island Medical Society, was painted circa 1795 and attributed to James Earl. It was presented as a gift to the Rhode Island Medical Society in 1890 by Henry Dorr, Dr. Throop's grandnephew. In 2012, as part of RIMS' Bicentennial celebration, it was sent to the Williamstown Art Conservation Center for cleaning and repairs, and is now on permanent loan to the Museum of Art at the Rhode Island School of Design. It is on display until February 2014 as part of the "Making It in America" exhibit.



RIMS' portrait of Dr. Amos Throop (above) as displayed at the Museum of Art at RISD.

At right, details of the Throop portrait shown before and after cleaning and restoration at the Williamstown Art Conservation Center in 2012.



When the observer pauses to study his portrait, freshly restored during RIMS' Bicentennial in 2012, one sees the be-wigged physician/politician/financier of about 60 years seated in a Windsor chair and looking out with large luminous eyes in his 18th-century garb – gloves, velvet-lined cloak, and a lace-trimmed shirt. Behind him are the current scientific and medical books of the era.

The portrait, originally thought to be the work of American painter Ralph Earl, is now almost certainly that of his younger brother, James Earl (1761–1796), a Massachusetts native who studied in London for 10 years, and then returned

to this country and painted Dr. Throop on a visit to Rhode Island in 1794.

Indeed, several other portraits by James Earl in the RISD show bear a strong stylistic similarity, particularly that of Capt. Samuel Packard of Providence, a successful ship captain, merchant, and ship owner of Throop's era.

Upon leaving RISD Museum's Chace Gallery, site of the exhibition, one only has to walk down the street to 118 North Main St. and see Dr. Throop's brick, Georgian-style home (now elevated above a storefront) looking exactly the same as it did during his lifetime and where the portrait no doubt hung.

Dr. Throop died in 1814, followed by his wife, Mary – a drug compounder and shrewd businesswoman – several months later. They are buried in the North Burial Ground on North Main Street in Providence, not far from their home.

The exhibit is on display through February 9, 2014.

For more information on the history and restoration of the portrait and Dr. Throop, visit <http://www.rimed.org/about-throop-portrait.asp>



The house Dr. Throop inhabited during the last 13 years of his life still stands at 118 North Main Street in Providence.

