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Neurological Stigma

JOSEPH H. FRIEDMAN, MD joseph_friedman@brown.edu

R_{ECENTLY I HEARD A TALK} on how racial profiling affects the evaluation for stroke. Black patients at a large urban hospital being evaluated for cerebrovascular disease (TIA and stroke) were much more likely to be screened for cocaine and other drugs of abuse than white patients, regardless of age.

There were two points of the lecture. One objective was to underscore the importance of checking everyone for these drugs, as they turn up in the most unexpected people. The other was to point out the inherent biases of the doctors, at least at that one hospital, although it is pretty clear that this extends widely. This got me to thinking about other biases that the general public has, but also those we physicians have as well. Many studies have shown marked discrepancies in how different groups get different treatment in our health care system, even when the populations are matched for insurance and economic status. We are all biased. We are all shaped by experience. Many biases are not derogatory. Training in medicine is supposed to help us see each person as an individual, as well as a member of a complex social organization, but bias runs deep and can never be eliminated. Mostly we think of bias as racial or socioeconomic and bad, but some biases are not related to race or wealth.



A heartbreaking example is my patient with an inherited ataxia. He drives his mother to their mutual appointments and sometimes vents his frustrations to me. He was about 40 years old at the time he lost his job driving a vehicle at a warehouse that picked out heavy items from a

huge storage area to deliver them to the front of the store. He was evidently safe and a very reliable worker. He was moderately ataxic, but not at significant risk of falling. His speech was slow and slurred. He sounded like he was drunk, as did his mother. He was unable to obtain another job and when he went to the mandatory state retraining, he was directed by the state agency to a program for people with developmental delays. "They think I'm retarded because of how I talk." He wanted a full-time job doing whatever he could, and the agency tried to place him in a sheltered workshop.

Another patient has severe dystonia and walks bent over, one foot crossing the other in a remarkable manner. Although his walking is very abnormal, he can rollerblade forwards and backwards without a problem. He drove a school bus without incident until a parent saw him walking and called the school, which led to his termination. Rather than a lawsuit based on the Americans with Disabilities Act, he worked two jobs, put a down payment on a gas station and now owns two gas stations with convenience stores and employs his own children full-time.

We've all encountered adults who were born with cerebral palsy who have slow, slurred speech, spastic gait and clumsy movements who are intellectually intact. They are as smart or stupid as anyone else. The medical school at Brown has graduated a few. They are usually assumed to be intellectually impaired by most people who meet them for the first time and some do not change their opinions despite evidence to the contrary.

Occult bias is, by definition, submerged. We all know we have biases. We may think that we've expunged racial or socioeconomic or gender biases from our psyche, but it's a lot more likely that we've only contained them. There are biases that we are not aware of. One I've been interested in, although have not figured out how to study, is the bias towards people rendered parkinsonian by antipsychotic medications. A psychiatrist who specialized in schizophrenia told me of the parents' plea, "Please don't turn my child into a zombie." This reflects the very reasonable fear that the medications will make their child look different, which in this case means, looks like they have Parkinson's disease, with a "masked" facial expression, slow movements, stooped posture and possibly a tremor. There is published data revealing that physicians, when shown video vignettes, have a different opinion of patients, just based on their facial expression, depending on how "masked" their facial expression is. The more masked, the more likely the physicians were to consider the patients depressed, less social and cognitively impaired. And this is for people with idiopathic PD, hence an older population, as perceived by physicians, in both the United States and China. Another study reported that PD patients were perceived as "cold, withdrawn, unintelligent and moody." One hopes that these first impressions don't last, but Malcolm Gladwell has written books about how subconscious assessments made in a second alter our assessments and interactions.

Most schizophrenics in the western world are treated with medications that

routinely cause them to develop some of the features of PD. I can tell you from personal (and published) experience that in the majority of cases it is not recognized. I suspect that many doctors have come to believe that schizophrenics look like they do because of their schizophrenia rather than their treatment. I wonder what the average person thinks of a 20-year-old with a masked facial expression, stooped posture and slow movements, if a physician looking at a 70-year-old with PD automatically thinks he's cognitively impaired, cold or moody. The stigma of schizophrenia thus extends beyond the disease to include the treatment as well.

We cannot avoid pre-judging people. We must strive to avoid acting on the pre-judgment rather than the actual data, letting the data alter the judgment rather than the judgment alter the data. We must educate and police ourselves better, and, perhaps most importantly, we need to be more sensitive to our patients' adversities. *

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The Aronson Chair for Neurodegenerative Disorders

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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 Cautious Head Count of our Neighbors

STANLEY M. ARONSON, MD smamd@cox.net

THE YEAR 1972: Richard Nixon is president, The Dallas Cowboys win the Super Bowl and a population research institute in New Jersey completes a demographic analysis of humankind, concluding that the world's population stands at 3.6 billion souls.

Until about 1700 the global population (as best as could

be calculated) grew very slowly, only rarely exceeding 0.1% per year; and in years of widespread epidemics, dropping significantly. A variety of factors, not the least being improvement in human sanitation, then led to an explosive rise in the number of humans, and by the 20th century, reaching about a 2% increase per year. Barring the unforeseen Malthusian disasters of pestilence and warfare, it was inevitable that deep concerns would then be expressed as to the ecological limits of human growth.

Only three measurable factors determine the human population of a particular region at a particular time in history: The population of, say, Wonderlandia, at the end of year 2013, equals the number of people in Wonderlandia on January 1 of that year plus all of the births during the year, minus the number of deaths, plus the number of migrants entering, and minus the number of exiting migrants during the year 2013.

Demographers, studying the accu-



mulated data have now epitomized human growth as follows: An initial phase, stretching from the earliest of records through the 18th century, with the numbers of births barely exceeding the numbers of deaths, thus resulting in a minimal degree of overall population growth, if at

all. And the second phase, wherein the death rates drop while the birth rates, for decades, remain unaltered resulting in a dramatic rise in human population. And finally, a third phase characterized by a rapid tapering off of the birth rate to approximate the death rate, during which time the global population stabilizes with neither excessive growth nor abatement.

Recent human history has indeed complied with these three sequential phases called, by sociologists, the demographic transition. But this transition has varied considerably from region to region. In some developed nations, mortality rates now slightly exceed the local birth rates. But for many of the poorer countries birth rates still far exceed death rates.

The transition from high fertility/high mortality to low fertility/low mortality, envisioned by demographers, is an overly simplified portrayal of global happenings over the many millennia. Mass migrations, prior to the 15th century, certainly altered the cultures, languages and ethnicities of European and Asiatic populations, but the gross numbers of migrants was small when compared with those moving from the Eastern Hemisphere to the Western Hemisphere in the years following the 15th century.

Consider, now, the effects of the sudden introduction of a technical innovation into a developing nation. In 1946, the United Kingdom employed a newly devised insecticide to blanket the forests of one of its colonies, the island of Ceylon. Endemic malaria had caused many deaths particularly in children. The saturation of the island with DDT destroyed most of the mosquitoes of the island and the incidence of malaria diminished precipitously. And thus, in the next decade the island confronted a sharp drop in mortality but no appreciable decrease in fertility, causing a population explosion with no augmented governmental facilities such as schools, playgrounds and hospitals to provide care for the suddenly expanded community. Thus, in the absence of DDT, the decrease in mortality would have been more gradual and the discrepancy between need and availability of support services less compelling.

Beginning in the 1970s, a labor shortage emerged as a result of a very low fertility rate in the developed nations of Europe. Many laborers then migrated, particularly from the developing nations of the Middle East and South Asia; and by the inaugural years of the 21st century, inner cities such as Paris and Amsterdam remained ethnically Parisian or Dutch, while their suburbs were unduly congested with immigrant populations with substantially higher fertility rates than the resident families, leading to inevitable cultural clashes.

It is now four decades later; and how accurate were the population prognostications of 1972? Despite some nasty surprises in global history during these 41 years, the estimate that the world would reach 7 billion by 2005 has been verified. Thus, while social scientists may confidently predict the numbers of humans 40 years hence, this same assemblage of scholars cannot tell on Tuesday what a small handful of humans might do by next Friday.

That same analysis predicted a global population of 10.6 billion by the year 2050. The report did not reveal how the additional 3.6 billion souls will be adequately fed, clothed and housed.

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Are the Institute of Medicine's Trustworthiness Guidelines Trustworthy?

BENJAMIN K. YOUNG, MS; PAUL B. GREENBERG, MD

This paper was presented as a poster at the Brown Public Health Research Day on April 18, 2013 and at the American College of Physicians Rhode Island Chapter Annual Scientific Meeting on May 9, 2013.

ABSTRACT

The Institute of Medicine (IOM) has published a set of eight standards for guideline development groups (GDGs) to derive trustworthy clinical practice guidelines (CPGs). We investigated the adherence of these IOM guidelines to its own standards. The IOM document passed two of its own standards ("GDG-Systematic Review Team Interaction" and "GDG Composition"), only partially passed two others ("Articulation of Recommendation" and "External Review") and failed to pass four ("Establishing Transparency," "Management of Conflict of Interest," "Establishing Evidence Foundations" and "Updating"). The IOM standards for the development of CPGs do not meet their own criteria of trustworthiness. Further study is needed to determine the best methodology to evaluate CPGs. **KEYWORDS:** Clinical Practice Guidelines, trustworthiness

In March 2011, the Institute of Medicine (IOM) released the "Standards for Developing Trustworthy Clinical Practice Guidelines," a set of eight recommendations developed to guide guideline development groups (GDG) in deriving clinical practice guidelines (CPG) from formation of the GDG to updating the CPG based on new evidence.¹ A recent editorial highlighted the importance of rigorous and trustworthy standards in light of the recent breast cancer screening controversy.² However, the editorial also criticized the IOM standards on the grounds of setting standards too high and also as inflexible, since a guideline needs to meet all eight standards to be considered "trustworthy." The only study to examine guidelines with respect to the IOM standards found 0/130 CPGs met all standards.³ In light of this controversy, we thought it would be instructive to determine if the IOM standards would be considered trustworthy by their own criteria.

We evaluated the adherence of the "Clinical Practice Guidelines We Can Trust" document to its eight listed standards for developing CPGs. The analysis of each IOM standard is outlined in **Table 1** (next page). The IOM document passed two of its own standards, partially passed two standards, and failed four. These findings call into question the trustworthiness of the IOM standards for developing trustworthy CPGs. It can be argued that the IOM document is not a CPG and thus cannot be evaluated as such; however, we disagree, given that the IOM document purports to be a blueprint for developing CPGs to optimize care. Thus, it appears premature to recommend that all CPGs meet the IOM standards. Further study is needed to determine the best criteria for evaluating CPGs.

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Table 1. Evaluation of Institute of Medicine Standards for Clinical Practice Guidelines

| STANDARD | DESCRIPTION | EVALUATION |
|---|---|---|
| 1. Establishing Transparency | 1.1 GDG methods should be detailed explicitly and publicly accessible | Fail: The IOM uses grey literature*, and does not supply the reasoning for all sub-recommendations (2.3, 8.1). |
| 2. Management of Conflict of Interest (COI) | COI should be: • 2.1 Disclosed • 2.2 Discussed • 2.3 Divested 2.4 Members of the GDG should exclude: • A majority of those with COI • A chair or co-chair with COI • Funders | Fail: There is a lack of a clear or dedicated conflict of interest (COI) section in the IOM document. While affiliations of committee members are listed, whether any of the affiliations pose a potential conflict of inter- est is not disclosed or discussed; it is unknown whether potential COIs were divested prior to the production of this document. |
| 3. Guideline Development Group Composition | GDG should: 3.1 Be multidisciplinary 3.2 Involve patients or patient advocates 3.3 Use strategies to better involve patients in CPG development | Pass: The IOM committee was multidisciplinary, in- cluding clinical experts, methodological experts, and a former patient/patient organization representative. |
| 4. Clinical Practice Guide- line-Systematic Review Inter- section | The systematic review team should: | Pass: The IOM committee's literature search met IOM standards, and the systematic review team had full interaction with the development team. |
| 5. Establishing evidence foundations for and rating strength of recommendations | 5.1 Recommendations should be clearly described – including: Summary of evidence Quality, quantity, and consistency of evidence Evidentiary gaps A rating of level of confidence and strength of recommendation | Fail: While a rating of highest possible strength is implied for all recommendations, a rating of level of confidence is not considered. Some sub-recommendations have insufficient or non-publicly available evidence to support them: (2.2, 2.3, 7.1 ⁺ , 7.2, 7.4, and 8.1). Quality, quantity, and consistency of evidence are not consistently considered. Evidentiary gaps are occasionally mentioned. |
| 6. Articulation of Recom- mendation | Recommendations should be: • 6.1 Described precisely • 6.2 Be able to be evaluated discretely | Partial pass: While all recommendations are described precisely, using standards 2, 4, 7, and 8 to evaluate CPGs can be impossible for an external evaluator since full evaluation would require access to knowledge of GDG internal structure and discussions (discussion of the impact COI and record keeping of review comments, respectively). Additionally, standards 4, 7, and 8 have been called into question as vague and subjective. ³ |
| 7. External Review | 7.1 External review board should include all of: Experts Organizations Federal Agencies or an analogue Representatives of the public. Additionally: 7.2 Confidentiality of the reviewers should be preserved, 7.3 Meticulous record of review comments should be kept 7.4 The review draft should be publicly available | Partial pass: The external review board does not have members of federal agencies or an analogue, or repre- sentatives of the public. It does have clinical and sci- entific experts, as well as representatives from national organizations. Confidentiality of the reviewers was pre- served, and a record of review comments was kept. The public was invited to comment on key issues. A review draft was made available to the public. |
| 8. Updating | 8.1 Dates of systematic evidence review and date for future CPG review should be documented 8.2 Literature should be regularly monitored for new evidence 8.3 CPG should be updated when new evidence is found | Fail: The IOM standards use evidence from the literature to support and develop its recommendations. Hence, it is entirely plausible that new literature could modify these recommendations. However, no updating schedule or procedure is described within the IOM document. |

*Grey literature is unpublished material that has had limited distribution and is not included in bibliographic retrieval systems.⁴

+In support of sub-recommendation 7.1 (inclusion of scientific experts, clinical experts, patients, and representatives of the public in the external review panel), the reference provided by the IOM only mentions that these groups can potentially be used, but does not state that all must be used; furthermore it does not provide evidence that these groups used in combination will increase the perception of trustworthiness.

Defining The Elusive 'Medical Practice'

ELIZABETH BROWN, MD; LEONARD GREEN, MPH; JOHN P. FULTON, PhD; MICHAEL FINE, MD

Rhode Island's small size creates unique opportunities for public health. We can easily imagine how the Rhode Island Department of Health (HEALTH) might partner with primary care and specialty physicians to bring effective prevention and treatment to the entire population. We can also imagine how we might use primary care medical assets in non-traditional ways during emergencies when mobility is restricted to care for our population in place.

At present, however, we do not have the means formally to address Rhode Island's physicians above the individual provider level because the medical practices with which they are associated have been heretofore ill-defined. To be sure, we know a medical practice when we see one, but because "medical practices" are not defined by Rhode Island state law, and therefore have no formal relationship with state government, we do not know *how many* medical practices exist, *where* they are located, or *who* works in them. Also, because medical practices come in many shapes and sizes and have many kinds of legal structures, we do not really know how best to use the natural organization of the medical assets they contain. Finally – and vitally important to protecting the public's health – we do not know what people (patients) these heterogeneous medical practices serve.

By partnering with practices, Rhode Island can make use of these collaborations to reduce the incidence and prevalence of disease, but first we need a good definition of a "medical practice."

CONTEXT

Ambulatory care in the United States is provided in a wide variety of settings, ranging from privately owned solo physician offices to large multi-specialty practices organized under a corporate structure. The term "medical practice" has been used to describe the combination of elements that together serve as a mechanism through which physicians provide care, including physical space, support staff, medical record systems, billing processes, formal and informal relationships with other physicians and healthcare professionals, and patient panels. The shapes and sizes of medical practices vary as widely as the physicians and other medical providers who work in them.

Despite this natural heterogeneity, medical practices have been proposed as a unit of analysis for public health and health system initiatives, including quality measurement, workforce planning, and infrastructure improvement. Indeed, in times of emergency, public health departments scramble to define, locate, and communicate with medical practices, using various and sundry *ad hoc* methods. During the H1N1 influenza pandemic, for example, HEALTH created a list of medical practices by cross-referencing address information from individual physician licenses (some of which contained at least one address of a medical practice in which the licensee worked), telephone directories (Yellow Pages listings of medical practices), and internet searches.

Currently, license records maintained by HEALTH provide little data on medical practices in the state, because Rhode Island, like most states, regulates ambulatory medical care (read, "medical practices") primarily through the licensure of individual physicians. Because physicians commonly practice at multiple sites, and because these locations change with some frequency, the state does not require physicians to provide an exhaustive, much less an up-to-date list of practice locations. This critically limits the state's ability to match medical resources to populations in need.

In short, existing information is insufficient to advance coordination of medical care in the state, to expand primary and specialty healthcare, to allow effective medical planning, and to improve overall healthcare quality. We need more information about medical practices in the state – much more information – and we need to begin by defining what we mean by "a medical practice." In fact, we may need more than one definition, as the answer to the question "what is a medical practice?" varies according to why the question is asked, and for what the answer will be used.

COMMON DEFINITIONS OF "MEDICAL PRACTICE"

Medical Subject Headings (MeSH) Definitions

MeSH terms are used to classify information by key topics in the medical literature.¹ The MeSH database includes definitions of three types of "medical practice:" *private, partnership*, and *group*. A *private* practice is a practice in which one sole physician works.² A *partnership* practice is defined as a "voluntary contract between two or more doctors who may or may not share responsibility for the care of patients, with proportional sharing of profits and losses," which suggests a business alliance.³ A *group* practice is defined as "three or more full-time physicians organized in a legally recognized entity for the provision of healthcare services, who share space, equipment, personnel and records for both patient care and business management, and who have a predetermined arrangement for the distribution of income."⁴ Although this definition is somewhat more patient-careoriented, it is still primarily based on business organization.

Definitions Promulgated by Other State Governments

In addition to physician licensure, many states have additional ways to regulate outpatient facilities. Frequently, however, these regulations apply only to certain subsets of medical practices. Rhode Island, for example, regulates "organized ambulatory care facilities" (OACFs), defined as "structurally distinct public or private healthcare establishment(s), institution(s) or facilit(ies), primarily constituted, staffed and equipped to deliver ambulatory and urgent healthcare services," but also *exempts* any facility that is wholly owned by physicians licensed in the state.⁵ In practice, the exemption excludes *most* outpatient clinics except federally qualified health centers (FQHCs).

The State of Connecticut gives the Commissioner of Public Health broader statutory power to license an outpatient clinic, defined as an organization operated by a municipality or an organization other than a hospital which provides ambulatory medical or dental care for diagnosis, treatment and care of persons with chronic or acute conditions which do not require overnight care, or medical or dental care to well persons including preventive services and maintenance of health."⁶ However, Connecticut's licensure requirements do *not* apply to any facility owned and operated exclusively by physicians practicing under their own individual licenses, which has created data-gathering challenges similar to those faced in Rhode Island.⁷

Although most states do not license practices as such, 63 percent of state medical boards use their licensing mechanisms to capture some information on the distribution and supply of healthcare providers.⁸ The state of Vermont, for example, incorporates a survey that asks physicians for the town, specialty, and number of hours for each location at which they practice medicine. Survey results are used by the state to analyze physician data at the county level.⁹ A similar survey strategy could be used by Rhode Island to gather information about the sites in which physicians practice.

Centers for Medicare and Medicaid Services (CMS)

CMS has multiple definitions of "medical practice," specific to different needs. In the context of anti-kickback legislation, a physician practice is a medical practice comprised of two or more physicians organized to provide patient care services, regardless of its legal form or ownership. For quality incentive programs, CMS has created the Group Practice Reporting Option, which defines a group practice as more than 25 individual physicians who practice under a single tax identification number.¹⁰ Physicians who practice in groups that do not fit these criteria must report data as individuals in order to qualify for incentives. Nonetheless, most CMS outpatient care analyses are still at the individual provider level. For example, although electronic health records (EHR) systems are purchased by "medical practices," EHR incentive programs for adoption of EHR systems are based on individual physicians.¹¹

National Committee for Quality Assurance (NCQA)

NCQA's recognition program for "Patient Centered Medical Homes" is based on a definition of "medical practice" as any group of physicians who practice together in a single location. "Practicing together" is further defined as follows:

- The practice care team follows the same procedures and protocols.
- Medical records for all patients treated at the practice site, whether paper or electronic, are available to and shared by all clinicians, as appropriate.
- The same systems—electronic and paper-based—and procedures support both clinical and administrative functions, for example: scheduling, treating patients, ordering services, prescribing, maintaining medical records and follow-up.¹²

In order to be recognized as Patient Centered Medical Homes, *practices* must apply. Like other definitions of "medical practice," the NCQA definition is need-specific, and thus excludes many practice types.

Rhode Island Quality Institute (RIQI)

Similar to CMS, RIQI uses multiple definitions of "medical practice," depending on the context (personal communication, 2012). For example, the Beacon program uses "*practice*" to refer to a legal entity, "*site*" to refer to a geographic location where care is provided, and "*provider*" to refer to a specific individual. Alternatively, the CurrentCare program allows patients to authorize their "providers" to have access to the patients' healthcare information. A "provider" in this context refers to a combination of:

- one or more healthcare providers who are licensed to prescribe medications and treatment;
- and possibly, one or more healthcare providers who are not licensed to prescribe medications and treatment;
- and possibly, one or more persons who provide clerical support.

This "provider" entity may or may not be a legal corporation or LLC, and may be found at one or more geographical locations. This definition is rather open-ended. One might ask, for example: Should physicians who share after-hours coverage have access to patient records, even if they are not legally or geographically connected? Or: Should access to patient information be available to all doctors in a network that owns multiple clinic sites, even if it is unlikely that the information will be accessed at most of the sites?

DISCUSSION

Considering the limited definitions of medical practice that exist, Rhode Island may be well advised to create its own definition(s). Existing, albeit limited, information on medical practices provides a place to start. Geographic practice locations, for example, may be generated from sources mentioned above. Organized practice entities may also be identified by means of National Provider Identification (NPI) numbers, which designate entities that exchange protected health information with other organizations. Type I NPI numbers apply to *individual* physicians, while Type II NPI numbers apply to *groups*. These data may be used to generate lists of possible medical practices against which a hypothetical definition may be tested.

In the same vein, medical practices might be identified without a very specific definition by asking healthcare professionals to self-designate membership in medical practices at specific geographical locations, and by asking each self-described medical practice to register electronically with HEALTH. Such an approach avoids the complexity of the various definitions fielded to date, which all seem to exclude one type of practice or another, while allowing HEALTH to categorize and address the medical assets of each place, serving each population. This approach has the additional advantage of effectively automating practice personnel change updates, which would occur with health professional re-licensure.

Other organizations are exploring definitions of medical practice, as well. *Our* efforts to do so can be informed by *their* work, and *vice versa*. The Federation of State Medical Boards has proposed a minimum data set on practice patterns and workforce that can be tied to licensing in each jurisdiction, then compiled to create a national workforce database.⁸ If Rhode Island decides to require practice registration for health professionals, the Federation's data can serve as a rich source of information about what data to collect and how it is collected by other states. Knowing how Rhode Island's medical providers sort themselves into organized entities will be immediately helpful in organizing information from Rhode Island's Health Information Exchange (HIE), and in future, for many and diverse purposes.

As HEALTH moves forward with any initiative to define "medical practice," it should consider which projects it wishes to prioritize, because such considerations will shape how data gathering and designations should proceed. Starting from a virtual *tabula rasa*, HEALTH has the opportunity to create a definition (or *definitions*, tailored to current and future needs) that helps shape the public health collaborations of the future.

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A Virtual Cataract Surgery Course for Ophthalmologists-in-Training

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Presented as a poster at the Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting, May 5-9, 2013 in Seattle, Washington.

ABSTRACT

Virtual reality (VR) surgery simulation is an emerging teaching tool to train residents in cataract surgery. The widespread adoption of virtual surgery has been limited, however, by high costs and the absence of standardized curricula and evidence demonstrating the impact of VR training on resident surgical outcomes. We outline a resident virtual cataract surgery course—freely accessible online—that we hope will contribute to the development of a standardized VR cataract surgery curriculum.

KEYWORDS: Resident training, virtual reality simulation, cataract surgery

INTRODUCTION

Currently, most ophthalmology training programs in the United States use didactic and wet-lab instruction to prepare students for cataract surgery. Virtual reality (VR) surgery simulators have recently become an additional teaching tool.1 Cataract surgery simulation modules have demonstrated construct validity in their ability to realistically mimic actual cataract surgery procedures and procedures.²⁻⁶ These simulations have also been effective in helping to develop and to hone skills needed for the operating room (OR).^{2,7-11} The widespread adoption of virtual surgery has been limited, however, by high costs,12 and the lack of standardized curricula and studies demonstrating the impact of VR training on resident surgical outcomes ("VR-to-OR").1 We describe herein a resident virtual cataract surgery course developed in the Division of Ophthalmology at the Alpert Medical School of Brown University. It will be freely available on the Division's website (See link below). In this way, we hope the course will be a first step toward the development of a standardized and validated VR cataract surgery curriculum: it can be regularly updated based on feedback from other users and serve as the basis for studies evaluating the VR-to-OR transition.



The Course Manual, Components

We designed the course manual to be used alongside of the EyeSi® simulator (VRMagic, Mannheim, Germany). The course was divided into two sections: (1) a didactic section based on the America Academy of Ophthalmology (AAO) Basic and Clinical Science Course® (BCSC), "Lens and Cataract" (2011-2012) and (2) a VR section integrated into specific training modules from the virtual surgery simulator. The organization of the VR section is based on training targets for each Post Graduate Year (PGY) level (2-4).

The didactic section of the course manual provides foundational information about normal and abnormal human lens physiology. It aims to introduce residents to ocular anatomy, physiology and pathology. It also serves as a reference to be used alongside the surgery modules. Its subsections include Lens Anatomy, Lens Pathophysiology and the Preoperative Care, Procedure, Postoperative Care and Complications of Cataract Surgery. In addition to this resource, residents are encouraged to consult the AAO BCSC®, "Lens and Cataract" and the AAO Preferred Practice Pattern® guidelines, "Cataract and the Adult Eye."¹³

Simulator Training

The VR section targets cataract surgery training in the simulator: it begins with microsurgical training skills and

subsequently integrates these newly-acquired skill sets into a program designed to help residents master the key cataract surgery steps. These steps include capsulorhexis, hydrodissection, nuclear rotation, irrigation, aspiration, emulsification and nuclear disassembly. The course aims to develop skills in intraocular navigation, anti-tremor handling of targeted instrument motions, bimanual coordination involving simultaneous use of multiple handpieces, cataract cracking and chopping, forceps maneuvering, phacoemulsification machine calibration, capsulorhexis and hydrodissection maneuvers and other techniques such as divide and conquer. These learning modules are organized into three subsections-PGY 2, PGY 3 and PGY 4. Within each subsection, there are select tasks tailored to developing and/or improving specific microsurgical skills appropriate for each resident year. The manual describes each module with an introduction, goals, screenshots, instruments needed and instructions. There should be enough background information for residents to know what to expect, the purpose of the tasks and how to work on meeting these objectives.

When ophthalmology residents enter their PGY 2, they will begin their cataract surgery training by reviewing the didactic portion of the course. After gaining a firm foundation in ocular physiology and pathophysiology, they will begin training on the simulator. The manual will guide their experiences by taking them through each step, including learning how to use the machine. There are photographs and screenshots captured to provide clarity alongside descriptive instructions. The simulator modules themselves also lay out specific goals, instructions and other information that may be helpful to students following the program. As residents grow more familiar with the simulator and accomplish module tasks, the program will unlock further, more advanced modules. This progression will ideally help residents attain the skill set needed for a smooth VR-to-OR transition during the course of their training.

SUMMARY

In summary, this virtual cataract surgery course aims to help facilitate incorporation of simulation technology into the ophthalmology residency curriculum. We also hope the VR course can be combined with wet labs to more effectively transition residents into the OR and, equally important, serve as a foundation for studies that will rigorously evaluate the impact of VR training on resident cataract surgery outcomes.

Link to course: http://brown.edu/go/CataractManual.pdf

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Methadone-induced Torsades de pointes

LESLIE RUSSELL, MD; DANIEL LEVINE, MD

ABSTRACT

Torsades de pointes is a polymorphic ventricular tachycardia that can quickly evolve into ventricular fibrillation and sudden death. This arrhythmia often occurs secondary to medication- induced cardiac repolarization dysfunction with resultant prolonged QTc interval on ECG. Numerous medications can predispose patients to this deadly tachycardia. We report a case of methadone-induced Torsades de pointes complicated by ventricular fibrillation and cardiac arrest. Through rapid taper of methadone, the patient's ECG normalized, allowing for safe discharge. This clinical vignette highlights the importance of close monitoring of patient medications. Performing periodic ECGs with prompt removal of offending agent when repolarization abnormalities are appreciated is ideal. Most importantly, as the vast array of medications continues to grow, it is imperative that clinicians are cognizant of side effects and tailor treatment accordingly.

KEYWORDS: Torsades de pointes, methadone, prolonged QTc, polymorphic ventricular tachycardia, ECG

CASE PRESENTATION

A 45-year-old woman with a history of intravenous drug abuse on chronic methadone therapy presented with possible non-epileptic seizures. Her home medications included: quetiapine, 200mg daily; methadone, 280mg daily; fluoxetine, 40mg daily, and aprazolam, 1mg three times a day. Initial evaluation in the emergency room, including routine blood work, was unremarkable. ECG incidentally noted a nine-beat run of polymorphic wide-complex tachycardia consistent with non-sustained ventricular tachycardia (**Figure 1**). The QTc interval was 540 milliseconds. The patient was admitted to the cardiology service for ECG monitoring.

Shortly thereafter, the patient experienced frequent runs of non-sustained ventricular tachycardia culminating in an episode of Torsades de pointes and ventricular fibrillation. Cardiopulmonary resuscitation, amiodarone administration and defibrillation resulted in successful return of spontaneous circulation. Repeat ECG demonstrated a prolonged QTc interval of 720 milliseconds (**Figure 2**). Her methadone dose was reduced, followed by a quick taper and transition to buprenorphine. She was counseled on avoidance of methadone in the future. At the time of discharge, the QTc interval was less than 500 milliseconds.

INTRODUCTION

Polymorphic ventricular tachycardia is a wide-complex tachycardia that can rapidly degenerate into ventricular fibrillation and sudden death. A subtype of polymorphic ventricular tachycardia, Torsades de pointes, results from cardiac repolarization abnormalities and is manifest on surface ECG as a prolonged corrected QT interval (QTc). It is often medication induced. A case of prolonged QTc resulting in this potentially lethal arrhythmia was observed and believed to be secondary to a very high methadone dose.

Figure 1. ECG obtained in the emergency room illustrating a nine beat run of non-sustained ventricular tachycardia.



DISCUSSION

Torsades de pointes is a polymorphic ventricular tachycardia that can lead to sudden death. Predisposing conditions include electrolyte abnormalities and an acquired long QT interval, most commonly due to medication effects on normal cardiac electrophysiology. On a cellular level, prolongation of the QT interval represents myocyte repolarization dysfunction secondary to decreased efflux of potassium cations through blockade of rapid potassium current.1,2 This blockade causes subsequent delay in action potential

repolarization. Early after depolarizations (EADs) are then trigged which can lead to premature ventricular beats followed by compensatory pauses.^{2,3} Additional EADs and compensatory pauses may then occur due to the potassium channel blockade, resulting in a characteristic long-short RR intervals and the substrate for polymorphic ventricular tachycardia.² Although usually self-terminating, it can degenerate into ventricular fibrillation.

Many common medications increase the QT interval and place patients at risk for these lethal arrhythmias. Notorious drugs include certain anti-psychotics, analgesics, and antibiotics. In the above clinical scenario, the patient's unusually high methadone dose of 280mg led to a prolonged QT interval and resultant Torsades de pointes. The patient's additional psychiatric medications, quetiapine and fluoxetine, likely potentiated this effect.

Due to the unpredictable nature of QT prolongation and Torsades de pointes, a common dilemma facing clinicians is how these medications should be monitored to prevent potentially fatal arrhythmias. Periodic ECG monitoring of the QT interval and discontinuation of offending medications in the setting of prolonged intervals is ideal. If this is not feasible, practitioners should remain cognizant of potential additive medications on QT prolongation. In the case of patients with severe opioid dependency requiring very high doses of methadone, alternative agents such as buprenorphine, a mixed opioid antagonist/agonist, should be considered. This medication is proven to reduce opiate relapse and usually does not significantly increase the QT interval.⁴ As the vast array of medications continues to expand, a multidisciplinary approach involving both clinicians and pharmacists may be the best way to avoid this serious, pharmaceutical complication.

Figure 2. ECG after cardiac arrest illustrating a corrected QT interval of approximately 720 milliseconds.



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Impact of Preventive Medications in Migraine Patients at Rhode Island Hospital

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ABSTRACT

OBJECTIVE: Determine healthcare resource utilization in migraine patients prescribed preventive medications in the resident neurology clinic at Rhode Island Hospital. **BACKGROUND:** Similar institutions have demonstrated that treatment with preventive migraine medications results in significant decreases in outpatient and ED visits, CT/ MRI scans and abortive medication usage.1 **METHODS:** Retrospective chart review identified 166 patients based on icd-9 code. Resource utilization was defined as documented emergency room visits, MRI/CT, hospitalizations, outpatient visits and abortive medication usage. **RESULTS:** There was no difference in resource utilization in those patients taking or not taking a preventive medication. Only 53% were on a level A recommended medication and of those 35.5% were treated with recommended doses. **CONCLUSION:** Unlike similar institutions, there was no difference in resource utilization in patients taking preventive medications. A possible explanation for this discrepancy may be that patients are sub-optimally treated with less effective medications and doses. Employment of appropriate preventive medications may result in a decrease in the utilization of healthcare resources.

KEYWORDS: migraine, migraine preventive therapy, migraine resource utilization, emergency department, CT, MRI

INTRODUCTION

Migraine accounts for an estimated annual cost of up to \$17 billion in the United States due to medications, emergency department visits, inpatient hospitalizations, outpatient clinic visits and laboratory and diagnostic services. Indirect costs resulting from loss of productivity in the workplace are hard to quantify, but likely far exceed the aforementioned estimate.4,5 Migraine headache affects 12% of the general population. It makes up 2.6% of all emergency room visits and is the 4th most common cause of emergency room resource utilization.¹ Around 90% of migraineurs have moderate to severe pain, 75% have decreased ability to function during the headache attacks, and 33% require bed rest during their attacks.² Chronic migraine (headache > 15 days a month for at least 3 months) accounts for 2% of these cases worldwide and is associated with greater disability than episodic migraine (<15 days a month).³

In 2012, new evidence-based guidelines for the pharmacologic treatment of episodic migraine prevention concluded that divalproex sodium, sodium valproate, topiramate, metoprolol, propranolol and timolol are effective options for migraine prevention.^{6,7} When optimally used at the appropriate dose, these medications reduce the frequency, severity and duration of headaches which may result in lower resource utilization and limit the use and need for abortive medications. A study performed by Silberstein et al. from the Jefferson headache center demonstrated that outpatient visits decreased by 51.1%, ED visits decreased by 81.8%, CT scans decreased by 75.0%, MRIs decreased by 88.2% and the number of Sumatriptan tablets dispensed decreased relative to their baseline dosing after the initiation of a preventive agent.1 The decrease in the use of abortive medications will in turn, prevent the development of medication overuse (aka rebound or drug-induced) headache.

Preventive therapies are recommended for patients with: (1) 2 or more attacks per month producing disability lasting greater than or equal to 3 days, (2) failure of acute therapies, (3) use of acute therapies more than twice a week, and (4) existence of uncommon migraine conditions (ie, basilar migraine). Previous studies have demonstrated that the optimal use of these medications for at least one year, in patients that meet criteria, can limit disability and in turn reduce healthcare resource utilization.^{1,8,9} There have been other studies that have demonstrated similar findings particularly with the prophylactic use of Topiramate.^{10,11}

METHODS

Data collection

We conducted a retrospective chart review that analyzed utilization information from the Neurology resident clinic at the Rhode Island Hospital. Data was extracted from the Lifelinks and Eclinicalworks electronic medical record (EMR) database between July 1, 2010 and August 31, 2012.

Definition of patient groups

Utilizing the EMR, 203 patients were isolated using ICD-9 codes for migraine which included 346.0, 346.1, 346.3, 346.5, 346.7, 346.8 and 346.9. Patients on narcotic medications were excluded. A total of 166 patients were included in the study. Demographic information such as age, gender, race, marital status, employment status and disability status were recorded.

Patients were identified as taking preventive medications for migraine according to those medications identified as effective preventive agents. Evidence-based guidelines for the pharmacologic treatments of episodic migraine prevention were released by the American Academy of Neurology in 2012. The agents with Level A and B evidence include divalproex sodium, sodium valproate, topiramate, metoprolol, propranolol, timolol, amitriptyline, venlafaxine, atenolol and nadolol. Patients on one of these medications were categorized in the preventive medication group. The 'preventive medication' group had 86 patients and 'not preventive' group had 80 patients. Patients were also classified separately based on their migraine type (ie, episodic vs. chronic) as defined by the American Headache Society (AHS) guidelines.

Definition of utilization

Among the 2 groups of interest, the total number of outpatient visits, inpatient hospitalizations and emergency room visits were extracted by chart review. To measure diagnostic imaging utilization, the total number of MRI brains and CT Brains were isolated based on their CPT codes which included 70551, 70552, 70553, 70557, 70558 and 70559 for MRI brain and 70450, 70460 and 70470 for CT brain.

To measure abortive therapy usage among the 'preventive' vs. 'non preventive' groups, we identified patients that were prescribed triptans within the study period. No other abortive therapies were included.

Statistical analysis

Data was analyzed using SPSS (version release 19, SPSS Inc., Chicago, Illinois). Data are reported as means ± standard deviations. Pearson chi-square, and independent samples t test, and paired t-tests were used to compare categorical, nominal, and continuous variables, respectively. Assumptions of normality and homogeneity of variance were satisfied. The level of significance for all tests was set at 0.05 (two-tailed).

RESULTS

Demographics

The mean age of patients was 41.21 +/- 1.026 with a 90.4% (n=150) female predominance. Of the participants, 56% (n=93) were Caucasian, while 24.7% (n=41) were African American. Nine percent of study participants (n=15) were on disability and 30.7% of participants were employed (n = 51). Based on migraine type, 66.2% of patients (n=110) had episodic migraines, while 33.7% (n= 56) had chronic migraines (**Table 1**). We found that 51% of all patients (n = 86) had been placed on a preventive regimen (**Table 2**). We also looked at side effects of abortive treatment, and found out that 7.8% of patients had met criteria for medication overuse headache (**Table 3**).

Independent t-test analysis was used to identify if there was

Table 1. Demographics

| Demographic Variable | | Percentage |
|-------------------------|-------------------|------------|
| Age | 10-29 | 3.6 |
| Ť | 20-29 | 19.9 |
| | 30-39 | 21.1 |
| | 40-49 | 25.3 |
| | 50-59 | 21.1 |
| | 60-69 | 8.4 |
| | 70-79 | 0.6 |
| Gender | Female | 90.4 |
| | Male | 9.6 |
| Race | African-American | 24.7 |
| | Pacific Islander | 0.6 |
| | White | 56 |
| | Other | 18.7 |
| Disability for headache | No | 66.9 |
| | Yes | 9 |
| Employment | No | 45.2 |
| | Yes | 30.7 |
| | Missing | 24.1 |
| Migraine Type | Episodic Migraine | 66.3 |
| | Chronic Migraine | 33.7 |

Table 2. Patients on Preventive medication

| | | Percent |
|-----------------------|-----|---------|
| Preventive Medication | No | 48.2 |
| | Yes | 51.8 |

Table 3. Medication Overuse Headache

| | | Percent |
|-----------------------------|-----|---------|
| Medication Overuse Headache | No | 92.2 |
| | Yes | 7.8 |

a statistically significant difference in resource utilization in patients who either were on a preventive regimen (P) or not on a preventive regimen (NP) (**Table 4**). The results highlighted in Table 4 show no statistical significance in usage patterns of outpatient visits, inpatient hospitalizations, ED visits, MRIs, CTs or abortive triptan usage between the cohorts.

After comparing resource utilization patterns in patients either (1) on a preventive regimen or (2) not on a preventive regimen, we stratified patients into cohorts based on their migraine type, namely whether they had episodic migraines or chronic migraines. Among Episodic migraine patients (n=110), 44.5% (n=49) were on preventive medication and 55.4% (n=61) were not on a preventive medication. There was no statistically significant difference in the mean number of outpatient visits, inpatient hospitalizations, ED visits, MRIs, CTs and abortive triptan usage. All of the patients identified with medication overuse headache (n=13) were in the episodic migraine group.

Among chronic migraine patients (n=56), 66% (n=37) were on a preventive medication and 33.9% (n=19) were not on a preventive medication. Based on the results depicted in **Table 5**, there was no statistical significance in the utilization of resources such as MRI and CT scan. There was also no difference in the mean number of outpatient visits, inpatient hospitalization and ED visits within the study period. Interestingly, There was however, a statistically significant difference in abortive triptan usage patterns in patients not on a preventive (0.26) compared to those on a preventive (mean = 0.14). Patients not on a preventive medication used more abortive triptans (p= 0.027). None of these patients met the criteria for medication overuse headache.

Optimal preventive medication recommendations have been published (Table 6). Using these expert recommendations, we carefully examined the treatment protocols for the patients enrolled in our study. We found that 72% (n=62) of patients were on amitriptyline (a Level B agent) and only 53% were on a Level A agent (divalproex sodium, valproic acid, topiramate and beta blockers). Looking closely at patients without optimal treatment, many had been maintained on minimal doses of the prescribed preventive medications. In fact, only 35.5% of patients were treated with optimal doses of preventive medications.

| Table 4. Resource utilization between p | preventive and | not preventive cohorts |
|---|----------------|------------------------|
|---|----------------|------------------------|

| | Preventive Medications | Ν | Mean number of resources used ^ь | Std. Error Mean | Independent Samples Value (p-value) |
|------------------|---------------------------|----|--|-----------------|---|
| | No | 80 | .43 | .068 | .706 |
| IVIKI | Yes | 86 | .43 | .071 | |
| CT | No | 80 | .61 | .112 | .708 |
| CI | Yes | 86 | .58 | .094 | |
| Outpatient | No | 80 | 2.51 | .250 | .679 |
| clinic Visitsª | Yes | 86 | 2.85 | .212 | |
| | No | 80 | .09 | .032 | .782 |
| Inpatient Visits | Yes | 86 | .09 | .036 | |
| | No | 80 | .95 | .267 | .927 |
| ED Visits | Yes | 86 | .95 | .223 | |
| Abortive Triptan | No | 80 | .21 | .046 | .397 |
| Therapy | Yes | 86 | .19 | .042 | |

*There was no statistically significant different in resource utilization between those on preventive medication and those not on a preventive medication.

^a Outpatient visits were Neurology clinic visits with residents.

^b The mean column corresponds to the average number of resources used during the study period, ie, MRI, CT, clinic visits. For example, whether or not patients were on a preventive, they had a mean number of 0.43 MRIs in the study period.

Table 5. Chronic migraine resource utilization/ preventive vs. not preventive

| Test | Preventive Medications | Mean number of resources used | Std. Error Mean | P-value |
|------------------|---------------------------|----------------------------------|-----------------|---------|
| MDI | No | .42 | .116 | .315 |
| IVIKI | Yes | .43 | .106 | |
| CT | No | .74 | .252 | .376 |
| CI | Yes | .57 | .148 | |
| Outpatient | No | 3.53 | .686 | .257 |
| Visits | Yes | 3.32 | .382 | |
| Inpatient Visits | No | .11 | .072 | .560 |
| | Yes | .08 | .045 | |
| | No | 1.32 | .654 | .896 |
| ED Visits | Yes | 1.35 | .434 | |
| Abortive Triptan | No | .26 | .104 | .027 |
| Therapy | Yes | .14 | .057 | |

*Chronic migraine patients not on a preventive medication used more abortive triptans (p= 0.027), than chronic migraine patients on a preventive medication

DISCUSSION

Guidelines for the pharmacologic treatment of migraine prevention released in 2012 by the American Academy of Neurology provides clear evidence-based recommendations about the most effective agents for the prevention of migraine headaches as well as the mean effective doses. Preventive medications are essential for treatment of migraine, especially those patients who experience frequent attacks. Other studies have concluded that preventive agents significantly reduce hospital resource utilization and abortive medication usage. In contrast to these prior studies, our study fails to show statistically significant differences in resource utilization among patients on preventive therapies versus those not on preventive therapies. Treatment of migraine in this particular urban, uninsured population may present some challenges. The discrepancy between RIH and other similar institutions could be attributed to: (1) physician

Table 6. Mean recommended doses for preventive medications

| Medication | | | Recommended mean |
|---------------|---------|--------|----------------------------------|
| | | | dose |
| Divalproex | sodium, | sodium | 500-1000 mg/day ^{6,12} |
| valproate | | | |
| Topiramate | | | 50-200 mg/day ^{6,10,11} |
| Metoprolol | | | 100-200 mg/day 6,8,13 |
| Propranolol | | | 80-240 mg/day ^{6,14} |
| Amitriptyline | | | 25-100 mg/day ^{6,9} |
| Venlafaxine | | | 75-150 mg/day ^{6,15} |
| Timolol | | | 20-60 mg/day ⁸ |
| Atenolol | | | 50-200 mg/day ⁸ |
| Nadolol | | | 20-160 mg/day ⁸ |

preference/restriction in favor of a particular, cheaper medication, (2) suboptimal dosing of preventive agents, (3) inadequate trial of medications with premature changes to an alternative, (4) poor compliance and follow-up by patients in a predominantly urban, uninsured population, (5) inadequate supervision of residents by attendings, few of whom are specialists in headache, (6) lack of support services for patients (eg, ability to call clinic when distressed and talk to the doctor). Additionally, we found that many patients had been switched from one medication to another without being adequately challenged with sufficient dosages for an appropriate amount of time. Working in this urban population where the majority of patients are uninsured could be an explanation for choosing amitriptyline, due to its cost effectiveness compared to other proven, more highly recommended and costly prophylactic medications. Explanations for patients being on suboptimal dosing could be attributed to medication side effects and poor compliance with medication and physician visits.

The fact that chronic migraine patients not on a preventive medication in our study used more triptans highlights the importance of aggressively starting a preventive medication. The prompt initiation of a preventive medication soon after the initial diagnosis could prevent conversion from episodic migraine to the more disabling chronic migraine and possibly medication overuse headache.

Initiation of recommended preventive medications at effective doses for the appropriate trialing period early in the course of migraine may result in an improvement in patient care and significant decreases in the utilization of vital healthcare resources as observed at similar institutions. Without a doubt, patient preference and clinician judgment play a large role in medication choice and dosage escalation. Employment of these strategies in clinical practice here at RIH, as in other institutions, will likely result in improvement in migraine management and significant cost savings.

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

| | REPORTING PERIO | D | | | |
|--------------------------|-------------------|--------------|-------------------------------------|--|--|
| VITAL EVENTS | FEBRUARY 2013 | 12 MONTHS EN | 12 MONTHS ENDING WITH FEBRUARY 2013 | | |
| | Number | Number | Rates | | |
| Live Births | 876 | 11,732 | 11.1* | | |
| Deaths | 812 | 9,641 | 9.2* | | |
| Infant Deaths | 4 | 79 | 6.7# | | |
| Neonatal Deaths | 3 | 62 | 5.3# | | |
| Marriages | 211 | 6,293 | 6.0* | | |
| Divorces | 247 | 3,361 | 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 poulation

Rates per 1,000 live births

| | REPORTING PERIOD | | | |
|--------------------------------------|------------------|------------|-----------------|-----------------|
| Underlying Cause of Death Category | AUGUST 2012 | 12 / | MONTHS ENDING W | ITH AUGUST 2012 |
| | Number (a) | Number (a) | Rates (b) | YPLL (c) |
| Diseases of the Heart | 170 | 2,333 | 221.5 | 3,446.5 |
| Malignant Neoplasms | 190 | 2,180 | 207.0 | 5,504.5 |
| Cerebrovascular Disease | 32 | 427 | 40.5 | 652.0 |
| Injuries (Accident/Suicide/Homicide) | 40 | 711 | 67.5 | 9,156.5 |
| COPD | 35 | 504 | 47.9 | 512.5 |

(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.

'The Sandwich Sign': Mesenteric Lymphoma

ANNA ELLERMEIER, MD; CHAD ELLERMEIER, MD; DAVID J. GRAND, MD

CASE REPORT

A 68-year-old male presented to an urgent care facility complaining of dizziness, lightheadedness, new onset left, lower-extremity weakness, as well as urinary urgency and decreased urine output. He was sent to the Emergency Department to be evaluated for stroke. An MRI of the brain revealed acute and subacute lacunar infarctions. Given his urinary retention, a Foley catheter was placed. He underwent CT of his abdomen and pelvis, which showed evidence of locally, advanced prostate cancer, with subsequent PSA measuring 441 ng/mL.

Additionally, the CT revealed an 8.6 x 3.4 x 7.9 cm soft tissue density mesenteric mass within the left hemiabdomen (Figure 1). There was mild mass effect on the normalappearing adjacent small bowel loops, but the mesenteric vasculature traversed the mass without distortion. Though nodal metastatic disease may be seen in prostate cancer, the location and imaging appearance of the mass were thought to be most consistent with primary lymphoma.

The patient underwent image-guided, percutaneous biopsy. Histologic examination demonstrated lymphoid tissue fragments consisting of small- to medium-sized lymphocytes with oval to irregular nuclei, dense chromatin, and a moderate amount of cytoplasm. A small subset displayed a centroblast-like appearance. By immunohistochemistry, the diagnosis was confirmed to be primary low-grade follicular lymphoma (Figure 2).

DISCUSSION

Mesenteric lymphoma is the most common malignant neoplasm affecting the mesentery.¹ Most mesenteric lymphomas are Non-Hodgkin's Lymphomas (NHL),² and approximately 30-50% of patients with NHL have mesenteric nodal disease.¹ Bulky retroperitoneal adenopathy will often accompany primary mesenteric disease and can be a clue to the diagnosis.¹

A common finding on Computed Tomography (CT) imaging of mesenteric lymphoma is termed the "sandwich sign" (Figure 1). The sandwich sign appears as multiple rounded, mildly enhancing masses encasing mesenteric vessels.¹ The mesenteric fat and tubular vascular structures serve as the "filling," and the homogeneous soft tissue masses serve as the "sandwich bun." The bulky adenopathy of lympho-

Figure 1. Axial and coronal contrast-enhanced CT images demonstrating the sandwich sign: a mildly enhancing mass in the left hemiabdomen encases mesenteric vessels and fat. Small bowel is minimally displaced and otherwise normal in appearance.



Figure 2a. Hematoxylin and eosin stain demonstrates small- to medium-sized lymphocytes with oval to irregular nuclei, dense chromatin, and a moderate amount of cytoplasm. b. Immunohistochemical staining showed these cells to be CD20 positive, CD10 positive, Bcl-2 positive, and Bcl-6 positive.



ma is unique, which makes the sandwich sign specific to mesenteric lymphoma.² Mesenteric lymphoma is typically asymptomatic until large, enveloping fat, bowel and vessels without causing significant clinical symptoms.²

Other CT appearances of mesenteric lymphoma include: a large, lobulated and "cakelike" heterogeneous mass displacing small bowel and containing areas of necrosis (low attenuation); or, ill-defined infiltration of mesenteric fat.¹ Mesenteric lymphoma can occasionally invade the bowel serosa and muscularis propria, which can result in GI bleeding. Bowel perforation, however, is rare.²

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RIMS at the AMA Annual House of Delegates Meeting in Chicago: (*Top*) Grayson Armstrong MD'15, Sunny Intwala MD'12, Eugene Cone MD'13, and Newell Warde, PhD at the "Accelerating Change in Medical Education" event where it was announced that the Alpert Medical School was awarded a \$1 million grant. (*Bottom*) AMA President Jeremy Lazarus, MD, center, with RIMS' Brown-Medical Student Section representatives behind him to the right.

Save the date! RIMS Annual Banquet & Inauguration of Officers

Saturday, September 21, 2013 Warwick Country Club

Watch for your invitation in the mail.

For more information contact Sarah Stevens at 401-331-3207.

RIMS thanks **Pfizer** for supporting the transformation of the 96-yearold 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. Thank you, Pfizer!

RI student wins national Tar Wars® tobacco education contest

Kinjal Gupta, from the Metcalf School in Exeter, is the 2013 winner of a nationwide Tar Wars® poster contest sponsored by the American Academy of Family Physicians. Kinjal and her family attended the event in Washington, DC on July 15, where the winners from 36 states competed for the national title. Kinjal,10, is the daughter of Dheera and Deepali Gupta of West Greenwich RI. As the national poster contest winner, she received \$1,500.

It is the second time in three years that the Rhode Island state winner placed first in the national Tar Wars® poster competition.





Why You Should Join the Rhode Island Medical Society

The Rhode Island Medical Society delivers valuable member benefits that help physicans, residents, medical students, physican-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; Upper right: Meeting of RIMS membership committee



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Complimentary subscriptions

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 or phoning 401-331-3207.

RI Dept. of Health Receives \$5.9 Million for Disaster Preparedness Funds will support hospitals' emergency preparedness response

WASHINGTON, DC – In an effort to help ensure that Rhode Island's medical facilities and health care systems are prepared for natural disasters and public health emergencies, U.S. Senators Jack Reed (D-RI) and Sheldon Whitehouse (D-RI) announced that the Rhode Island Department of Health will receive \$5.9 million to continue improving preparedness and health outcomes for a wide range of public health threats.

Rhode Island will receive \$4.4 million through the Public Health Emergency Preparedness (PHEP) cooperative agreement and \$1.5 million in federal funding to strengthen its Hospital Preparedness Program (HPP). The federal grants are administered by the U.S. Department of Health and Human Services (HHS).

The federal PHEP and HPP funds are designed to enhance the ability of hospitals and health care systems to prepare for and respond to public health emergencies such as natural and man-made disasters, terrorism, foodborne outbreaks, and health epidemics.

"This is a sound investment in bolstering public safety. In the wake of Superstorm Sandy and the Boston bombings, this federal funding will help ensure the Rhode Island Department of Health and local hospitals can respond quickly and effectively when a major disaster strikes," said Sen. Reed, a member of the Appropriations subcommittee that oversees federal funding for HHS programs. "Our dedicated hospital workers and emergency responders are our first line of medical defense when disaster strikes. This federal funding will help bolster Rhode Island's emergency response capabilities and ensure hospitals and medical centers across the state are ready to effectively respond when we need them the most."

"When disaster strikes, our first responders and hospital staff must have the resources they need to respond quickly and effectively," said Senator Whitehouse. "This federal funding will help ensure the state agencies we turn to in times of crisis are adequately prepared."

HHS' U.S. Centers for Disease Control and Prevention (CDC) administers PHEP funding to strengthen national health security and advance state and local preparedness and response capabilities. The funding may be used to provide interoperable communications equipment and technical support to health care facilities; upgrade patient tracking systems; and enhance evacuation plans. \diamond

75 Years Ago this September 21: The Great Storm of 1938 Area hospital flooded with casualties; lights shone on in Rhode Island Hospital

BY MARY KORR RIMJ MANAGING EDITOR

On Sept. 21, 1938, in a time before hurricanes were named, the Great New England Hurricane and Tidal Wave, as many of that era later referred to it, caught New Yorkers and New Englanders by surprise.

Also dubbed the "Long Island Express," it barreled into the Ocean State at approximately 3 p.m. In retrospect it was rated as a Category 3. Records of The Blue Hill Observatory outside Boston document measured sustained winds of 121 miles per hour and gusts as strong as 186 miles per hour.

It was a typical day at Rhode Island Hospital, according to an October 1938 article in the *Rhode Island Medical Journal* written by a hospital nurse on duty at the time. Nurses in training were helping to sterilize gloves and equipment. The 3:30 p.m. shift began to arrive, scurrying in to escape the driving wind, dirt and debris flying through the air as the storm strengthened.

One observer inside the hospital watched what she thought was a flock of birds swiftly fleeing the storm. In fact, they were heavy



Downtown Providence was flooded by a tidal storm surge of over 17 feet. Car horns blared and headlights shone eerily underwater.



Submerged and stalled cars and trolleys in downtown Providence.

slate shingles hurtled in formation from the staff room roof at an astounding speed.

The wind strengthened and smashed the skylights over the dental clinic. The Supt. of the hospital, **DR. WILLIAM O. RICE**, barked at a nurse to clean up the broken skylight glass as he was paged to attend three workers injured by a downed cable in front of the hospital.

Trees started to fall and the twin towers of the hospital began to sway. Dr. Rice racedback inside to call the fire department



but the phone line was dead. By 4:20 p.m., as electricity fluctuated, the clocks on the hospital walls stopped.

DR. EARL BOWEN, who had managed to drive through the storm and was dressing in the staff room, came rushing out as the windows exploded and sent shards of glass flying everywhere.

The wind began to tear at the hospital fire doors and staff wedged loose branches from trees, sand bags and boards to keep them shut. Hospital employees ran

> to gather operating room lights, cans and equipment as the rain and wind swept in. **DR. WILLIAM BELL** rushed to retrieve supplies from a storage room, as the disaster and the needs to address it sunk in.

> The windows gave way in the sterilizing and scrub rooms and equipment was hastily covered with rubber sheets and aprons.

> Ambulance sirens added to the wail of the winds

as storm victims poured in. "We turned to the task of repairing torn, bruised and bleeding humanity," the RIH nurse recalled in the RIMJ article. "The bravery of the patients was astounding. Little or no anesthesia was used for the most part. Perhaps the stunning fury of the storm had dimmed the pain. The fright of what the next blast might bring may have caused patients to forget their battered, painful, broken bodies."

Well past midnight, the victims of the storm continued to arrive. The wards overflowed, until an "annex was opened in Dr. Peter's old apartment." And the usual emergency patients arrived as well, with cases of tonsillitis and ruptured appendixes operated on by weary physicians.

Tidal surge and the storm's aftermath

Reports of the storm drifted in by word of mouth as the phone and radios were silent. News arrived in the morning, when **DR. HARRY C. MESSINGER** rushed in with a two-page emergency bulletin from the *Providence Journal*, which reported on the tidal flood. This photo was taken inside Rhode Island Hospital in 1938, several months before the hurricane hit, for an article on the hospital's nursing program which appeared in the *Providence Journal*.

The storm came ashore at the time of the high tide, during the autumnal equinox, which added to the surge of water being pushed ahead by the hurricane. Seaside homes all along Narragansett Bay were submerged under 12 to 15 feet of water, and Providence was inundated with 20 feet. Union Station in downtown Providence served as a refuge and hospital for hundreds of people that night.

Amidst the chaos and carnage wrought by the great storm, local newspapers reported the following day that, "Rhode Island Hospital is ablaze with lights and all departments functioning," and had enough diesel fuel to keep its generators running for two or three days.

During the height of the storm, nurses at the **CRAWFORD ALLEN HOSPITAL** in East Greenwich, RIH's seashore hospital opened in 1907 for summertime use, organized an old-fashioned sing-along to quell the panic among the crippled children in residence. The following day they were evacuated to Rhode Island Hospital.

More than 50 bodies were recovered from the dunes at Charlestown Beach the first night of the storm. As it abated, stunnedfamilies converged on **WESTERLY AND SOUTH COUNTY HOSPITALS** searching for lost loved ones. Two babies rode out the storm safely on a mattress; one was in perfect health when brought to Westerly Hospital. The second infant spent several days on the critical list there due to a massive inhalation of seawater, but survived.

Community and other city hospitals were filled with casualties. At **THE WOONSOCKET HOSPITAL** there was one death. A Woonsocket newspaper reported that "until current was restored treatments were administered by lamplight."

The Providence College newspaper later reported that a Friars football player by the name of Anthony Leoni was struck by a falling tree and knocked unconscious.



RIH ARCHIVES

Two hours later, he was transported to the **CHARLES V. CHAPIN HOSPITAL** for treatment, and was discharged several days later. And a premed student, fearing the worst, sought last rites from a PC Jesuit priest.

Police and firefighters served as initial responders. In the aftermath of the storm, 2,000 National Guardsmen and Works Progress Administration (WPA) workers were also deployed in search-and-rescue missions. For days after the hurricane, bodies washing up on the beach would be conveyed to temporary morgues in several towns. Embalming fluid and blood supplies were sent from unaffected neighboring cities and states into needed areas.

Fortunately, the town of Bristol suffered no fatalities and its weekly newspaper reported afterwards that: "After a



Pedestrians walking down Ship Street in Providence in the days after the storm.

hurried survey of the damage throughout the community, town officials and **DR**. **ALFRED M. MERRIMAN**, [a general physician and surgeon who made daily rounds at the Bristol Old Soldiers' Home] who served as chairman of the Disaster Relief Committee of Bristol Chapter, the American Red Cross, hastily conferred to adopt relief measures."

Emergency measures to prevent disease were adopted. Large posters with instructions on public and personal health were printed under difficult conditions at the *Bristol Phoenix* and posted throughout the town. Free injections were given against typhoid.

Throughout the state, similar disaster relief committees took steps to provide all physicians with anti-tetanus serum and other medicines and alert the public of tainted drinking water and other dangers. Ultimately, it is estimated anywhere from 600 to 800 people died in the great storm, most by drowning. More than half of these were Rhode Islanders.

"Some day when we tell our grandchildren (optimists) 'the glass flew about us and it was a terrible hurricane,' they will probably think us a little tiresome," the RIH nurse wrote in the medical journal. "They will not know that even Hitler and the European War Crisis was forced out of the headlines for a time by the Hurricane News." *

Autism Experts Form Research and Advocacy Consortium

First project to study access to medical and dental care in the adult population in Rhode Island

EAST PROVIDENCE – Dozens of autism experts across a variety of specialties have joined together to form the Rhode Island Consortium for Autism Research and Treatment (RI-CART). The consortium will bring together researchers, physicians, scientists, service providers, educators and parents to collaborate on a broad range of research, education and advocacy projects.

"This is such an important step for Rhode Island when you consider that one in 88 children in the U.S. is diagnosed with autism and more than one million children in the country are directly affected by autism," said **THOMAS ANDERS, MD**, a senior consultant for the project. "By establishing this unique model of collaboration, Rhode Island is demonstrating its commitment to tackling integrated scientific research on autism and autism spectrum disorders."

The RI-CART group is made up of the state's leading experts on autism research, education, health and advocacy. Organizations represented include Bradley Hospital, Rhode Island Hospital, Women & Infants Hospital, Butler Hospital, Memorial Hospital, Brown University and the Alpert Medical School, the Brown Institute for Brain Science, the Brown Department of Psychiatry and Human Behavior, the Norman Prince Neurosciences Institute, Gateway Healthcare, Rhode Island College, University of Rhode Island, The Autism Project, the Groden Network, The NeuroDevelopment Center, Rhode Island Technical Assistance Project, the Rhode Island Department of Education and the Rhode Island Department of Health, Office of Special Needs.

Key objectives include:

- Supporting basic, clinical and behavioral research across disciplines and institutions
- Creating a research infrastructure, including a statewide web-based research registry.
- Improving and expanding diagnostic and treatment methods.
- Informing state and federal policymakers about autism spectrum disorders.

"Collaborative, multi-disciplinary and multi-institutional teams such as RI-CART can be difficult to build, yet are essential for tackling important problems posed by autism," said ERIC MORROW, MD, PhD, assistant professor at Brown University, co-director of the RI-CART Research Committee and an autism genetics researcher at Bradley Hospital. "The spirit has been there for several years, but it took initial seed funding from several Rhode Island institutions to accelerate the efforts. The Brown Institute for Brain Science, the Norman Prince Neurosciences Institute, Bradley Hospital, Women & Infants Hospital and the Groden Network, all invested seed funds in the project late in 2012, which enabled us to reach the point we are at today."



VIDEO Dr. Henry Sachs discussing the research project

Primary care study

The first project to be launched by RI-CART is a \$53,000 Rhode Island Foundation grant to study primary care for those with autism. A team will assess 150 adolescents and adults with autism to determine the full spectrum of their primary health care needs (medical, dental, and vision), as well as barriers or obstacles to obtaining primary care. This research project will be Rhode Island's first examination of the health needs of those with autism spectrum disorders.

"This is a population with more medical and specialty care needs than the average population, so we want to figure out how to streamline the process, so families don't have to struggle to receive the care they need for their loved ones," said **HENRY SACHS**, **MD**, chief medical officer of Bradley Hospital and the study's primary investigator. "The comprehensive report and recommendations from this study will hopefully lead to more effective options for care for Rhode Islanders with autism in the near future." *****



PROVIDENCE – A Miriam Hospital researcher has joined forces with international colleagues to call for new strategies to better manage and improve assessment and treatment for hepatitis C (HCV) infection in individuals who inject drugs.

LYNN E. TAYLOR, MD, an HIV specialist focusing on HIV and viral hepatitis coinfection at The Miriam Hospital, was the only American physician invited to join the expert international panel that issued these first-of-its-kind recommendations. They were published online July 24th by the journal *Clinical Infectious Diseases*, to coincide with World Hepatitis Day on July 28.

The recommendations are part of a supplement entitled "Prevention and Management of Hepatitis C Virus Infection Among People Who Inject Drugs: Moving the Agenda Forward," developed in collaboration with the International Network on Hepatitis Care in Substance Users.

"In well-resourced parts of the world, most hepatitis C exists among people who currently inject drugs and those who have injected drugs in the past. However, treatment access and uptake among this population remains low – even though we increasingly have effective treatments for hepatitis C, which is a curable disease," said Dr. Taylor.

Dr. Lynn Taylor Joins International Colleagues in Calling for Better Management of Hepatitis C Among Drug Users

"Research supporting our recommendations – the first international set ever released for treating hepatitis C in people who inject drugs – demonstrates that treatment can be successful when barriers to care are addressed within a supportive environment," she added. "In fact, the burden of liver disease worldwide could be dramatically reduced by increasing treatment for hepatitis C infection among people who inject drugs, by preventing forward transmission."

An estimated five million people in the U.S. have chronic HCV infection, a liver disease that may result in longterm health problems, including liver scarring, liver failure and liver cancer. According to the Centers for Disease Control and Prevention, approximately 12,000 people die every year from HCV-related liver disease.

Until recently, HCV treatment guidelines excluded people who inject drugs, due to concerns about poor adherence, adverse events and re-infection. However, successful HCV treatment studies among this population have challenged this paradigm. The new international guidelines present evidence-based recommendations for treating HCV among individuals who inject drugs with appropriate evaluation and support.

Dr. Taylor is also lead author on a separate paper, appearing in the same supplement of *Clinical Infectious Diseases*, which focuses on the need for improved HCV care of another subset of the HCV-infected population: those who inject drugs and are also infected with HIV.

Chronic HCV infection has become

a leading cause of non-AIDS related illness and death among individuals infected with HIV. Due to overlapping routes of transmission, dual infection is common: in the United States, 30 percent of HIV-infected people have chronic HCV, which is spread via contaminated blood, often through injection drug use. However, newer research suggests it may also be transmitted sexually among HIV-infected men who have sex with other men.

"HIV-infected individuals contending with injection drug use are the *most* likely to be affected by HCV, but the *least* likely to have access to treatment for HCV," said Dr. Taylor. "They should have equal and universal access to HIV/ AIDS, HCV and addiction prevention, care and treatment."

She says essential but basic steps include improving prevention and screening for both infections and engaging coinfected individuals who inject drugs in HIV and HCV care early after diagnoses.

"The benefits of therapeutic advances in HCV will be limited for this group until barriers such as cost and access are overcome," she added. "Even with HCV cure rates approaching 100 percent with newer medications, effectiveness at population level will require expanding HCV therapy on large scale. These recommendations are an important step towards the goal of elimination of hepatitis C."

Dr. Taylor is also director of the HIV/ Viral Hepatitis Program at The Miriam Hospital and an assistant professor of medicine at The Warren Alpert Medical School of Brown University. *

News Briefs

State debuts plans for insurance exchange, HealthSourceRI

PROVIDENCE – In mid-July, the health care benefits exchange in Rhode Island formally announced its presence with a name – HealthSourceRI – and the opening of a call center at 70 Royal Little Drive, website (healthsourceri.com), Facebook page and Twitter account.

Enrollment on the exchange begins Oct. 1. It will offer a choice of 12 plans for individuals and 16 for small businesses with under 50 employees.

Hittner confirmed as RI health insurance commissioner



PROVIDENCE – On July 2, the Rhode Island Senate unanimously confirmed **KATHLEEN C. HITTNER, MD**, former president and CEO of The Miriam Hospital from 2000 to 2009, as the state's health insurance commissioner. She succeeds Christopher F. Koller, who left after eight years to become president of a New York health policy foundation.

The Office of the Health Insurance Commissioner (OHIC) was established by legislation in 2004 to broaden the accountability of health insurers operating in the state of Rhode

Island. Under this legislation, its mandate is to protect consumers, encourage fair treatment of medical service providers, ensure the solvency of health insurers, and improve health care quality, accessibility and affordability.

AG Kilmartin Approves Affiliation of Memorial Hospital and Care New England

PROVIDENCE – In early July, Attorney General Peter F. Kilmartin announced the approval of the affiliation of Memorial Hospital and Care New England, with conditions, pursuant to the expedited review process of the Hospital Conversions Act.

The announcement marks the second time this year the Office of Attorney General has reviewed and approved a hospital conversion under the expedited review process, reducing the time allowed for review from 120 days to 90 days. In April, Attorney General Kilmartin approved the sale of Westerly Hospital and affiliated entities to Lawrence + Memorial Corporation.

New law allows release of patient information for criminal investigations

PROVIDENCE – A new law now allows health care providers leeway to release some patient information to law enforcement in cases when it might alert them to a crime or help identify the perpetrator.

The bills allows health care providers to supply, at the request of law enforcement, only a patient's name, birth date and place, Social Security number, blood type and RH factor, type of injury, date and time of injury, time of death (if applicable) and a description of distinguishing physical characteristics, not DNA.

The provider may give out additional information only if the patient provides permission. If the patient is unable to give permission because of incapacitation and waiting until the patient is able would compromise an investigation, the provider may give out more information if he or she believes it would be in the patient's best interest, as long as that information is not intended for use against the victim.

University Medicine and BCBSRI Announce Multi-Year Patient Centered Contract

PROVIDENCE – Blue Cross & Blue Shield of Rhode Island (BCBSRI) and University Medicine (UM) announced July 17 that they have entered into an innovative, three-year shared-savings agreement. The state's largest multi-specialty group, UM's 200 physicians provide a range of specialty services and primary care, including six practices with a patient-centered medical home model.

The contract focuses on improving the patient experience, prevention/wellness, limiting unnecessary hospitalizations, and reinforces the role of the primary care physicians through components including:

Expanded After-Hours–UM will expand appointments on weekends and evenings to increase access to care for its patients and reduce medically unnecessary emergency room and urgent care visits.

New Health Advocate Resource – The Health Advocate will help patients navigate across care settings and ensure they have the support necessary.

Behavioral Health Services Coordination – Collaborative arrangements with behavioral health providers will improve communication and coordination with primary care physicians.

Patient Centered Medical Home (**PCMH**) **Neighborhoods** – UM's PCMH program will expand to include specialists, creating a new care model for patients. The program supported by a physician champion will begin with stage 3 and stage 4 chronic kidney disease patients, pairing patients with a nurse care manager, and, in the second year, a pharmacist.

University Medicine's President, DR. LOU RICE, noted "University Medicine is taking its commitment to primary care and bringing our specialists into the patient centered medical home. Our 15year dedication to improving care for Rhode Islanders will be enhanced and advanced by this new relationship with Blue Cross & Blue Shield of Rhode Island." \diamond

Recognition

Total Joint Center Receives Blue Distinction Center Designation

PROVIDENCE – Blue Cross & Blue Shield of Rhode Island (BCBSRI) has named The Miriam Hospital as a Blue Distinction Center in Knee and Hip Replacement. The Blue Distinction Centers for Specialty Care® program is a national designation awarded by Blue Cross and Blue Shield companies to medical facilities that have demonstrated expertise in delivering quality specialty care – which expanded recently to include more robust quality measures focused on improved patient health and safety.

"We are extremely honored to receive this achievement only a year after opening the doors to our Total Joint Center," said Arthur J. Sampson, president of The Miriam Hospital. "The success of our program is a direct reflection of the tremendous dedication and expertise of our surgeons, doctors, nurses, physical therapists and staff who go above and beyond every day to provide exemplary orthopedic care, from consultation to surgery and all the way through to recovery."

"Blue Cross & Blue Shield of Rhode Island is continually collaborating with our provider partners to identify and support programs that improve patient outcomes, deliver safe and efficient care, and encourage innovation," said Peter Andruszkiewicz, president and CEO for BCBSRI. "We congratulate The Miriam Hospital on earning this designation and the Total Joint Center's commitment to high-quality specialty services and outstanding patient care for Rhode Island residents."

The Total Joint Center at The Miriam Hospital is a center of excellence dedicated to providing state-of-the-art specialized procedures, rehabilitation and care to restore function to damaged hips, knees and shoulders. \diamondsuit

NAPBC Accredits Roger Williams Breast Health Program

PROVIDENCE – The Breast Health Program at Roger Williams Medical Center has received full accreditation from the National Accreditation Program for Breast Centers (NAPBC). Accreditation is granted only to those centers that undergo a rigorous evaluation and review of performance and compliance with 27 evidence-based standards of care covering 17 components of care. Roger Williams was compliant on 27 of 27 standards.

The NAPBC, a program administered by the American College of Surgeons, is a consortium of national, professional organizations focused on breast health and dedicated to the improvement of quality care and outcomes of patients with diseases of the breast through evidence-based standards and patient and professional education.

"This accreditation affirms the quality of the patient-centered, multi-disciplinary breast health care delivered at Roger Williams," said **R. JAMES KONESS**, **MD**, Director, Breast Health Program. \diamondsuit

The Miriam Recognized with National Cancer Award

PROVIDENCE – The Leonard and Adele R. Decof Family Comprehensive Cancer Center at The Miriam Hospital was recently presented with the 2012 Outstanding Achievement Award by the American College of Surgeons' (ACS) Commission on Cancer (CoC). The Miriam Hospital is one of only 79 health care facilities in the country – and the only in Rhode Island – to receive this national honor based on excellence in providing quality care to cancer patients.

The cancer program was evaluated in October 2012 on 29 program standards categorized within one of four cancer program activity areas: cancer committee leadership, cancer data management, clinical services and quality improvement.

Miriam Named Top Regional Hospital

PROVIDENCE – For the second consecutive year, The Miriam Hospital was named the top hospital in Rhode Island and southeastern Massachusetts, according to *U.S. News & World Report*.

The annual *U.S. News* Best Hospitals rankings recognize hospitals that excel in treating the most challenging patients.

The hospital was recognized as high performing in eight medical specialties, including cancer, diabetes/endocrinology, gastroenterology and surgery, geriatrics, nephrology, neurology and neurosurgery, pulmonology and urology.

The rankings – now in their 24th year – are based on objective measures of hospital performance including reputation, patient safety, procedure volume, nurse staffing, mortality index and availability of medical technology. The full report and methodology are available at http:// health.usnews.com/best-hospitals. *

Legislative Health News

New law allows physicians to issue temporary disability placards

PROVIDENCE – Physicians will be allowed, beginning January 1 of next year, to issue temporary disabled driver placards to patients they consider qualified to apply for a permanent disability license plate.

Legislation allowing the new procedure, approved by the General Assembly in June, has been signed into law by Gov. Lincoln Chafee.

Under current law, eligible disabled drivers who apply for a disability placard face a waiting period before receiving it from the Division of Motor Vehicles.

Under the new law, any person medically qualified for a permanent disability plate will be able to obtain a preliminary placard immediately from a physician, who will be empowered to issue the placard if the patient's condition is deemed by the physician to merit it. The preliminary placard will be effective for 21 days to help bridge the time between the application and issuance of a permanent disability plate by the DMV.

There is to be no fee for obtaining or using the placard. The DMV will, between now and next January, promulgate rules concerning the physician issuing process. \diamondsuit

New law OKs e-prescription use for controlled substance list drugs

PROVIDENCE – The use of electronic prescriptions in Rhode Island – already at a fairly high level according to the Department of Health – is expected to become more prevalent with enactment into law of legislation recently approved by the General Assembly.

In June, Gov. Lincoln Chafee signed into law bills requiring the director of the Department of Health to establish rules and regulations for adopting a system for electronic data transmission of prescriptions for substances on the various controlled substance schedules.

State law currently refers to "written" prescriptions for these drugs, making enactment of the legislation necessary to keep up with technological advances in the medical field.

Items on the Schedule II controlled substances list are those that have a high potential for abuse and include such drugs as Demerol, OxyContin and Percocet. Items on the Schedule III list are those with a lesser potential for abuse and include drugs such as Vicodin and Tylenol with Codeine. The Schedule IV controlled substances have a low potential for abuse and include such drugs as Xanax and Valium. Schedule V covers such items as cough preparations containing some codeine.

The legislation also adds a new section to the law, relative to an electronic prescription database to be maintained by the Department of Health, and spells out how and to whom information in that database can be made available. \diamondsuit

Research News



Ze'ev Harel, MD

Harel: Teens should take 600 IU Vitamin D daily

PROVIDENCE – A committee led by **ZE'EV HAREL, MD**, an adolescent medicine specialist from Hasbro Children's Hospital, recently published a statement citing the importance of vitamin D for teen health. The report, titled "Recommended Vitamin D Intake and Management of Low Vitamin D Status in Adolescents" was published in the June issue of the

Journal of Adolescent Health. The report was authored by Dr. Harel and members of the Society for Adolescent Health and Medicine (SAHM) bone health subcommittee, of which he is chair.

The position statement recommends that healthy teens receive a supplement of 600 IU of vitamin D daily. Those adolescents at risk for vitamin D deficiencies, such as those who are obese or have dark skin, should take 1,000 IU daily. "Adolescence is a vital period of development in the human body, so it is crucial that young adults receive the recommended intake of vitamin D to grow and maintain a healthy skeletal system," said Dr. Harel, a professor of pediatrics at the Warren Alpert Medical School.

Research has found when teens who are deficient in vitamin D take the recommended dose they may show improvements in bone mineral content and density. Recent evidence also suggests that taking recommended doses can lead to fewer stress fractures, especially among physically active females.

According to Dr. Harel, taking vitamin D supplements is the most efficient way to receive the recommended dose. The body naturally receives vitamin D from sun exposure, but that method also carries the increased risk of skin cancer and sunscreens usually block vitamin D synthesis. And, only small quantities are derived from dietary sources such as fish, eggs, dairy products and breakfast cereals. \diamondsuit

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RHODE ISLAND MEDICAL SOCIETY

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AUGUST

Assessment and Management of Chronic Pain in Pediatric Patients

Sunday, August 4, 2013 7 am–5 pm Alpert Medical School, 222 Richmond Street , Providence RI

This conference will present an integrated approach to the assessment and management of pain in pediatric patients with special reference to Ehlers Danlos Syndrome. Ehlers Danlos Syndrome (EDS) is an inherited connective tissue disorder that is o en misdiagnosed or under diagnosed and is a complex disease that warrants a multidisciplinary approach to treatment. It is a common cause of chronic disabling myopathic, nociceptive and neuropathic pain in children and adults. Register online

Pediatric Neurology for Pre-Hospital Providers: A Case-Based Review

Tuesday, August 13, 2013 3–4 pm

All are welcome to attend this session at the Rhode Island Department of Health Auditorium in Providence, RI or participate online via webcast.

Live Webcast Available August 13 at 2:50 pm: amms.oshean.org/content/DOH/EMS-8-13-2013

Pre-register online

Speaker

Therese Canares, MD Senior Fellow in Pediatric Emergency Warren Alpert Medical School of Brown University and Hasbro Children's Hospital

SEPTEMBER

THE RHODE ISLAND MEDICAL SOCIETY HOSTS

Data Breach and Your Practice: New Regulations and Their Implications

Wednesday, September 25, 2013 7:30–9:30 am RIMS, 235 Promenade Street, Suite 500, Providence RI

The Rhode Island Medical Society presents "Data Breach and Your Practice: New Regulations and Their Implications." The expert panel presentations will address new regulations, case studies, and means of safeguarding your own practice environment. For more information call 401-331-3207.

Program/Reply form

Attendance is free. RSVP by September 20 is required as space is limited. Contact Megan Turcotte

Signs, Symptoms and Questions Related to Diagnostic Imaging and Interventional Radiology

September 25, 2013 12–5 pm The Providence Marriott , Providence RI

Ordering the correct imaging studies to address various clinical signs and symptoms in an efficient and cost effective manner is complicated and is in constant flux based on newly published data and emerging technologies. This half day educational event reviews current appropriate imaging work up to address common clinical signs and symptoms encountered in the out-patient primary care setting. Clinicians will leave with new knowledge and resources to help diagnose and treat their patients with complicated but common medical problems.

OCTOBER

1st International Carpometacarpal Workshop (ICMCW)

October 25–6, 2013 Hotel Viking, Newport, RI Program Highlights: *Keynote Lectures*

Matt Tocheri PhD, Smithsonian National Museum of Natural History, Washington, DC

Dr. Tocheri is a paleoanthropologist whose research interests focus on the evolutionary history and functional morphology of the human and great ape family, the Hominidae. His work on the wrist of Homo floresiensis, the so-called 'hobbits' of human evolution, received worldwide attention after it was published in 2007 in the journal *Science*.

David Felson MD, MPH, Boston University, Boston MA

Dr. Felson is a Professor of Medicine and Public Health, and Principal Investigator of the NIH-funded Boston University Multipurpose Arthritis and Musculoskeletal Diseases Center and the Boston University Multidisciplinary Research Center. An expert on the epidemiology and pathophysiology of osteoarthritis, Dr. Felson has led numerous large cohort studies in osteoarthritis, with the goal of elucidating risk factors for the disease, as well as its natural history.

Meeting Chairs J.J. Trey Crisco, PhD Amy L. Ladd, MD Arnold-Peter C. Weiss, MD

Bridging Neurology & Psychiatry: Movement Disorders

Saturday, October 12, 2013 The Joseph B. Martin Conference Center at Harvard Medical School Boston, Massachusetts

This full day course is aimed at reviewing the interface between neurology and psychiatry to enhance the clinician's ability to recognize and classify movement disorders

in psychiatric patients and psychiatric problems in movement disorder patients. Behavior problems are the major determinants of quality of life in Parkinson's disease yet they are often not recognized. Similarly, movement disorders caused by antipsychotics frequently go unrecognized.

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



disorder-course

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

Click to download the Course Program. Register Online: http://www.worldwide medicalexchange.org/content/movement-



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.

Contact information

Editor-in-chief Joseph H. Friedman joseph_friedman@brown.edu

Managing editor Mary Korr mkorr@rimed.org



Christina Bandera, MD, named chief of OB/GYN at Rhode Island, Miriam hospitals

Also leads gynecologic oncology program at the Women's Medicine Collaborative

PROVIDENCE – **CHRISTINA BANDERA**, **MD**, has been appointed chief of obstetrics and gynecology at Rhode Island and The Miriam hospitals. In this role she will provide medical, administrative and quality oversight of the department. She assumed her new post on July 1, 2013.

Dr. Bandera is board-certified in both obstetrics and gynecology, as well as gynecologic oncology, and her clinical

and research interests include treatment and prevention of gynecologic cancers. She also has a special interest in minimally invasive and robotic surgery.

"Our goal is to provide coordinated, multi-specialty care for woman at all stages of their life," said Karen Rosene Montella, MD, Lifespan's senior vice president for women's services and clinical integration. "Dr. Bandera is an accomplished physician, surgeon and educator, and her leadership, vision and unquestioned expertise will provide new dimensions to the enhanced OB/GYN program."

Dr. Bandera also leads the Center for Gynecologic Cancers at the Women's Medicine Collaborative, Rhode Island's largest multidisciplinary center dedicated to the unique health needs of women. The Center provides specialized, cutting-edge surgical and non-surgical options for women diagnosed with, or at high risk for, cancers of the reproductive system, including cervical, uterine, ovarian, vaginal, vulvar and fallopian tube cancers.

The Center for Gynecologic Cancers partners with the Comprehensive Cancer Center at Rhode Island Hospital, The Miriam Hospital and Newport Hospital, offering patients access to a vast array of resources and clinical expertise.

This spring, Lifespan and the Women's Medicine Collaborative announced a new partnership with OB/GYN Associates, Inc., one of the state's largest obstetrics and gynecology practices. The providers will officially join Lifespan on August 1.

Dr. Bandera is a member of the Society of Gynecologic Oncologists and the American Association for Gynecologic Laparoscopy, and is also the gynecologic oncology editor for the international journal Gynecologic and Obstetric Investigation.

A graduate of Harvard University, she received her medical degree from The Johns Hopkins University School of Medicine and completed her postgraduate training at Brigham and Women's Hospital and Massachusetts General Hospital. Dr. Bandera also held fellowships at the University of Pennsylvania School of Medicine and Mayo Clinic Hospital in Phoenix, Arizona. She was previously the director of robotic surgery at Women & Infants Hospital, and has won numerous teaching awards for her work with medical students and residents. \diamond

RWMC names Dr. Roberts Director of the Blood and Marrow Transplant Unit

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

Prior to this position, he was a Clinical Associate Professor of Medicine in the Bone Marrow Transplant Program at Tulane University Hospital, New Orleans. Previously, he had served as director of the Blood & Marrow Transplant Program at Memorial Medical Center in New Orleans. He has special expertise and interest in stem cell transplantation and treatment of leukemia, myelodysplasia, lymphoma and multiple myeloma.

"Dr. Roberts' training and experience make him an ideal physician leader for our Blood and Marrow Transplant Unit," said Dr. Steven M. Sepe, chairman of the Department of Medicine. "Our transplantation service is one of the reasons Roger Williams is a recognized regional leader in cancer care."

Dr. Roberts completed a Fellowship in Bone Marrow Transplantation at Tufts Medical Center, Boston. He underwent his medical school training at the University of Toronto. Subsequently, he also completed his residency and medical oncology fellowship at the University of Toronto. Dr. Roberts is a member of the Society of Blood and Marrow Transplantation, American Society of Clinical Oncology, and American Society of Hematology and is board certified in



Medical Oncology. Dr. Roberts also is involved in clinical cancer trials in the areas of reduced-intensity ("mini") stem cell transplant approaches as well as clinical trials in leukemias and lymphomas. *

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Obituaries

ROBERT S.L. "BOB" KINDER, MD,

84, of Jamestown passed away July 28, 2013. He was the beloved husband of Betty R. (Yeager) Kinder. He graduated from Moses Brown, Brown University, and George Washington University (MD with distinction). He completed his residency and fellowship in ophthalmology at Jackson Memorial Hospital and Massachusetts Eye & Ear Infirmary.



Dr. Kinder served as an executive officer and navigator on the USS, LST 532, United States Navy. His past appointments include Clinical Professor of Ophthalmology at Brown University; Surgeon-in-Chief, Department of Ophthalmology at Rhode Island Hospital; Governor's Advisory for the Blind; Health Services Council for the State of RI; and president of the medical staff at Rhode Island Hospital.

He was a member of the American Academy of Ophthalmology and the American College of Surgeons. Since 1968 he volunteered yearly providing eye care to the St. Lucia community at St. Jude Hospital, West Indies. The clinic at the hospital was named Robert S.L. Kinder Eye Clinic. In 2008, Dr. Kinder received the St. Lucia Metal of Merit (Gold), the only non-St. Lucian to receive this metal.

He was the father of Robert, Chris and the late Jeffrey Kinder; step-father of Richard, Scott (Susan), Jason (Rayanne), and Jennifer Coombs and brother of Joseph G. Kinder.

In lieu of flowers, memorial contributions to Home & Hospice Care of RI, 1085 North Main Street, Providence RI02904 or Jamestown EMS, PO Box 8, Jamestown RI 02835 will be appreciated.



ROBERT V. LEWIS, MD, passed away at the age of 96 on July 6, 2013 in the home in which he lived for more than 60 years, in the company of his children who loved him deeply. He was married to Edith (Irey) Lewis for 43 years before her death in 1986. Dr. Lewis was born in Pawtucket, RI on May 23, 1917, the son of the late Alfred Ernest and Harriet Frances (Maxcy) Lewis. He attended the public schools in Pawtucket, RI and graduated from Brown University (1939) and the University of

Pennsylvania Medical School (1943). He interned at Lankenau Hospital Germantown section of Philadelphia and the Rhode Island Hospital and from 1944 to 1947 served in the U.S. Army Medical Corps in the European theater.

He returned to Providence in 1947 and was awarded a twoyear Haffenraffer Research Fellowship at the Rhode Island Hospital from which he grew his deep and abiding interest in internal medicine which he practiced with great distinction in Providence on Angell Street until his retirement at the age of 90. He was elected a Fellow of the American College of Physicians in 1964 and a Life Member in 1969.

Dr. Lewis was staff physician at the Rhode Island Hospital and served as president of the house staff there in 1971. He was for many years a prolific contributor to the *Rhode Island Medical Journal*, and a lifelong member of the Rhode Island Medical Society which he served as president in 1971. He was a member of the Providence Art Club, the University Club, the Hope Club and the Review Club, and served as Surgeon General and renowned essayist for the numerous heritage societies in which he celebrated his maternal Maxcy lineage.

He is survived by his four children, nine grandchildren, and one great-grandson. In lieu of flowers, contributions in Dr. Lewis's memory to the Cold Spring Harbor Laboratory, 1 Bungtown Rd., Cold Spring Harbor, NY 11724 would be appreciated.

RAYMON S. RILEY, MD, 81, of Seekonk, Mass., passed away on July 12, 2013. He was the loving husband of Elizabeth "Betty" (Christopher) Riley. They were married 58 years. Dr. Riley was born in Providence, and was a graduate of Providence College, and Tufts University School of Medicine. He served in the United States Navy as a medical officer for three years.



Dr. Riley practiced cardiology in Providence for over 40 years. During that time he was a member of the medical staff of Rhode Island Hospital. He was a Fellow of the American College of Cardiology, and Emeritus Clinical Professor of Medicine at Brown University School of Medicine.

Besides his wife, Dr. Riley is survived by his children, Linda Riley and Bahram Nassersharif of East Greenwich; Kathleen Andreozzi and her husband Peter; Marylouise Moran and her husband Todd; Susan Johnson and her husband Mark; and Raymond C. Riley, all of Seekonk, Massachusetts. He also leaves his six grandchildren.

EUGENE A. RUSSO, SR, MD, 80, of Narragansett, passed away on June 29, 2013 at home surrounded by his loving family. He was the beloved husband of Patricia (MacDonald) Russo.

Dr. Russo was a neurosurgeon at St. Joseph's Hospital for 40 years until his retirement. He was a member of the Rhode Island Medical Society, New England Neurosurgical Society, and Syracuse Medical Alumni Association. He received his medical degree from the University of Louvain, Belgium.



Besides his wife, he is survived by his three children and grandchildren.

In lieu of flowers, memorial contributions may be made to: Home & Hospice Care of RI, 1085 North Main St., Providence, RI 02904.

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From Harvard to Hell...and Back Physician finds second chance in 'salt-of-the-earth' Rhode Island

BY MARY KORR RIMJ MANAGING EDITOR

N THE FOREWORD TO From Harvard to Hell...and Back, Jon E. Grant, MD, professor in the department of psychiatry and behavioral neuroscience at the University of Chicago Pritzker School of Medicine, writes that one out of every seven people among U.S. adults struggle with addiction at some time. Dr. Sylvester "Skip" Sviokla III, the book's author, is one of them.

Dr. Grant first met the author when he was running a weekly group for impaired physicians in Rhode Island about eight years ago. "At that time Skip had been in recovery for awhile, wanted to



start a new life, and wanted to practice medicine again...Even among a group of physicians who kid themselves that they are impervious to emotions, Skip's story was powerfully moving. Although the details of the story are gripping, the true impact of Skip's journey resides in his relentless hope and optimism to manage his illness and make his life meaningful."

Two of the messages of the book are that an elite education, affluence, achievement, and a devoted family do not protect people from the disease of addiction and that denial, secrecy and silence are the biggest barriers to acknowledging and treating addiction.

This is how Dr. Skip describes denial in a blog he writes:

"It is our own refusal to admit the truth and this causes dire consequences in our lives. We deny reality and postpone the inevitable. Maybe we think this gives us more time to adjust. Maybe it is just too painful to bear. Certainly, it is all of this at once.

"Addicts lie about what they are doing for self-preservation. We lie about these events because the fear of reality scares us to death. We are ashamed of losing what we have. Armed with excuses – 'He is a good kid. He is so brilliant. She had a bad mom. It isn't fair. You don't understand. The dog died. I just need to get through...He's a doctor' – we proceed into that dark hole. I will never know how much my denial hurt my children."



DR. SYLVESTER "SKIP" SVIOKLA III

Hometown: Brockton, Mass.

Education: Harvard College '67; Harvard Medical School '72

Former general surgeon, emergency room director

Certified by the American Society of Addiction Medicine; Diplomate of the American Board of Addiction Medicine

Medical director of several methadone clinics in Rhode Island; co-owner Medical Assisted Recovery of Rhode Island, which specializes in substance abuse counseling, mental health counseling and suboxone addiction treatment.

At one point, he was taking 150 pills of Vicodin a day and using other people's names on the scripts he'd write. In addition, he was drinking heavily. His weight ballooned to over 400 pounds and he had undergone stomach stapling. He

Why I Wrote the Book

I was a practicing emergency medicine physician who had been blessed with just about every gift a person could desire. I had gone to Harvard College and Harvard Medical School. Although diverted from my original desire to become a general surgeon when I severely cut my dominant hand in an unusual accident, I had settled into running emergency room practices across Southern California. I also began to treat Rock 'n Roll stars after I developed a friendship with the owner of the famous Roxy and Whiskey on Sunset Blvd. in Los Angeles. I was living large.

Intermittent alcohol use was becoming more frequent. A past operative complication gave me a taste for Vicodin, which was a ticket straight to hell. In what was a blur, and seemed like it happened in a flash to me, I found the California Medical Board at the door of my beautiful La Jolla home. For several years I had been escalating substance use. When they found me, I immediately tried to run and hide. I had committed crimes for which I had to answer, and I knew it was bad.

I ate my last several hundred Vicodin and then as much alcohol as I could imbibe. Quickly, all the material goods I had were taken away. In my addiction, I had been spending twice as much as I made. After 18 months of struggle, I finally stopped trying to control my disease.

I began to heal the night I surrendered.

I have shared my story over the last seven years with hundreds of young physicians and found great joy in discussing recovery with them. Encouraged by them, my family and with the help of a wonderful storyteller, my book was born. wondered how he was still alive and came to the point where he was no longer getting high, but taking the Vicodin to stave off the "massive pain of opioid withdrawal."

Eventually, a pharmacist caught on to him and contacted the state medical board.

His descent into addiction cost him his medical license in California. As he underwent treatment and attended support groups in California, (and worked in a restaurant kitchen cutting cilantro among other menial jobs) Dr. Skip's long-suffering wife, Maurine, did some research and found a fellow Harvard alumnus she thought might be able to help her husband salvage his career – David C. Lewis, MD, founder of the Brown University Center for Alcohol and Addiction Studies. She urged him to call Dr. Lewis.

"I scoffed," Dr. Skip writes. "Why would this guy give me the time of day? But she assured me he would take my call."

Dr. Lewis, he writes, "listened to my entire tale of woe and at its conclusion suggested I come to Rhode Island where he would advocate for me if everything I'd said was true. This felt like the dawning of a new day, like someone had opened the door of a fetid room I was in and let the bugs crawl out."

The Rhode Island Medical Board recommended that his license to practice medicine be reinstated under the strict terms of a five-year contract, which included attending the Rhode Island Medical Society's doctors-only recovery group weekly, and being under the care of a counselor.

"Dr. Grant, Dr. Lewis, and many others were salt-of-the-earth people who looked beyond punishment and the need to 'send a message' to addicts that they'd done something bad to themselves and potentially to others," he writes.

Eventually, inspired by those who helped him here, he found his way into the practice of addiction medicine. "This book is riveting and insightful, capturing the reader in the devastation of Dr. Sviokla's addiction and the inspiration of his recovery," Dr. Lewis writes on the book jacket.

As incongruous as it may sound, it belongs on your summer reading list. In the final chapters, he describes the patient population he treats in Medical Assisted Recovery – doctors, lawyers, and nurses, among others. It is much more than the story of one man's and one family's desperate struggle to survive the armageddon of addiction. \diamond

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STANLEY M. ARONSON, MD

BLOOD IS ONE OF THOSE ROBUST, MONOSYLLABIC WORDS THAT THE early English used to define the normal anatomic organs of the human body. Only after the 11th century did Latin creep in to provide alternative polysyllabic synonyms characteristically employed by the academic community; and only when the scholars then needed words to define abnormal, pathological states of these anatomic structures did they then rely upon the ancient Greek language. Thus, renal, an adjective to describe the normal kidney is from the Latin, rens, meaning kidney. Inflammatory disorders of the kidney, however, are called nephritis, from the Greek, nephrois.

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The word, blood, descends directly from the German blut and earlier, the Germanic, blotham, from whence arose such companion words as bloody (It became a less-than-civil expletive only in the 17th century).

The Latin word for blood, sanguis, gave rise to words such as consanguinity, exsanguinate, sanguineous, Sanguinaria (a genus of plants) and the adjective, sanguine, meaning the color of blood, sometimes ruddy (as a sanguine complexion) and sometimes a bloodthirsty behavior. The French phrase, sang-froid (cold blood) describes an emotional state of coolness, composure, or cool presence of mind. And sangria is a spiced Spanish red wine, served cold.

The Greek word for blood, haima, served as the root for such technical terms as hematology, hemorrhage (in England, haemorrhage), hemolysis, heme and anemia.

The word, anemia (literally, bloodless or deprived of blood) is constructed from haima and with a privative prefix, an-. A surprisingly similar word, Bohemia, however, does not define a Slavic form of blood disorder but rather a geographic term first used by the Roman historian, Tacitus, when describing a Celtic tribe of Central Europe. Literally, it means the home of the Boii. Thus, the -emia of Bohemia descends from the Greek, haemum, meaning home of. Both the Greek, haima and the Greek, haemum, are etymologic first cousins having each descended from an earlier term meaning "source of."

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100 Years Ago: Medical Legacies



Dr. Lester Seneca Hill

Rhode Island has many legacy medical families, two of whom are noted here. One hundred years ago, in 1913, **DR. PRESCOTT TILLINGHAST HILL**, returned to Providence and began the practice of medicine in the home at 222 Broad St. where he was born and where his father, the eminent **DR. LESTER SENECA HILL**, who had died six years prior, long practiced his profession.

The senior Dr. Hill served in the Civil War, with the 14th Rhode Island Heavy Artillery, and participated in the Battle of Bull Run, Fredericksburg, and Gettysburg. After graduating from New York University's medical college in 1872, he established his practice on Broad Street. A member of the Rhode Island Medical Society, he served in the state legislature, and returned to military duty as major and surgeon of the First R.I. Volunteer Infantry in the war with Spain in 1898. For three years he was medical director of the R.I. Dept. of the Grand Army of the Republic and in 1894 was named assistant surgeon-general of the R.I. National Guard.

The younger Dr. Hill, born Aug. 10 1885, was a Brown alumnus (1906) and Harvard medical school graduate (1911). He specialized in pulmonary medicine and saw patients at St. Elizabeth's Home, in the medical out-patient and pulmonary departments of Providence City Hospital, and in the pulmonary out-patient department of Rhode Island Hospital. He also examined patients for insurance companies, including Aetna, New England Mutual, and State Mutual Life Insurance.

Dr. Hill was a member of the Rhode Island Medical Society and the Providence Medical Literary Association. He died in 1958. �

50 Years Ago: Practical Advice for 'The Neurotic Patient' Still Rings True 'For as we know the head is attached to the body'

Fifty years ago, in a 1963 issue of *The Rhode Island Medical Journal*, LAURENCE A. SENSEMAN, MD, chief of the department of neuropsychiatry at Pawtucket Memorial Hospital, offered a dose of common sense to the general practitioner when dealing with neurotic patients, although it would be inappropriate to use that term in front of patients or families, he cautioned.

"To be able to recognize the neurotic patient quickly and accurately is to save your time and considerable expense to your patient," he wrote, and quoted the illustrious William Osler, MD: 'If you listen long enough the patient will tell you what is wrong.'

He noted that the patient's symptoms and complaints are very real to the patient and his pain and distress is not all in the head, "for as we know the head is attached to the body."

He urged physicians to listen carefully, determine the problem, arrive at a diagnosis – and above all, to maintain a sense of humor. The sage doctor concluded with some "gems" from his patients:

'Don't just sit there, doctor, worry.'

'I have too much unslept sleep in my head, doctor.'

'I have a congenial hernia.'

'He's not a medical man, just a surgeon.'

'She has anxiety cirrhosis.'

'I have a fulltime job – thinking and taking care of my aches and pains.'