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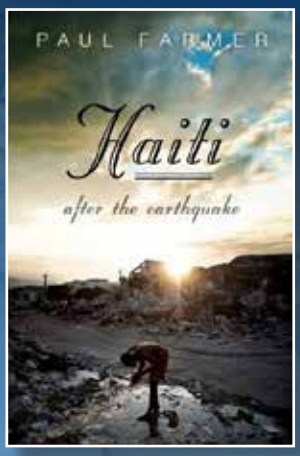

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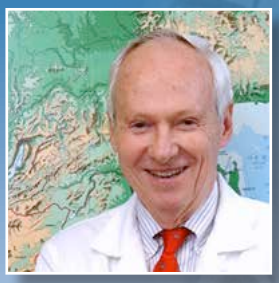

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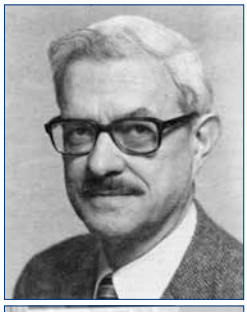


RIMS journal goes green, resumes former name

NEWELL E. WARDE, PhD
EXECUTIVE DIRECTOR, RIMS

As of this month, the venerable monthly journal of the Rhode Island Medical Society (RIMS) has more readers, more pages, more color and more variety than ever before, while simultaneously sparing the environment and consuming fewer of the Society's resources. Such are some of the many advantages of electronic publishing. Starting with this January 2013 issue, the journal is readily accessible anytime, anywhere on mobile devices, laptops and desktops. Advertisers and readers now have the convenience of hypertext, live links and occasional video that expands, deepens and enriches the journal's content. And so, as the Medical Society enters its third century, its journal too enters a new, innovative era. Mindful of its mission to educate and to record, RIMS has been publishing its own clinical journal for 154 years, beginning with the *Transactions of the Rhode Island Medical Society*, which first appeared in 1859.

The family tree from which the Society's journal springs also includes *The Providence Medical Journal*, which was founded by the Providence Medical Association (PMA) in 1900 and appeared quarterly at first, becoming bimonthly in 1902. Starting in 1912, RIMS and PMA merged their two publications into one bimonthly journal under the name *The Providence Medical Journal*. In 1917, RIMS assumed full ownership of the journal, produced it monthly, and changed the name to *The Rhode Island Medical Journal*. That title endured for 75 years and returns with this January 2013 issue. (From 1992 to 1995, the Journal was published as *Rhode Island Medicine*, and from January 1996 to December 2012 it was *Medicine & Health/Rhode Island*.)

Monthly publication of the RIMS Journal has been continuous now for 96 years, except for a hiatus of one year and three months in 1918–1919, when *The Rhode Island Medical Journal* was a temporary casualty of World War I. In announcing a pause in publication after the September 1918 issue, the Journal noted: "The Editor, the Business Manager and the members of the Publication Committee are in the service" and assured readers that "When the war is over – when the Hun has gotten his just dues, and our brave fellows have returned to their homes, and life is again normal – *The Rhode Island Medical Journal*, rejuvenated, will again represent the medical profession of this State. God grant that it may be soon."

Now, on the occasion of the Journal's newest rejuvenation, the Society takes pleasure in expressing its deep gratitude to Dr. Joseph Friedman for the quality of vision and the continuity of leadership he has provided. Dr. Friedman has been editor-in-chief since 1999 and now leads the Journal into the digital age. Immense thanks are due as well to Dr. Stanley M. Aronson, editor emeritus, regular contributor, muse and mentor. We also salute the other six past editors of the RIMS Journal and echo Dr. George D. Hershey's words from the inaugural issue of the *Providence Medical Journal* of January 1900: "We are rather proud of the Journal, both of its appearance and its contents." v

THESE PHYSICIANS SERVED AS EDITORS OF THE RHODE ISLAND MEDICAL SOCIETY'S PUBLICATION.
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(1917–1920)

FREDERICK N. BROWN, MD
(1921–1936) *not shown*

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(1942–1956)

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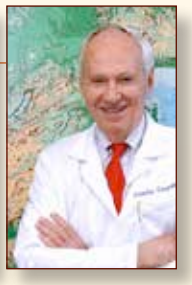

JANUARY 2013
VOLUME 96 • NUMBER 1

RHODE ISLAND MEDICAL JOURNAL

RHODE ISLAND MEDICAL JOURNAL (USPS 464-820), a monthly publication, is owned and published by the Rhode Island Medical Society, 235 Promenade Street, Suite 500, Providence RI 02908, 401-331-3207. ISSN 1086-5462. Published articles represent opinions of the authors and do not necessarily reflect the official policy of the Rhode Island Medical Society, unless clearly specified. Advertisements do not imply sponsorship or endorsement by the Rhode Island Medical Society. Classified Information: Cheryl Turcotte, Rhode Island Medical Society, 401-331-3207, fax 401-751-8050, cturcotte@rimed.org.

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Thoughts on Malpractice

JOSEPH H. FRIEDMAN, MD
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I occasionally perform legal consultations concerning malpractice. Although potentially an unpleasant activity, I decided that I should be available to either side in a dispute, not only on the side of the physician. As we all know, only a fraction of true malpractice cases are ever brought to anyone's attention, and it seems wrong to help only the defendant. Sometimes the plaintiff is, in fact, the real victim and should be supported. Obviously I only agree on behalf of the party I believe was in the right. In addition, now that my son-in-law is a personal injury lawyer, it seems only fair that if I can welcome him into the family, I can act like he's not the devil incarnate. American jurisprudence rests on an adversarial process; presumably justice sides with the winning arguments.

One case I consulted on concerned an older woman with a significant psychiatric history whose flare of bipolar disease required an antipsychotic drug. She did well psychiatrically on the prescribed drug, although the medicine caused parkinsonism. An anticholinergic medication for bladder spasms was added, which induced a delirium, precipitating hospitalization. In the hospital the connection between the drugs and the neurological impairments was not made. The patient's mental state returned to normal for reasons that escaped her physicians, although it coincided with stopping her bladder medication. Her parkinsonism, however, did not improve, since the medication causing it wasn't stopped. She was given a diagnosis of atypical parkinsonism by a neurologist and sent to a nursing home. A few weeks previously she had reportedly been functioning normally, walking, driving and performing all activities of daily living without impairment. She remained at the nursing home for several years, wheelchair bound, unable to walk, while the physician notes reported on her normal mental status and the increasingly remarkable absence of the progression of her neurological disorder. Finally someone got the bright idea that her psychiatric condition was so good that perhaps she could do without the antipsychotic medication. Remarkably, a few months later she walked out of the facility and returned home, having lost several years of independent life because of an unrecognized medication side effect.

That's a terrible story, but true, and a clear justification for physicians helping patients seek justice. The lawsuit is in its infancy.

We all make errors but, unless we alienate the patient, it is rare for physicians to be sued. How many of us know all the possible complications of all the many drugs we give patients? These days it's almost impossible to avoid getting a call from the pharmacy that there's a possible interaction between a newly prescribed drug and another drug the patient is currently taking. In some cases we know this is a theoretical interaction and one that has not actually been documented. In fact, pharmaceutical companies, in order to both satisfy the FDA and reduce their legal exposure, list a litany of potential side effects of every single drug they manufacture, which often scares patients into not taking them. "Well, Dr. Friedman, I never took that drug you prescribed. After I read all the side effects I thought it was too risky."

Malpractice comes in gradations of responsibility and where forgivable errors end and unforgivable errors begin is often murky.

I put patients on medications that may cause side effects all the time. Many of my patients are elderly and frail and thus have short life expectancies. When a patient dies, I assume that age and disease are to blame. Might a drug interaction, an unsuspected problem with liver enzymes, or a change in blood pressure be the cause? Perhaps it was my fault? Since, in the realm of neurodegen-

erative diseases, I never cure patients or prevent disease, and only provide symptomatic care, the guiding principle is always: "If you're not better you need a higher dose or a different drug." This means that any drug I am prescribing should be producing benefit or I should increase the dose until it does, or until it produces a side effect.

When is an oversight malpractice? When is ignorance malpractice? The American justice system is clearly an extremely bad approach to addressing the issue. Malpractice comes in gradations of responsibility and where forgivable errors end and unforgivable errors begin is often murky. Our adversarial system is not a good solution. When I was a resident, one of my mentors told the story of reviewing a chart for a malpractice case. His requirement was that he not be told which side the lawyer who hired him was on. The case involved a sick man whose diagnosis clearly eluded the physicians caring for him. Unfortunately for the physicians, the nurse's admission note stated that the patient suffered from "lockjaw." And the patient did indeed die from a tetanus infection. My professor noted that he advised the lawyer, that if he represented the physician or the hospital, to settle out of court.

I see no reason why impartial groups could not be set up to deal with malpractice cases. This would provide a fair review in a timely manner. Damages could be assessed elsewhere. There is no reason a committee of physicians and educated lay people could not reach reasonable conclusions within a short period with considerably less expense than the usual 10-year course, not swayed by glib lawyers, nor intellectually cowed by famous experts. v

Disclosures

Lectures: Teva, General Electric, UCB

Consulting: Teva, Addex Pharm, UCB, Lundbeck

Research: MJFox; NIH: EMD Seron, Teva, Acadia, Schering Plough

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For Now, We See Through a Glass, Darkly

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Some 66 years ago, in 1947, a resolute group of overworked, newly hatched physicians at Bellevue Hospital – then called interns – ventured to explore the systemic priorities of their profession. They were, as with all initiates, hesitant of what was expected of them. And so they did what they were taught to do when confronted with unanswered questions: They asked more questions.

Specifically, these men and women devised a rudimentary questionnaire, directed to their municipal clinic patients, consisting of a single query: "What do you expect your physician to accomplish?" It was a blunt question bereft of footnotes, definitions, variant subtexts or rhetorical traps. In truth it was a plaintive plea, innocent in its mission, and conveyed by very young physicians not yet experienced in the subtle ways of the world. If the question was explicit, the flood of answers was equally blunt and assertive.

A brief word about the status of American health care in the fourth decade of the 20th Century. Medical care was rendered almost exclusively by solo practitioners or through freely accessed clinics administered principally by municipal hospitals. Federal or state health insurance was non-existent; and other than federal employees, such as the military or certain elected officials, one either paid for services rendered, or one accepted the philanthropy of those institutions, secular or religious, capable of providing free care. Clinic patients were often indigent or certainly poor. Fees, if any, were modest and in municipal clinics frequently ignored. Care was assembly-line brief, task oriented and impersonal.

'Tell me what tomorrow will bring; what will I then suffer from, and how long will I live?'

And the responses to this eminently unscientific enquiry? These young physicians, inexperienced in the science of opinion gathering, expected narrowly focused answers, variations on the generic response, "Cure me of my ailment." But surprisingly, the avalanche of responses rarely touched upon this obvious goal. Nor were there many responses expressing hopes for pain relief or a return of a lost function such as vision or the use of a paralyzed limb.

Instead, to the astonishment of these young physicians, the dominant expectation was that the clinic physicians should clarify the patient's future. The

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Physician in Laboratory II at Bellevue Medical Center, New York Hospital, taken on May 17, 1949.

typical response declared: "Tell me what tomorrow will bring; what will I then suffer from, and how long will I live?"

Had these inquiring young physicians been historians of their ancient profession, they would have readily recognized that their patients were reiterating part of a triad of pleas expressed over the millennia by those seeking aid from earthly rather than divinely structured sources. Three basic questions: "Tell me the nature of my ailment; tell me what I must undertake so that my ailment shall cease; and most important, tell me my future."

The first plea, to reveal the nature of the ailment, prompted centuries of physiologic research under the rubric of establishing a diagnosis (from a Greek word meaning 'knowing apart', that is, distinguishing one malady from another). The second plea for instruction to mitigate the ailment, from another Greek word, therapy, meaning to attend or to intervene, led to centuries of seeking interventions – religious, pharmacological or altered life-style – to lessen the ailment. And the third plea, the future? This, in some ways, was the weightiest burden voluntarily assumed by the practicing physician. They were asked, in Hamlet's words, to hold a mirror unto nature.

And for this weighty and most ponderous of the three tasks, the ancient Greeks offered yet another word: prognosis. All three of these cumulative tasks represented a challenge to the divine order of nature, striving humans daring to alter the natural course of events.

Can these practitioners of prognosis be called prophets? A prophet – yet another Greek word – defines those who speak on behalf of someone else. The Biblical prophets never claimed to know, first hand, what was yet to be. Rather, they declared themselves to be vehicles for the pronouncements of a higher authority. A prognosticator, in contrast, seeks tangible, contemporary hints to foretell the events of tomorrow. A physician, for example, examines a febrile child, notes reddened eyes and a few skin changes, and predicts that the patient has measles which, within a day or so, will be fully apparent.

It may look like magic but it is merely an educated exploitation of precursor hints (prodromata, also derived from Greek) that tells the educated practitioner that a particular disease will emerge within a day. No magic, only educated guesses much like a meteorologist looking at a cloud formation or at a barometer and predicting tomorrow's storm.

And those young physicians with their primitive questionnaires some 66 years ago? They found themselves too involved with their quotidian labors to meditate upon the deeper import of their gathered answers. v

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Street view of Bellevue Hospital, on 28th Street, New York City, taken August 4, 1950.

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

Disclosures
The author has no financial interests to disclose.

Systematic Review of Caudal Epidural Injections in the Management of Chronic Back Pain

GAURAV DIGHE, MD; JOSEPH H. FRIEDMAN, MD

ABSTRACT

Epidural steroids recently attracted world attention due to medication contamination resulting in many cases of fungal meningitis. What was rarely noted in these reports is that there is little data to support use of this treatment. This article reviews the literature on epidural steroids for various types of back pain and concludes that further testing should be performed to determine if and in what situations this intervention is useful before wide-spread use is resumed.

KEYWORDS: Epidural steroids, low back pain, radicular pain, spinal stenosis

INTRODUCTION

Chronic low back pain is a common complaint. Caudal epidural injections (CEI) for managing chronic low back pain conditions are frequently performed interventions in the western world but their efficacy is controversial.

Multiple systematic reviews and guidelines have been published.[1-3] Primary data used for making these guidelines is sparse and of varying quality. There have been few randomized prospective controlled studies evaluating the efficacy of CEI and these studies are in disagreement regarding their efficacy for lower back pain conditions. Therefore, the most effective mode of administration, the most effective medication and the conditions likely to benefit from this therapy remain unclear.

This systematic study reviewed the evidence regarding the use of CEIs in chronic back pain conditions. We evaluated the clinical effectiveness of (A) CEIs of steroids without local anesthetics (LA); (B) CEIs of steroids plus LA; (C) CEIs of LA alone; in chronic back pain secondary to disc herniation or radiculopathy; disco-genic pain with predominantly low back pain; spinal stenosis; and post-lumbar-surgery pain syndrome.

METHODS

Literature Search

A comprehensive literature search was conducted which included the search of databases including PubMed and EMBASE from 1985 through 2012, Clinical Trial Registry, systematic reviews, narrative reviews, and cross-references to the reviews published in English.

The search strategy emphasized chronic back pain with a focus on caudal epidural injections. Search terminology included lumbar intervertebral disc, disco-genic pain, spinal stenosis, post-lumbar-surgery syndrome, caudal epidural injections of local anaesthetic and steroids, chronic back pain, sciatica.

Selection Criteria

This review included only randomized controlled trials (RCTs) and prospective randomized studies. Retrospective studies were excluded.

Outcome Parameters

The primary outcome measure that we reviewed was pain relief, for short duration (< 6 weeks) or long duration (> 6 weeks). Secondary outcome measures reviewed included functional assessment, need for surgeries, psychological improvement, return to work, and change in opioid intake.

Outcome of the Studies

A study was judged to be positive if the CEI therapy was effective, either with a placebo control or active control in randomized trials. Most papers utilized relief from pain as a measure of effectiveness; one paper[16] also used the number of subsequent surgeries as a measure. In a negative study, there was no difference between the study treatments or no improvement from baseline.

The data was reviewed separately for disc herniation or radiculopathy, disco-genic pain with predominantly low back pain, spinal stenosis, and post-lumbar-surgery syndrome.

RESULTS

Methodological Quality

Thirteen RCTs were found. We excluded two RCTs from this review. Gerszen et al.[4] was excluded due to infrequent follow-up and Park et al.[5] was excluded due to the comparison between 2 different types of steroid use which was not the focus of this review. Of the 11 RCTs included in this review, 6 studies focused on disc herniation or radiculopathy, 2 on disco-genic pain, 2 on spinal stenosis and 1 on post-lumbar-surgery syndrome.

DISCUSSION

Effectiveness

Of 11 randomized trials (Table 1–4), 8 were positive for short-term pain relief and 5 were positive for long-term relief. Regarding pain relief by etiology, of 6 trials evaluating predominantly disc herniation or radiculopathy, 4 were positive and 2 were negative for short-term relief. 6 out of 6 were negative for long-term relief. Two trials evaluated for disco-genic pain were positive for both short and long term. Two trials evaluating patients with lumbar spinal stenosis showed varied results as one was positive for both short and long term and the other was negative for both short and long term and the only trial evaluating patients with chronic back pain due to post-lumbar-surgery syndrome was positive for both short- and long-term effect.

Level of Evidence

The evidence for CEIs of steroid without LA is limited for short term and long term in managing all of the above conditions.

The evidence for CEIs of steroid plus LA in managing disc herniation or radiculopathy was moderate for short-term and limited for long-term. The evidence was moderate to strong in managing spinal stenosis, disco genic pain and post-lumbar-surgery syndrome.

The evidence of CEIs of LA alone is moderate to strong for both short term and long term in reducing pain secondary to spinal stenosis, disco-genic pain and post-lumbar-surgery syndrome.

(A) CEIs of steroid or steroid plus LA vs. Placebo:

Three studies were reviewed in this section to determine the efficacy of CEIs. A multicenter, blind, randomized controlled trial of 133 patients[6] demonstrated that CEIs of either saline or steroids have no effect on pain from a unilateral radiculopathy. Patients treated with CEIs did not show any reduction in pain or disability when compared with the patients treated with sham injections. A study of 158 patients with sciatica due to a herniated nucleus pulposus were treated with CEIs of steroid.[7] The differences in improvement between the experimental and control group were not significant. The study showed that CEIs of steroids have a limited short-term benefit over placebo. Arden et al.[8] showed that CEIs of steroid plus LA have a very limited benefit over placebo for sciatica and the pain relief did not last beyond 6 weeks. The majority of patients in the study still had significant pain and disability at the end of the study. The conclusions of the above studies question the role of CEIs in the management of radiculopathy or sciatica.

CEIs of steroid vs. lumbar decompression procedure (mild procedure)

A double-blind, randomized, prospective study compared the CEIs of steroids with the lumbar decompression procedure (mild procedure).[9] This procedure provided minimally invasive posterior lumbar decompression performed fluoroscopically through a small 6-gauge port on 38 patients with lumbar spinal stenosis. They failed to show any benefit of CEIs of steroid over the lumbar decompression procedure. In fact the operation produced better pain reduction and improved functional mobility.

(B) CEIs of steroid plus LA vs. LA alone.

Five studies were reviewed under this category. The results of CEIs of steroids in combination with LA are more promising, especially for short-term relief (< 6 weeks) than

Table 1. CEIs of steroid or steroid plus LA vs. Placebo

Study Design	Etiology	Participants	Intervention(s)	Outcome(s)	Result(s)	Conclusion: Short-term (<6 weeks) pain relief	Conclusion: long-term (>6 weeks) pain relief	Comments
1. Iversen 2011 Multicentre, blinded, randomized controlled trial	Radiculopathy	133 patients with unilateral lumbar radiculopathy lasting for more than 12 weeks	Group 1: subcutaneous sham (Needle stick with injection of 2 mL 0.9% saline) Group 2: CEIs of 30 mL 0.9% saline Group 3: CEIs of 40 mg triamcinolone acetonide in 29 mL 0.9% saline	Assessments: 6 weeks, 12 weeks & 52 weeks Outcome Instruments: Oswestry disability index scores, European quality of life measure and VAS score	No significant differences between the epidural injection groups and the sham group at 6, 12, and 52-week follow-up.	Negative	Negative	CEIs of steroid were not better than placebo and CEIs of either had no benefits over sham injections in treating radiculopathy.
2. Carette 1997 Randomized, double-blind placebo-controlled trial	Radiculopathy	158 patients with sciatica (injury to or pressure on the sciatic nerve) due to a herniated nucleus pulposus	Experimental Group: 80 mg (2 ml) of methylprednisolone + 8 ml of isotonic saline Control Group: 1 ml of isotonic saline	Assessments: 3 weeks, 6 weeks, 3 mos. & 12 mos. Outcome measures: Oswestry Low Back Pain Disability Questionnaire and the Sickness Impact Profile	At 3 weeks, the ESI group had a transient benefit over the placebo group. No benefit was demonstrated from 6 to 52 weeks.	Positive	Negative	CEIs of steroid showed a short-term benefit over placebo in treating sciatica.
3. Arden 2005 Multicentre, double-blind, randomized, placebo controlled trial	Radiculopathy	228 patients with sciatica (injury to or pressure on the sciatic nerve) Group 1-Active, Group 2-Placebo.	Group 1: 80 mg triamcinolone + 10 ml of 0.25% bupivacaine. Group 2: 2 ml of Saline.	Assessments: at 0, 3, 6, 12, 26 & 52 weeks. Outcome measures: ODQ, VAS, Likert scales, SF-36; days off work due to sciatica; return to work; surgery; and physical function.	Transient benefit in Group 1 over Group 2 at 3 weeks. No benefit was seen from 6 weeks onwards.	Positive	Negative	CEIs of steroid plus LA showed a short-term benefit over placebo in treating sciatica.

Table 2. CEIs of steroid vs. lumbar decompression procedure (mild procedure)

Study Design	Etiology	Participants	Intervention(s)	Outcome(s)	Result(s)	Conclusion: Short term (<6 weeks) pain relief	Conclusion: long-term (>6 weeks) pain relief	Comments
1.Brown 2012 Double-blind, randomized, Prospective	Lumbar spinal stenosis	38 patients with LSS were randomized into 2 treatment groups, 21 in "mild" and 17 in ESI.	Patients for CEIs received 80 mg of triamcinolone acetate (40 mg in diabetic patients) mixed with 6 mL of preservative-free saline. Patients for "mild" procedure underwent a minimally invasive posterior lumbar decompression performed fluoroscopically through a small 6-gauge port.	Assessments: 6 & 12 weeks Outcome measures: Visual Analog Scale, Oswestry Disability Index, and Zurich Claudication Questionnaire (ZCQ) patient satisfaction	Lumbar decompression procedure (mild procedure) provided significantly better pain reduction and improved functional mobility vs. treatment with CEIs.	Negative	Negative	CEIs of steroid did not show any benefit over lumbar decompression procedure (mild procedure) in treating lumbar spinal stenosis.

Table 3. CEIs of steroid plus LA vs. LA alone

Study Design	Etiology	Participants	Intervention(s)	Outcome(s)	Result(s)	Conclusion: Short-term (<6 weeks) pain relief	Conclusion: long-term (>6 weeks) pain relief	Comments
1.Manchikanti 2012 Randomized, double-blind, active control trial	Lumbar spinal stenosis	120 patients with Lumbar central spinal stenosis	Group 1: lidocaine 0.5%, 6 ml. Group 2: 5 mL of lidocaine + 1 mL of betamethasone	Assessments: 3 mos., 6 mos., and 12 mos. Outcome measures: NRS, ODI, employment status, and opioid intake	Pain relieved for a longer duration in both the groups (70% in Group 1 and 63% in Group)	Positive	Positive	CEIs of steroid plus LA did not show any benefit vs. LA in reducing pain secondary to lumbar spinal stenosis.
2.Manchikanti 2011 Randomized, double-blind, active-controlled trial	Disco- genic low back pain.	120 patients with chronic disco-genic low back pain.	Group 1: lidocaine 0.5% 10 ml. Group 2: 9 mL of 0.5% lidocaine + 1 mL of Betamethasone or methylprednisolone	Outcome measures: NRS, ODI, Employment status and opioid intake	Significant pain relief and functional status improvement in 55% in Group 1 and 68% in Group 2	Positive	Positive	CEIs of steroid plus LA were more effective than LA alone in treating disco-genic low back pain.
3.Manchikanti 2010 Randomized, double-blind, active-controlled trial	Disco- genic low back pain	70 patients with disco- geni low back pain	Group 1: lidocaine 0.5%, 6 ml. Group 2: 0.5% lidocaine, 5 mL, + betamethasone	Assessments: 3 mos., 6 mos., and 12 mos. Outcome measures: NRS, ODI, employment status and opioid intake	Pain relieved for a longer duration in both the groups (74% in Group 1 and 86% in Group 2).	Positive	Positive	CEIs of steroid plus LA were more effective than LA alone in treating disco-genic low back pain.
4.Manchikant 2010 Randomized, Double-blind, active controlled trial	Post lumbar surgery syndrome	140 patients with a history of chronic function-limiting low back pain post-lumbar- surgery	Group 1: 10 mL of lidocaine 0.5%; Group 2: 9 mL of lidocaine + 6 mg of Betamethasone	Assessments: 3 mos., 6 mos., and 12 mos. Outcome measures: NRS, ODI, employment status and Opioid intake	Improvement in pain and disability reduction for a longer duration (53% in Group 1, and 59% in Group 2). No significant differences after 1 year.	Positive	Positive	CEIs of steroid plus LA were more effective than LA alone in treating low back pain secondary to post-lumbar-surgery.
5.Cuckler 1985 Prospective, randomized, double-blind study	Radiculopathy	73 patients with lumbar nerve-root compression	Experimental group: 2 ml of sterile water containing 80 mg of methylprednisolone + 5 ml of 1% procaine Control Group: 2 ml of saline + 5 ml of 1% procaine.	Assessments: 24 hours, followed for 60 mos. Every 3 mos. Outcome measures: Subjective improvement	There were no significant differences between the patients in the experimental and control groups.	Negative	Negative	CEIs of steroid plus LA did not show any significant difference vs. LA in reducing pain secondary to radiculopathy.

Table 4. CEIs of steroid plus LA vs. IM injections

Study Design	Etiology	Participants	Intervention(s)	Outcome(s)	Result(s)	Conclusion: Short-term (<6 weeks) pain relief	Conclusion: long-term (>6 weeks) pain relief	Comments
1.Ghahreman2010 Prospective, randomized study	Radiculopathy	150 patients with pain radiating into the lower limb.	Group 1: TF 0.75 mL of 0.5% bupivacaine + 1.75mL triamcinolone Group 2: TF 2 mL of 0.5% bupivacaine Group 3: TF 2 mL of Saline. Group 4: IM 1.75 mL of triamcinolone. Group 5: IM 2 mL of Saline.	Assessments: 1 mos., 3 mos., 6 mos., &12 mos. Outcome measures: SF36 and Roland–Morris instruments, improvements, Patient-Specified Functional Outcomes Scale	54% with TF steroid plus LA; 7% with TF with LA; 19% of TF Saline; 21% of IM steroids & 13% of IM saline achieved relief of pain.	Positive	Positive	CEIs were effective than IM injections in pain reduction secondary to radiculopathy.
2.Wilson-MacDonald 2004 Prospective, randomized, controlled trial	Disc prolapse or spinal stenosis	92 patients with disc prolapse or spinal stenosis	Epidural group: Bupivacaine 0.5% 8 ml + Methylprednisolone 2 ml Control group: IM injections of the same	Assessments: Followed for 2 years Outcome measures: Oxford pain chart and the Oswestry disability index	There were no significant differences in the outcome measurements between the two groups and in the rate of operations.	Positive	Negative	CEIs did not show any benefit over IM injections in treating disc prolapse or spinal stenosis.

steroids alone. A double-blind, active control trial evaluated 120 patients with lumbar central spinal stenosis.[10] 70% of patients treated with CEIs of LA alone had better pain relief compared with 63% of patients treated with CEIs of LA plus steroid. The study failed to show any benefit of adding steroid to LA for CEIs in treating LSS. Two randomized, double-blind, active-controlled trials on the patients with disco-genic low back pain concluded that CEIs of steroid plus LA were more effective than LA alone in treating disco-genic low back pain.[11,12] Another randomized, double-blind, active-controlled trial[13] on 140 patients with a history of chronic function-limiting low back pain post-lumbar-surgery showed that CEIs of steroid plus LA were more effective than LA alone but there was no significant difference after one year. A prospective, randomized, double-blind study of 73 patients with lumbar nerve-root compression[14] reported that CEIs of steroid plus LA did not show any significant difference vs. LA alone in reducing pain.

(C) CEIs of steroid plus LA vs. IM injections

Two studies compared the routes of administration of steroid or LA for chronic back pain. A prospective, randomized study compared transforaminal CEIs (TFCEIs) with intramuscular (IM) injections in treating radiculopathy and concluded that CEIs were equally effective as IM injections in short-term pain reduction. The other prospective, randomized, controlled trial compared the effect of CEIs of steroid plus LA with IM injections of LA on 92 patients with disc prolapse or spinal stenosis and reported that CEIs had no benefit over IM injections in pain relief. The data therefore does not support the use of CEI over IM injections of anesthetic for pain from spinal stenosis or disc prolapse.

There are no RCTs comparing CEIs of LA alone against placebo. Therefore, the efficacy of CEIs of LA alone needs to be ascertained from RCTs which include CEIs with LA alone as part of the control group. In these studies, no advantage was seen with addition of steroid to CEIs of LA[10] and with CEIs of steroid plus LA vs. LA alone.[14] Therefore, it would be unreasonable to expect long-term (> 6 week) benefit from these injections due to their short half-lives of a few hours. There are no reported RCTs comparing CEIs of steroid plus LA vs. steroid alone.

CONCLUSION

This review is in agreement with others,[1, 17-20] that the evidence for CEIs ranges from nil to possible, based on the cause of chronic back pain conditions. There is no convincing evidence for the efficacy of CEI for long-term relief of back pain of any studied etiology.

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Disclosures

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Lectures: Teva, General Electric, UCB

Consulting: Teva; Addex Pharm; UCB; Lundbeck

Research: MJFox; NIH: EMD Serono; Teva; Acadia; Schering Plough

Royalties: Demos Press

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Descriptive Study of Opioid-Acetaminophen Prescription Patterns at the Providence VA Medical Center

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ABSTRACT

BACKGROUND: Prescription opioid-acetaminophen products account for the majority of cases of acetaminophen-related acute liver failure in the United States. We sought to examine the frequency of opioid-acetaminophen overuse at the Providence VA Medical Center and improve the quality and safety of opioid-acetaminophen prescription practices in a system employing electronic health records and e-prescribing.

RESULTS: During fiscal year 2011, the Providence VA pharmacy dispensed a total of 19,841 acetaminophen prescriptions to a total of 4455 different patients. There were only 15 acetaminophen prescriptions dispensed in excess of 4g/day, and there were only 14 patients exposed to a potential maximum daily dose of acetaminophen greater than 4g.

CONCLUSIONS: The Providence VAMC appears to have a low rate of prescription acetaminophen misuse, in contrast to rates seen in previous studies. The VHA electronic health record, accessible to all healthcare providers, appears to offer considerable benefit in reducing the overuse of acetaminophen containing opioid products.

INTRODUCTION

In the United States, acetaminophen is one of the most commonly used drugs for treating pain and fever – 28 billion doses are purchased annually in over-the-counter (OTC) and prescription formulations.[1] Over 20% of the adult United States population uses acetaminophen-containing products in an average week.[2,3] Opioid combinations with acetaminophen account for 90% of acetaminophen prescriptions among adults.[4] Between 2001-2005, the use of acetaminophen-containing prescription opioids increased by 38%, representing 11 billion doses and 182 million prescriptions annually. Hydrocodone-acetaminophen combination product (i.e. Vicodin® – Abbott Laboratories) has been the most frequently prescribed drug since 1997; it accounted for 128 million prescriptions in 2009, more than statins, ACE-inhibitors, or generic proton-pump inhibitors.[5] From 1999-2010, opioid pain reliever sales quadrupled, and enough pills were sold in 2010 to medicate every American adult with a typical 5mg dose of hydrocodone every 4 hours for 1 month.[6] Hydrocodone-acetaminophen combinations are often selected over other opioids due to the Schedule III status of this medication, which allows for refills. This convenience factor may contribute to a tendency to over-utilize hydrocodone products, contributing to greater risk of acetaminophen toxicity.

Acetaminophen is the most common etiology of acute liver failure (ALF), responsible for more than 40% of cases nationally.[7] Ingesting more than the FDA-recommended 4g total daily dose of acetaminophen may result in liver injury. In a retrospective cohort of nearly 5 million health beneficiaries, liver dysfunction was diagnosed in 3800 cases, 23% of whom had received an opioid-acetaminophen prescription in the 90 days prior to liver dysfunction.[3] Acetaminophen-associated overdoses led to an estimated 56,000 emergency room visits, 26,000 hospitalizations, and 458 deaths per year between 1990-1998.[1] Although there are a myriad of acetaminophen-containing medications, in both OTC and prescription formulations, our present study focuses on opioid-acetaminophen products because overdose from acetaminophen-containing prescription products account for nearly half of all cases of acetaminophen-related ALF in the U.S.[3,7,8]

The goal of this study is to examine the frequency of opioid-acetaminophen overuse and improve the quality and safety of opioid-acetaminophen prescription practices.

METHODS

We conducted a descriptive study of pharmacy records at the Providence VA Medical Center (VAMC). We sought to: 1) examine the frequency of opioid-acetaminophen prescriptions exceeding the proposed acetaminophen dosing recommendations of less than 4g/day; and 2) analyze the proportion of prescription acetaminophen users at risk of consuming over the recommended dosage of 4g/day. This quality-improvement study was considered IRB-exempt as no identifiable patient data was used.

The Providence VAMC serves on average 178,000 patients per year. Approximately 150 board-certified physicians and 1000 other healthcare providers are responsible for over 350,000 outpatient visits per year.[10] Providence VAMC providers prescribe over 600,000 prescriptions per year. The VA hospital system offers several unique advantages with regard to tracking patient health records and pharmacy data.[9] First, the Providence VAMC, as with most VA hospitals, utilizes a fully computerized electronic record system, the

Computerized Patient Record System (CPRS). Since CPRS was implemented, this system allows access to nearly all inpatient and outpatient clinic notes, procedure notes, laboratory values, and pharmacy records written at VA institutions nationwide. A second advantage is that nearly all prescriptions written at the VA clinic or hospital are filled by a VA pharmacy, allowing physicians and pharmacists to track prescriptions within the VA system.

The electronic pharmacy records for the fiscal year 2011 (FY11, October 1, 2010 – September 30, 2011) were reviewed and sorted by type of acetaminophen prescription, yielding both single-entity acetaminophen and combination opioid-acetaminophen products. The pharmacy database was queried and analyzed for potential maximum daily dose (PMDD) of prescription acetaminophen use during FY11. PMDD was calculated based on days supplied, quantity, and acetaminophen content per dose.

RESULTS

During FY11, the Providence VA pharmacy dispensed a total of 19,841 acetaminophen prescriptions to a total of 4455 different patients (Table 1). Hydrocodone 5mg/acetaminophen 500mg was the most prescribed medication (n = 9786; 49.3% of total acetaminophen prescriptions). More patients used hydrocodone 5mg/acetaminophen 500mg than any other prescription acetaminophen medication (n = 2617 patients; 50.3% of all prescription acetaminophen use). Oxycodone 5mg/acetaminophen 325mg was the second most prescribed drug (n = 3984; 20.1% of total acetaminophen prescriptions). In total, combination opioid-acetaminophen accounted for 83.6% of total acetaminophen prescriptions (n = 16,590) while solo-acetaminophen accounted for the remaining 16.4% (n = 3251). Over three-quarters of patients reviewed in our study received acetaminophen in the form of an opioid-acetaminophen combination product.

There were a total of 15 acetaminophen prescriptions dispensed during FY11 that were greater than 4g/day (Table 2). Of these, hydrocodone 5mg/acetaminophen 500mg accounted for 73.3% (11 of 15). A total of 14 patients received a PMDD of acetaminophen in excess of 4g/day at some point during FY11; hydrocodone 5mg/acetaminophen 500mg accounted for 71.4% (10 of 14) of these patients. There were 510 total acetaminophen prescriptions exactly at the 4g/day

Table 1. Medications dispensed and Providence VA patients receiving each type of actaminophen prescription during fiscal year 2011

Medication	Number of Prescriptions Dispensed	Percentage (%) of Total Acetaminophen Prescriptions Dispensed			Number of Patients		Percentage (%) of Total Rx-Acetaminophen Use Among Patients	
Acetaminophen 325MG TAB	893	4.5%	16.4%	16.4%	398	1181	22.7%	22.7%
Acetaminophen 500MG TAB	2358	11.9%			783			
Codeine 30MG/Acetaminophen 300MG TAB	1043	5.3%	5.3%	83.6%	368	368	7.1%	77.3%
Hydrocodone 10MG/Acetaminophen 325MG TAB	1360	6.9%	56.5%		204	2838	54.5%	
Hydrocodone 10MG/Acetaminophen 500MG TAB	65	0.3%			17			
Hydrocodone 5MG/Acetaminophen 500MG TAB	9786	49.3%			2617			
Oxycodone 10MG/Acetaminophen 325MG TAB	352	1.8%	21.9%		45	816	15.7%	
Oxycodone 5MG/Acetaminophen 325MG TAB	3984	20.1%			771			
Grand Total	19841				5203[a]			

a. This total includes patients prescribed more than one acetaminophen-containing prescription. There were **4455** unique patients who received any acetaminophen prescription in FY1

Table 2. Potential prescription acetaminophen overuse among Providence VA patients during fiscal year 2011

Medication	Number of prescriptions[a]		Number of patients with Potential Maximum Daily Dose Acetaminophen[b, c]	
	> 4g/day	= 4g/day	> 4g/day	= 4/day
Acetaminophen 500MG TAB	0	37	0	31
Hydrocodone 5MG/Acetaminophen 500MG TAB	11	473	10	108
Oxycodone 5MG/Acetaminophen 325MG TAB	4	0	4	0
Total	15	510	14	139

a. Total number of acetaminophen prescriptions = 19841

b. Number of patients receiving any prescription acetaminophen products = 4455

c. Potential maximum daily dose (PMDD) was calculated based on days supplied, quantity, and acetaminophen content per dose

threshold, and hydrocodone 5mg/acetaminophen 500mg accounted for 92.7% (473 of 510) of these prescriptions at the 4g/day threshold. There were 139 patients who received a PMDD of acetaminophen of 4g/day; hydrocodone 5mg/acetaminophen 500mg was prescribed to 77.7% (108 of 139) of these patients.

Amongst patients who were prescribed hydrocodone 5mg/acetaminophen 500mg, 32.4% (35 of 108) received three or more prescriptions at the 4g/day PMDD threshold during FY11. With regard to repeat acetaminophen prescriptions, 46.5% (2070 of 4455) of prescription acetaminophen users received at least three acetaminophen prescriptions during FY11. Finally, with regard to PMDD of acetaminophen, 3.4% (153 of 4455) of prescription acetaminophen users were exposed to a PMDD of acetaminophen of 4g or greater.

DISCUSSION

Overuse of acetaminophen-containing prescription products account for nearly half of all cases of acetaminophen-related acute liver failure (ALF) in the United States.[3, 7, 8] Our study shows that the Providence VAMC had very few acetaminophen prescriptions in excess of the 4g maximum daily dose recommended by the FDA – only 15 prescriptions out of 19,841 exceeded 4g/day. Based exclusively on pharmacy data, only 14 out of 4455 patients who were prescribed acetaminophen products had a PMDD greater than 4g. A relatively small proportion of patients, 3.1%, were exposed to the 4g PMDD threshold (139 of 4455 patients). Hence, prescription acetaminophen misuse appears to be low at the Providence VAMC.

In contrast to our findings, multiple studies have shown that prescription acetaminophen continues to be misused. According to California Medicaid pharmacy data of over 3.2 million patients, 5.9% of all enrollees were potentially exposed to a PMDD of acetaminophen greater than 4g.[2] Another study of 4.8 million beneficiaries found that 8.1% of opioid-acetaminophen prescriptions exceeded the 4g PMDD, thereby putting about 19% of Rx-acetaminophen users at risk of liver toxicity.[3] Finally, in a study of a national commercial insurance database of pharmacy claims of 2.7 million subjects, about 25% of Rx-acetaminophen users had a PMDD of acetaminophen over 4g, and 2-3% even had a PMDD over 10g.[4]

Our data demonstrates that the rate of prescription acetaminophen misuse at the Providence VAMC is low. Electronic health records, such as the VHA Computerized Patient Record System (CPRS), is an effective means to track all VA-based prescriptions, thereby safeguarding against distribution of excessive doses of prescription acetaminophen. The CPRS warns prescribers and pharmacists about medication allergies and duplicate opioid prescriptions. For opioid-acetaminophen doses with 500mg acetaminophen per tablet, there is cautionary alert embedded in each prescription order not to exceed 8 tablets in 24 hours (4g per day maximum dose of acetaminophen). A Providence VAMC pharmacist would have to disregard these cautions before dispensing a single opioid-acetaminophen prescription in excess of 4g acetaminophen per day. A potential CPRS shortcoming is that there is no pop-up alert warning or hard stop to prevent duplicate acetaminophen prescriptions, hence the need for a pharmacist to review the record. As the United States moves towards an integrated electronic medical record system nationwide, the VAMC system might serve as a good model to curb potential toxic prescription acetaminophen overuse.

CONCLUSION

The Providence VAMC appears to have a low rate of opioid-acetaminophen combination prescribing and dispensing in excess of FDA recommendations, in contrast to rates previously reported in the medical literature.[2-4] This improved pattern of safety may be directly attributable to the VHA electronic health record and e-prescribing system, which offers greater transparency and collaboration between the prescribers and pharmacists. General adoption and improvements in broadly accessible electronic health records offer the potential for improved patient safety.

Acknowledgment

This material is the result of work supported with resources and the use of facilities at the Providence VA Medical Center.

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Disclosures

The authors report no financial conflict of interests.

The views expressed in this article are those of the authors and do not necessarily reflect the position or policy of the Department of Veterans Affairs or the US government.

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Hepatocellular Carcinoma in HIV-Infected Women: Two Case Reports

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ABSTRACT

With the widespread availability of highly active antiretroviral therapy (HAART), and increased life expectancy among HIV-infected individuals, liver-related mortality has emerged as the leading cause of non-AIDS-related death. The incidence of hepatocellular carcinoma (HCC), a sequela of chronic liver disease, is rising among HIV-infected individuals. While women are increasingly and disproportionately affected by HIV, little is known about HCC in HIV-infected women given HCC's predilection for men. In 2007, 2 out of 398 HIV-infected women seen at a Rhode Island HIV clinic were diagnosed with HCC. Of 351 HIV-infected individuals with HCC described in the published literature, 12 (3.4%) were women. These 2 cases add to the existing literature on this topic.

KEYWORDS: HIV, Hepatocellular Carcinoma, Women

INTRODUCTION

With the widespread availability of highly active antiretroviral therapy (HAART) and increased life expectancy among HIV-infected individuals, liver-related mortality has emerged as the leading cause of non-AIDS-related death.[1,2] The incidence of hepatocellular carcinoma (HCC), a sequela of chronic liver disease, is rising among HIV-infected individuals and is being driven by coinfection with hepatitis C virus (HCV), hepatitis B virus (HBV), alcohol and tobacco.[2-6] HCC is an aggressive malignancy, with a median survival of 6-8 months from time of diagnosis among HIV-infected individuals.[3,7-9] In the general population, men are three times as likely as women to be diagnosed with HCC.[4,7-13] Most observational cohort studies describing HCC in the setting of HIV infection lack data on women. Consequently, little is known about HCC in HIV-infected women.

In 2008, 398 (33%) of 1203 HIV-infected patients at the Miriam Hospital Immunology center, a Rhode Island HIV care center, were female. One hundred thirty-two (33%) of the 398 women were coinfected with chronic HCV. Two of these women were diagnosed with and subsequently died from HCC. These two cases may reflect a rise in HCC incidence among HIV-infected women as they increasingly live into their post-menopausal years. This may suggest a need for greater attention to HCC prevention and screening among HIV-infected women, historically thought to be at low risk.

CASE REPORTS

Case 1

A 47-year-old Hispanic woman was diagnosed with HIV infection in 1994, and with HCV in 1996. Additional medical history included major depressive disorder (MDD), alcohol abuse, non-injection cocaine use and tobacco dependence. She denied history of injection drug use (IDU). A highly active antiretroviral therapy (HAART) regimen consisting of lamivudine, zidovudine, and nelfinavir was initiated in 1998 when her $CD4^+$ cell count was 342 cells/µl. She experienced a robust immunologic response to treatment, achieving a peak $CD4^+$ cell count of 1400 cells/µl in 2006. From 2004 onward she maintained a non-detectable HIV RNA level and a $CD4^+$ cell count above 400 cells/µl. Despite multiple referrals to an on-site HIV/viral hepatitis coinfection clinic, she did not present for her first HCV visit until March 2000. Evaluation of HCV revealed genotype 1a infection with HCV RNA level of 2,820,000 copies/mL. She did not return for further HCV care until 2003. At that time, she displayed clinical evidence of cirrhosis with spider angiomas, palmar erythema and rash consistent with cryoglobulinemia. Laboratory evaluation revealed a platelet count of 176 X 10^9 cells/L, INR 1.20, albumin 3.3 g/dl, total bilirubin 0.9 mg/dl, aspartate aminotransferase (AST) 120 IU/L, and alanine aminotransferase (ALT) 119 IU/L. Abdominal ultrasound revealed an enlarged spleen but no focal masses or ascites. Despite recommendations that she initiate HCV treatment, she declined therapy due to concern for adverse effects. She did discontinue alcohol use. She agreed to surveillance for HCC with bi-annual abdominal imaging. After a liver biopsy performed at her insistence confirmed a histologic diagnosis of cirrhosis, she agreed to initiate pegylated interferon alfa 2a plus ribavirin in January 2007. She developed cytopenias but otherwise tolerated therapy well. Due to virologic non-response, treatment was discontinued at week 12 and she was referred for early consideration for future liver transplantation.

In November 2007, a screening abdominal magnetic resonance imaging (MRI) obtained as part of the transplant evaluation process revealed 14 mm and 22 mm lesions in the left hepatic lobe. Alpha-fetoprotein (AFP) was found to be elevated to 351 IU/mL from a value of 34 IU/mL two years prior. Biopsy of the liver lesions in January 2008 confirmed a diagnosis of HCC. Her HIV at that time was well-controlled with a CD4+ cell count of 633 cells/µL and an HIV viral

load of <75 copies/mL. She underwent radio-frequency ablation in January 2008, but by March 2008 she had developed a new hepatic mass. She was then diagnosed with biopsy-confirmed breast cancer in April 2008. In July 2008, her AFP rose to 56,766 IU/mL and abdominal MRI revealed numerous hypervascular hepatic masses and metastases to the abdominal wall. After extensive discussions with the patient, and per her wishes, she entered Hospice care. In September 2008, 8 months after her HCC diagnosis, she died at the age of 61. At the time of her death, her CD4+ cell count was 451 cells/mL and HIV RNA level was <75 copies/mL.

Case 2

A 42-year-old African and Native-American woman was diagnosed with HIV and HCV in March 2000. Additional medical history included MDD, hypertension and chronic renal insufficiency secondary to HIV-associated nephropathy. She had a longstanding history of polysubstance addiction, with ongoing injection drug use (IDU) of heroin and cocaine, heavy alcohol use and tobacco addiction. Her initial HIV parameters revealed a $CD4^+$ cell count of 308 cells/μL and HIV viral load of 1,385 copies/mL. She was intermittently adherent to a HAART regimen of lamivudine, stavudine and nelfinavir. Initial HCV evaluation in September of 2000 revealed genotype 1a infection with a viral load greater than 1,000,000 copies/mL. Additional laboratory evaluation at that time revealed a platelet count of 90 X 10^9 cells/L, INR 1.2, albumin 2.6 g/dl, total bilirubin 0.6 mg/dl, AST 78 IU/L, and ALT 94 IU/L. Emphasis was placed on assisting her in abstaining from alcohol and tobacco, and adhering to HAART. She declined further evaluation and treatment of her HCV, including liver biopsy and referral to coinfection clinic, until September 2007. At initial visit, her Child-Turcotte-Pugh score was 7. She declined HCV treatment and further assistance with alcohol and tobacco cessation but agreed to HCC surveillance.

In September 2008, the patient was hospitalized due to abdominal pain. AFP was found to be elevated to 143 IU/mL from a previous value of 2 IU/mL two years earlier. At that time, her CD4+ cell count was 211 cells/mL, HIV viral load was 10,534 copies/mL, and she was on hemodialysis for end-stage renal disease. A triple phase abdominal computer axial tomography (CAT) scan revealed two hypervascular liver lesions, 2.1 x 1.6 cm and 1.1 cm in size, with early arterial enhancement and venous washout consistent with HCC. Due to the superficial location of the liver lesions with minimal surrounding healthy liver tissue, biopsy of the lesions was felt to be associated with a high bleeding risk and the patient did not want a liver biopsy. Based upon clinical, laboratory, and radiographic findings, a diagnosis of HCC was made. In consultation with the oncology service, she was felt not to be a candidate for ablation, resection or chemotherapy, as these therapies would likely be minimally effective and decrease her quality of life. The patient concurred and requested palliative care services. Four months later she discontinued hemodialysis, and died in February 2009 at the age of 51, five months after HCC diagnosis. At the time of her death her CD4+ count was 211 cells/μL and her HIV viral load was 10,534 cells/mL.

DISCUSSION

Women account for more than 25% of newly diagnosed HIV infections in the United States, and roughly 55% of HIV infections worldwide.[14-16] As HIV-infected women age, they are at an increased risk of morbidity due to concurrent illnesses, including liver disease. Based upon risk factors and geographic distribution, HIV-infected women have elevated rates of alcohol consumption[17], coinfection with HCV[18,19], coinfection with HBV[18,20] and tobacco use[5,6] compared to HIV-uninfected women, all drivers of HCC development. With HCC incidence rates increasing among U.S. women,[10] preventive care, including vaccination for HBV among susceptible persons, and strategies to reduce alcohol and tobacco use; screening for viral hepatitis to detect infection early in the disease course; and treatment for persons chronically infected with HCV or HBV are needed to help reverse this trend.

Of 316 HIV-infected individuals with HCC reported in previous studies[4,7,9], only 12 (3.4%) were women. Two additional cases of HCC in HIV/HCV coinfected women were identified at our center in 2008 out of 132 total HIV/HCV coinfected women. Although it is possible that these 2 cases herald a rising incidence of HCC in this population, surveillance data is lacking to support such a supposition. Recent data indicate that a high percentage of at-risk HIV-infected individuals are not being screened for HCC despite a survival benefit seen with screening.[21] Thus, HCC may remain undiagnosed in HIV-infected women or be diagnosed too late in its course to permit consideration of liver transplantation or tumor resection.

The 2010 American Association for the Study of Liver Diseases guidelines endorse ultrasonographic liver imaging every 6-12 months for HCC screening for individuals with cirrhosis secondary to HCV infection, alcohol use, genetic hemochromatosis, and primary biliary cirrhosis. Imaging is also recommended for individuals with chronic HBV infection, with interval follow-up based upon age, sex, ethnicity, and family history.[22] While these guidelines pertain to both HIV-infected and uninfected individuals, no guidelines have been developed to specifically address HCC surveillance in the setting of HIV infection.

Although there have been no randomized controlled trials to show that screening for HCC in patients with HIV improves survival,[23] modeling studies have suggested that screening should improve resectability and liver transplantation rate.[23] A recent large retrospective study involving HIV/HCV coinfected patients from 22 centers around the world found that median survival for individuals undergoing HCC screening was 12.8 months, versus 3.7 months for

individuals who had not undergone HCC screening.[21] HCC screening was also shown to be associated with better liver function and earlier HCC stage, as well as a higher eligibility for liver transplantation and more frequent use of effective HCC therapies.[21] In this study, 43% of HIV/HCV coinfected individuals with HCC were identified as never having been screened for HCC prior to diagnosis.[21]

Our 2 cases illustrate that HIV-infected women may survive HIV infection, only to die of HCC. Although data on HCC screening in HIV infection are limited, recent studies have demonstrated a survival benefit with screening, as well as improved eligibility for more effective treatment options.7,24 Whether HCC incidence in HIV-infected women is rising requires further study. A crucial next step is improved HCC surveillance in HIV-infected populations.

Acknowledgements

This publication resulted (in part) from Dr. Taylor's research supported by Award Number K23DA020383-01 from the National Institute on Drug Abuse. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institute on Drug Abuse or the National Institutes of Health. This research has been facilitated by the infrastructure and resources provided by the Lifespan/Tufts/Brown Center for AIDS Research, an NIH funded program #P30 AI42853; and by the Center for Drug Abuse and AIDS Research (CDAAR), an NIH funded program #P30 DA013868. Funding was also provided in part by (Garg) Lifespan/Brown/Tufts: NIAID 5T32AI007438-17.

The authors would like to acknowledge the patients, physicians and nurses of the Immunology Center at the Miriam Hospital, as well as, Charles C. J. Carpenter, MD, and Norbert Bräu, MD, for their review of the manuscript. The authors would also like to acknowledge Wendy Henderson, MD, from the NIH and Fizza Gillani, PhD, for data support.

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The authors and/or their spouses/partners have no financial interests to disclose.

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Adherence to American Diabetes Association Guidelines in a Volunteer-run Free Clinic for the Uninsured: Better than Standards Achieved by Clinics for Insured Patients

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ABSTRACT

To determine whether Type 2 diabetes care for the uninsured is comparable to care provided to insured patients, we compared a free clinic's compliance with American Diabetes Association (ADA) clinical practice guidelines to 6 adherence evaluations in the literature. We examined diabetes management-related biomarkers, compliance with ADA-recommended health monitoring events, and presence of other health-promoting behaviors via retrospective chart review (n = 33). Results demonstrate that standards achieved by the free clinic were commensurate with, if not outperforming, published standards achieved in settings for insured patients. This evaluation emphasizes that free clinics can provide high-quality diabetes management care to patients with limited resources. This review also provides a benchmark against which results of future diabetes management interventions in both free and conventional clinic settings can be compared.

KEYWORDS: Type 2 Diabetes, Free Clinic, Uninsured, Health Disparities, ADA Recommendations

INTRODUCTION

Diabetes self-management education is a critical element of care for all people with diabetes and is necessary in order to prevent or delay the complications of diabetes. Clínica Esperanza/Hope Clinic (CEHC) provides free primary care, health screening, and health education to uninsured individuals living in the largely Hispanic/Latino communities surrounding Olneyville, a low-income neighborhood in Providence, RI. Free clinics for uninsured patients aspire to achieve the same standard of care that is attained in clinics for patients who have insurance.

To determine whether "free care" was comparable to care provided at clinics for insured patients, we examined whether CEHC diabetes care is compliant with the American Diabetes Association (ADA) clinical practice guidelines (Table 1) for glycemic control, blood pressure, lipid management, and preventative services. A chart review was performed for all 33 diabetic patients actively engaged in follow-up at CEHC during the study period (January 1, 2011 to April 1, 2012). Results for this patient cohort were compared to other published ADA compliance studies. The intent of this study was to provide a benchmark against which a range of clinical interventions to improve ADA compliance can be compared in free clinic and conventional clinic settings.

VIDEO: A visit with Dr. Anne S. De Groot at Clinica Esperanza

PROVIDENCE JOURNAL VIDEO

EXPERIMENTAL DESIGN AND METHODS

Study Design:

Data for this study was collected from the period January 1, 2011 to April 1, 2012. A retrospective chart review was performed for patients actively attending CEHC during the study period (at least two visits during the study period). The study population consisted of a cohort of 33 active diabetic patients. Diabetic patients who failed to follow up for any reason were excluded from the study. De-identified EMR-eClinicalWorks-derived data for each diabetic patient was entered into an Excel spreadsheet. The following values were obtained: Laboratory values pertinent to diabetes management (hemoglobin A1c (HbA1c), LDL, systolic and diastolic blood pressure) and processes indicative of quality of care in diabetes (HbA1c, fasting lipid panel, body mass index (BMI), urine microalbumin and creatinine testing at appropriate intervals as suggested by the ADA). The resulting clinical and demographic data were summarized and compared to results from 6 similar studies (Tables 2-4) and to current ADA guidelines (Table 1).

Demographics

Fifty-seven percent of the residents of Olneyville are Hispanic/Latino, 22% White, 13.6% African American, 7.4% Asian, and 1.6% Native American. The median family income is $19,046, well below the Providence average of $32,058. Forty-one percent of families live in poverty. The mean age for the CEHC diabetic patient cohort evaluated in this study was 52.9 years. Twenty of the 33 patients were male and 13 were female. Twenty-five of the 33 (76%) identified as Hispanic, two were Caucasian, two were Pacific Islanders, two were African Americans, two were Native Americans and one was another race.

Table 1. Summary of 2012 ADA "Standards of Medical Care" guidelines.

This table provides a summary of the American Diabetes Association Standards of Medical Care guidelines. The suggested frequency of testing, goal values, and suggested courses of action are described for eight different categories of diabetes-monitoring behaviors. ACE: Angiotensin Converting Enzyme; ARB: Angiotensin Receptor Blockers; CHD: coronary heart disease; M/C: microalbumin/creatinine.

Assessment	Frequency of Monitoring	Goal	Take Action	Treatment
Metabolic Control				
Glycosylated hemoglobin (HbA1c)	Controlled, 2x/year; Uncontrolled, quarterly	<7%	>/=8%	Diet, exercise, insulin, oral agents
Self-monitored blood glucose (mg/dL)	As necessary for glycemic control, recommended 3+ times a day	-	-	Stepped approach to control
Whole blood - preprandial	-	80-120	<80 of >140	-
Whole blood - bedtime	-	100-140	<100 or >160	-
Plasma - preprandial	-	90-130	<90 or >150	-
Plasma - bedtime	-	110-150	<110 or >180	-
Hypoglycemic/hyperglycemic episodes	Each visit	No episodes	Episodes have occurred	Change in lifestyle or treatment
Cardiovascular				
Blood pressure	Each visit	<130/80 mm Hg	>130/80 mm Hg	ACE Inhibitors or ARB or diuretics (130-139, 80-89 = lifestyle changes)
Lipid profile (mg/dL)	Annual; every 2 yrs if low risk	-	-	Stepped approach to lipid control with lipid lowering medications (statin therapy), diet, and exercise
LDL-C	-	<100	No CHD, >/=130; CHD, >/=100	-
HDL-C	-	>50 (women) >40	-	-
Triglycerides	-	<150	-	-
Complications				
Retinopathy: dilated eye exam by eye care	Annual	Normal	Abnormal	Refer to ophthalmologist
Nephropathy: test for microalbuminuria	Annual	<30 mg/24 h; <20 M/C ratio	>30 mg/24 h	ACE Inhibitors and glycemic control
Foot Examination	Annual (more often if problems)	No complications	Corns, calluses, diminished pulses	Refer to podiatrist
Oral/periodontal	Each visit	Healthy teeth/gums	If no routine dental visits or poor hygiene	Refer for dental care
Lifestyle				
Exercise	Each visit	150 min/week (across more than 3days) of moderate physical activity most days, normal BMI (18.5-25)	<3x/week	Exercise counseling related to type, frequency, duration, and intensity
Immunizations				
Influenza Vaccine	Annual, begin in September	-	-	Recommended for all patients aged >/=6 months
Pneumococcal Vaccine	One-time revaccination for people aged >64 yrs if previously immunized before age 65, or if given >5 years ago	-	-	Other indications for repeat vaccination include nephrotic syndrome, chronic renal disease, and immuno-compromise
Smoking				
Smoking	Each visit	No cigarette smoking	Cigarette smoking	Smoking cessation program
Nutrition				
Nutrition	As needed	Healthy eating, weight control, metabolic control	Poor glucose or lipid control or increased weight	Refer to nutritional counselor
Overall diabetes self-management practices				
Self-management	After diagnoses, as needed afterwards	Healthy diabetes management with metabolic control	-	Referral to diabetes educator or formal diabetes education classes

"-" indicates data is not available and/or specified

RESULTS

Clinically Relevant Biomarkers

The average HbA1c of patients receiving ongoing diabetes care at CEHC was 8.4 ± 2%; 27% of patients had an HbA1c ≤7%, which was slightly lower than results reported in Puerto Rico[8] and higher than results reported for the US Air Force[11] and rural health care providers[9] (Table 2). The average total cholesterol was 194 ± 47 mg/dL, slightly better than national clinical studies[7] and 63% of patients had a total cholesterol <200 mg/dL, which was better than the average achieved in a family practice setting[6] (Table 2). The average LDL was 89 ± 28 mg/dL; 48% of patients had an LDL <100 mg/dL, which was similar to published studies.[6-11] The average HDL was 42 ± 8.5 mg/dL; 50% of patients had HDL >40 mg/dL. The average triglycerides were 182 ± 108.11 mg/dL; 52% of patients had triglycerides <150 mg/dL. These

Category		A1c	Cholesterol (mg/dL)			Triglycerides (mg/dL)	Microalbumin and/or Creatinine	Blood Pressure (mm Hg)			BMI (kg/m^2)
			Total	LDL	HDL			Total	Systolic	Diastolic	
CEHC	Goal	≤7%	<200	<100	>40	<150	Ratio <20	<130/80	<130	<80	<25
	Success Rate	26.92%	62.50%	47.62%	50%	52%	77.77%	24.24%	54.54%	39.39%	12.50%
	Mean ± SD	8.43±2.21	194.04±47.46	89.43±28.49	42.46±8.45	182±108.11	14.33±16.29	-	130.42±16.44	79.33±10.22	31.98±7.44
Family Practice Clinic (2002)[7]	Goal	<7%	<200	<130	-	<200	-	<130/85	<130	<85	<27
	Success Rate	21.80%	55%	58%	-	60%	-	37.90%	38.70%	84.60%	18%
	Mean ± SD	8.63±2.3	201.3±47.8	119±42.3	40.7±11.2	219.2±136.3	-	-	135.5±20.8	75±10.3	-
National Clinical Practice (2006)[8]	Goal	<7%	-	<100	>45	<200	<30 µg/mg creatine	<130/80	<130	<80	-
	Success Rate	49.80%	-	36%	27.40%	65%	65.80%	39.60%	-	-	-
	Mean ± SD	-	203.6±3.1	-	-	-	-	-	-	-	31.8±0.4
Puerto Rico National Clinical Practice (2012)[9]	Goal	<7%	-	<100	≥40	<150	<30 µg/g microalbumin	<130/80	<130	<80	<25
	Success Rate	28.70%	-	47.80%	44.10%	57.40%	60.30%	41.20%	-	-	5.90%
	Mean ± SD	8.6±2.3	183.6±41.8	107.8±40.4	-	153.3±86	-	-	129.2±20.8	74.4±10.9	31.8±6.4
Rural Health Care Providers (2002)[10]	Goal	<7%	-	<100	-	-	-	<130/85	<130	<85	-
	Success Rate	47.60%	-	26%	-	-	-	27%	28.60%	79.30%	-
	Mean ± SD	7.43±1.7	206±45	119±33	45±12	-	-	-	139±18.8	75±11.5	-
Low-Income Patients, North Carolina (2001)[11]	Goal	≤9.5%	-	<130	-	-	-	<140/90	<140	<90	-
	Success Rate	39.60%	-	23.60%	-	-	-	37.10%	-	-	-
	Mean ± SD	-	-	-	-	-	-	-	-	-	-
USAF Ambulatory Clinic (2004)[12]	Goal	<7%	-	<100	-	-	-	<130/85	<130	<85	-
	Success Rate	50.60%	-	28.80%	-	-	-	15.20%	-	-	-
	Mean ± SD	7.85±1.60	-	119.1±33.6	-	-	-	-	141.2±19.2	79.2±11.8	-

Table 2. Comparison of diabetes-related biomarkers of CEHC patients with results of similar studies.
A shaded cell indicates that at least 50% of patients met or exceeded the goal value for that category. At least 50% of CEHC patients met or exceeded the goal for half of the 10 biomarker categories. Only one other study achieved a similar accomplishment (i.e., at least half of patients met goals in half of all categories for which values were available).

results were slightly worse than published studies but the small size of our study precludes statistical comparisons.

For patients who received microalbumin testing, the average microalbumin/creatinine ratio was 14 ± 16; for those patients who had the test done, 78% had a microalbumin/creatinine ratio in the desired range of <20.

The patients' mean systolic blood pressure (BP) was 130 ± 16 mm Hg; 56% of patients had systolic BP <130 mmHg, an achievement that is better than most published studies. Their mean diastolic BP was 79 ± 10 mm Hg; 39% of patients had a diastolic BP <80 mm Hg. 24% of patients had a total BP <130/80 mm Hg.

The average BMI for this cohort was 32 ± 7.4 kg/m2 (in the obese range) and only 12.5% of patients had a BMI <25 kg/m2 (in the desirable, "normal" range). These results are similar to other published reports.

Laboratory Testing Frequency

Seventy-three percent of patients had their HbA1c measured within 6 months of their first visit. Seventy-one percent of patients had a lipid panel measured within 6 months of their first visit. Sixty-three percent of patients completed microalbumin/creatinine ratio testing within 1 year of their first visit. Each of these tests was performed at approximately the same rate as other published studies (Table 3).

Podiatry and ophthalmology referrals were poorly documented: 49% of patients had documented podiatry visits, whereas 12.2% of patients had documented ophthalmology referrals (Table 3). Patient self-monitoring of feet, glucose levels and physical activity was not documented in the EMR.

Related Positive Health Behaviors

Ninety percent of patients denied smoking; 66% of patients denied alcohol consumption; and 58% of patients had received the pneumococcal vaccine in the clinic. Diabetes self-management education had not been initiated at CEHC at this time. Four of the 6 other studies included in this review reported any of these measures; each of these studies achieved ≥50% compliance in at least one category (Table 4).

Summary of Comparison with Published Standards

Comorbid conditions of hypertension were within the range of the comparators, while LDL levels were better than (lower than) and HDL levels slightly better than (higher than) the comparators (Table 2). The frequency of appointment dates was also within the range of the comparators. None of the comparators reported microalbumin/creatinine ratios, and few reported data on diabetes-related positive health behaviors. CEHC was slightly less compliant with ADA recommendations for podiatry and ophthalmology than the comparators. Due to the small sample size and the absence of a control group, no statistical tests were performed.

At least 50% of CEHC patients met or exceeded the goal for half of the 10 biomarker categories included in Table 2 (see shaded cells). CEHC was also the only study to report success rates and mean values for all 10 categories. Only one other study[6] included in this review reached a similar accomplishment (ie, at least half of patients met goals in half of all categories for which values were available). Of the remaining studies, each achieved 50% compliance across 1-2 categories; one study[10] did not reach 50% compliance in any category.

Category		A1c	Lipid Panel	Microalbumin	Podiatrist	Eye Exam	Self-Monitoring	
							Feet	Blood Glucose
CEHC	Goal	6 Months	6 Months	Annually	Scheduled Appt.	Scheduled Appt.	-	-
	Success Rate	73.07%	70.83%	63.63%	48.50%	12.12%	-	-
Puerto Rico National Clinical Practice (2012)[9]	Goal	6 Months	-	-	Annually	Annually	Daily	Daily
	Success Rate	52.30%	-	-	40.80%	49.20%	60.20%	37.50%
Rural Health Care Providers (2002)[10]	Goal	6 Months	Results on file	Results on file	-	Annually	-	-
	Success Rate	80%	61%	15%	-	12%	-	-
Low-Income Patients, North Carolina (2001)[11]	Goal	Annually	Annually	-	Annually	Annually	-	-
	Success Rate	52.70%	44.50%	-	3.30%	6.30%	-	-
USAF Ambulatory Clinic (2004)[12]	Goal	Annually	Annually	Annually	Annually	Annually	-	-
	Success Rate	83%	66%	42%	88%	41%	-	-

Table 3. ADA suggested frequencies of diabetes-related health monitoring events. A shaded cell indicates that at least 50% of patients met or exceeded the goal value for that category. Four of the 6 studies included in the review reported any results for these categories. CEHC achieved at least 50% compliance in three categories; only one other study achieved this accomplishment. Of note, only one study reported compliance with feet and blood glucose self-monitoring.

Category		Physical Activity	Diabetes Education[3]	Not Smoking	Not Drinking	Pneumococcal Vaccine Receipt (Ever)	Absence of CVD
CEHC	Success Rate	-	-	90.00%	66.66%	57.57%	-
National Clinical Practice (2006)[8]	Success Rate[1]	28.20%	-	81.20%	-	38.20%	76%
Puerto Rico National Clinical Practice (2012)[9]	Success Rate[2]	33.80%	28.90%	90.40%	78.70%	-	84.60%
Rural Health Care Providers (2002)[10]	Success Rate	-	-	-	-	30%	-
Low-Income Patients, North Carolina (2001)[11]	Success Rate	-	-	78.10%	-	-	-

Table 4. Other ADA health behavior recommendations for improving diabetes management. A shaded cell indicates that at least 50% of patients met or exceeded the goal value for that category. Four of the 6 studies included in the review reported any results for these categories. CEHC achieved at least 50% compliance in all categories for which we have data on.[1] Physical activity for ≥30 min., most days;[2] moderate physical activity for 30 min., 5 days/wk or vigorous physical activity for 20 min., 3 days/wk;[3] as defined by ADA: "at diagnosis and as needed afterwards."

DISCUSSION

This study established a clear baseline for ADA guideline compliance at CEHC. This volunteer-run free clinic for the uninsured achieved a standard of success that is clearly in line with published results obtained at other clinics. In fact, CEHC diabetes care actually exceeded the compliance across more categories than all other compliance studies identified for this review, many of which were performed at clinics that do not depend on volunteer providers (who may not be as expert in diabetes care as providers who routinely provide diabetes care in clinics for insured patients).

This retrospective chart review demonstrated that HbA1c testing of CEHC patients was adequate (73%), and the average HbA1c level was 8.4 ± 2%, which was lower than the level achieved in some recent studies. These levels, as well as systolic BP; LDL, HDL, and total cholesterol; triglycerides; and frequency of clinic appointment dates were within the range established by other published ADA compliance studies (comparators). And while we were not surprised to find that there is significant room for improvement at CEHC, we were dismayed to find that poor adherence to recommended diabetes care guidelines is prevalent in clinics serving both insured and uninsured patients on a national level. For example, at least 50% of CEHC patients met or exceeded the goal across at least half of all categories; only one other study achieved similar results with regard to biomarkers,[7] recommended testing frequency,[12] or documentation of health-related behaviors.[9]

It should be noted that due to our small population size (33 patients), the significance of any major differences between CEHC and the comparators is difficult to assess. Poor documentation of podiatry appointments that were known to have taken place and limited access to specialized care takers (such as ophthalmologists) may explain some of the differences in the achievements of our clinics as compared to published data.

In the future, CEHC will use a "push-pull" intervention to improve adherence to ADA guidelines. The "pull" component of this intervention will involve patient-centered diabetes education and diabetes "social clubs" that encourage self-management. The patient education program to be used at the clinic has been adapted for low literacy, Spanish-speaking populations. The "push" component of our intervention will involve EMR-driven individual clinic healthcare provider quality control. Clinic volunteers will review charts on a provider-by-provider basis, informing the volunteer providers about ADA guidelines and reinforcing adherence through chart review and patient-specific reminders (through the EMR system). These methods have been tested in other settings and have been determined to be successful.[12]

In summary, compliance with recommended diabetes care guidelines is a critical element of care for all people with diabetes and is necessary in order to prevent or delay the complications of diabetes.[3-5] Effective management of diabetes can be a significant contributor to long-term, positive health outcomes, reducing the risk of diabetes-related morbidity and mortality. CEHC aspires to achieve a level of ADA compliance that is more consistent with ADA recommen-

dations, and hopes to model simple interventions that might also be useful for insured patients, so as to reduce morbidity and mortality associated with diabetes, and to redress health inequity in Rhode Island.

Acknowledgements

We are grateful for the support of Lifespan, Blue Cross & Blue Shield of Rhode Island, American Communities Trust, The Rhode Island Foundation, the City of Providence, Bank Rhode Island, CVS Caremark, Making a Difference (Providence College), the RI Legislature, City Councilwoman Sabina Matos, Lopco Contracting, PCtroubleshooters, Struever Bros. Eccles & Rouse, EpiVax, Inc., the board of Clinica Esperanza / Hope Clinic and our generous individual donors.

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Disclosures

The authors are all volunteers at the clinic and there was no funding for this project. None of the authors depends on any of the institutions involved for employment. Nor do any of the authors own, share in or promote or benefit from their involvement with CEHC.

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Carcinoid Tumor of the Ileoanal Pouch in a Patient with Ulcerative Colitis

SONJA CHEN, MBBS; MURRAY RESNICK, MD, PhD; VICTOR PRICOLO, MD

ABSTRACT

Carcinoid tumors have been reported to occur in various locations, particularly in the gastrointestinal tract. The relationship between the development of carcinoids and ulcerative colitis has been an unclear and controversial one. The association of ulcerative colitis and the development of ileal-pouch carcinoids has not, however, been well documented. We report a case of carcinoid tumor arising in an ileoanal pouch and discuss its unique diagnostic and therapeutic considerations.

KEYWORDS: Carcinoid tumor, ulcerative colitis, ileoanal pouch

INTRODUCTION

Carcinoid tumors of the gastrointestinal tract are receiving renewed attention, due to advances in understanding of their epidemiology and changes in pathologic classification to better define their metastatic potential, overall behavior and prognosis.

Although ileal-carcinoid tumors are relatively common to our knowledge no carcinoid in an ileal pouch had been described. We hereby describe one such case, which presented unique diagnostic and therapeutic challenges.

CASE REPORT

An 81-year-old woman experienced crampy, lower abdominal pain for about a month before being seen by her primary care physician. Her history was significant for a restorative proctocolectomy, transanal mucosectomy, and hand-sewn, ileal-pouch anal anastomosis for ulcerative colitis in 1989 at a different institution. Her functional outcome had been poor, with anal stenosis, fecal incontinence and up to 20 bowel movements a day. She was otherwise healthy and still working at a department store. Abdominal CT demonstrated a 1.5 cm mass in the wall of her ileal pouch.

The patient was referred to our institution and underwent an ileoscopy of her pelvic pouch, with findings of an umbilicated submucosal lesion at 8 cm from the anal verge. The biopsy yielded a diagnosis of carcinoid. An octreotide scan revealed no evidence of any octreotide-avid lesion. The patient's serum chromogranin A level was within normal

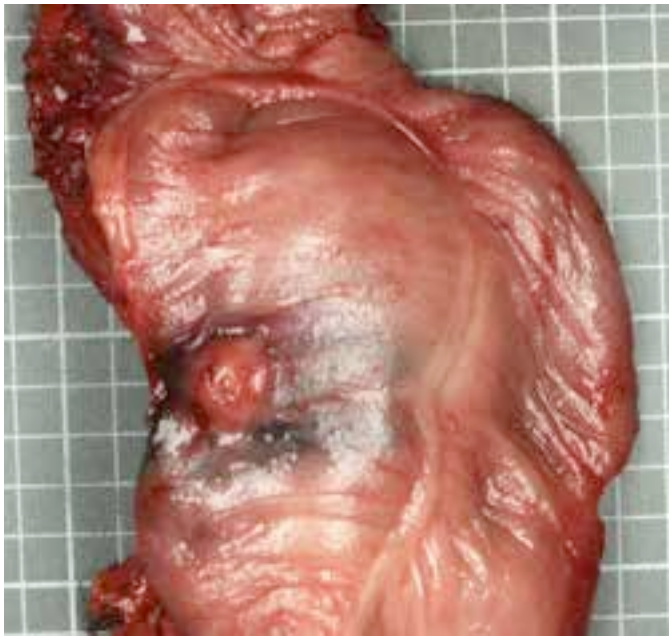

Figure 1. Gross photograph of umbilicated, pink to tan lesion with surrounding tattoo in the ileoanal pouch.

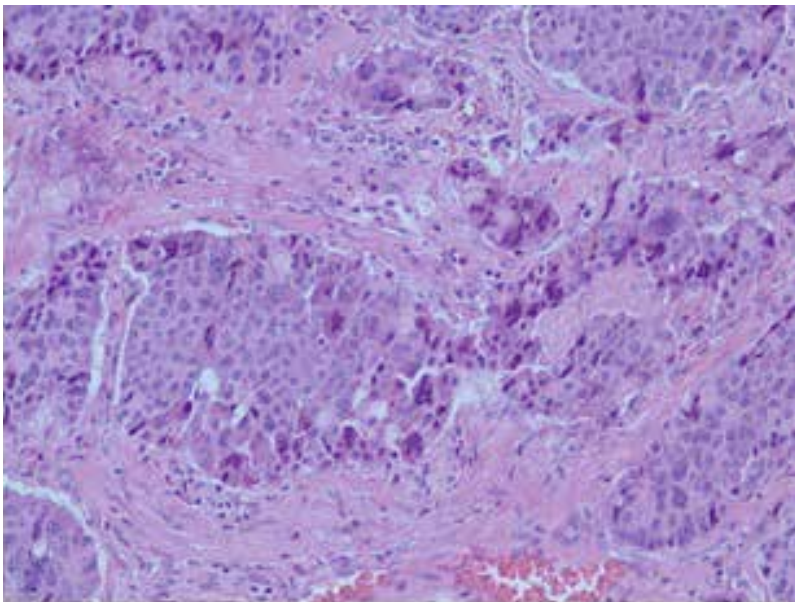

Figure 2. High-powered view demonstrating large nests of cells with the typical salt-and-pepper chromatin pattern characteristic of a neuroendocrine tumor (x 40).

range. In view of the patient's anal stenosis, a transanal excision was not technically feasible. In addition, in view of her poor quality of life with respect to fecal continence as well as the known metastatic potential of ileal carcinoids, the patient underwent a pouch excision with permanent ileostomy. She tolerated the procedure uneventfully and, six months postoperatively, she has adjusted well to her stoma.

Pathologic examination of the ileal pouch (Figure 1) demonstrated a 1.2 cm well-differentiated neuroendocrine tumor (Figure 2) with intratumoral lymphatic invasion. The tumor demonstrated a 2% proliferative index with Ki-67 as well as Chromogranin A positivity (Figure 3). The regional lymph nodes in the excised specimen were not involved by tumor. The final pathologic stage was pT2 N0 Mx.

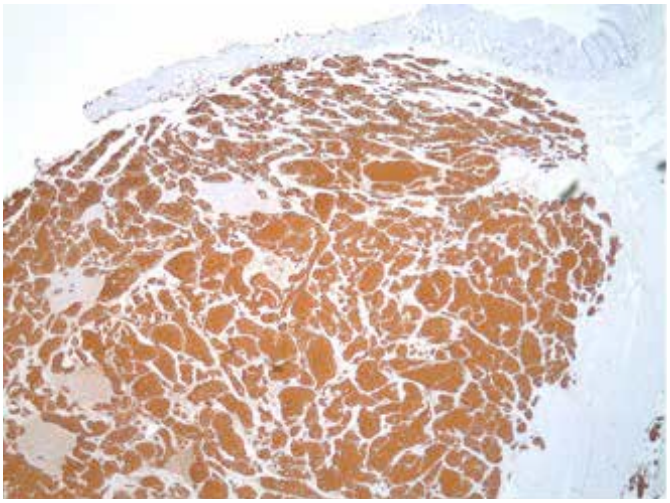

Figure 3. Staining immunopositivity for Chromogranin A (x 2).

DISCUSSION

Carcinoid tumors, or well-differentiated neuroendocrine tumors (NETs), most commonly arise in the gastrointestinal system. Their incidence is estimated to be approximately 1.5 cases per 100,000/year of the general population (i.e., approximately 2,500 cases/year in the United States). Nonetheless, they account for 13% to 34% of all tumors of the small bowel and 17% to 46% of all malignant tumors of the small bowel.[1]

Currently, about 22% of all NETs of the small bowel arise from the duodenum while the ileum remains the most frequent site of NETs in the small intestine (> 70%), where they tend to arise sporadically and are not associated with neurofibromatosis type 1 or MEN syndrome. With newer imaging and endoscopic modalities, NETs are being detected earlier than in the past. In the 1970s, advanced disease was present in 31.3% of patients at first presentation. This fell to 22% in the1980s and 1990s, to 18.5% in 2000-2004.[2]

Such findings beg the question of risk of metastatic disease. In this case, benign regional lymph nodes were noted. In general, approximately one third of patients exhibit regional nodal metastases only and another third show distant metastases.[3] The prevalence of distant metastases also increases with the size of the primary tumor. In published studies, the rate of metastases from tumors smaller than 1 cm was 2%; from tumors 1 to 2 cm, 50%; and from tumors larger than 2 cm, 80%.[4] However, five-year survival after the initial diagnosis of metastatic neuroendocrine tumor is approximately 75%.[5]

The association of ulcerative colitis and carcinoid tumors has been suggested, with up to 27 cases reported in the literature. However, most of these lesions have been documented in the rectum and are usually discovered incidentally. In ulcerative colitis patients, the incidence of these tumors arising in the jejunum and ileum is 0.67 per 100,000 per year [6], much less frequently than in the normal population. The association of ulcerative colitis and the development of ileal-pouch carcinoids, has not, however, been documented.

Other lesions which have been found to occur in the ileoanal pouch include, most commonly, adenocarcinoma, lymphoma and even squamous cell carcinoma. This case and these observations, in addition to the anal canal dysplasia-cancer risk, emphasize the need for continued endoscopic surveillance of the ileoanal pouch.

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Disclosures

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Report on Data Improvement Project on Patient Ethnicity and Race (DIPPER): Pilot Design and Proposed Voluntary Standard

PAMELA S. WEBSTER, PhD, CTR; SWATHI SAMPANGI, BA

ABSTRACT

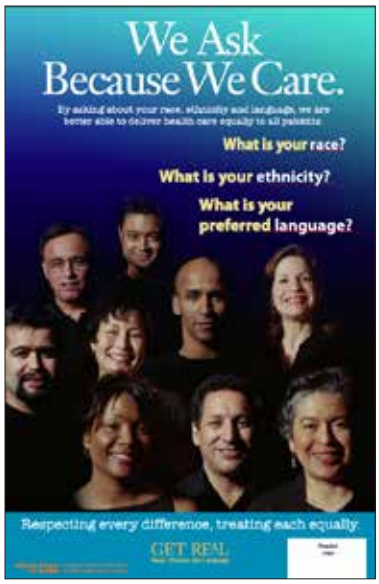
The Hospital Association of Rhode Island, in conjunction with the Rhode Island Cancer Registry, received funding for a special project to improve the validity and reliability of race and ethnicity data in hospital inpatient records. In the past year, five hospitals participated in a pilot to improve race/ethnicity data collection. This paper provides an overview of the design and initial implementation of the pilot, and reports on early feedback. Given that the Affordable Care Act strengthens federal data collection efforts, with a new standard issued which adds granularity, these policies can renew efforts to record more accurate and detailed race and ethnicity data. Improved race and ethnicity data will increase our understanding of the health needs of different racial and ethnic groups and health disparities between groups. Better data improves understanding, increases the likelihood of effective actions to address and monitor disparities, and ensure that every American has the opportunity to live the healthiest life possible.

KEYWORDS: Race/ethnicity, data collection

INTRODUCTION

In its landmark 2003 report, the Institute of Medicine noted the high prevalence of racial and ethnic disparities in health care.[1] One of the report's recommendations, as corroborated by other studies, was that "standardized data collection is critically important in the effort to understand and eliminate racial and ethnic disparities."[2,1] In a survey of how hospitals collect race and ethnicity data, 51% reported that admitting clerks determined race and ethnicity based solely on observation.[3] While there are many potential benefits to collecting accurate and complete data on race and ethnicity, the foremost is to improve patient care. Hasnain-Wynia and colleagues (2004) point out "by linking clinical information with information about patients' race, ethnicity, and primary language, [organizations] will […] develop interventions […] to improve the care process for various population groups."[4]

In response to these data quality concerns, in 2010 the Hospital Association of Rhode Island (HARI) secured funding for a special project, the Data Improvement Project on Patient Ethnicity and Race (DIPPER). The goal is to improve the accuracy and completeness of patient race and ethnicity data for 11 acute care hospitals, the central cancer registry, and health care databases in which Rhode Island participates. Piloting a standardized approach was initiated at five hospitals in the second quarter of 2012. The project has three phases: 1/evaluating current practice, 2/piloting a new approach and 3/developing a voluntary statewide standard for 2013. Pilot hospitals differed in patient demographics, in patient registration software, and in the time and resources they were able to commit to the venture.



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"We Ask Because We Care" posters, along with brochures, used in the DIPPER pilot project in area hospitals.

This report provides an overview of the design of the pilot, discusses the exploration and adoption of a data collection standard, and summarizes early feedback from pilot implementation. Recommendations for future efforts are also provided.

APPROACH

The initiative began in 2011, by bringing hospital stakeholders together to generate interest, plan, and mobilize support and consensus. The advisory group consists of hospital staff from patient registration, hospital cancer registration, health information management (HIM), hospital administration, Hospital Association staff, partners in cancer control, and staff from the Rhode Island Department of Health. Developed in conjunction with the project's advisory group, a draft of the proposed voluntary standard was completed in October.

In reviewing the literature on race and ethnicity data collection, a new term emerged. In response to those that identified a need for more detailed ethnic subgroup data in health care research, the term "granular ethnicity"[5] has appeared. Collecting granular ethnicity refers to obtaining more fine-

grained levels of ethnic categorization than has been done previously. This concept is what the Census Bureau defines as ancestry, or "a person's ethnic origin or descent, 'roots,' or heritage, or the place of birth of the person or the person's parents or ancestors before their arrival in the United States."[6] Ancestry is not the same as the place of birth. The Institute of Medicine subcommittee on data collection adopted the term to describe groups in more detail than the broad Office of Management and Budget (OMB) categories.[7]

Several approaches to race and ethnicity data collection were reviewed. First, the national proposed standard created by the U.S. Department of Health and Human Services, that identifies subpopulations for Hispanics (Mexican, Puerto Rican, Cuban or other); Asians (Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese or other Asian); and Native Hawaiians or other Pacific Islanders (Native Hawaiian, Guamanian or Chamorro, Samoan and other Pacific Islander) was considered.[8] Unlike the Census Bureau approach, 'some other race' was not a possible response in the federal standard.[9] This increases the likelihood that Hispanics will not find a category for race that they believe accurately describes them. Bhalla et al. (2012) reported "a large proportion of patients of Hispanic/Latino ethnicity declined to identify with standardized race categories."[10] Other research suggests that not all patients will identify with current categories.[11]

The open-ended approach reported by Baker et al. (2006) was considered, which asks patients to describe their race/ethnicity "with any terms they wanted to use" (and more than 30% preferred using their own words to following the OMB categories).[12] The pros and cons of the state- mandated approaches of Massachusetts and New Jersey, and the voluntary approach of Oregon were also weighed. Recommendations from the Institute of Medicine subcommittee on standardized collection of race/ethnicity data were also considered, and the following limitations and goals were formulated:

1) Given the reporting requirements, which cannot differ between hospitals (i.e., different requirements for pilot and non-pilot hospitals), adherence to the existing two-question format was necessary.

2) Identify subpopulations and granular ethnicities, which are important to Rhode Island. A population-based approach to this question, utilizing data from the 2010 Census, was used.

3) Change 'unknown' so that one can distinguish between patients that 'refused/declined' to answer from those that are 'unavailable' and can be asked at another time.

4) Include instructions so that the data could be reported by OMB categories.

Figure 1. Proposed Patient Interview Standard for Race and Ethnicity in Rhode Island

Introduction: *In order to provide you with the best care possible, we are asking all patients about their race and ethnic background.*

Proposed Data Standard for Ethnicity

First, do you consider yourself Hispanic or Latino?

a. ____No, not of Hispanic, Latino, or Spanish origin
b. ____No, Cape Verdean
c. ____No, Portuguese

If No, not Hispanic/Latino, ask:
What is your ethnic background?

d. ____Yes, Mexican, Mexican American, Chicano†
e. ____Yes, Puerto Rican†
f. ____Yes, Cuban†
g. ____Yes, Colombian†
h. ____Yes, Dominican†
i. ____Yes, Guatemalan†
j. ____Yes, another Hispanic, Latino, or Spanish origin†

These categories roll-up to the Hispanic or Latino OMB Category

k. _____Unavailable
l. _____ Declined/Refused to answer

†These categories roll-up to the Hispanic or Latino OMB Category

Proposed Data Standard for Race

Which category(ies) best describe your race? (Up to two categories may be marked)

a. ____White(including English, French, French Canadian, German, Irish, Italian, Polish, Scottish, and Swedish)*
*b. ____Black or African American**
*c. ____American Indian or Alaska Native**
d. ____Native Hawaiian or Other Pacific Islander (NHOPI)*

These categories are part of the OMB Standard

*e. ____Asian Indian** (this is NOT Asian and Indian)*
*f. ____Chinese***
*g. _____Cambodian***
*h. ____Vietnamese***
*i. ____Other Asian**

These categories roll-up to the Asian OMB Category

j._____Unavailable
k._____Declined/Refused to answer

l._____ Other, Please specify:_____

**These categories are part of the OMB Standard.*
***These categories roll-up to the Asian OMB Category.*

Proposed Patient Interview Standard

The approach that emerged has been modified only slightly from the initial draft, and can be viewed in Figure 1. This served as the basis for modifications to patient registration software and to the approach taken by patient registrars.

Initial Implementation

Before implementation with the new approach, the pilot hospitals modified patient registration systems to accommodate the proposed standard. Software systems varied in flexibility. Only some systems allowed the addition of new variables (e.g., 'self-identified,' 'yes' or 'no'). Text fields were difficult to add. While most hospitals kept race to a single variable, some hospitals created more than one race field to more easily capture biracial patients. All hospitals were able to separate unknown into either 'unavailable' or 'declined/refused' and changed drop-down menus for existing questions.

Following changes to registration systems, staff training was provided. Training manuals, workstation resources, such as cue cards (and translations), and suggested responses to common patient questions were tailored to Rhode Island.[13] Electronic versions of brochures were also provided to hospitals. DIPPER received permission to use the "We Ask Because We Care" posters,[13] which, along with the brochures, provided tangible support to staff when responding to patient concerns.

At some sites, staff requested a written form. Some patient registrars would have preferred a written questionnaire to be completed by patients. Although this approach has pros and cons, several stakeholders believed the negatives outweighed the positives. Some advisory group members expressed concern this method might not yield accurate and complete information. Primarily, objections stemmed from concerns about literacy and comprehension.

Initial Feedback

The evaluation included a form to record observations about the patient-staff interaction. Observations were made in several areas where registration takes place, including emergency departments, admitting, preregistration, labs and clinics. Most patients had no difficulty or objection to answering the questions. While staff could recall patients that asked questions or declined, no refusals were directly observed.

In cases where patients expressed noteworthy reactions to the way questions were asked, these responses can be sorted into three groups, as shown in Table 1. The first is a visual assumption reaction, such as "Do I look it?" The second is an exclusion reaction, where one either believes the identification of one group is of higher priority than another, or believes s/he is excluded from the possible response options. It is possible that a form with a relatively short list of granular ethnicities is more likely to elicit a feeling of being excluded than a blank line would. This led to the addition of more commonly encountered ancestry terms to the standard and cue cards.

The last noteworthy reactions were those delighted that their cultural background was listed on the cue card. This is a relief reaction, and the example listed in Table 1 came from a Cape Verdean patient. Feedback from staff was generally positive, although non-normative patient feedback was a concern. Some staff reported it was going better than they had anticipated. Many believed adding granular ethnicities was a welcome change, and made their job easier. Resistance to carry out this data collection was greatest where staff believed patient privacy was compromised and waiting time is already of concern. There was also resistance in outpatient laboratories, where it conflicted with staff expectations of efficiency and the rationale for data collection seemed far removed from present tasks and concerns.

Data analysis from the second quarter is not yet available, but preliminary feedback from IT/IS staff has been requested.

Table 1. Examples of non-normative patient feedback at pilot sites

Visual assumption reaction	
Staff: "Do you consider yourself Hispanic or Latino?" and "Which race best describes you?"	Patient: "Do I look it?" Patient: "What do I look like?"
Exclusion reaction	
Patient: "Why don't you ask about Italian or Irish?"	
Patient: "Please don't cater to _____."	
Relief reaction	
Patient looking at cue card: "I'm on here! Take my picture!"	

DISCUSSION

A group of key stakeholders developed a draft standard for collecting patient race and ethnicity. The redesign was intended to improve the identification of granular ethnicities that are most frequently encountered. DIPPER standardized the racial and ethnic categories used in Rhode Island, who would provide this information (patients or their family member or caregiver), how hospitals should report it (including instructions for OMB categories), and responses to a number of frequently encountered patient responses. After initial observations, the proposed standard was revised in response to feedback. An abbreviated version of the introduction and additional ancestry terms were added to the draft standard. The terms on the cue cards now encompass 75 % of the state's population, and 'other' with a blank line is also a choice.

Preliminary results suggest most patients are answering the questions. Feedback from patients and staff is generally positive. Outpatient laboratories, where patient data is often collected for the first time in a hospital system, are sites where staff members tend to be the most surprised that they should ask about patient's race and ethnicity. Data from hospitals will be examined once available.

In health care entities that own several hospitals, computer software changes often must occur simultaneously at multiple sites. Depending on staff availability for coaching and consulting, this can result in too many sites needing assistance at the same time. Early weeks are critical if staff members are encouraged to ask race and ethnicity only once, because once that information is "in the system" it will not be asked again. Future efforts should ensure that support materials such as posters and brochures are printed and available prior to the launch date. These provide critical support to staff, and are important features of initial implementation. Future efforts should also allow flexibility to change which granular ethnicities are most important to identify over time. Including the most frequently encountered ancestry terms may ensure that no patient feels isolated or excluded. Ideally, fully standardizing when and where the data are collected should be done prior to initial implementation. While DIPPER aimed its effort at inpatients, because of changes to the patient registration system which affected multiple areas and clinics within a system, the scope of the project was sometimes larger than initially intended. Two sources of unknown data that should also receive special attention are 'specimen only' or 'lab/path reports' and 'newborns', which frequently increase the proportion of unknown race and ethnicity data.

Given that race and ethnicity are required items in Section 4302 of the Patient Protection and Affordable Care Act, it is expected organizations will do more in the future to ensure that race and ethnicity data collection is accurate and complete. In the coming year, DIPPER will strive to have all acute care hospitals in Rhode Island adopt the voluntary statewide standard for race and ethnicity data collection. This would involve changes to patient registration systems and staff training at the hospitals that were not initially part of our pilot project.

Acknowledgements

The authors would like to thank John Fulton, PhD, at the Rhode Island Department of Health, and David Rousseau at the Hospital Association of Rhode Island (HARI), for obtaining funding for a special project on race and ethnicity. The Data Improvement Project on Patient Ethnicity and Race (DIPPER) was funded as part of the American Recovery and Reinvestment Act (ARRA) Comparative Effectiveness Research (CER) activities through the Centers for Disease Control and Prevention (CDC). We would like to thank our participating pilot hospitals, since better data are critical in understanding how access and utilization differ by race and ethnicity, in examining disparities in performance measurement, and in monitoring progress toward the elimination of health disparities.

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Disclosures

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Whatever Happened to the Annual Pap Smear?

MARGUERITE B. VIGLIANI, MD

The reading programs at Rhode Island College, Providence College and Roger Williams University selected the book, *The Immortal Life of Henrietta Lacks* by Rebecca Skloot, as required summer reading for incoming freshman last year. This book is a nonfiction biography of a poor, black, working mother of five children who died of cervical cancer at the age of 31. The work is a masterpiece of investigative reporting because it reads like fiction, weaving together the life of a patient whose cancer cells became known as "HeLa" cells and the scientific history of how these cells helped scientists unravel the mystery of DNA, find a cure for polio, and produce medications for leukemia, influenza, and many other diseases.

In 1951, when Lacks was diagnosed with inoperable cervical cancer, screening for cervical cancer was in its infancy. George Papanicolau had first reported that cervical cancer could be detected by means of a vaginal smear in 1928, but his work was not recognized until 1943, when he and Herbert Traut reported that smears could be used to diagnose cervical cancer at an early stage.

At the beginning even pathologists were generally opposed to the Pap smear because it was an extremely complicated, time-consuming test with uncertain results. In 1952, the American Cancer Society's (ACS) medical director, Charles S. Cameron, MD, wrote an editorial to the *New York Times* complaining that most physicians were not willing to cooperate with his organization's efforts to promote cancer checkups that included the Pap smear. Over time the Pap smear campaign became overwhelmingly successful, due in part to the efforts of the ACS, but also due to the momentum of the women's movement and books like *Our Bodies Ourselves*, which promoted the annual Pap test. In 1960, only 30 percent of American women had ever had a Pap smear, and 40% had never even heard of it. By the mid-1970s, over 50% of women were having annual Pap smears, and by 1980 the figures had jumped to 80%. Over the same interval, deaths from cervical cancer declined by almost 70%. Today, there still are over 4,500 new cases of invasive cervical cancer diagnosed annually, with most of these occurring in women who have never had a Pap smear.

Despite its success, there is actually very little science to support the choice of an annual screening interval for cervical cancer screening. This particular screening interval was adopted somewhat arbitrarily to mirror the rhythm of refilling annual birth control prescriptions, but it became an annual ritual for millions of American women. In 1976, the Canadian *Walton Report* challenged the annual screening interval by suggesting that cervical cancer screening every 3 years was as effective as annual screening and in 1980 a National Institutes of Health panel advocated that all women have a Pap smear every one to three years.

By 1992, it was apparent that cervical cancer was causally related to the human papilloma virus (HPV) virus. Terminology for the interpretation of Pap smears was standardized in 2001, eliminating much confusion about the interpretation of smears; and by 2003 it became possible to detect the HPV virus from the Pap smear sample itself, enabling doctors to identify high-risk women. In 2003, both The ACS and the American College of Obstetrics and Gynecology changed their cervical cancer screening recommendations to take into account the biology of cervical cancer as well as the evidence that a longer screening interval was as effective as the annual smear for women who had previously had three consecutive negative smears. In 2006, the Food and Drug Administration licensed the first vaccine to prevent cervical cancer caused by certain strains of HPV. Now, with both the HPV vaccine and virus testing available, the possibility of reducing the interval for Pap smears even further has become a reality.

New guidelines

In early 2012, the ACS, the American Society for Colposcopy and Cervical Pathology, and American Society of Clinical Pathologists released new consensus guidelines for cervical cancer screening. The guidelines were released separately last March by the United States Preventive Services Task Force (USPSTF) and by the ACS. The new guidelines recommend against routine yearly testing.

This is especially beneficial for adolescents. The new screening recommendations are to start Pap smears at age 21, regardless of sexual history. This is important because HPV infection is very common among young sexually active adolescents, but HPV is generally a transient infection among adolescents and it is cleared by the immune system within 24 months. Irreparable harm has been done to adolescents over the past few decades by invasive gynecological procedures which damage the cervix and increase the risk for preterm birth.

Women over 65 do not need continued screening if they have previously had negative smears for an entire lifetime,

even if they are involved in a new relationship. This is because the HPV virus is a latent virus, which can take 20-30 years to develop into a high grade dysplasia, which is a precursor to cancer of the cervix.

The options for women aged 30-65 are easy to explain to patients. For women who have only one sexual partner, or who are non-coital, the option of a Pap smear every three years is the most cost-effective and logical option, and it is what has been the standard of care since 2003. For women who have multiple sexual partners, or who have a history of HPV or atypical smears in the past, the option of co-testing every 5 years with Pap smear and HPV testing can be very appealing as long as they understand that the HPV test may be overly sensitive and may lead to further testing. Doing co-testing will identify many women who are HPV positive, but who have no evidence of high-grade precancerous lesions. Negative tests are very reassuring, but the psychological distress of a positive test may be harmful, especially to some patients. Physician discretion is essential.

The new guidelines do not apply at all to women who have a history of in-utero diethylstilbestrol (DES) exposure, a personal history of high-grade cervical dysplasia, or women who are immunocompromised by HIV, chemotherapy, or transplants. Women over 21 who have never been screened for cervical cancer should definitely have a Pap smear, regardless of age or sexual history. Primary care physicians should refer patients to a gynecologist for consultation if they are unsure of the guidelines or if they do not do Pap smears. Obstetrician/gynecologists and other doctors who do Pap smears should remember their roles as educators to help patients understand the new guidelines and the reasons why eliminating unnecessary testing reduces costs for everyone.

Unfortunately, at the same time that recommended screening intervals for Pap tests are getting longer, many American physicians are still not following guidelines and/or are not aware of them. A study published in *Annals of Internal Medicine* in 2009 found that most physicians who did Pap smears were still doing annual smears.[1] Although most of these same doctors reported that they followed guidelines in their practice, the study found that only 16% of OB/GYNs, 21% of family practice physicians, and 27% of internists actually followed the guidelines. Most doctors interviewed were overusing the Pap smear, and not doing too few tests.

The reasons for this are complex. One of the reasons cited is that doctors and patients are accustomed to the ritual. They know that Pap smears can detect cancer at an early stage and they equate an annual exam with a Pap smear. Some third-party payers send reminders and sometimes monetary rebates to patients to have an annual Pap smear. Medical laboratories engage in direct-to-consumer marketing medical tests like the HPV test, which fuels even more demand for the Pap smear. The Affordable Care Act has mandated that all preventative services, including annual well-woman exams, be covered by insurance without deductibles or co-pay. Although not directly stated, the implication is that an annual Pap smear for cervical cancer screening is a necessary service.

Doctors themselves are very confused about what to do. Between 2002 and 2004, 5 sets of cervical cancer screening guidelines were published by professional associations and consensus groups. At the same time, direct-to-consumer advertising for the HPV test fueled patient requests for HPV testing and Pap smears.[2] It has been found that physicians frequently acquiesce to patient demands, especially if there is no financial incentive to refuse to do what the patient requests. On the contrary, in the case of Medicare, the Pap smear is a separate reimbursable service in addition to the annual exam, so there is actually a financial incentive to do the Pap smear. Talking a patient out of an unnecessary Pap test is time consuming and costs the primary care doctor money because the time could be better spent seeing another patient. In addition, the worst-case scenario is for a doctor to miss a cervical cancer, especially after doing a recent pelvic exam without a Pap smear. The American College of Obstetrics and Gynecology has reported that 75% of its members have been sued at least once, and after one lawsuit, most doctors do not want to repeat the experience. So patient demand, financial incentives, time constraints, the effects of

NEW SCREENING GUIDELINES FOR CERVICAL CANCER 2012

- All women should begin cervical cancer screening at age 21.
- Women between the ages of 21 and 29 should have a Pap test every 3 years. They should not be tested for HPV unless it is needed after an abnormal Pap test result.
- Women between the ages of 30 and 65 should have both a Pap test and an HPV test every 5 years. This is the preferred approach, but it is also acceptable to have a Pap test alone every 3 years.
- Women over age 65 who have had consistently normal results for many years should discontinue screening for cervical cancer. Women who have been diagnosed with cervical pre-cancer should continue to be screened.
- Women who have had their uterus and cervix removed in a hysterectomy and have no history of cervical cancer or pre-cancer should not be screened.
- Women who have had the HPV vaccine should still follow the screening recommendations for their age group.
- Women who are at high risk for cervical cancer may need to be screened more often. Women at high risk might include those with HIV infection, organ transplant, or exposure to the drug DES. They should talk with their doctor or nurse.

Adapted from American Cancer Society at http://www.cancer.org/Healthy/FindCancerEarly/CancerScreeningGuidelines/american-cancer-society-guidelines-for-the-early-detection-of-cancer

direct-to-consumer marketing, and a litigious environment all conspire together to keep the annual Pap smear going.

So, why follow the guidelines? I have found that most women are happy to eliminate the dreaded annual ritual, which is embarrassing and uncomfortable. When given the information that the new guidelines are evidence-based, and offer outcomes that are as good as or better than current screening recommendations and when information is given about the unintended harms of false positive tests, most patients are relieved. I have found the discussion about guidelines and unnecessary tests is a healthy discussion, engaging my patients in the dialogue about healthcare reform. It is estimated that about $8 billion a year is spent on preventative yearly physicals alone. Patients understand that this money could be better spent on extending benefits to the needy, or at the very least, toward reducing our health insurance premiums. The Pap smear itself is not an expensive test, but it should be viewed by physicians as a surrogate for what is wrong with our healthcare system. It is our responsibility to stop doing unnecessary repetitive tests, with due respect to Henrietta Lacks and the extraordinary success of the Pap smear in saving lives from cervical cancer.

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HEALTH BY NUMBERS
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HPV Vaccination among Female Adolescents in Rhode Island, 2008–2011

HYUN (HANNA) KIM, PhD; PATRICIA RAYMOND, RN, MPH

Genital human papillomavirus (HPV) is the most common sexually transmitted disease in the world. In the United States, approximately 20 million people are currently infected with HPV and another 6 million people become newly infected each year.[1,2] In fact, most sexually active adults become infected at some point in their lives, with the highest rates of infection among people in their late teens and early 20s.[1,2] Although most HPV infections are asymptomatic and transient, certain types can cause cervical cancer in women and other types of anogenital cancers and genital warts in both men and women.[1,2] Two vaccines are available to prevent the HPV types that cause most cervical cancers: a bivalent vaccine (Cervarix), and a quadrivalent vaccine (Gardasil). Gardasil also prevents HPV types that cause most genital warts and protects against certain anogenital cancers.[1,2,3] Either HPV vaccine is routinely recommended for females aged 11-12 years. Gardasil is routinely recommended for males aged 11-12 years. Both vaccines are administered as a 3-dose series over 6 months, ideally, before adolescents are exposed to HPV.[1,2,3] The Rhode Island Department of Health currently provides only Gardasil to health care providers who use state-supplied vaccines.

This report describes: 1) the HPV vaccination rates among Rhode Island **female** adolescents 13–17 years of ages during 2008–2011* and 2) the main reasons for not receiving HPV vaccination for those unvaccinated.

METHODS

To assess HPV vaccination coverage and identify barriers to vaccination among female adolescents in Rhode Island, we analyzed the 2008-2011 Rhode Island data from the National Immunization Survey-Teen (NIS-Teen). Since 2008, NIS-Teen has collected vaccination information for adolescents aged 13-17 years in all 50 states and selected areas to provide national and state estimates of vaccination coverage. NIS-Teen is a two-stage survey: 1) a random-digit-dialing telephone survey of parents/guardians with adolescents aged 13-17 years to collect vaccination and socio-demographic information on their children, as well as a parent's knowledge of and attitudes on vaccines (Household Survey), followed by 2) a mail survey of the children's vaccination providers to validate immunization information (Provider Survey). The 2008-2011 NIS-Teen data contain a set of HPV vaccination information, including the number of shots received, reasons for not receiving the vaccine, and whether the child's doctor recommended the vaccine.

For this report, we analyzed the Rhode Island **female** adolescent data from the 2008-2011 NIS-Teen, which includes 1,019 household surveys and 695 provider surveys. The HPV vaccination coverage rates presented in this report were based on the Provider Survey and the parent's knowledge of and attitudes on vaccine were based on the Household Survey. Both household and provider sample data were weighted to represent the entire female adolescent population in Rhode Island. The NIS-Teen methodology, including weighting procedures, is described on the Centers for Disease Control and Prevention (CDC) website.[4]

RESULTS

HPV Vaccination Coverage and Series Completion

The HPV vaccination coverage with ≥1 dose among Rhode Island female adolescents increased significantly from 54.7% in 2008 to 76.1% in 2011 (p <.001). The coverage with ≥3 doses also increased significantly from 31.4% in 2008 to 56.8% in 2011 (p <.001). Both ≥1 dose coverage and ≥3 dose coverage in Rhode Island were much higher than the national female coverage rates (Figure 1).

In 2011, the 3-dose series completion rate for Rhode Island female adolescents was 80.5% compared to 70.7% nationally. The series completion rate measures the proportion of females who received three doses among those who had at least one HPV dose and at least 24 weeks between the first dose and the interview date. The HPV vaccination coverage and the series completion information were based on the provider's report of vaccination history from the adolescent's medical record.

Parental Reasons for Not Vaccinating Against HPV

The parents/guardians of female adolescents who did not receive the full 3 doses of HPV vaccine and were reported to be unlikely to receive HPV shots in the next 12 months were asked to provide the main reasons for not vaccinating (multiple responses were allowed). Reasons reported include:

*While the HPV vaccination has been routinely recommended for female adolescents since 2006, it has been routinely recommended for male adolescents since 2011. We only used female data for this report since the state level data for male adolescents is not available for 2008–2010.

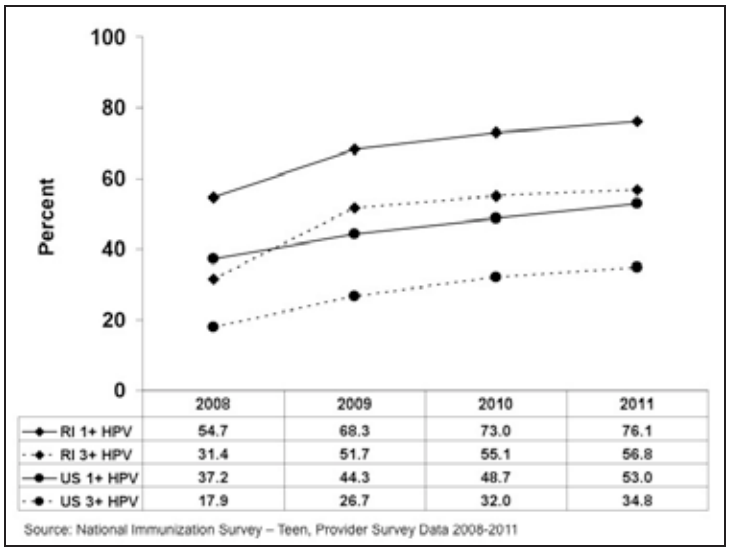

Figure 1. Trends of HPV vaccination coverage rates among females 13–17 years of age, Rhode Island and the United States, 2008–2011.

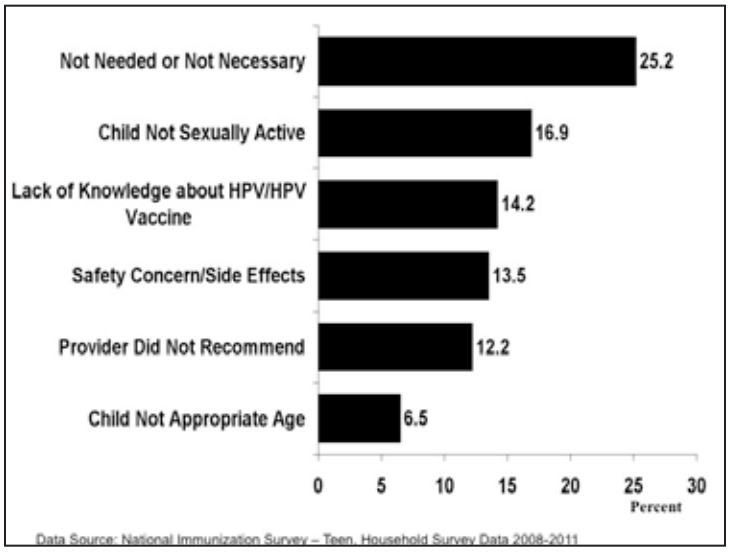

Figure 2. Parental reasons for not vaccinating against HPV, Rhode Island, 2008-2011 Combined.

not needed or not necessary (25.2%), child not sexually active (16.9%), lack of knowledge about HPV or HPV vaccine (14.2%), safety concern/side effects (13.5%), provider did not recommend (12.2%) and child not at appropriate age (6.5%) (Figure 2).

Provider's Recommendations for HPV Vaccination

The provider's recommendation for HPV vaccination was significantly associated with the coverage rates. When the provider recommended vaccination, ≥1 dose coverage was 76.9% and ≥3 dose coverage was 55.5%, compared to 43.0% and 28.6%, respectively when the provider did not recommend vaccination (p <.001 for both coverage rates) (Figure 3).

In 2011, more than one quarter (26.5%) of the parents/guardians of female adolescents in Rhode Island reported that their child's health care provider did not recommend HPV vaccine for their child.

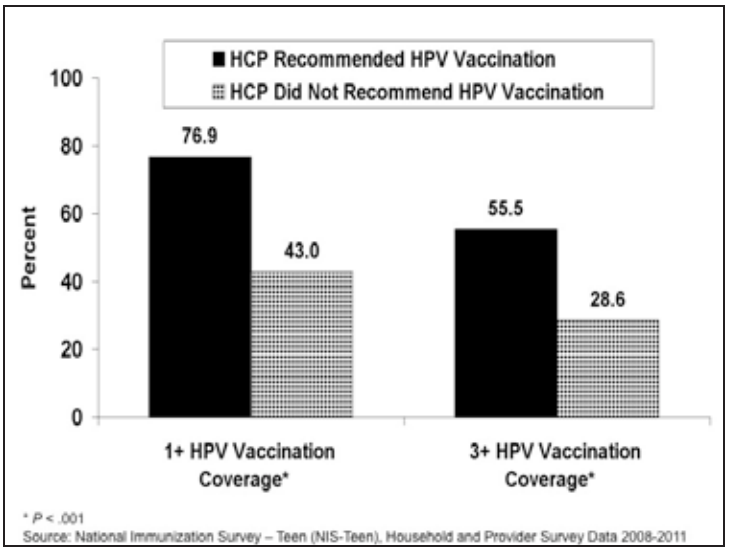

Figure 3. HPV vaccination coverage rates by provider's vaccine recommendation, Rhode Island, 2010-2011 Combined

DISCUSSION

HPV vaccination coverage among Rhode Island female adolescents increased significantly during 2008-2011 and was significantly higher than in the United States. Despite these increases, in 2011, nearly one quarter of RI female adolescents did not initiate the HPV vaccination series and nearly one-half of female adolescents did not complete the 3-dose series. The barriers to vaccination were related to the parent/guardian's lack of knowledge about HPV vaccine, vaccination schedule, and vaccine safety. Rhode Island data also demonstrated that provider's recommendation for HPV vaccination was strongly associated with adolescent's vaccine uptake.

Health care providers (HCPs) have a critical role in improving HPV vaccination. HCPs should educate parents that HPV vaccine is safe and effective in preventing cervical cancer and genital warts, and that HPV vaccine is a 3-dose series administered over 6 months that is most effective when given before their children are exposed to HPV. HCPs should make a strong recommendation for HPV vaccination when patients are 11 or 12 years old, since it is the strongest predictor of vaccination.[5] The recommended routine preadolescent visit at age 11 or 12 years is an excellent opportunity to initiate or complete the HPV vaccination. Reminder/recall systems, use of KIDSNET (Rhode Island's Integrated Child Health Information System that includes Immunization Information System), and the use of every office visit to administer needed vaccinations could improve HPV series completion rates.[5]

There are several limitations in this report. First, the vaccination trends during 2008-2011 should be interpreted with caution, as the sampling methods changed in 2011.[4] Second, HPV vaccination coverage might have been underestimated due to the possible incompleteness of provider-verified vaccination histories. Third, the provider's recommendations for HPV vaccination data were reported by parents/guardians, which is subject to recall bias. Fourth, small sample sizes of female adolescents in Rhode Island data prohibited detailed subgroup analyses, such as race/ethnicity differences. Despite these limitations, this report provides important information on HPV vaccination among Rhode Island female adolescents. v

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Disclosure

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

	REPORTING PERIOD		
VITAL EVENTS	JULY 2012	12 MONTHS ENDING WITH JULY 2012	
	Number	Number	Rates
Live Births	994	11,806	11.2*
Deaths	793	9,513	9.0*
Infant Deaths	2	72	6.1#
Neonatal Deaths	1	55	4.7#
Marriages	725	6,334	6.0*
Divorces	300	3,340	3.2*
Induced Terminations	276	3,832	324.6#
Spontaneous Fetal Deaths	25	568	48.1#
Under 20 weeks gestation	19	467	49.1#
20+ weeks gestation	6	101	8.6#

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

	REPORTING PERIOD			
Underlying Cause of Death Category	JANUARY 2012	12 MONTHS ENDING WITH JANUARY 2012		
	Number (a)	Number (a)	Rates (b)	YPLL (c)
Diseases of the Heart	222	2,425	230.2	3,782.0
Malignant Neoplasms	202	2,210	209.8	5,437.5
Cerebrovascular Disease	32	412	39.1	537.5
Injuries (Accident/Suicide/Homicide)	66	716	68.0	9,664.5
COPD	50	532	50.5	482.5

(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.

Ischemic Volvulized Meckel's Diverticulitis in a Previously Healthy Boy

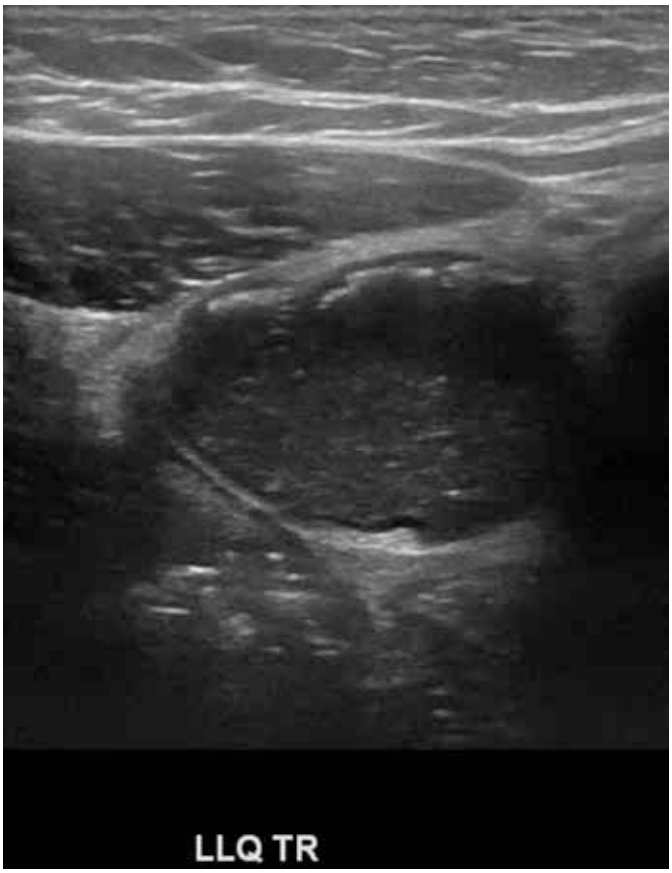
ALEXANDER M. KOWAL, MD

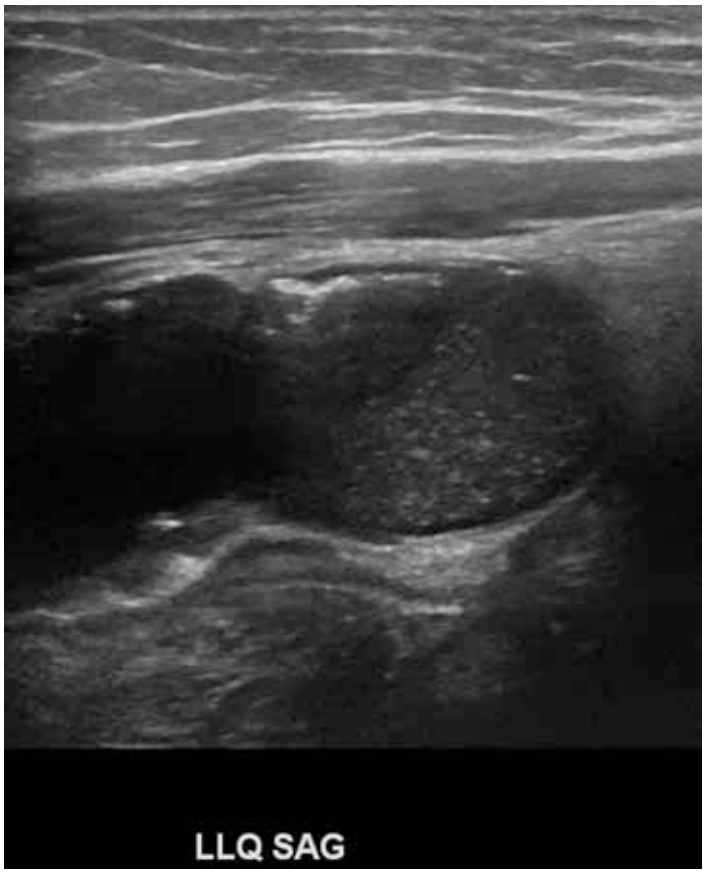
A 10-year-old boy with a past medical history of attention deficit hyperactivity disorder treated with dexmethylphenidate presented to the pediatric emergency department with 24 hours of suprapubic lower abdominal pain and emesis. He had a normal bowel movement that morning with no rectal bleeding. Temperature was 99.5° F. White blood cell count was 18,700/mm^3. On exam he had nonradiating tenderness in both lower quadrants with guarding.

Ultrasound (Figures 1 and 2) did not identify an appendix but demonstrated a fixed, noncompressible, dilated, blind-ending 4.7 x 2.2 cm tubular hypoechoic structure subjacent to the anterior wall of the left lower quadrant. The structure demonstrated an irregular internal wall and a normal gut signature of hyperechoic mucosa/submucosa and hypoechoic muscularis propria, with no wall thickening and no vascularity on color Doppler sonography. The lumen contained heterogeneous debris, anechoic fluid and shadowing gas. There was surrounding echogenic fat and tenderness to transducer pressure. CT scan (Figures 3 and 4) revealed a blind-ending, tear-drop shaped tubular structure extending from ileal loops in the midline to the left anterior abdominal wall, containing minimal luminal gas and slightly hyperdense fluid. There was no wall thickening or enhancement. There was surrounding fat stranding and free fluid. A normal appendix was identified to the right of midline. The differential diagnosis included enteric duplication cyst or Meckel's diverticulitis.

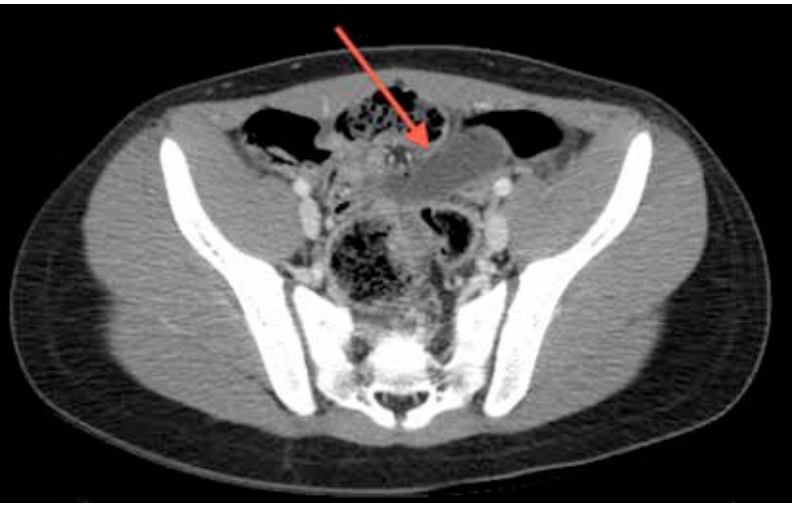
Open exploration resulted in resection of a 6-7 cm large, blind-ending tubular structure approaching the mesenteric side of the ileum. The structure was not contained in serosa and appeared ischemic but not perforated. Some small bowel loops appeared volvulized around the structure resulting in

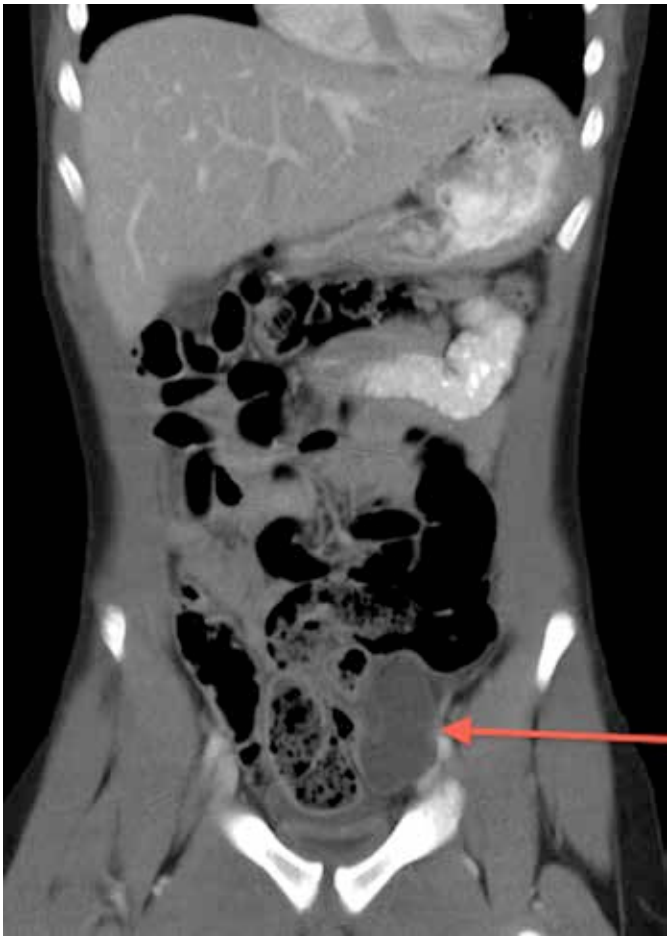
Figures 1 and 2





Figures 3 and 4





partial obstruction. A normal appendix was resected. The patient was discharged on postoperative day 5.

Pathology reported an 8.5 x 3.0 x 2.7 cm diverticular outpouching filled with clotted blood, appearing necrotic, with a grey-green serosa, a 0.1-0.3 cm thick wall and hemorrhagic and denuded mucosa consistent with volvulus of a Meckel's diverticulum.

DISCUSSION

Meckel's diverticulum (MD) is the most common congenital anomaly of the gastrointestinal tract, representing failure of closure and disintegration of the omphalomesenteric duct. MD is a true diverticulum, containing 3 layers of gastrointestinal wall, usually connected to the antimesenteric ileal border 40-100 cm proximal to the ileocecal valve.[1] It may be up to 10 cm long and 2 cm wide.[2] 50% contain heterotopic mucosa, of which 60% is gastric.[1] The estimated incidence is 2% and 4-25% of patients will have symptomatic complications, with 60% presenting before age 10.[3]

Classically, MD presents with painless rectal bleeding, especially in children below 2 years of age.[1] However, 35-80% of children may present without bleeding, especially older children.[1,4] Of all patients, 30-40% are estimated to present with intestinal obstruction and 20-30% with diverticulitis without hemorrhage.[1,2,5] Inflammation may be secondary to acid production from ectopic gastric mucosa, orifice obstruction, diverticular torsion or intestinal volvulus around the MD.[2,5] There may be secondary ischemia. Perforation may be a late complication.[6] In a study of pediatric patients with symptomatic MD by Baldisserotto et al., 60% presented with nonspecific clinical signs mimicking appendicitis, including abdominal pain, guarding, fever and vomiting.[2] Unlike appendicitis, the location of maximal abdominal tenderness may be in the mid-abdomen or left lower quadrant.[3]

Meckel's diverticulitis can be identified on ultrasound by visualizing a cyst-like mass with a thick wall with a gut signature. The shape can be tubular, sac-like, teardrop shaped or rounded. The cyst-like appearance and gut signature is also seen with an enteric duplication cyst, but the internal wall of MD will be thicker and more irregular and a tear-drop shape will be more specific.[4] MD can also be visualized on CT as a blind-ending sac. The size and wall thickness may vary. Mural enhancement is seen except in cases of ischemia and gangrene. The lumen may be filled with air, fluid and particulate matter, but not oral contrast. The surrounding mesentery may be inflamed with free fluid.[1] Visualizing a normal appendix on either ultrasound or CT excludes appendicitis. Unlike appendicitis, the location of MD will be more variable, with most near the midline rather than in the right lower quadrant.[1]

Meckel's diverticulitis is uncommon but not rare in children and adults and should be included in the differential diagnosis of acute abdominal pain. With careful scrutiny of ultrasound and CT, correct preoperative diagnosis is possible.

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Disclosures

The author and/or significant other have no financial interests to disclose.

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JWU launches first PA program in state

Classes expected to begin June 2014

PROVIDENCE – Johnson & Wales University unveiled the design of its new Center for Physician Assistant Studies on Dec. 17, 2012. The building at 157 Clifford Street in Providence's Knowledge District will be home to the state's first physician assistant (PA) program.

The university anticipates a June 2014 start date for the inaugural class of students seeking a master of science in physician assistant studies. The first year of the two-year program will include classroom instruction, with the second year for clinical rotations.

"Rigorous classroom learning, state-of-the-art lab experiences and top-flight clinical rotations will prepare PA students for high paying, in-demand jobs in a growing health care sector that will make a real difference in our communities," said JWU Providence Campus President Mim Runey. "The high quality clinical opportunities program we have arranged through partnerships with the leading medical and health care institutions in the state will enrich our academic programs with experiential and work-integrated learning."

Artist rendering of the Center for Physician Assistant Studies at Johnson & Wales University, located at 157 Clifford St. in Providence's Knowledge District. The building was originally a jewelry manufacturing facility.

JOHNSON & WALES UNIVERSITY

Gov. Lincoln Chafee speaks at the unveiling of the design for the new Center for Physician Assistant Studies at Johnson & Wales University. The center will house the state's first physician assistant program. Seated, from left, are George Bottomley, director of the center; JWU Providence Campus President Mim Runey, and Jeffrey Senese, vice president of Academic Affairs.

"Graduates will be agents of change and part of the solution to the increasing healthcare needs of our citizens," said George Bottomley, who was named founding director last August. He is a graduate of the Yale School of Medicine's physician assistant program and also holds a doctor of veterinary medicine degree.

Johnson & Wales purchased the Clifford Street building and two parcels of land in October 2012 for $2.8 million and estimates the cost for design and construction to be $10.5 million. The university is planning to renovate the 18,000 square foot building into a state-of-the-art facility that will contain lecture halls with global teleconferencing capabilities, small group conference rooms, a clinical skills lab, and a cadaver-based anatomy lab.

The program is in development and must be accredited by the Accreditation Review Commission on Education for the Physician Assistant, Inc. (ARC-PA). JWU is seeking provisional accreditation, with an ARC-PA site visit scheduled for June 2013 and a decision expected in September 2013. Provisional accreditation is granted for a maximum of three years, at which point the program applies for continuing accreditation. v

Brown president speaks on health issues at humanities center

SCOTT KINGSLEY, COGUT CENTER FOR THE HUMANITIES, BROWN

Brown University President Christina A. Paxson spoke on health care issues at the Cogut Center for the Humanities in December.

BY MARY KORR
RIMJ MANAGING EDITOR

PROVIDENCE – Brown University president Christina H. Paxson spoke on health inequality, equity and ethics at The Cogut Center for the Humanities annual invitational lecture in December.

An economist, she initially worked on international economic problems of labor supply, mobility, savings, inequality, and aging. This evolved into a focus on the relationship of economic factors to health and welfare over a person's lifetime.

Paxson described herself as a "social scientist." A National Institutes of Health (NIH)-funded research project took her to Africa to study children who were orphaned by the death of their parents from HIV.

She began the lecture by stating she had a "deep concern about health inequality that we see in society related to social disadvantage. This relationship, the fact that people who are more disadvantaged tend to have worse health outcomes, is a cause of deep concern among economists, epidemiologists, people who work in health care and ethicists."

In the hour-long presentation, she offered evidence of the relationship between socioeconomic status and health, centered on her own research and that of others. "Wealthier people live longer and have lower morbidity," she said and showed this through a spectrum of studies.

Much of her research has centered on health outcomes among economically disadvantaged children. "When you start looking at economic disparities and outcomes in later life and you start unraveling that, you end up at age three. Poor health in childhood sets kids up for what happens over the course of their life."

She identified causal factors: poor nutrition, perinatal exposure to smoking, environmental exposure to toxins, maternal stress, and lack of maternal prenatal care.

SCOTT KINGSLEY

BRIEF BIO

Christina H. Paxson, PhD

19th president of Brown University (sworn in July, 2012)

Former dean of the Woodrow Wilson School of International and Public Affairs at Princeton University

Founded Princeton's Center for Health and Wellbeing

Founding director, principal investigator, of a National Institutes on Aging Center for the Economics and Demography of Aging at Princeton

1982 honors graduate of Swarthmore College; graduate degrees in economics at Columbia University (M.A., 1985; PhD, 1987)

Elected vice president of the American Economics Association, 2012

Elected to Council on Foreign Relations in 2012

Personal: A Pittsburgh native, she is married to Ari Gabinet, currently executive vice president and general counsel of Oppenheimer Funds. They have two sons, Nicholas and Benjamin.

SELECTED PUBLICATIONS OF PRESIDENT PAXSON

"Five years later: Recovery from post-traumatic stress and psychological distress among low-income mothers affected by Hurricane Katrina." (with Elizabeth Fussell, Jean Rhodes and Mary Waters) *Social Science and Medicine,* 74: 150-157, 2012.

"The Impact of the AIDS Pandemic on Health Services in Africa: Evidence from Demographic Health Surveys," (with Anne Case). *Demography* 48:675-697, 2011.

Moreover, Paxson said, studies have shown poor children fared worse than healthier children with the same health problems, experiencing greater severity of illness, lower health care quality, and showed worse compliance with medical protocols.

"Lower-income children face a double burden," Paxson said. "They have more severe health conditions with worse outcomes. These children are not realizing their full potential because of poor health."

She also associated poor health in childhood with lower occupational and economic status as adults, poor health in middle age and worse cognitive states in old age. "Put it all together and you tell a good story that what happens early in life matters. So one of the lessons is that investments in the health of children are important."

Paying attention to educational policy is sound health policy, she added. "Trying to make sure that kids graduate from high school could be one of the most important things we do for their health."

Post ACA-era

In the post-Affordable Care Act (ACA) era, the focus should be on health care quality, more prevention programs focusing on smoking cessation, nutrition, mental health and addiction services, and new models for delivery systems, she said.

The effort needs to encompass both children and adults, critical in an era when retirement ages are going up and Baby Boomers retire. "We are losing our safety net for ages 55 to 70," Paxson said.

As a result of the ACA, with more people insured, the need for primary care physicians, already in short supply, will only escalate. Paxson cited an innovative program at The Alpert Medical School, in partnership with Lifespan and the Rhode Island Foundation (RIF), which encourages students to go into primary care by engaging them with primary-care physicians who are offered a stipend through the RIF grant to serve as preceptors.

In addition, she said, there needs to be greater financial aid and incentives, such as debt forgiveness, to encourage medical students to consider primary care.

In the November–December issue of *Brown Alumni Magazine*, she said:

"The world of medicine in the United States is moving away from fee-for-service towards accountable-care organizations and the kind of models where groups of physicians and nurses and physician's assistants are going to work together to keep populations of patients healthy. We [the Alpert Medical School] train doctors who are going to be the types of doctors that can operate in this new world of medical care and health care reform."

At the Cogut lecture, she also recognized the strengths of Brown's program in public health, soon to become a School of Public Health, as well as Brown's brain science program.

In regards to health equity, "everyone should have the opportunity to be a healthy person," Paxson said, and added, "health inequality and equity conversation has to be more than about health care." v

BROWN VIDEO: President Paxson discusses "Health Inequality: Economics, Ethics and Public Policy"

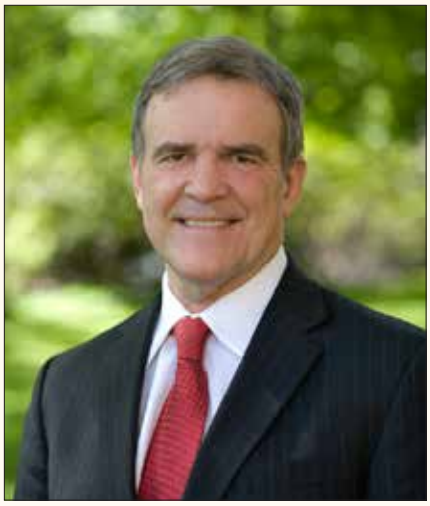
COVER PHOTO: BROWN UNIVERSITY

Transitions

Wing to step down as dean at Alpert Medical School

PROVIDENCE – **EDWARD J. WING, MD**, dean of medicine and biological sciences at Brown University since 2008, will step down as dean on June 30, 2013, at the end of the current academic year.

"I have been privileged to serve The Warren Alpert Medical School of Brown University for the last 14 years, first as chair of medicine and for the last four-and-a-half years as dean," Dr. Wing said. "The Alpert Medical School and the University have grown remarkably in all respects during that time and it has been wonderful to be part of the process. I predict even greater success for the school in future years. After a sabbatical, I will return to the faculty to pursue my deep interests in international health, writing and editing, teaching, and caring for patients."



PETER GOLDBERG FOR BROWN UNIVERSITY

"Dean Wing has led the Division of Biology and Medicine with confidence and vision during a remarkable period of growth and change," said Brown President Christina Paxson. "Under his leadership, the Alpert Medical School has grown and expanded into a new home in the Jewelry District, closer to teaching hospitals, with the promise of new opportunities for community development, economic growth, and institutional collaboration."

Dr. Wing was appointed chair of the Department of Medicine and physician-in-chief at the University's affiliated hospitals in 1998. He came to Brown from the University of Pittsburgh School of Medicine, where he had been chief of the Division of Infectious Diseases.

The University will organize a national search for his successor under the chairmanship of Provost Mark Schlissel, MD, PhD. "Through Ed's vision, skill, and stewardship, Brown is well-positioned to attract another dynamic leader to continue the momentum we've established with the Alpert Medical School," Dr. Schlissel said.

Hittner, first woman physician to head Miriam Hospital, retires from Lifespan position

PROVIDENCE – In October, **KATHLEEN HITTNER, MD**, retired from her position as Lifespan's senior vice president of community health and perioperative services. She is the former president and CEO of The Miriam Hospital.

DIANE MILLER

Dr. Hittner at RIMS' Bicentennial Gala

In a memo to Lifespan staff, Dr. Timothy J. Babineau, president and CEO of Lifespan, praised Dr. Hittner, saying that she was owed a debt of gratitude for her more than 30 years of dedication and commitment to the system.

Dr. Babineau said that "her crowning achievement was the construction of The Victor and Gussie Baxt Building, with state-of-the-art technology, designed to facilitate the high-quality care that The Miriam's patients expect."

Dr. Hittner served as The Miriam's president and CEO from April 2000 until September 2009, and was the first woman physician to head the hospital.

She was also the first woman president of the Rhode Island Medical Society (1991). In the fall of 2007, she received the Physician of the Year Award from the Society and the Banice Feinberg Physician of the Year Award from the American Heart Association. In January 2004, Senator Jack Reed recognized Dr. Hittner as a Local Legend in Rhode Island for her accomplishments as a woman physician.

Dr. Hittner has served on the boards of the American Heart Association, RI Chapter; the Urban League, the Hospital Association of Rhode Island, and Bryant University. She has chaired the Rhode Island Airport Corporation since March 2007 and currently serves on the board of the Rhode Island Foundation.

She earned her MD from Tufts University School of Medicine and received board certification as Diplomat to the American Board of Anesthesiology in 1978.

Dr. Hittner is also on the faculty of The Warren Alpert Medical School of Brown University, where she is a clinical professor of surgery in the department of anesthesiology. She was the recipient of the School of Medicine's "Distinguished Teacher Award" in 2000 and 2004.

Transitions

Medical school names Rasmussen department chair

BUTLER HOSPITAL

PROVIDENCE – **STEVEN A. RASMUSSEN, MD, MMS**, will serve as the new chair of the Department of Psychiatry and Human Behavior at The Warren Alpert Medical School of Brown University beginning January 1. Brown announced the appointment, made jointly with Lifespan and Care New England on November 26, 2012.

Dr. Rasmussen won the new appointment after a competitive national search, conducted jointly by Brown, Lifespan, and Care New England. As chair of the department, he is also appointed the Mary E. Zucker Professor of Psychiatry and Human Behavior.

"In his work at Brown and Butler Hospital, Steve has become a national leader in his field," said Dr. Edward Wing, dean of medicine and biological sciences at Brown. "As chair he will be a crucial part of the team that is working to further strengthen brain science research and treatment within the academic medical center of Brown, Care New England, Lifespan, and the VA. Dr. Rasmussen will coordinate research and education in psychiatry and brain science across the Brown teaching hospitals and the main campus."

In 29 years at Brown University and Butler Hospital, Dr. Rasmussen has collaborated with Rhode Island Hospital neurosurgeons to develop, study, and implement precise treatments such as gamma knife surgery to treat obsessive-compulsive disorder and deep brain stimulation to treat depression.

Dr. Rasmussen, a Brown graduate (AB 1974, MMS 1977, MD 1977), has spent his entire academic career at Brown and has served as interim chair of the department since 2009. He said his new appointment will allow him to advance several priorities for the highly regarded department, which earned more than $40 million of external research support in the last academic year.

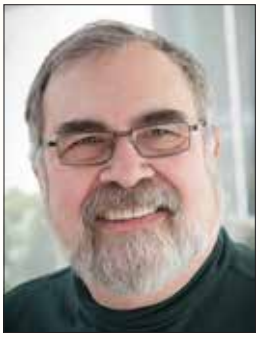
Patricia Recupero, MD, president and CEO of Butler Hospital where Rasmussen has been medical director since 1998, said Dr. Rasmussen has had a profound impact at Butler and across the country on the treatment, teaching, and research of brain-based illnesses.

"A pioneer in the field of psychiatry and brain science, Steve's research at Butler led to worldwide recognition of obsessive compulsive disorder and related illnesses as serious, widespread disorders," she said.

In his new position, Dr. Rasmussen also gains an affiliation with Lifespan, where he will also see patients and participate in research.

Coustan named president-elect of gynecological society

PROVIDENCE – **DONALD R. COUSTAN, MD**, director of the Division of Maternal-Fetal Medicine's Diabetes in Pregnancy at Women & Infants Hospital, and a professor of obstetrics and gynecology at The Warren Alpert Medical School of Brown University, has been named president-elect of the American Gynecological and Obstetrics Society (AGOS). He assumes leadership of the professional organization on September 20, 2013.



Dr. Coustan is an internationally recognized expert on the management of diabetes in pregnancy, and is the author of more than 200 research papers and scholarly publications, many of which deal with diabetes.

Society for Surgery of the Hand elects Akelman president

PROVIDENCE – **EDWARD AKELMAN, MD**, an orthopedic surgeon at Rhode Island Hospital and a leader in the field of hand and upper extremity surgery, has been elected the 67th president of the American Society for Surgery of the Hand (ASSH), the oldest medical specialty society in the U.S. devoted to continuing education related to hand surgery.

Dr. Akelman serves as professor of orthopedics and vice chairman of the Department of Orthopedics at The Warren Alpert Medical School of Brown University.

His research interests include improving orthopedic education of medical students, orthopedic residents and orthopedists in practice, as well as nerve healing and wrist injuries.

Transitions

Fatima names Child chief of emergency medicine


FATIMA HOSPITAL

PROVIDENCE – **JOSIAH CHILD, MD**, has been named chief of the Department of Emergency Medicine at Fatima Hospital. Dr. Child is a graduate of the Mt. Sinai School of Medicine and completed his emergency medicine residency at Yale-New Haven Hospital. He also completed his residency in medicine/pediatrics at Yale-New Haven Hospital.

Dr. Child was most recently an attending physician at St. Raphael Hospital in New Haven.

Hasbro names Telfeian head of pediatric neurosurgery


HASBRO CHILDREN'S HOSPITAL

PROVIDENCE – Hasbro Children's Hospital has named **ALBERT TELFEIAN, MD, PhD**, as the hospital's new director of pediatric neurosurgery. In this new role, Telfeian will oversee a wide spectrum of brain-related surgeries for children, including brain and spine tumor removal and surgical treatments for epilepsy, stroke, spina bifida, cerebral palsy and chronic pain.

Prior to joining Hasbro Children's Hospital, Telfeian was an assistant professor of neurosurgery at the Children's Hospital of Philadelphia and associate professor of neurosurgery at the Texas Tech University Health Sciences Center.

"Dr. Telfeian is an incredible addition to the surgical team at Hasbro Children's Hospital," said Thomas F. Tracy, Jr., MD, pediatric surgeon-in-chief at Hasbro Children's Hospital. "He has extensive experience in minimally invasive surgery, which is crucial for the infants and children we treat, to minimize their pain and improve their outcomes."

Telfeian is a graduate of the MD/PhD program at Brown University. He completed a postdoctoral fellowship at Yale University and his neurosurgical residency at the Hospital of the University of Pennsylvania. He also completed fellowship training in spine and functional epilepsy surgery at Switzerland's Centre Hospitalier Universitaire Vaudois, and a pediatric neurosurgery fellowship at the Children's Hospital of Philadelphia.

Telfeian was the recipient of the American Association of Neurologic Surgeons Stereotactic and Functional Neurosurgery Research Award, the American Epilepsy Society Young Investigator Award, and the J. Kiffin Penry Pediatric Epilepsy Award, and was included in the 2011 Newsweek "15 Leaders in Neurosurgery" showcase.

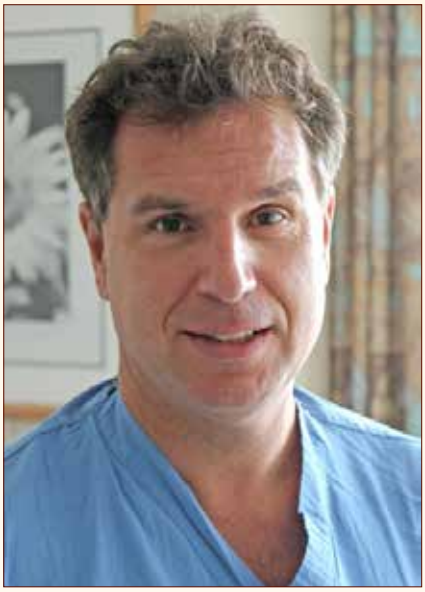
Fatima names Moss orthopaedics chief

PROVIDENCE – **DAVID A. MOSS, MD, FAAOS**, has been named chief of the Division of Orthopaedics within the Department of Surgery at Fatima. Dr. Moss specializes in sports medicine and reconstructive shoulder surgery.

Dr. Moss received his medical degree from Hahnemann University Medical School. He is a Fellow of the American Academy of Orthopaedics, a member of the American Orthopaedic Society for Sports Medicine, the Rhode Island Medical Society, and is president Rhode Island Orthopaedic Society.

He is currently affiliated with the Rhode Island Interscholastic League and several local sports teams.

Transitions



ROGER WILLIAMS MEDICAL CENTER

Roger Williams names Findley director of Geri-Psychiatry unit

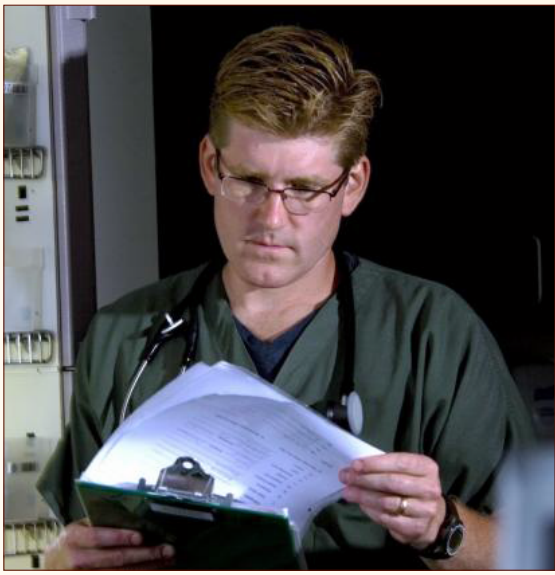
PROVIDENCE – **JOHN K. FINDLEY, MD**, who was recently named medical director of the Dual Diagnosis unit at the Roger Williams Medical Center, has also assumed responsibility as medical director of the Geriatric-Psychiatry unit.

Prior to his arrival at the hospital, Dr. Findley was an associate in the divisions of psychiatry and pain management at Geisinger Medical Center in Pennsylvania. From 2006-2009, he was chief of psychiatric consultation at Tufts Medical Center and an assistant professor at Tufts Medical School.

Westerly names Lehrach to senior leadership role

WESTERLY – **CHRISTOPHER M. LEHRACH, MD, MBA**, has assumed a senior leadership position at The Westerly Hospital overseeing current operations. Dr. Lehrach will remain in this new position after the anticipated purchase of the Hospital by Lawrence & Memorial Hospital, becoming as he notes "the eyes and ears" in Westerly for L+M, helping to facilitate the Hospital's transition to the L+M system.

Dr. Lehrach is a graduate of the University of Connecticut School of Medicine and did an internship and residency at University of Medicine and Dentistry of New Jersey. He has been with the Hospital since 1998, as an emergency medicine physician. In 2005, he was appointed Chief of the Department of Emergency Medicine, and in 2011 he became CEO of the Atlantic Medical Group (AMG). AMG, a subsidiary of Westerly Hospital Healthcare, includes a group of physicians and medical offices in specialty and primary care areas. Lehrach also brings academic credentials to his new role, having completed his MBA at Yale University in 2010.



WESTERLY HOSPITAL

Kent Hospital names Graves ER chief

WARWICK – **PETER GRAVES, MD**, of West Greenwich, has been named chief of emergency medicine at Kent Hospital. Dr. Graves had been serving as interim chief of emergency medicine at Kent since March 2012 and served as vice chief of Kent Hospital's Department of Emergency Medicine from April 2011–April 2012.

Dr. Graves has worked at Kent Hospital since 2003, when he joined the Kent Hospital Emergency Department as an emergency medicine staff physician following completion of his emergency medicine residency training at Brown University/Rhode Island Hospital. Dr. Graves has also worked as an emergency medicine physician at several other Rhode Island hospitals including: Newport Hospital, Rhode Island Hospital and Our Lady of Fatima Hospital.

In addition to his role as a physician at Kent Hospital, Dr. Graves also serves as a physician on the RI-1 Disaster Medical Assistance Team, to provide medical assistance to victims of natural disasters, which included deployment to Ground Zero after the September 11, 2001, terrorist attacks. He has also served as medical director of the RI-1 Urban Search and Rescue Team, which provides care for team members deployed to regional and natural disasters.

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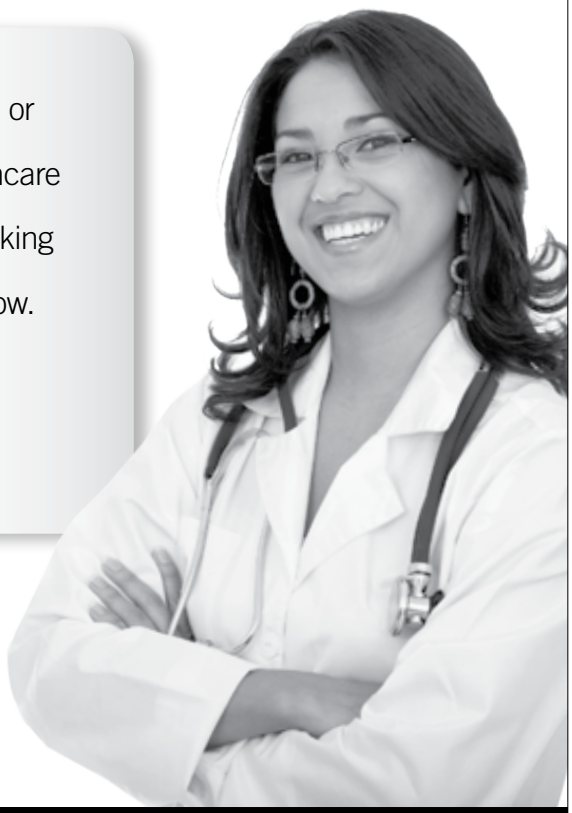

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Recognition

Carpenter receives lifetime leadership award

SAN FRANCISCO – The International Antiviral Society–USA (IAS–USA) awarded **CHARLES C. J. CARPENTER, MD**, director of the Lifespan/Tufts/Brown Center for AIDS Research and professor of medicine at The Warren Alpert Medical School of Brown University, its Lifetime of Leadership Award for his outstanding impact on the fields of global health, HIV medicine, and research.

Dr. Carpenter was honored on November 8, 2012, at the Center for AIDS Research in San Francisco. The award recognizes individuals who have made extraordinary and lasting contributions to the field of HIV medicine through scientific and academic leadership, as well as physician education and training, to improve the treatment and care for people infected with HIV or other viral infections.

The organization acknowledged Dr. Carpenter as "a pioneer in global-health efforts, a revered mentor to medical researchers and clinicians worldwide, and a model of uncompromising principles and extraordinary grace."

IAS COVER PHOTO: LIFESPAN

Charles C.J. Carpenter, MD, at the Center for AIDS Research in San Francisco.

MEMORIAL HOSPITAL

Harrison receives humanitarian award

PAWTUCKET – **EMILY C. HARRISON, MD, MPH**, a family physician affiliated with Memorial Hospital of Rhode Island and clinical professor of family medicine at the Warren Alpert Medical School of Brown University, has been selected to receive the national Humanitarian of the Year Award for 2012 from the American Academy of Family Physicians.

In addition to her clinical and faculty work, Dr. Harrison has been a volunteer since 2006 with Shoulder to Shoulder, a non-profit delivering health care and public health services to remote southwestern Honduras. She has served as Shoulder to Shoulder director of Women's Health, was instrumental in building the Brown affiliation with the village of Guachipilincito, and now serves as executive director of the organization.

Recognition

Provost Schlissel elected to science society, AAAS

BROWN UNIVERSITY

PROVIDENCE – Brown University Provost **MARK SCHLISSEL, MD**, has been elected a fellow of the American Association for the Advancement of Science (AAAS), the world's largest general scientific society. Fellows are nominated by the AAAS Council, the association's policymaking body.

This year the AAAS recognized 702 fellows for their scientifically or socially distinguished efforts to advance science or its applications. The new fellows will be officially welcomed on February 16 at the AAAS annual meeting in Boston.

Dr. Schlissel became Brown's 11th provost and professor of biology in the Department Molecular Biology, Cell Biology, and Biochemistry, in July 2011. He came to Brown from the University of California–Berkeley where he was dean of biological sciences.

Schlissel earned his MD and PhD at the Johns Hopkins University School of Medicine in 1986.

As an immunologist, he has focused his research on the developmental biology of B lymphocytes, the cell type in the immune system that secretes antibodies. His work has led to a detailed understanding of genetic factors involved in the production of antibodies and how mistakes in that process can lead to leukemia and lymphoma.

The AAAS recognized Schlissel "for advancing understanding of lymphocyte development from precursor cells through antigen receptor gene rearrangement of immunoglobulin and T cell receptor genes leading to B and T lineage cells."

Jenny honored for work in child-abuse prevention

PROVIDENCE – **CAROLE JENNY, MD**, director of the Lawrence A. Aubin, Sr. Child Protection Center at Hasbro Children's Hospital, has been awarded the Bertram Yaffe Award from the Rhode Island Public Health Association (RIPHA). Dr. Jenny was presented with the award at the RIPHA annual meeting where she was honored for her long time work in preventing child abuse.

"To say that Carole Jenny is an advocate for children is a vast understatement," said Robert Klein, MD, pediatrician-in-chief at Hasbro Children's Hospital. "Carole has traveled the world, working tirelessly to end abuse against children. Her impact is immeasurable."

Home & Hospice honors Aronson

PROVIDENCE – Home & Hospice Care of Rhode Island (HHCRI) bestowed its Human Dignity Award on **STANLEY M. ARONSON, MD**, in November. Dr. Aronson was honored for his significant contributions to "enhance human dignity and meaning at end of life."

Dr. Aronson, dean of medicine emeritus at Brown University's Warren Alpert Medical School, is one of the founders of the HHCRI, the first hospice in the state.

RHODE ISLAND MEDICAL SOCIETY

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SUBJECT AREAS

- Billing
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- Physician Health
- Primary Care
- Risk Management

COLLEEN CLEARY BAVOSA, MD, 53, died on August 14, 2012. Born in Rochester, NY, she is survived by her husband, Anthony Bavosa of Cumberland.

She was a 1981 graduate of Ithaca College, and a 1986 graduate of Stony Brook Medical School in New York. Dr. Bavosa was in private practice as a family physician for over 20 years in Pawtucket. She was a clinical assistant professor of Family Medicine at The Warren Alpert Medical School of Brown University; served as president of the Rhode Island Academy of Family Physicians from 1995–1997, and was Rhode Island's alternate delegate to the American Medical Association from October 2000–May 2005.

RICHARD "RICK" A. BROWNING, MD, 59, of Barrington died on November 13, 2012. Dr. Browning was past chief of anesthesia at Rhode Island Hospital and The Miriam Hospital and served as clinical professor of anesthesia at the Warren Alpert Medical School of Brown University. He joined the Rhode Island Hospital Department of Anesthesia in 1985 and had served as chief of that department since 1988.

He served on the boards of the American Society of Anesthesiologists, the Rhode Island Society of Anesthesiologists, the Society for Pediatric Anesthesia, among others, and was a Fellow with the American Academy of Pediatrics.

Dr. Browning earned his Bachelor of Science degree at Brown University, where he also earned his medical degree. He completed his internship and residency in pediatrics at Rhode Island Hospital, where he served as chief resident. He also completed a residency in anesthesia at the Hospital of the University of Pennsylvania in Philadelphia, and a fellowship in anesthesia and critical care medicine at The Children's Hospital of Philadelphia.

He is survived by his wife, Lisa, and their three children, Chris, Karen and Lauren, as well as his mother and father, Armande and Jackson Browning of Sarasota, FL, and three siblings.

JAMES "JAKE" MOTT BLISS, MD, 37, of Santa Barbara, CA, died on November 10, 2012, of complications from Amyotrophic Lateral Sclerosis (Lou Gehrig's disease). He leaves his wife, Dr. Laurel A. Bliss, and his daughter, Devon A. Bliss. Born in Rehoboth, MA, he was the son of Dr. Thomas F. Bliss and the late Josselyn Hallowell Bliss.

He was a 1998 graduate of Yale University and earned his medical degree at Tulane University in 2002. He completed his orthopedic surgery residency at Brown University in 2007; a fellowship in orthopedic trauma at Brown in 2008; and a fellowship in total joint replacements at the Scripps Clinic in San Diego in 2009.

He then joined the medical staff of the Sansum Clinic in Santa Barbara, where he specialized in complex joint replacement surgery.

Besides his wife, daughter, and father, he is also survived by his brothers and sisters: Anna Bliss and husband, Dr. Michael Schaffer, of Providence; Dr. Molly Bliss and husband, Jim Wolf, and daughter, of Lebanon, NJ; Tim Bliss and wife, Jennifer, and their three children, of Merrimack, NH; and Ned Bliss of Cambridge, MA.

STEPHAN ISTVAN FRATER, MD, 90, of Providence, husband of Suzy Viola (Pataki) Frater, died on October 31, 2012. Born in Debrecen, Hungary, he graduated from Semmelweis Medical University, Budapest, and immigrated to the United States in 1956.

During his career, he served as chief of nuclear medicine at Rhode Island Hospital. He was a founding assistant professor at Brown University's School of Medicine and a founding partner at Rhode Island Medical Imaging. He was also treasurer of the Hungarian Medical Association of America.

Besides his wife of 60 years, he leaves three children, Professor Stephen I. Frater, Jr. of Narragansett, Dr. Susan Candace Stephens (and Henry Diamond) of Providence, and Thomas P.B. Frater (wife Daniela) of Greenwich, CT; and five grandchildren.

MANUEL L. DA SILVA, MD, 86, prominent physician, historian, author and activist in the Portuguese-American community, died on October 21, 2012.

Prior to retirement in 1998, Dr da Silva was associated with the Bristol County Medical Center for over 35 years and before that the Lahey Clinic in Boston and St. Luke's Hospital in New Bedford. He also served as medical director at the RI Veterans Home for 21 years.

In addition to his wife, Silvia Tavares Jorge, he is survived by two sons, Manuel and his wife Kelly (Ahearn) and their daughters Victoria and Alexandra; and Jose and his wife Christine (Tracy) and their children.

RAYMOND GUY ENDRENY, MD, 68, died suddenly on Oct. 11, 2012 at his home in Providence. Born in Pelham Manor, NY, a son of the late Dr. Emil and Elizabeth Endreny, he was a Providence resident for 39 years.

Dr. Endreny practiced with Nephrology Associates in East Providence for 34 years. He was a graduate of Hobart College in Geneva, NY, and Hahnemann Medical College in Philadelphia.

Farmer speaks on post-quake Haiti at URI

'Hope is not a plan but an essential ingredient'

PARTNERS IN HEALTH

In March 2012, Dr. Paul Farmer and former President Bill Clinton visited Partner in Health's solar-powered Mirebalais National Teaching Hospital in Haiti. It was built after the 2010 earthquake and will open early this year.

BY MARY KORR
RIMJ MANAGING EDITOR

KINGSTON – Paul Farmer, MD, began a recent talk at the University of Rhode Island on "Haiti After the Earthquake," the title of his latest book, with a personal reflection on the intersection of failure and fate.

In 1982, he graduated from Duke University summa cum laude with a degree in medical anthropology. He had applied for a Fulbright to work in Africa. "It didn't occur to me I would not get it," he said.

He recalled "getting the slim envelope from the Fulbright people. Does it sound like I still hold it against them?" Dr. Farmer asked the crowded audience. "It takes a long time to talk about failure as an important part of experience."

Dr. Farmer turned to Plan B – volunteering with a physician in the Haitian hinterland. "In some ways, not getting the Fulbright and going to Haiti was the most important thing that happened to me both as a physician and student," he said.

It was the start not only of a professional journey, but a personal one as well. Dr. Farmer was 23 years old when he first went to Haiti; he is now 53 and married to Didi Bertrand Farmer,

URI

IN BRIEF

Paul Farmer, MD

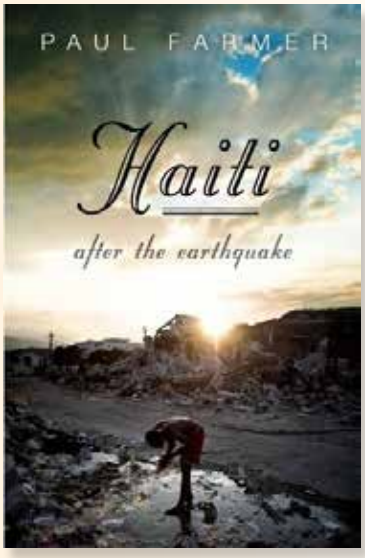
UN Deputy Special Envoy for Haiti appointed by UN Special Envoy for Haiti, President Bill Clinton

Chair of the Department of Global Health and Social Medicine at Harvard Medical School

Chief of the Division of Global Health Equity at Boston's Brigham and Women's Hospital

Co-founder of Partners In Health (PIH) in Boston

Recipient, John D. and Catherine T. MacArthur Foundation's "genius award"



PARTNERS IN HEALTH

Haiti After the Earthquake
by Paul Farmer, MD, et al.
Public Affairs Books, (2011 and 2012)
Formats: Hard cover, soft cover, (480 pps.) and e-book

the daughter of a Haitian teacher. The couple has three children.

At the lecture, Dr. Farmer described his first year in Haiti. It was not a "magical or illuminating experience. It was really hard work. I'm not sure we did much good for the patients." He worked with a physician whose only tools were "his own smarts and a stethoscope. He did not have a health-care system behind him."

After his initial year in Haiti, Dr. Farmer began his studies at Harvard Medical School, but would spend months each year in Haiti. Except for the period, he said, when he accidentally stepped in front of a car in Boston and suffered multiple orthopedic fractures. The health care he received made him more determined to return to Haiti and set up a system of community-based care.

In 1985, he and others established a two-room clinic in a rural, deforested region of Haiti to deliver health care to "landless squatters living in tents." Two years later, he co-founded Partners In Health (PIH) in Boston to support the opening of Haitian schools, additional clinics, a training program for health outreach workers, and sending a mobile unit to screen residents of area villages for preventable diseases.

2010 earthquake

Three decades after Dr. Farmer first went to Haiti, a massive earthquake struck on January 12, 2010, killing over 300,000 and leaving 1.3 million homeless. Immediately, he recounts in *Haiti After the Earthquake*, he contacted Dr. Alix Lassegue, medical director of Port-au-Prince's largest hospital and asked him: "What do you most need?"

Dr. Lassegue's list was long: "Surgeons, anesthesiologists, nurses, medications. And generators…Just managing proper disposal of the bodies is overwhelming us…And we need help trying to save lives of those still trapped under collapsed buildings around the hospital grounds."

Within three days, Dr. Farmer arrived in the Haiti, along with a team of volunteers. The Ministry of Health had collapsed. Most of the clinics and hospitals were down. "Even for seasoned physicians the quake zone was a horrifying scene," he writes. The majority of victims suffered from brain, spinal cord and crush injuries, and complex, multiple fractures.

At the colloquium and in the book, he described the earthquake as an "acute-on-chronic event, devastating because a history of adverse social conditions and extreme ecological fragility primed Port-au-Prince for massive loss of life and destruction when the ground began shaking.

"In the years before, we saw that Haiti had become a veritable 'Republic of NGOs,' home to a proliferation of goodwill that did little or nothing to strengthen the public sector. Thus did clinics sprout up without much aid to the health system, thus did water projects appear even as water security (like food security) was enfeebled."

He argues in the book that rebuilding capacity requires sound analysis of what has gone so wrong in the past. His model system is a troika of community health care workers, primary-care clinics and hospitals.

Today, Haiti has the highest incidence of cholera in the developing world (almost 8,000 cases in 2010). "Building a health-care infrastructure doesn't stop cholera. A waste-water management system does. And the answer to malnutrition is food."

In the book, Dr. Farmer writes, "Hope is not a plan but an essential ingredient." At URI, he invited "students who care about global health to join us in one way or another. You can help fight disparities right here in Rhode Island and all over the world. Start early and stick with it. This problem of medical disparity will be seen as the ranking human-rights problem of your generation. That, and climate change."

His presentation was part of a URI semester-long colloquium titled "Health Care Change? Health, Politics and Money." v

Quotes: Rx for life

Music is the effort we make to explain to ourselves how our brains work. We listen to Bach transfixed because this is listening to a human mind.

—Lewis Thomas, MD
(essayist for *New England Journal of Medicine*)

The only way to keep your health is to eat what you don't want, drink what you don't like, and do what you'd rather not.

—Mark Twain

Please submit your favorite quote to RIMJ for future publication and inspiration. Send to mkorr@rimed.org

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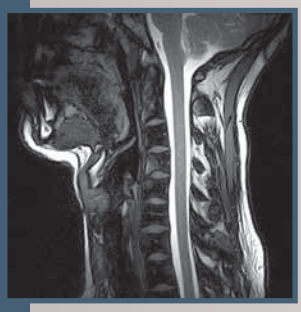

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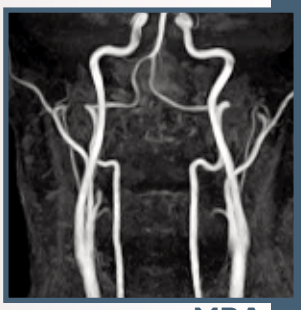
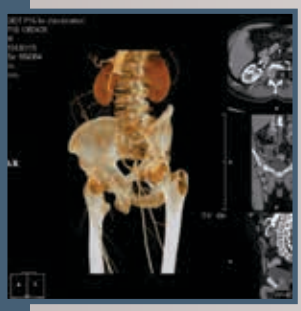
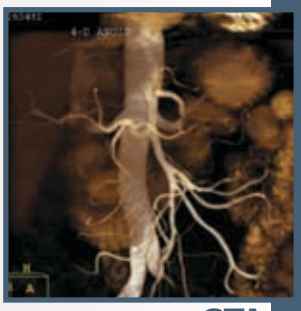


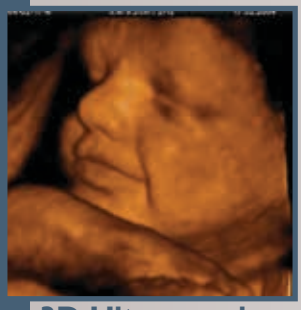
MRA



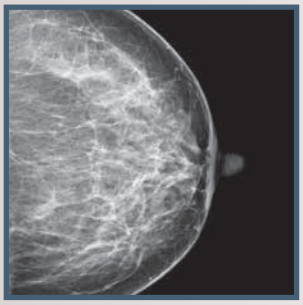
CT • 3D CT



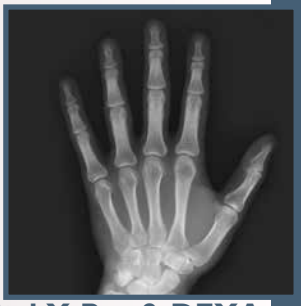
CTA



3D Ultrasound



Digital Mammography



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The Many *Dia-* Words

STANLEY M. ARONSON, MD

In parallel with all living creatures, words evolve, inevitably taking on nuanced meanings as new secular needs arise. Consider the older Greek prefix, *di-*, variously meaning divided or pulled asunder; but now, with a shade of difference, also meaning twice or doubled as in the word, dichotomy. A variant prefix, dia-, has now come to signify 'apart from' or 'separate.' And the standard medical dictionary devotes four pages just to words beginning with the prefix, *dia-*.

Diabetes means, literally, 'passing through' and reflects the ancient Greek observation of excessive urination as a cardinal feature of the disease. Only later was the descriptive word mellitus added when the excessive urinary passage of sugars was noted.

The word diagnosis, again of Greek origin, means 'knowing apart' or 'something distinguished.' And its root, *-gnosis,* descends from the Greek meaning 'to know' as in words such as gnomen, prognosis and agnosia.

Dialysis literally means the process of undoing or loosening. Again, the *dia-* prefix connotes 'apartness'; and the root, *-lysis,* comes from the Greek *luein*, meaning 'to loosen', leading to the Greek *dialuein*, thus meaning 'to tear asunder.' There are a number of medically related words employing this root, such as autolysis, catalysis, lysergic acid and lysemia.

A diaphragm, literally, is a fence or partition between two body cavities. It comes from a Greek word, *phrassein,* meaning a barricade or partition. In earlier medical texts, the diaphragm defined any membrane separating two body spaces (such as the nasal septum); but only recently has the word been narrowed to define the membrane separating abdomen from thorax.

Diarrhea, again Greek, uses the Greek root, *-rrhea*, meaning 'to flow through,' as in words such as logorrhea, pyorrhea and sialorrhea.

No physician in general practice can avoid contact with the word diaper. It descends by evolutionary stages from the Byzantine Greek, *diaspros,* with the prefix, *dia-* merging with the Greek root, *aspros,* to signify 'white' or 'without blemish.' And thus, anything that is hoped to be excessively white may be called a diaper.

In addition, there are general terms such as diabolic (from the Greek, *bolos,* meaning 'satanic'), diagonal (from the Greek, *diagonios*, meaning 'across an angle'), dialect (from the Greek, *legein*, 'to speak,' yielding still further derivatives such as dialogue) and diaphanous, again Greek, from the root, *phainein*, meaning 'to show through.'

PAGE FROM *CATOPTRUM MICROSCOPICUM*, JOHANN REMMELIN, 1619 FROM THE RIMS COLLECTION AT THE HAY LIBRARY

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Rhode Island Medical Journal debuts in 1917

MARY KORR
RIMJ MANAGING EDITOR

The following is an excerpt from Medical Odysseys, *an anthology published by the Rhode Island Medical Society in 2012 to commemorate its Bicentennial.*


THE RHODE ISLAND MEDICAL JOURNAL

CONTENTS

Safe Milk

H. P. HOOD & SONS

The first issue of the *Rhode Island Medical Journal*, published in January 1917, sold for 25 cents; a year's subscription was $2. Editor Roland E. Hammond, M.D., pledged to continue the "scientific standard and the literary tone" set by its predecessor, The Providence Medical Journal, published by the Providence Medical Association. Hammond reassured readers "the trenchant pens of its writers will continue to furnish interesting and forceful criticism of local conditions."

The transfer of ownership to the medical society allowed the journal to receive financial support from the Co-operative Medical Advertising Bureau of the American Medical Association (AMA). "By the terms of this agreement, the Journal must be published monthly and all ads must be approved by the Council of the AMA," Dr. Hammond explained in an editorial.

The first issue abounds with local ads that presumably received the AMA's seal of approval. H.P. Hood & Sons advertised its "safe milk perfectly pasteurized; during seventy years of continuous service not a case of disease has been traced to it."

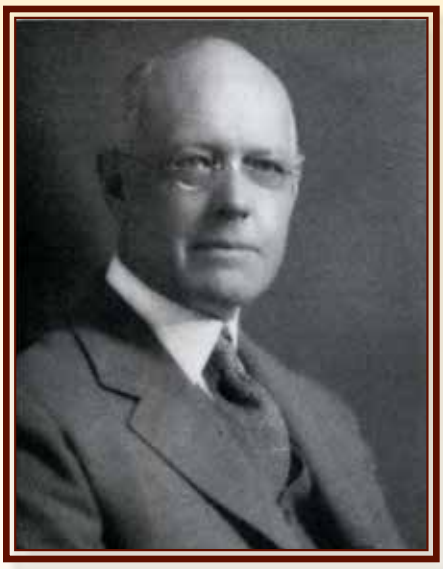
Horlicks touted its "malted milk for infants, invalids and travelers."

The Cadillac Auto Co. of Rhode Island proclaimed to the profession:

No man can afford to ignore the doctor
No doctor can afford to ignore the Cadillac
Eight Cylinder Cadillac –
No car on earth compares with it!

Local medical facilities advertised their merits, including the Hope Private Hospital, the John Keefe Surgery and the sanatorium of Dr. Bates in Jamestown, "for the treatment of the chronic sick and the recuperation of those nervously exhausted. Room and board: $10." Dr. Richard C. Cabot advertised The Fisk Hospital in Brookline, Mass., "for the cure of the morphine habit."

The journal began to report on AMA-approved campaigns, such as the one against wood alcohol: "The New York Committee for the Prevention of Blindness has begun a crusade against makers of bay rum and other toilet articles containing wood alcohol…Powerhouse whisky containing wood alcohol may cause blindness or death…See to it that your barber uses only



Editor Hammond: A Baker Street Irregular

Dr. Roland E. Hammond (1875–1957), the first editor of the Rhode Island Medical Journal, had a lifelong passion: Sherlock Holmes.

In 1946 he co-founded "The Dancing Men of Providence," a scion society of the Baker Street Irregulars (BSI), formed in 1934 by literary lion Christopher Morley "to perpetuate the myth that Sherlock Holmes is not a myth."

Hammond was invested in the BSI under the name "Silver Blaze," the title of a Conan-Doyle adventure and the name of its central character, a horse. He was a contributor to the Baker Street Journal and published "The Attempted Mayhem of Silver Blaze," in the April 1946 edition. It is described as "an investigation by Hammond, including an actual experiment duplicating the operation performed on Silver Blaze to render him lame, demonstrating that it requires more than the mere jab of a knife, as Holmes claimed, to injure the tendons of a horse's ham sufficiently to cripple him."

Hammond was also a member of the Providence Medical History Club and a delegate to the American Association of the History of Medicine.

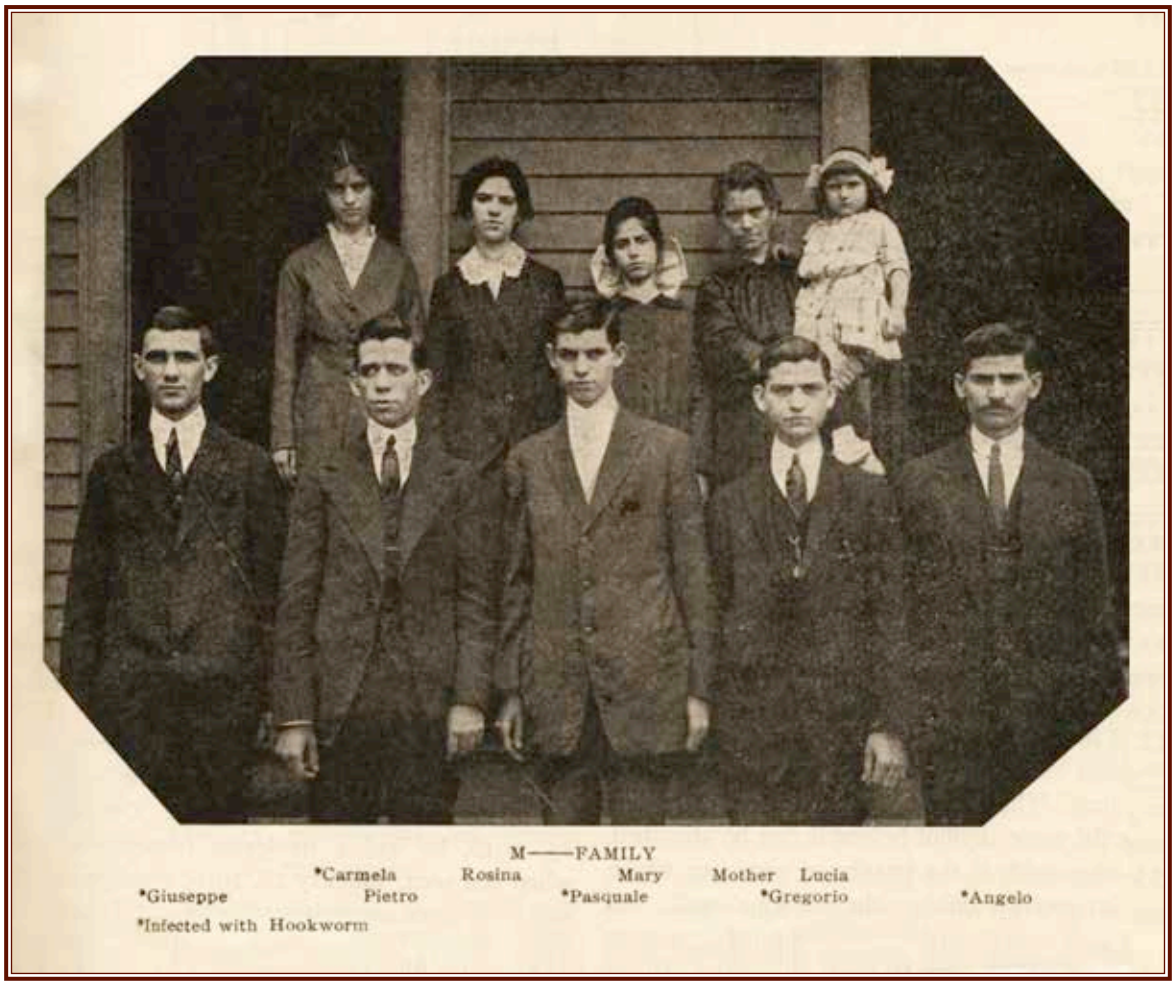
the best toilet articles and that the ginger ale you drink does not contain this poison."

The journal also endorsed the AMA's stance on health insurance, which called for adequate representation of the medical profession on insurance commissions; creating lists of legally qualified physicians, and patient choice in the selection of a physician.

Launched on the cusp of America's entry into World War l, the April 1917 issue reported that the War Department had requested Rhode Island Hospital to organize a 250-bed naval field hospital in Newport; doctors would be commissioned as lieutenant commanders. The unit, U.S. Navy Base Hospital No. 4, was deployed to U.S. Naval Base No. 6 in Queenstown, Ireland. Editor Hammond, a member of the U.S. Naval Reserve Force, was called to active duty in July 1918, and served as a roentgenologist and orthopedic surgeon in Ireland.

As he and other Rhode Island physicians served overseas, the journal was forced to cease publication for 16 months and resumed in December 1920. Since its inception as a monthly, there have been eight editors:

Roland E. Hammond, MD (1917–1920)
Frederick N. Brown, MD (1921–1936)
Albert H. Miller, MD (1937–1942)
Peter Pineo Chase, MD (1942–1956)
John E. Donley, MD (1956–1960)
Seebert J. Goldowsky, MD (1960–1989)
Stanley M. Aronson, MD (1989–1998)
Joseph H. Friedman, MD (1999–present)



This photograph of a Federal Hill immigrant family appeared in the March 1917 edition of the Rhode Island Medical Journal *in a report on hookworm by Alex. M. Burgess, MD, and scientist Percy D. Meader. The older daughters and sons worked as weavers in the Atlantic Mills in Olneyville. Five were infected with what is described as uncinariasis (New World type) and were treated with thymol, lactose and magnesium sulfate. The article cautioned Rhode Island physicians that there were probably many unrecognized cases in the state, predominantly within immigrant communities.*