

WORCESTER medicine

Volume 77 • Number 3 Published by the Worcester District Medical Society May/June 2013



- The Role of the Internet and its Impact on the Practice of Medicine
- 217th Annual Oration

www.wdms.org

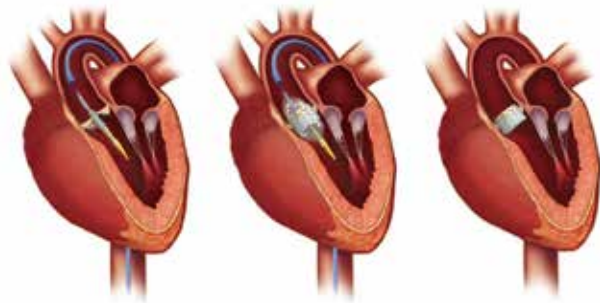
Presorted Standard
US Postage
PAID
Worcester, MA
Permit No. 467

UMass Memorial Medical Center is screening patients for transcatheter aortic valve implantation (TAVI)



Do you have patients with severe aortic stenosis who are at high risk for surgical intervention or deemed inoperable?

They may be candidates for TAVI, an FDA-approved, minimally invasive procedure where a new aortic valve is implanted percutaneously via the femoral artery or through a small, anterolateral chest incision, without the need for sternotomy or cardiopulmonary bypass.



TAVI:

- Is a minimally invasive option for select patients with severe, symptomatic aortic stenosis
- Is FDA-approved for patients who are considered high risk for surgery or who are inoperable
- Has been shown to significantly improve quality of life and reduce mortality for this patient population

To schedule a screening:

Telephone: 508-334-VALV (8258)

Email: tavi@umassmemorial.org



academics

arts

athletics

technology



Educating college-bound students Pre-K through Grade 12

Bancroft students discover themselves as leaders, learners, and global citizens, developing the skills to succeed in the world's top colleges and beyond.

Admission Coffee
Tuesday, June 11 at 9 am

Learn More
www.bancroftschool.org
508.854.9227



BANCROFT
SCHOOL

Lower, Middle, & Upper Schools

110 Shore Drive
Worcester, MA 01605
508.854.9227
www.bancroftschool.org



Jane Lochrie, MD

So much of medicine has changed over the past 10 years; the Internet has revolutionized the way we practice medicine. Prescriptions are now sent via email, patients are buying medications from distant countries without a prescription, and anyone can now calculate their own Cockcroft-Gault GFR by accessing their e-medical record. Virtually every hospital, residency program and clinic has a website. Patients can retrieve information on just about any medical condition, but some of it is outdated and not all of it is correct. This issue of Worcester Medicine is devoted to how the Internet has impacted the medical profession.

As always at this time of the year, our issue opens with the Annual Oration. Dr. Michael Collins, senior vice president for the health sciences and chancellor at the University of Massachusetts Medical School, presented "From Flexner to Worcester: Medicine's Next Century Dawns." Dr. Flexner was the first to support the standardization of medical education. In his oration, Dr. Collins recounts the long road of bringing the University of Massachusetts Medical School to Worcester. He describes the accomplishments of the medical school and the expansion to include the Graduate School of Biomedical Sciences and Graduate School of Nursing.

He stated, "Commitment to public service remains the hallmark of our mission and our work."

Dr. C. Michael Gibson, a world-renowned interventional cardiologist who pioneered the "open artery" theory is chairman, founder and editor-in-chief of WikiDoc. He describes the legal principle of "copyleft," allowing anyone to copy, modify and redistribute documents. WikiDoc is the world's largest and first medical wiki, an open textbook to which anyone may contribute. WikiDoc is supported solely by volunteers and philanthropy; there are no advertisements or pharmaceutical contributions. Many developing countries that are not able to afford expensive textbooks are able to access WikiDoc with smartphones and other handheld devices. If you haven't logged on to WikiDoc.org, you should.

Physician participation, or lack thereof, is addressed by Dr. Lloyd Fisher. While our patients have become heavy users of social media, physician involvement has lagged behind. He urges physicians to become involved to ensure accuracy of information but to be mindful of the potential risks. He advises physicians to maintain a clear distinction between our personal and professional online presences.

Dr. Kristen Danielson advocates for physicians to support the use of the Internet for several reasons: It empowers patients to partner in decisions related to their health, it is a source of information for physicians, and it is a resource of Continuing Educational Credits. In addition, she encourages the use of the Internet for health maintenance records, online scheduling, emails to patients, virtual consults and electronic medical records.

The ubiquitous adoption of mobile devices by health care providers has produced an explosion of medical applications. Dr. Timothy Aungst describes several of these new "med apps." These include medical news, drug information, clinical references, clinical calculators, journals, medical education and productivity applications. He also gives information on how to obtain these applications.

Last but not least, Elizabeth Butler, UMMS IV, a budding pediatrician, calls for physicians to embrace the Internet. We must accept that our patients are already obtaining information on their own, and we must be prepared to deal with this. She opines that using the Internet will promote health literacy and a greater interest in one's own health.

In conclusion, I would like to thank everyone who contributed to this edition of *Worcester Medicine*, especially our legal consultant, Peter Martin, who has contributed to virtually every edition of *Worcester Medicine* for the past several years.

Jane Lochrie, MD

Worcester Medicine is published by the Worcester District Medical Society
321 Main Street, Worcester, MA 01608
e-mail: wdms@massmed.org
web: www.wdms.org
phone: 508.753.1579

WDMS Officers

President: Michael Hirsh
Vice President: Peter Lindblad
Secretary: Dennis Dimitri
Treasurer: Robert Lebow

Joyce Cariglia, Executive Director
Melissa Boucher, Administrative Assistant
Francine Vakil, WDMS Alliance

WDMS Editorial Board

Jane Lochrie, MD, Editor
Lisa Beittel, MBA
Anthony Esposito, MD
Michael Hirsh, MD
Anne Kane, RN, PhD
Peter Lindblad, MD
Michael Malloy, PharmD
Thor Pederson, PhD
Joel Popkin, MD
Robert Sorrenti, MD
Peter Zacharia, MD
Emily Tsanotelis, Student Representative



Publishing, Design, Event Planning, & Web Development

Production and advertising sales by Pagio Inc.
88 Winter St., Worcester, MA 01604
508.756.5006

Paul Giorgio, President
Donna Roberson, Editor
Justin Perry, Art Director
Chris Reddy, Account Executive
Kerry Cyganiewicz, Account Executive
Rob Thompson, Account Executive

Worcester Medicine does not hold itself responsible for statements made by any contributor. Statements or opinions expressed in *Worcester Medicine* reflect the views of the author(s) and not the official policy of the Worcester District Medical Society unless so stated. Although all advertising material is expected to conform to ethical standards, acceptance does not imply endorsement by *Worcester Medicine* unless stated. Material printed in *Worcester Medicine* is covered by copyright. No copyright is claimed to any work of the U.S. government. No part of this publication may be reproduced or transmitted in any form without written permission. For information on subscriptions, permissions, reprints and other services contact the Worcester District Medical Society.

contents

Vol. 77, No. 3

MAY/JUNE 2013

- 4** Editorial
Jane Lochrie, MD
- 6** President's Message:
The Boston Marathon
Bombing
Michael Hirsh, MD
- 7** 217th Annual Oration
Michael F. Collins, MD
- 12** The Role of the Internet
and its Impact on the
Medical Profession
C. Michael Gibson, MS, MD
- 15** Physician Participation
in Social Media
Lloyd D. Fisher, MD
- 16** Weaving the Web into
your Modern Medical
Practice
Kristen Danielson, MD
- 18** Introductory Review of
Mobile Medical
Applications for Medical
Practitioners
Timothy Dy Aungst, PharmD
- 20** Navigating Vaccination
Controversy in a
Tech-Savvy Population
Elizabeth Butler, MS4,
University of Massachusetts Medical School
- 23** The Effects of the
Internet and Mobile
Apps on Medical
Practice in the Future:
A Student's Perspective
Adnan Faruqi, MS4,
University of Massachusetts Medical School
- 24** Legal Consult
Peter J. Martin, Esq.
- 27** In Memoriam
Arthur F. Powell, MD



On the Cover:

- The Role of the Internet and its Impact on the Practice of Medicine
- 217th Annual Oration

The WDMS Editorial Board and Publications Committee gratefully
acknowledge the support of the following sponsors:

UMass Memorial Health Care

Reliant Medical Group

The Louis Albert Cottle, MD Trust Fund

The Boston Marathon Bombing

By Michael Hirsh, MD



Michael Hirsh, MD

As the president of the Worcester District Medical Society, marking events such as the awful April 15 bombing at the Boston Marathon is one of the least attractive aspects of the position. There is a dearth of information at the present time to explain exactly the reasons behind this tragedy.

There are several things that have been made clear by the events of April 15. The courage shown by bystanders, who were there to cheer on the runners, and medical providers, who were there predominately to take care of dehydration and other marathon-related injuries, was spectacular. Emergency preparedness exercises that many medical communities like Boston practice showed how one can handle a mass casualty event with relative ease. The confusion in the immediate aftermath of the bombing gave

way to a calm that was restored within hours of the event. This is a testimony to the group of the first responders, the Boston Police Department and the authorities dispatched to investigate and stabilize the city after the tragedy.

The United States has been the subject of terrorism for quite some time. Whether it is at the World Trade Center, Oklahoma City, Atlanta or Fort Hood, the American people's resiliency always shines through. We put away our differences and pull together. We will do so again. I heard it said many times yesterday that the Boston Marathon will never be the same again. Although there's always a sense of innocence lost when circumstances like this occur, my heartfelt conviction is that the marathon tradition will rise up stronger than ever, as will Boston and our country.

Our thoughts and prayers go out to the injured and those mourning the dead. Our best wishes go out to the first providers who were medical witnesses to this terrible

event and also to the witnesses who viewed the carnage up close and will need time to heal. We also pray for the departed, that they will be remembered as martyrs for the type of free society that can have a Patriot's Day come alive again. If we as a community and as a people continue to rally and support each other, then certainly we have confirmed the basic goodness of our society, and those who perpetrate these acts of terror lose.

WORCESTER
medicine
Medicine and Media

Prescription for Success!

Advertise in the next Worcester Medicine!

Contact Paul Giorgio at 508-756-5006
or pgiorgio@pagioinc.com

From Flexner to Worcester: Medicine's Next Century Dawns

Michael F. Collins, MD



Michael F. Collins, MD

A hallmark of our profession is that a commitment to medicine requires the welcome embrace of life-long learning. As we take our oath at commencement, we commit to do what is in the best interests of our patients. Respect suffuses our commitments “To reckon him who taught me this Art equally dear to me as my parents, ...and that by

precept, lecture, and every other mode of instruction, I will impart a knowledge of the art to my own sons, and those of my teachers, and to disciples bound by a stipulation and oath according to the law of medicine, but to none others.”¹ (Please pardon the unenlightened gender references!) Forgoing our personal needs and conflicts, we obligate ourselves to constant and consistent learning, and we accept the responsibility to provide the education of those who follow us in our profession. The defining hallmark of our profession is the oath we profess. Ours is a high calling!

When in 1911 Abraham Flexner crafted a report titled “Medical Education in the United States and Canada” for The Carnegie Foundation for the Advancement of Teaching, he reflected on “an agitation set up by Nathan Smith Davis [that] resulted in the formation of the American Medical Association, committed to two propositions, that it is desirable ‘hat young men received as students of medicine should have acquired a suitable preliminary education’ and ‘that a uniform elevated standard of requirements for the degree of M.D. should be adopted by all the medical schools in the United States.’ ”² That these truths were not self-evident is remarkable.

When discussing “overproduction”² of physicians, he used as an example the presence of two physicians to serve the 80 people in Colerain and the 100 people in Harding, Mass.² He observed, “For a region in which holds out hope, there is no need to make poor doctors, still less to make too many of them.”² In calling for a commitment to higher quality in medical education, Flexner observed, “We may safely conclude that our methods of carrying on medical education have resulted in enormous overproduction at a low level, and that, whatever the justification in the past, the present situation in town and country alike can be more effectively met by a reduced output of well trained men than by further inflation with an inferior product.”² In calling for fewer and better trained physicians, he criticized the advertising that was used to bring doctors to poor medical schools. “The deans of these institutions occasionally know more about modern advertising than about modern medical teaching!”² He proclaimed, “Schools can no longer be open to casual strollers from the highway.”³

As he insisted that the standards of medical education be improved and impervious, he concluded, “The physician’s concern with normal process is not disinterested curiosity; it is the starting point of his effort to comprehend and to master the abnormal.”³

In his introduction to Flexner’s report, Henry S. Pritchett, president of the Carnegie Foundation at the time of the report’s writing, called “for an educational patriotism on the part of institutions of learning and medical patriotism on the part of the physician.”⁴ “By educational patriotism [he meant] this: A university has a mission greater than the formation of a large student body or the attainment of institutional completeness, namely, the duty of loyalty to the standards of common hon-

esty, of intellectual sincerity, of scientific accuracy.”⁴ “By professional patriotism amongst medical men [he meant] that sort of regard for the honor of the profession and that sense of responsibility for its efficiency, which will enable a member of that profession to rise above the consideration of personal or of professional gain.”⁴

As Dr. Leonard Morse pointed out in his most eloquent oration,⁵ Flexner held the Johns Hopkins University as the standard upon which all medical schools should be measured. Pritchett concluded, “Let us address ourselves resolutely to the task of reconstructing the American medical school on the lines of the highest modern ideals of efficiency and in accordance with the finest conceptions of public service.”⁴

Bringing the
pieces of **your**
health care
together.



NaviCare® HMO SNP personalizes care for adults 65 and older with MassHealth Standard.

You receive all of the covered Medicare and MassHealth Standard benefits, items and services.

Your NaviCare coverage and care include:

- **a Navigator** to help coordinate all your health care needs and a primary care team, including physician, specialists, nurse case managers and social workers
- **your choice** of primary care physicians from our network
- **transportation** to medical appointments when authorized
- **denture** coverage, **hearing** aids and **vision** services
- medical care and **support 24/7** by phone
- home care and **personal care assistance** if needed

All at no cost to you!

Navicare is for adults 65 or older who live in the plan's service area and have MassHealth Standard and Medicare Parts A and B, or just MassHealth Standard. For more information, please call:

1-877-255-7108

(TTY users, please call TRS Relay 711)

Monday through Friday, 8 a.m. to 8 p.m.

(From October 1–February 14,

we're available seven days a week.)

www.navicare.org



NaviCare is a Coordinated Care plan with a Medicare contract and a contract with the Massachusetts Medicaid program. NaviCare is a voluntary program in association with MassHealth/EOHHS and CMS. The benefit information provided is a brief summary, not a complete description of benefits. For more information contact the plan. Limitations and restrictions may apply. Benefits, formulary and pharmacy network may change on January 1 each year.

12-679-042 Rev. 00 8/12

H9001_N_2013_193 Accepted 09222012

I must admit that though I had heard of the Flexner Report since the early days of my medical education, I had never read the report in its entirety. For more than a century, this call for quality and standards in medical education was the guidepost for schools of medicine. The report was comprehensive and had a sentinel effect on medical education throughout the next century. It is these commitments to “the highest modern ideas of efficiency”⁴ and “the finest conceptions of public service”⁴ that formed the foundation for the founding of the University of Massachusetts Medical School in 1962.

Ellen More, a historian of our medical school, has compiled a wonderful account of our school. Titled “A History of the University of Massachusetts Medical School: Integrating Primary Care and Biomedical Research,” this work recounts the founding and development of the treasure that UMass Medical School has become.

The desire to create a public medical school, to respond to the need to increase the number of practitioners in Massachusetts, to provide a university-based education for those students from working-class families and to assure a first-class education for those who matriculated to the school were the founding hallmarks of the University of Massachusetts Medical School. As has been the case over history, politics, individual perspective and perceived parochial benefit characterized the colloquy over where the school would be located and what would be its legacy.

Many within the university, particularly the university president and dean of the medical school, believed that the school should be located on the university's Amherst campus. This

was particularly pleasing to the three Boston institutions that were not interested in there being further competition for students or clinical rotation slots. Flexner's premise that medical education should have a university base advanced the position of those who thought that the medical school campus should be located in Amherst. The actual term of the education to be provided at the school, be it two years or four, also became a serious issue of contention.

Given the Flexnerian ideals of a university-based education grounded in a foundation of learning in the sciences, with the quality of education as an imperative, the University of Massachusetts first studied the prospect of establishing a medical school as World War II concluded and veterans in search of medical education returned in search of schools. It was not until the early 1960s that enough momentum could be gained to actually pass through the legislature an initiative to establish a medical school.

As recounted in an editorial in the *New England Journal of Medicine* in 1965, "On June 4, 1965, eighteen months after a dean of the Medical School had been appointed, and almost four years after the Medical School had been authorized, the trustees of the University of Massachusetts voted on the location of the school. In the semifinal ballot, 11 votes were cast for a location at the University [in Amherst], and 11 votes for a location in Worcester. On the final ballot, one man changed his mind, and Worcester was chosen, 12 to 10."⁶ As the editorial went on, criticizing the trustees who had voted, it stated that the trustees "lost their golden opportunity to avoid the handicaps that have been associated with those institutions where the medical school is separated from the university."⁶ Arguing that it did not matter whether the school was located in an urban [in this case, Worcester] or rural [Amherst] location, the editor claimed, "Even now the automobile carries ward patients not to the nearest hospital but to the hospital of excellence that practices personal care...the distinction between an urban and a rural locale is no longer valid."⁶

In perhaps the most damning of claims made by the editor, he stated, "A medical school only at Worcester can neither strengthen the University nor be strengthened by it. At Worcester it may be immeasurably more difficult to recruit a clinical and preclinical faculty for a medical school away from the parent university."⁶

In a letter to the editor, Hyman Heller, MD, president of the Worcester District Medical Society, took great exception to the

opinions expressed in this editorial. Published one month later, he wrote, "It is evident that the writer of the editorial knows very little about the attributes of Worcester as a prime location for the Medical School other than it is not the campus at Amherst. He appears unwilling to concede that Worcester, which is highly regarded as an educational center...can offer an 'intellectual ferment' reasonably equivalent to that provided by Amherst."⁷

As the members of the first class came to campus in 1970, the politics had receded into the past, and Dean Soutter welcomed the first 16 students to a campus that would several years later, after vigorous battles with the legislature over resources, open a medical school and clinical teaching facility. Flexner would have been quite proud of what was to come.

As the University of Massachusetts Medical School approaches its 40th commencement, we are proud of the many accomplishments gained over the past four decades. Contrary to viewpoints in the days during which the creation of the medical school was being considered:

- The university has attracted the finest applicants to its medical, nursing and graduate schools. Reserving most of its medical school seats for residents of Massachusetts and ranked seventh in the nation,⁸ the school continues to fulfill its mission to educate primary care practitioners for the Commonwealth.
- Graduates of our nursing school are making an important impact in the care of patients in Massachusetts and beyond.
- Our Graduate School of Biomedical Sciences' student body has contributed to the publication of more than 2,000 peer-reviewed scientific articles.
- Members of our faculty have won the Nobel and Lasker prizes; we have seven Howard Hughes Investigators; five members of the national academies; more than \$250 million of sponsored research this year; we rank among the top 15 universities in the amount we derive from revenues from intellectual property.
- We have saved the Commonwealth billions of dollars through the initiatives of Commonwealth Medicine.
- Through MassBiologics of the University of Massachusetts Medical School, we have discovered and developed products that will significantly improve the public health and the human condition.

- Together with our health system partner, we are responsible for in excess of \$5 billion in economic activity throughout our region.

Over the years of growth, one thing has remained constant: As a public institution of higher education, commitment to public service remains the hallmark of our mission and our work.

We are engaged, committed and principled. I only wish that Abraham Flexner had a chance to visit our school!

As we look to the future, I can't help but recall Sir Luke Fildes' painting of *The Doctor*, a work inspired by the devotion of a physician who sat by Fildes' son's side as he suffered and died of tuberculosis in 1877. This painting adorns the wall in each of my offices as a constant reminder of the covenantal relationship that exists between physician and patient.

As we educate the next generation of physicians, we accept a sacred obligation as we profess our oaths to care for our patients and to educate those who come behind us in our profession. As the doctor sat beside the patient in 1877, there were no antibiotics, no advanced radiologic techniques, no sophisticated inpatient units and no pre-paid health plans. As the child suffers and the parents grieve in anticipation of their loss, the physician attends to their most intimate needs and vulnerabilities. Any notion of a commercial relationship absents itself from this moment ~ here is but caring and compassion.

Flexner was concerned that commerce had invaded the foundations of American medicine and its education enterprise. He proposed principles and standards that, when adopted, made American medical education the envy of the world. It remains so.

Yet, we are challenged this very day to educate our students to develop essential competencies, not mastery of content, as the goal of their education. Technology advances at astounding speed. Many posit that the inpatient setting of tomorrow will be limited to operating room suites and intensive care units. We are moving from a payment system that rewards volume to one that rewards value. There are so many external factors that can come between physician and patient.

Along the path from Flexner to Worcester, our medical school has risen from a field in Worcester, where dreams anticipated

now capture the imagination and attention of the world. Our potential is limitless. Expectation is heightened.

Yet each day, as we shape our future and change the course of history of disease, I am still struck by the covenant we share with our patients. They extend their hands toward ours. We reach to accept, and in doing so, we touch their hearts.

Whatever was expected when our medical school was placed in Worcester, as physicians we have been given an extraordinary privilege to care for others and with our actions to promote their human dignity. In the century to come, we will remain faithful to our mission and fulfilled as professionals if the work of our minds and hearts allow our hands to become one with our patients.

Dr. Michael Collins is senior vice president for the health sciences and chancellor at the University of Massachusetts Medical School.

Endnotes

- 1 Adams, F. *The Genuine Works of Hippocrates*. Vol. I. Birmingham, AL. The Classics of Surgery Library, a division of Gryphon Editions; 1985. 779 p.
- 2 Flexner, A. "Medical Education in the United States and Canada: A Report to the Carnegie Foundation for the Advancement of Teaching." The Merrymount Press, 1910: Chapter I: Historical and General. 3 p.
- 3 Flexner, A. "Medical Education in the United States and Canada: A Report to the Carnegie Foundation for the Advancement of Teaching." The Merrymount Press, 1910: Chapter II: The proper basis of medical education, 21 p.
- 4 Ritchett, HS. Introduction. In: Flexner, A. "Medical Education in the United States and Canada: A Report to the Carnegie Foundation for the Advancement of Teaching." The Merrymount Press, 1910 xiii p.
- 5 Morse, Leonard. "Islands of Excellence and the Street Physician." Worcester District Medical Society's Annual Oration. 1974.
- 6 University of Massachusetts School of Medicine. *N Engl J Med*. 1965 July 8;273:107-108.
- 7 Hyman, H. University of Massachusetts School of Medicine. *N Engl J Med*. 1965 Aug 12;273:398.
- 8 "Best Medical Schools: Primary Care." U.S. News and World Report. 2012. <http://grad-schools.usnews.rankingsandreviews.com/best-graduate-schools/top-medical-schools/primary-care-rankings>

Vitality

m a g a z i n e

is now online!

Mature... Absolutely.
Boring... Never!



thevitalitymag.com

Current Issue

- All the articles & photos from our most recent issue & archives of all past issues!

Local Listings

- Culture, dining, shopping, entertainment, & more!

On the Town

- Pictures from local events!

And A Lot More!!!

For web & print advertising information contact

Paul Giorgio at pgiorgio@pagioinc.com or 508-756-5006

The Role of the Internet and its Impact on the Medical Profession

C. Michael Gibson, MS, MD



**C. Michael Gibson,
MS, MD**

One of the tenets of Thomas L. Friedman's *The World is Flat* is that innovation increases as open access to information increases. In the past, organizations operated in insular, secretive silos. Innovation was driven from within. Knowledge flowed exclusively to those at the top. Information in textbooks and papers has been copyrighted and placed behind "pay walls," which limits the flow of information.

The WikiDoc Foundation aims to alter the paradigm of creating and distributing information through the innovative use of collaborative authoring and "copyleft." Copyleft is a legal principle that safeguards against information being controlled by any one person and ensures that it remains freely accessible forever. All of the information in a copyleft document is free for anyone to copy, modify for their own purposes and redistribute or use as they see fit, as long as the new version grants the same freedoms to others and acknowledges the authors of the original article (a credit or backlink to the original article is sufficient for this). The copyleft concept is commonly paired with a "wiki," an open-source program that allows multiple authors to co-create Internet content. The authors do not need to know how to program in HTML.

Although *The Wisdom of Crowds* argued literally that although people believed *The World is Flat* several centuries ago, a select number of experts demonstrated the world is in fact round (actually spherical). The goal of the WikiDoc foundation is to both harness the *The Wisdom of Crowds* and vet it through content experts. Founded on these principles, WikiDoc is the world's original and largest medical wiki, which is a living textbook of medicine that everyone can edit and contribute to. WikiDoc uses the same software as Wikipedia, but the content is confined to medical topics. To date, WikiDoc has more than 7,000 authors of more than 199,000 chapters that have been edited more than 750,000 times and viewed more than 150 million times each year (400,000 times daily). WikiDoc's mission statement includes the core principle that health care is enriched when medical knowledge flows freely. In keeping with our mission, WikiDoc is free, with no required registration to view the site. WikiDoc accepts no pharmaceutical or device company support and has no advertising. It is supported by volunteer efforts and philanthropy. In addition to standard textbook content, WikiDoc integrates video, audio clips and downloadable copyleft images, as well as living guidelines that allow for polling and suggested edits to guidelines. WikiDoc content is geared to a wide range of health care professionals, from pre-medical students, medical students, residents, attending physicians, key opinion leader physicians and other allied health professionals. In addition to WikiDoc pages, the site also provides patient-friendly pages called WikiPatient pages. WikiPatient pages are targeted at an

eighth-grade level of comprehension, providing consumers and patients a one-page overview of a particular condition. WikiPatient also integrates patient-targeted videos and other multimedia.

New volunteer contributors are always welcome. Full-time contributors come from around the world, including Brazil, China, Africa, Lebanon, India and right here in Boston. Each year, WikiDoc hosts more than 20 fellowships in medical education for physicians looking to enhance and share their medical knowledge. Some fellows work on the Differential Diagnosis project, an educational project aimed at developing a complete list of the causes of a given medical symptom to be used for creating an artificial intelligence program to identify the underlying disease in a patient with multiple symptoms. Others delve into specific specialties, writing on various topics within their field of interest, or work on “resident survival guides” for a specific topic. Some work on multilingual wikis in their native tongues. WikiDoc also has served as medical lead in a partnership with Google, Microsoft and Yahoo to design a scheme of classifying medical content for the Internet (www.schema.org) to improve medical search results.

While many individuals around the world may not have access to an expensive printed textbook, most international health care providers in developing countries do have access to smartphones and handheld devices. WikiDoc looks forward to simultaneously harnessing the advantages of crowdsourcing and individual expertise to provide free, credible, unbiased educational content to providers around the world. We hope you will join us in this mission.

If you are interested in getting involved as a contributor for WikiDoc, contact Dr. Gibson at mgibson@wikidoc.org. We welcome all involvement.

C. Michael Gibson, MS, MD, is a professor of medicine at Harvard Medical School; chairman and founder of PERFUSE Study Group at Beth Israel Deaconess Medical Center; and chairman of the board, founder and editor-in-chief of the WikiDoc Foundation. Kristin Feeney is managing editor of WikiDoc.



Explore Central Massachusetts' Cuisine.

Restaurants
::
Reviews




Recipes
::
Openings




Drinks
::
Specials




News
::
More...




**The Most Comprehensive Dining Website
in Central MA has Arrived!**

For more information and to reserve online advertising space
contact Paul Giorgio, President at (508) 756 - 5006
or pgiorgio@pagioinc.com

Physician Participation in Social Media

Lloyd D. Fisher, MD



Lloyd D. Fisher, MD

Participating in social media is now a near necessity for many professionals. It is fast becoming the standard form of communication and information exchange for people across the age spectrum. For students from middle school to medical school (sometimes even children in the pre-middle school years), the social interactions are

increasingly “virtual.” Those who are not connected to the social networking world are finding it more and more difficult to stay current on all of the happenings. Often, social media is the fastest ~ and sometimes only ~ way of finding out information about clubs or organizations of which one is a member.

While physician participation in social media continues to increase and our patients are now expecting that we are part of this world, physicians have been slower than many other professionals to embrace the new technologies of social media. There are numerous valid concerns that are cited for this lack of participation, including patient confidentiality, liability and patient/physician boundary issues. In addition, many physicians already feel overwhelmed with their professional lives and see contributing on social media and communicating with patients in this way to be yet another unnecessary demand on their time and something that takes away from their core professional role.

Even without physician involvement, patients have found a use for social media in a variety of ways. Facebook pages devoted to specific medical conditions are prominent (i.e. celiac disease, autism, diabetes and cancer); patients blog about

their experiences living with a particular chronic illness; patients rate members of their health care team on doctor rating sites and compare outcomes from procedures. Some non-medical professionals create extensive websites devoted to particular issues (i.e. vaccine safety). Many are not reviewed, regulated or edited by any medical professional. Our patients have become heavy consumers of and contributors to social media, even though we historically have been largely absent. Our involvement is necessary for us to be a part of these critical discussions and ensure that the information presented is accurate.

As we do begin to engage in social media, it is essential to be mindful of the potential risks involved. As this medium is so new, there is minimal case law to guide us. There have been examples of blatantly unprofessional behavior, such as a nurse who took pictures of a patient in the OR and posted them on her Facebook page¹ or reports of physicians complaining about specific patients on social media forums. More commonly, however, the transgressions are far more subtle. The line between casual conversation and misconduct is not black and white. When does our individual right to participate in a social network site and share our opinions, feelings and day’s activities ~ as everyone else does ~ violate our duty to maintain a professional demeanor and image as a physician?

Is simply mentioning that you had a long and difficult day at work a problem? What about a resident who posts how tired he or she is after working 30 hours? When does a description of a difficult patient, without any obvious identifying information, become a HIPAA violation, as was the case for a Rhode Island physician who never imagined her Facebook post would have led to her losing her job and license?². How

much of a physician's personal life should be shared on Facebook, even if not friends with any patients? How should we handle friend requests from colleagues, staff members and trainees? Are we expected to participate in social media in a way that's different from other members of society simply due to our profession? These are all questions that have no easy answer, and there are varying opinions on the matter.

Creating a clear distinction between your personal and professional online presence is fundamental, especially if patients are going to be involved. The same conventions and limitations that exist in non-electronic communication to maintain patient confidentiality should be followed. Perhaps most importantly, think carefully before making any posts in public forums. Once the send button is pressed, the content cannot be erased or taken back; it exists in cyberspace indefinitely. Any statements made online can have a significant effect on how a physician is viewed by their patients and the public at large.

As more professional organizations, hospitals and medical schools have recognized both the importance and potential hazards of physician participation in social media, they have begun to develop guidelines to direct physicians and medical students toward appropriate and ethical use of these resources. Decisions about how to participate need to be made carefully and deliberately. If your practice, hospital or healthcare organization does not have a social media policy, it is likely time to explore developing one.

The Massachusetts Medical Society (MMS) at the 2011 Annual Meeting became one of the first state medical associations to develop a comprehensive set of guidelines and principles to help physicians in their decisions around social media. The MMS policy was based upon a policy adopted by the American Medical Association in November of 2010³, but gave more specific guidance and practical suggestions about using some of the more popular sites and services through a "Best Practices" section.⁴

Our profession cannot continue to avoid participating in social media if we want to continue to be able to meet our patients' needs, be central in debates over both clinical care and health care policy and effectively market our services. However, caution must be taken to ensure that the

highest professional standards are maintained. It is likely that our professional organizations will continue to develop and refine policies to guide us in our exploration of and contribution to social media. The MMS Committee on Communications will soon be looking to update the current policy on social media, as the technology has changed, even in the less-than-two years since the MMS policy was initially written. In addition, the committee is looking at ways to provide guidance to practices as they develop their own policies surrounding the technology.

1 "Nurse suspended for sharing patient's surgery pics on Facebook." TechEye.net. Jan 2, 2010. Retrieved on 3/30/13 from news.techeye.net/internet/nurse-suspended-for-sharing-patients-surgery-pics-on-facebook

2 "RI doctor reprimanded over Facebook post." The Boston Globe. April 18, 2001. Retrieved on 3/30/13 from www.boston.com/news/local/rhode_island/articles/2011/04/18/ri_doctor_reprimanded_over_facebook_post

3 American Medical Association. "AMA Policy: Professionalism in the Use of Social Media." November 2010. www.ama-assn.org/ama/pub/news/news/social-media-policy.page

4 Massachusetts Medical Society. "MMS Policy: Physicians and Social Media: Principles, Guidelines, and Best Practices." May 2011. www.massmed.org/socialmedia

Note: some of the content of this article has previously been published by the same author in The Forum, the quarterly newsletter of Massachusetts Chapter of the American Academy of Pediatrics.

Lloyd Fisher, MD, is a practicing pediatrician in Worcester. He is the assistant medical director for Informatics at Reliant Medical Group and the chairman of the Committee on Communications for the Massachusetts Medical Society. lfisher@massmed.org



acclaim
Home Health Care Inc.

- Highly trained professionals.
- No delays in SN, PT, OT, ST, SW, or HHA.
- Multilingual Clinical Staff.
- Close working relationship with Physicians.

120 Stafford St., Suite 206
Worcester, MA 01603
Ph#: 508-459-6937
Fax: 508-459-4154
www.acclaimworchester.com

Insurances include: Medicare, Blue Cross Blue Shield, MassHealth, Fallon Summit, ElderPlan, Senior Whole Health, Evercare, Neighborhood Health Plan, Network Health, BMC Healthnet, and Fallon Navicare.

Towns include: Worcester, Shrewsbury, Millbury, Paxton, Holden, Grafton, West Boylston, Leicester, Auburn, Oxford, Webster, Westboro, and Northboro.

"Working to keep you in your home."

Weaving the Web into your Modern Medical Practice

Kristen Danielson, MD



Kristen Danielson, MD

The old adage “If you can’t beat them, join them” certainly applies to the physician learning to embrace the ever-expanding presence of the internet in daily medical practice. Physicians have had to adapt to and incorporate modern electronic communication into the way we care for patients. Although this presents numerous challenges, there

are many positive aspects to this evolution.

The empowered health care consumer

Patients use the Internet to obtain health care information, particularly self-diagnosis and health information related to a diagnosis. And with this information, they want to be a partner in decision making related to their care. While many physicians still raise concerns over the quality of medical information available on the Internet, the majority of consumers are satisfied with the information they obtain from the Internet and prefer it over information obtained from TV or newspapers. Thus, sometimes the physician’s role is not to provide the initial information to a patient, but rather to “edit” that which the patient brings to an encounter.

Physicians have to be aware of the sources that inform their patients. Chat rooms and virtual support groups often provide anecdotal data. Many sites use too much jargon or advanced language for the average reader. Being familiar with some credible and user-friendly websites to recommend and sharing tips with consumers about how to assess the quality of information can be an asset. For example, the “HON Code of Conduct” seal is a good initial screening tool to use, and patients should be

taught to look for it. The Health on the Net organization monitors subscribing sites for quality and ease of use. It works with sites that are deficient to correct problems. Web sources that have an email for questions/clarifications can be helpful. I find sending people to certain websites for more information also helps in practice. It sure beats printing out pages of paper that may or may not be read.

Many medical centers have embraced Internet information sharing and utilize their medical professionals’ expertise to construct an organization’s web presence and content. Physicians have had to hone their writing skills, as the Internet has developed as an outlet for disseminating information. Many physicians, including yours truly, may blog about specialty-related topics as a way to provide information and current updates.

Information resource for the health professional

This is one of the first areas where I noted a change in how the Internet has affected my day. I rarely reach for a book anymore to research a medical issue. And my dirty secret is that I often start with Up-to-Date. Almost all references are available electronically, and continuing medical education is available online, too. Busy doctor parents can get CME credit while waiting for soccer practice to end!

Health maintenance records

Websites allowing consumers to record their medical history are available. Consumers can keep current records for medicines, immunizations, family history, etc. Some sites provide information for living wills and health care proxies, too. This can have a huge impact on office efficiency and improved accuracy during a health care visit. But again, it requires being familiar with programs that do this well.

Online scheduling

Another way to empower the consumer and help an office run more smoothly is to allow online scheduling. Some offices limit which types of appointments can be scheduled online. For example, well-child checks are easier to schedule in pediatrics than sick visits, which vary in degree of complexity and time required.

Email

While it seems like a good way to communicate with patients in this day and age, email correspondence with patients still poses challenges with regards to confidentiality and liability.

In addition, the question of how to bill for email communication remains problematic, just as patient phone calls did (and do). It takes up a lot of time while decreasing productivity but can be a big patient satisfier. Physicians have also had to take measures to protect patient confidentiality when emailing consultants about specific patients.

Virtual consults

Perhaps rural medicine has been one of the great beneficiaries of the Internet in medicine. Tele-medical consultations or interpretations of imaging studies or tests can extend the reach of expert knowledge to underserved communities.

Electronic medical records

This may be the biggest challenge recently faced by institutions large and small. Practices have had to budget to incorporate these systems and account for the steep learning curve for users and its impact on productivity. The ability to organize patient data and have mobile access is a positive. However, like emails, confidentiality and security continue to be a concern that physicians must address.

These are just some of the examples of how much the Internet has woven its way into the medical profession. As with all new technologies, we all must learn to adapt. Certainly, the Internet is here to stay, as is a health care consumer's affinity for seeking "cyber-health in-

formation." We face ongoing challenges in ensuring that the information they receive is appropriate and accurate. In addition, utilization of the Internet in how we practice and gather our own information is continuing education in itself!

Kristen Danielson, MD, is a pediatric hospitalist at All Children's Hospital ~ Johns Hopkins Medicine in St. Petersburg, Fla., and writes a weekly blog for Yahoo! Health.



"My treatment with Hyperbaric Oxygen at The Wound Care Center at Harrington was a great success. My wounds healed and I've been great ever since."

GERARD PROULX
SOUTHBRIDGE, MA

The Wound Care Center at Harrington is one of the few wound-care treatment facilities in the region with Hyperbaric Oxygen chambers.

Hyperbaric oxygen therapy speeds the healing process in certain types of wounds. During treatment, the patient breathes 100 percent oxygen inside a pressurized chamber, quickly increasing the concentration of oxygen in the bloodstream, where it is delivered to a patient's wound site for faster healing.

The
WOUND CARE CENTER
at Harrington

**10 North Main St., Charlton, MA 01507
508-248-8105**

Harrington
HEALTHCARE SYSTEM
Total Local Care

The Wound Care Center at Harrington is part of Harrington HealthCare System

Introductory Review of Mobile Medical Applications for Medical Practitioners

Timothy Dy Aungst, PharmD



**Timothy Dy Aungst,
PharmD**

Mobile devices (e.g. smartphones and tablet computers) have become ubiquitous in medical practice within the past few years. Their adoption by health care providers has ushered in an era whereby clinical information is readily available at hands' reach.¹⁻⁴

However, the main drive of use behind mobile devices is the ability to download mobile applications to perform select functions. This can

range from browsing the news to movies and playing games. This has expanded as well to mobile medical applications, also known as "med apps," which can allow clinicians to have access to references and clinical tools on the go.^{5,6}

The added benefit of mobile applications versus traditional sources is that it cuts down on use of physical references or online Internet-based browser references. Applications with their entire database can be downloaded to a device, and these devices do not require a WiFi connection to function. One barrier that prevents users from using mobile medical applications optimally is the many apps available through the mobile stores (e.g., iTunes and Google Play), with no clear way to identify apps that may be beneficial for daily use. As such, this article shall identify several mobile medical applications that practitioners may find useful on Apple (iOS) and Android devices.

Medical News Applications

Several medical news outlets currently have mobile applications available on mobile devices. These include MedPage Today

(free, iOS/Android) and Medscape (free, iOS/Android). While both applications are available on multiple platforms, they do require an account to fully access services. These apps are great in that users are able to browse pertinent medical news across multiple specialties. In addition, the apps allow completion of in-app continuing medical education (CME) credits.

Drug Information Applications

There are multiple drug referencing applications available on mobile devices. The main differentiation between each application is the price and quality of information provided. Most free applications offer the most basic drug information and drug interaction checkers, while premium applications have higher quality and thorough clinical information. Several recommended applications include Micromedex Drug Information (free, iOS/Android), Epocrates (free, iOS/Android), Monthly Prescribing Reference (free, iOS/Android) and Lexicomp (\$75-\$285/annually, iOS/Android). The information provided via Micromedex and Epocrates is very simple, but beneficial for most users. For those looking for a clinical suite of medication information, Lexicomp offers a comprehensive package. If users are at an institution that has Micromedex 2.0, they can also get Micromedex IV Compatibility and Drug Interaction Checker for free, instead of paying the premium price of \$9.99. Lastly, Medscape also has a simple drug database and a drug interaction checker.

Clinical Medical Reference

Mobile applications offer the added benefit of serving as point-of-care tools for clinical reference. Many medical societies and organizations currently have their clinical guidelines available as free apps, such as the National Comprehensive Cancer Net-

work (free, iOS/Android) and American College of Cardiology Foundation (free, iOS/Android). In addition, comprehensive evidence-based clinical apps of popular references, such as UpToDate (free if at an institution that supports use via subscription, iOS/Android) and Dynamed (free if at an institution that supports use via subscription, iOS/Android), are currently available. These apps display the same information available from their Internet browsing suites, but with the added benefit of being fully downloadable without an Internet connection. Another reference that pulls multiple clinical references, drug references and clinical calculators together is Skyscape (free, iOS/Android). This app serves as a portal to multiple clinical references as an all-in-one app, with the option to purchase other references from more than 50 publishers of medical content for a premium price.

Clinical Calculators

One advantage of apps is that there are a multitude of calculators for medical practice. These include disease-based calculations (e.g., 4T-score, CHADS2-VASC), drug calculation (e.g., pharmacokinetics) and laboratory calculations (e.g., Cockcroft-Gault). Such apps that perform these features include Calculate by QxMD (free, iOS/Android), MedCalc (\$4.99, iOS) and MediQuations (\$4.99, iOS/Android).

Medical Journals

Many medical journals now support a mobile application to allow their readers to peruse their journals electronically. One large advantage of these applications is that they allow readers to not only get online-first articles; they also allow readers to share with others and get CMEs. Several examples of medical journals that have mobile apps are *The New England Journal of Medicine*, *Pediatrics*, *CHEST Journal*, *The Lancet*, *British Medical Journal* and many others. Most will require an annual or monthly subscription to access the full journal and read the articles. One large drawback of these apps is that they are primarily available only on iOS products as individual apps or through iBooks (iTunes online bookstore/newsstand).

Medical Education Applications

Mobile applications also offer the ability to help educate both students and residents on medical procedures and techniques. Many of these types of apps have been developed by medical schools and programs to help educate medical students. For instance, CPR Game (\$1.99, iOS) is an app that serves as a cardiac arrest simulator. Another example is VCath (Free, iOS), which serves as a surgical tool to help trainees understand techniques for neurosurgical insertion of a catheter into the brain. One last example is Lab Guide (Free, iOS) from Texas Tech University, which helps students understand and interpret commonly encountered laboratory values.

Productivity Applications

Mobile applications can also be used for a variety of daily productivity functions. This includes using PDF readers to help annotate articles and papers, as well as signing off on e-documents. GoodReader (\$4.99, iOS), iAnnotate (\$9.99, iOS/Android), Penultimate (free, iOS) and Notability (\$1.99, iOS) are a few of the many apps available for users to write notes and comment on PDFs and other documents. Office-based apps are also available, such as iOS-explicit apps like Keynote, Numbers and Papers (each \$9.99). Other office-based apps include Quickoffice (\$14.99, iOS/Android). Many of these apps also integrate with cloud-based apps that can store files on a central server, accessible from both computers and mobile devices. These include Dropbox (free, iOS/Android), Evernote (free, iOS/Android), Google Drive (free, iOS/Android) and Skydrive (free, iOS/Android). One large issue with these types of apps is that while they are often password protected and require an account, the information is not encrypted, and thus, they do not follow HIPAA rules and regulations.

There are multiple mobile applications available for clinical practitioners to integrate into daily use. Their spectrum of utilization covers everything from medical news to clinical references to productivity. In addition, there are many other apps available for areas such as patient education, health monitoring (e.g., weight/blood pressure log) and social media (e.g., Twitter, LinkedIn).

References:

- 1 Manhattan Research. "Smartphones, Tablets and Mobile Marketing [Internet]." Available from <http://manhattanresearch.com/Research-Topics/Health-care-Professional/Mobile> (Accessed 18 December 2012).
- 2 Payne KF, Wharrad H, Watts K. "Smartphone and medical related app use among medical students and junior doctors in the United Kingdom (UK): A Regional Survey." *BMC Med Inform Decis Mak* 2012 Oct 30;12:121. doi: 10.1186/1472-6947-12-121.
- 3 Franko OI, Tirrell TE. "Smartphone app use among medical providers in AC-GME training programs." *J Med Syst* 2012 Oct;36:3135-9. doi: 10.1007/s10916-011-9798-7. Epub 2011 Nov 4.
- 4 Putzer GJ, Park Y. "Are physicians likely to adopt emerging mobile technologies? Attitudes and innovation factors affecting smartphone use in the southeastern United States." *Perspect Health Inf Manag* 2012;9:1b. Epub 2012 Apr 1.
- 5 Ozdalga E, Ozdalga A, Ahuja N. "The smartphone in medicine: A review of current and potential use among physicians and students." *J Med Internet Res* 2012 Sep 27;14:e128.
- 6 Baumgart DC. "Smartphones in clinical practice, medical education, and research." *Arch Intern Med* 2011;171:1294-6. doi: 10.1001/archinternmed.2011.320.

Timothy Dy Aungst, PharmD, is an assistant professor of pharmacy practice at MCPHS University and an editor at iMedicalApps.com. He can be reached at Timothy.Aungst@MCPHS.edu and followed on Twitter at @TDAungst.

Navigating Vaccination Controversy in a Tech-Savvy Population

Elizabeth Butler, MS4, University of Massachusetts Medical School



Elizabeth Butler, MS4

The use of the Internet to do research for any number of things has exploded over the past decade. With tools like Google, WebMD and UpToDate, it is no wonder that people first turn to their computers when faced with a health issue. This increase in readily available information is part blessing, part curse, especially when the information arrives from nebulous sources.

This phenomenon is compounded when thinking about vaccinations, which have proven to be a hot topic on the Internet. There are countless websites dedicated to the discussion of pro- versus anti-vaccination, some legitimate and others with no scientific basis whatsoever.

Knowing that there is so much information out there means that doctors must act accordingly. We must realize that patients will enter appointments with their own set of ideas about what is happening, and we should be prepared to deal with this. On one hand, it is wonderful that patients are taking the initiative to learn more about health and their bodies, and this behavior should be lauded. On the other hand, the Internet is rife with false and modified information and there is much opportunity for misinterpretation. This aspect is what makes it difficult for clinicians to fully appreciate how the Internet can help their patients.

Rather than demonizing the Internet and deciding that it will be never be useful to the patient-doctor relationship, I propose that we instead embrace the possibility that the Internet can, in fact, add to the relationship by acting as a conduit of medical information between patient and provider. Using the Internet can promote health literacy and a greater interest in one's body and health. Furthermore, using the Internet to learn about medical issues is not a phenomenon that will disappear anytime soon. Embracing this practice will help us develop a better relationship with our patients.

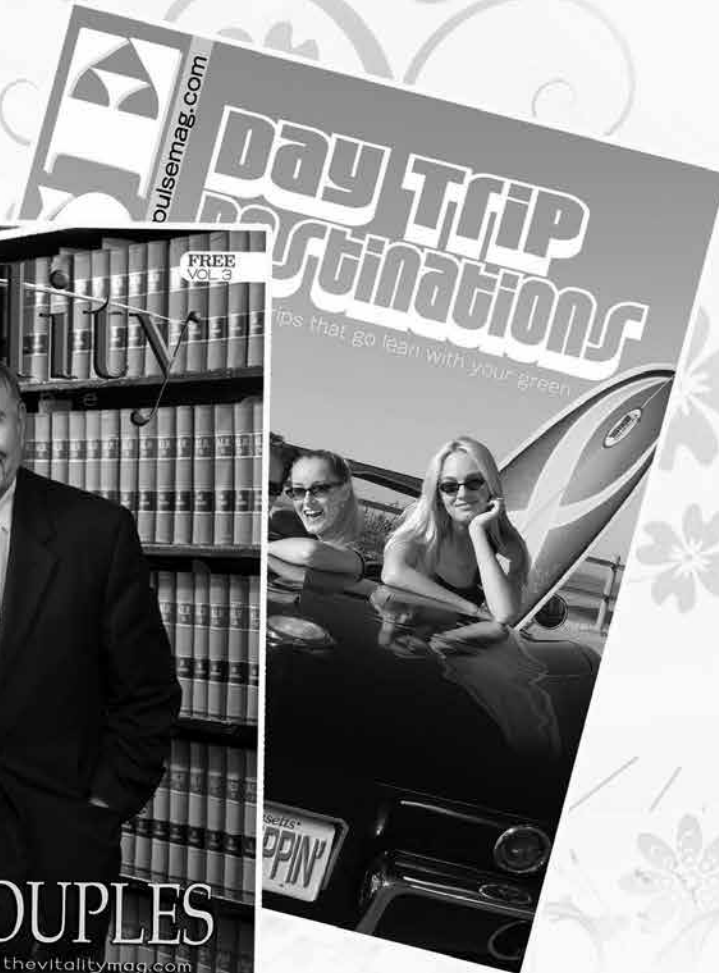
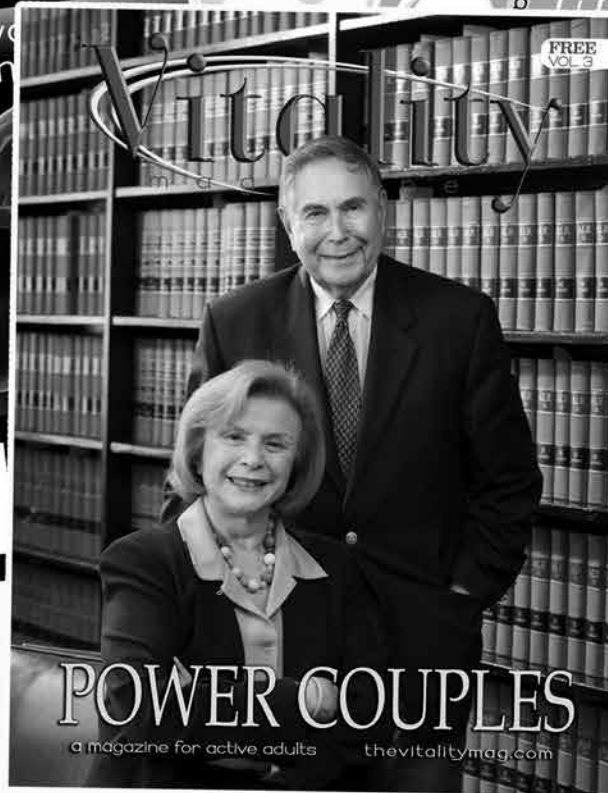
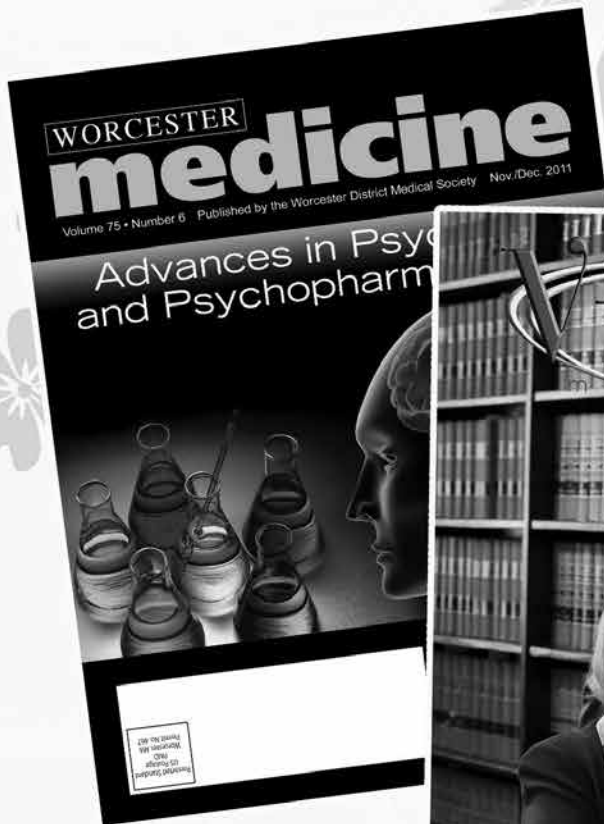
To return to the original point about parents choosing to not vaccinate their children based upon information found online, it would be beneficial to have a better understanding of what anti-vaccination websites promulgate. It can be challenging to understand where patients get their information about this issue, but glancing at the websites shows that there is often advice couched in pseudo-science that can be quite persuasive. Knowing this background gives us a better foundation to offer education and discuss how these theories are not evidence-based or scientifically sound.

As a budding pediatrician, I know that many of my future patients and their parents will turn to the Internet when they have questions about vaccinations. Rather than feeling threatened, I know I need to accept this and learn more about the information they will find there. One way to do this is to survey the information available and use this as a starting point for our continuing conversation.

Join the Pagio Family

WORCESTER

Proud publishers of *medicine*
Advertise in one of our many publications



We also offer special advertising rates for our websites.
Check out thepulsomag.com, tasteworcester.com,
entertainmentcentralma.com, & thevitalitymag.com.

For advertising information contact
Paul Giorgio at pgiorgio@pagioinc.com or 508-756-5006



Publishing, Design, Event Planning, & Web Development
88 Winter St. 2D, Worcester, MA

The Effects of the Internet and Mobile Apps on Medical Practice in the Future: A Student's Perspective

Adnan Faruqi, MS4, University of Massachusetts Medical School



**Adnan Faruqi,
MS4, University
of Massachusetts
Medical School**

Alexander Pope famously wrote, “A little learning is a dang’rous thing. Drink deep, or taste not the Pierian spring.” Although we have an unbelievable level of access to medical information, both from websites and apps, we’re also inundated with information to sort through. Patients may be empowered by it, but they also risk misinformation or misinterpretation. Medical apps have the ability to track data and

even send it into our clinical software so we can be more up to date. Managing these issues is one of the upcoming challenges many of us will face going into our careers, but there are definite pros and cons to consider.

When patients come into the office with printouts of a new arthritis therapy that I haven’t seen, it will give me a chance to both learn about what my patients are searching for and expand my knowledge base regarding the various therapies. The patient may be dissatisfied with my management if he or she is asking about something new, so it opens up that window, as well. The narrowing knowledge gap between patient and physician will help us connect with our patients more evenly and give them better autonomy, empowerment and help improve self-care, an indispensable aspect of health care. When patients track their pain and ability on the arthritis app, I

may look at how that last round of PT, injection, or even surgery, helped them. When I see how he or she is doing between appointments, I can be more confident that any change on a survey at the three-month visit was not just a good or bad day.

On the other hand, there is potential for misinformation to propagate ~ especially between patients using less than reputable sources ~ that we will have to educate them about. It will also take me extra time to parse their printouts for the important information, which is difficult to account for on a schedule. The ability to send data and messages to the office might mean we have a responsibility to interpret and make decisions based on the information. Patients with diabetes, heart failure or arthritis can track their blood sugars, weight and fluid intake, and pain and physical ability, respectively. But even if we are privy to the ups and downs, what can we do to affect them in a meaningful way? If an arthritic patient’s app sends my system data showing a decline in activity, will calling him in early improve outcomes? Do I have algorithms to properly interpret that data? For diabetes or heart failure, would a practice be liable if the system shows hyperglycemia or weight gain and no one is contacted? There are also comparatively few apps that have even been developed with expert consultation, so there’s potential misinformation. Ultimately, however, I do see the availability of medical information and data as a boon for our capacity to connect with patients ~ even with the challenges of interpreting and actioning it all effectively.

HIPAA, again

Peter J. Martin, Esq.



Peter Martin, Esq.

You may have felt you had a good handle on HIPAA compliance, but you likely thought wrong. In an “omnibus final rule,” published in January with a compliance date of Sept. 23, 2013, the Department of Health and Human Services has re-opened the HIPAA can of worms. As a result, practitioners will have to revisit their notices of privacy practices, business associate

agreements, patient record access policies and breach notification procedures.

Many of the new HIPAA rules stem from the Health Information Technology for Economic and Clinical Health (HITECH) Act, which, among other things, subjected business associates to direct liability for certain HIPAA Security Rule obligations and made changes to the HIPAA enforcement rule. Other changes pertain to the Genetic Information Nondiscrimination Act, affecting mostly health plans. The new rules also require covered entities to afford the protection of the HIPAA rules to the PHI of deceased individuals for 50 years after the individual's death and permit covered entities to disclose a decedent's PHI to family members and others involved in the care of the individual. This article focuses on some of those HIPAA rule modifications that are most directly relevant to health care providers that are covered entities under HIPAA.

Modifications to Business Associate Agreements (BAA)

- When the HITECH Act was passed, many providers revised their BAAs to require their business associates to notify them of security incidents involving the HIPAA Security Rule by now requiring the BAA to require business associates to report breaches of unsecured PHI, not just security incidents, and

specifically state that the business associate is to comply with applicable Security Rule provisions, such as the requirement to maintain administrative, physical and technical safeguards for electronic PHI.

- Additionally, the new rule requires the BAA to provide that if the business associate uses any subcontractors to perform its work for a covered entity, the business associate must enter into a separate BAA with that subcontractor. The business associate is now required to respond to any non-compliance by its subcontractor, just as a covered entity is required to respond if the business associate breaches its BAA with the covered entity.

- If the business associate is carrying out any of the covered entity's functions or obligations under the HIPAA rules, the BAA must require the business associate to comply with the Privacy Rules applicable to the covered entity with respect to that function. Covered entities had been required to report to HHS if their business associate breached the BAA and termination of that agreement was infeasible; under the new rule, this HHS notification is no longer required.

- Covered entities may continue to use a BAA in existence as of Jan. 25, 2013 that is not renewed or modified prior to the Sept. 23, 2013 compliance date for up to one year after the compliance date, thereby giving providers additional time to negotiate and execute BAAs complying with the new rules.

Providers should review their BAAs to ensure they comply with these new required provisions.

Prohibition on the sale of PHI

Practices may not sell protected health information (PHI) without the authorization of the individual in question. (Any authorization of such a sale must state that the disclosure will result in remuneration to the covered entity.) This seems to be



EASTERN ORTHODOX MANAGEMENT CORPORATION

Holy Trinity Nursing & Rehabilitation Center

Holy Trinity Hospice

Ichabod Washburn Hospice Residence



1183 Main St.

Worcester, MA 01603

300 Barber Ave.

Worcester, MA 01606

www.htnr.net

Virtual Tour available of Ichabod Washburn Hospice Residence



*A Non-Profit Organization
Dedicated to Quality Care
and Christian Love*

HOLY TRINITY NURSING & REHAB CENTER

508-852-1000

ICHABOD WASHBURN HOSPICE RESIDENCE

508-791-8200



*“State of the Art
Healthcare
Environment”*

We offer:

- Long-term and short-term care
- Ancillary Services:
dental, eye, podiatry provided at
the nursing center.

- Respite and Hospice Care
- PT/OT/ST Rehab services; 7 days a week
- Full time Physician Assistant
- Continuing care community

- Restaurant-style dining room
- Bright and airy rooms • Activities; 7 days a week
- Cable TV and telephones available in each room
- Resident computer with free access to internet
- Pet therapy through Tufts Veterinary Program



Schedule a tour today
with Tracey King,
Hospital Liaison
call 508-853-6910

*Knollwood
Nursing Center*
YOUR PARTNERS IN CARE

“A part of Briarwood Continuing Care Retirement Community”

87 Briarwood Circle, Worcester, MA 01606

508-853-6910

www.knollwoodnursingcenter.com

a pretty obvious rule to apply, but as with most HIPAA rules, this simple prohibition is accompanied by myriad exceptions. Here, the prohibition on receiving money in exchange for PHI does not apply to public health disclosures; sales, mergers and other consolidations of covered entities; disclosures in the context of research in exchange for a “reasonable cost-based fee” for preparing and transmitting the PHI; disclosures of PHI to a health information exchange to which the provider pays fees; or where individuals pay for copies of their own PHI.

Right to receive electronic copies of PHI

If the covered entity maintains PHI electronically and the individual requests an electronic copy of that PHI, the covered entity must provide the individual access in the electronic form and format requested if the PHI is readily reproducible. If not, then the covered entity and the individual need to agree on a readable electronic form and format for accessing that PHI. If the parties are unable to agree on an electronic form and format, the covered entity may provide the individual with a hard copy of the PHI.

Right to restrict disclosures to health plans when care is paid for out of pocket

Under the existing HIPAA rules, a covered entity is not required to agree to an individual’s request that further disclosure of his/her PHI be restricted. The new rule requires a covered entity to agree to such a restriction pertaining to a health care item or service for which the individual, or someone other than the individual’s health plan, has paid the covered entity in full.

Providers will have to figure out how to distinguish PHI pertaining to such private-pay services from PHI for other services rendered to the same individual that have been paid for by the individual’s insurer. The protections allegedly afforded to the individual by this provision may be compromised if the PHI for insurer-paid services refers to services paid out-of-pocket. If the individual requests this disclosure restriction and the provider is unable to unbundle PHI containing both insurer-paid and individual-paid items and services, HHS advises providers that the individual be given “the opportunity to restrict and pay out of pocket for the entire bundle of items or services.”

Required changes to Notice of Privacy Practices (NPP)

Covered entities are required to modify their NPPs and distribute the new NPPs to advise individuals of certain new rights. One is the right to prohibit the sale of PHI without an authorization (see above). Another is to receive notice from the cov-

ered entity of any breaches of the individual’s unsecured PHI. If the covered entity’s NPP already indicates the covered entity will use PHI for fundraising purposes, the NPP must now specify that the individual has the right to opt out of receiving fundraising communications. (All fundraising communications must clearly and conspicuously advise the individual of his/her right to opt out of further such communications.) Finally, the NPP must include information about the individual’s right to restrict disclosure of PHI to a health plan pertaining to services for which the individual paid out of pocket (see above). Providers are required to have the revised NPP available upon request and to post the new NPP as of the compliance date of the new rules: Sept. 23, 2013. Providers are not required to hand new NPPs after the compliance date to all persons seeking treatment.

New standard for breach notifications

The rule had been that covered entities had to provide notices of breaches of unsecured PHI if the covered entity determined the unauthorized use or disclosure posed a significant risk of financial, reputational or other harm to the individual. The new rule is that an acquisition, access, use or disclosure of PHI not permitted under HIPAA is presumed to be a breach unless the covered entity demonstrates that there is a low probability that the PHI has been compromised based on a risk assessment. This risk assessment must consider the nature and extent of the potentially compromised PHI, the person(s) to whom the disclosure was made, whether the PHI was actually acquired or viewed and the extent to which the risk has been mitigated. Providers will have to review and probably revise their internal policies dealing with potential breaches of PHI to reflect this new presumption and risk assessment process.

Providers should begin to review their health information privacy policies and procedures now, particularly their Notices of Privacy Practices, in order to ensure compliance by late September. They should also understand that if they have business associate agreements that are set to renew before the September compliance date, those renewed agreements will need to comply with the new rules as of Sept. 23, 2013.

Peter J. Martin, Esquire, is a partner in the Worcester office of Bowditch & Dewey, LLP, whose practice concentrates on health care and non-profit law.

**Arthur F. Powell, MD
1930-2012**

Arthur F. Powell, MD, 81, died April 13, 2012. He was born and raised in Roslindale and lived 45 years in Holden before moving to Worcester in 2009.

In 1964, Powell opened an office on Main Street in Holden, and in 1972, he joined the Lincoln OB-GYN Associates in Worcester, retiring in 1995. He was a fellow of the American College of Obstetrics and Gynecology and was a career-long member of the Worcester District Medical Society.

Powell entered practice at a time when most gynecologic surgery was performed by general surgeons. His broad training in surgery, his expertise and his skill as a clinician helped to establish gynecology in this region. Colleagues not only looked to him for his judgment but also enjoyed the man's warmth and sense of humor.

His education was distinguished from beginning to end. In 1952, he graduated cum laude and as president of his class at Boston College, where he received a bachelor's degree in biology. He received his medical degree from Tufts University Medical School in 1956. Following a one-year rotation internship at Worcester City Hospital, Powell enlisted in the United States Air Force, where he served as a captain and flight surgeon for three years. He then completed his residency training in obstetrics, gynecology and general surgery at Wayne State Affiliated Hospitals in Detroit, Mich.

He enjoyed an exemplary career and was held in high regard by colleagues and patients alike. He retired at a time that left him with many years to enjoy his hobbies, his travels and his family. All in all, a good example for all of us.

Dale Magee, MD



What do you want for your son's high school experience?

Challenging Academics:

- Named by the Siemens Foundation and the CollegeBoard as leading Massachusetts in AP Math, Science, and Technology

Formation of Values:

- 110 year tradition of intellectual, moral, and spiritual education

Transformational Experience:

- 18 varsity sports and 50 clubs for a *well-prepared and well-rounded young man*

For Information Regarding Admission and Financial Aid Contact:

ST. JOHN'S HIGH SCHOOL

Admissions Office: 508-842-8934, ext. 266/230

Visit our website: www.stjohnshigh.org

Vitality

Magazine 50+
FOR TODAY'S ACTIVE ADULTS



Want to attract customers
who appreciate the
arts & culture in Central MA?
REACH THEM THROUGH VITALITY!

Special Caregiver Section Inside

ParentCare

Find out about Vitality Today!
Contact Paul Giorgio
at 508.756.5006 or e-mail pgiorgio@pagioinc.com
THEVITALITYMAG.COM



SHREWSBURY ST

shrewsburystreet.com **2013**

Tuesday, June 18th, 5-9pm

The celebrated eateries of Worcester's "Restaurant Row" invite you to experience a tasting of Worcester's finest food from over 40 ethnically diverse Shrewsbury Street restaurants. Presented by the non-profit Shrewsbury St. Area Merchants Association (SSAMA).

Buttons On Sale Now!

At all participating locations or visit tasteshrewsburystreet.com to purchase online.



**ONLY
\$25**



Come try our new seasonal menu!

COME GET YOUR TUSK ON!

Open Daily!



RHINO
cATERING

Find us on

facebook



**Woo Food
option available.**

278 Shrewsbury St.
Worcester

508.757.1450
www.flyingrhinocafe.com



SPRING FEVER

Outdoor Dining Returns to Ceres Bistro

Our heat lamps are on and that means our patio is open. Enjoy a relaxed atmosphere, great food & drink and a breath of fresh air.

OPEN LATE NIGHT, EVERY NIGHT
\$5 APPS FROM 4-7PM & 10PM-CLOSE




CERES
BISTRO

363 PLANTATION STREET • WORCESTER
CERESBISTRO.COM

HEAD, SHOULDERS, KNEES & TOES...

With over
100 medical specialists,
we have your patients
covered head to toe.



Reliant
Medical Group
Atrius Health

***We accept most major
health insurance plans.***



(800) 283-2556

www.reliantmedicalgroup.org/specialties





*Whether you're thinking of buying a property
or you have one you'd like to sell,
we're the right firm for the job.*

- #1 listing & selling office and company in Worcester, Worcester County, all of MA.
- We have the most innovative and far reaching marketing initiatives that are designed to attract the attention of the largest and most qualified buyers looking for property.
- Our remarkable tools and agent experience make the home buying process a successful and pleasing one.

*See why more people hire us to sell
their home or buy the next.*

COLDWELLBANKERWORCESTEROFFICE.COM



508.795.7500
196 Park Ave., Worcester, MA 01609

NEMOVES
MORTGAGE LLC
Call Chris Stelmach
508-635-6770
for financing options