Maryland Medicine
The Maryland Medical Journal Volume 16, Issue 1

What's the Evidence for

Evidence Based Medicine?

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Volume 16 Issue 1

INSIDE

This issue of Maryland Medicine *looks at the evidence behind evidence based medicine.*

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Editor's Note: *In the 2015 Maryland Legislative session issue (Vol. 15, Issue 4), Murray Kalish, MD was omitted in error from the list of MedChi Legislative Council Members.*

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Doing Harm: Physicians, Enemy Combatants, and Torture

PRESIDENT'S MESSAGE

Tyler Cymet, DO

Extreme situations cause people to do extreme things.

In recent international events, the politics and practices have pulled physicians into places where we have not been before. And created massive ethical issues that need to be addressed.

Two specific issues have arisen that allow questioning of a physician professional's role in a larger system: first, the torture of detained individuals for reasons that have nothing to do with health care, and second, the use of physicians—specifically a vaccination program—to track enemy and mass murderer, Osama bin Laden.

Our political leaders have known since December of 2012, when they accepted the U.S. Senate Select Committee on Intelligence study of Central Intelligence Agency (CIA) detention and interrogation, that America was systematically engaging in torture of captured enemies.

The Senate Select Committee's study of the CIA's detention and interrogation program was declassified in December of 2014, and released to the public, following Senate hearings. We learned a lot more about physicians and psychologists who participated in forced rectal feedings and rehydration of prisoners. In Abu Ghraib and Guantanamo, medical professionals assisted in water boarding, assuring prisoners were not drowned. Mental health professionals devised severe stress situations, designed to break down prisoner resistance.

Health care professionals got caught up in situations in which harm was intentionally inflicted. And how should the rest of us address the few who subvert medical knowledge into torture? Or use the provision of health care to gather military intelligence? What does this do to the view of medicine?

Our white hats and reputation of being do-gooders has been dirtied, and it doesn't feel good. While we know that a physician shouldn't rush into a disaster scene until the shooting has stopped, we can't be using guns and stethoscopes at the same time without being seen as combatants ourselves.

These new questions require action. While there is no question that hiding military operations in health care environments is unacceptable and needs to be stopped,[1] more needs to be done to address the ethical questions so that physicians can focus on caring for people. It is also clear that physicians cannot do it all ourselves. Psychologists were the most engaged in issues of torture. And with the ubiquitous availability of knowledge, what we know will be known by all within a short period of time. We need to lead so that the issues addressed will have answers that can be carried out.

MedChi has organized an interprofessional professional group, including the presidents of each of the health care professions in Maryland. The torture report emphasized the need for this kind of interaction, although the needs go way deeper than just addressing torture. Ebola and other public health issues can be better addressed by a coalition of providers.

The Senate report has been shared, and each of the health care groups is being asked to sign a statement opposing torture.

DOs, MDs, PAs, NPs, DDS, DPMs, NDs, RNs, DVMs, DPTs, DCs, ODs, military medical personnel, and other professionals have started the discussion.

Health care providers participated and consulted in torture. We censor physicians who engage in harmful practices, which don't come close to rising to the level of torture, but cause harm, nonetheless. Physicians lose licensure for abuses against patients; we should not tolerate health care providers who support torture. There is no indication for rectal force-feeding.

As a group, the new MedChi Interprofessional Team is supporting an Army nurse threatened with court martial for refusing to coercively force feed a patient. We are working with other professional organizations to sign a statement standing against torture as well as bringing up the issue in different forums so providers will be aware that they could be asked to participate in nonmedical use of medical knowledge.

All health care providers have the same goals: to render thoughtful patient care emphasizing quality of life. Maryland health care providers, rather than engage in turf wars fighting for primacy, need to work together to assure that no health care provider engages in torture, and those providers who refuse to torture patients have our full support in legal proceedings. The questions shouldn't get any easier than this.

It is important that we bring in more partners and continue to provide care for people as professionals. As a physician, I love wearing the white hat of the good guy. It doesn't seem like it should take courage to help people, although these are extreme times with change occurring even before change has been completed. We will see many more crazy things attempted in the future, and no doubt physicians will feel the pull to be involved. With a guiding philosophy that our goals are to make life easier and more comfortable for the people we care for, the answers become easy.

1. D. G. McNeil, Jr., "Deans Condemn Vaccine Ruse Used in Bin Laden Hunt," *The New York Times*, January 7, 2013 (accessed at http://www.nytimes.com/2013/01/08/us/deans-condemn-vaccine-ruse-used-in-bin-laden-hunt.html?_r=0).

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What if Policy Makers Used Evidence When Legislating?

A Case Study With Maryland's Unique Compounding Law

CEO'S MESSAGE

Gene Ransom, III, Esq.

This issue of *Maryland Medicine* focuses on evidence based medicine. Evidence based medicine aims to optimize decision-making by emphasizing the use of evidence from quality research.[1] What if policy makers used the same approach when crafting laws, rules, policies, and regulations? One of MedChi's top legislative priorities—fixing the unique Maryland compounding law—is a case study in the lack of evidence based thinking in policy. If Maryland policy makers had waited and researched all the evidence before acting on the current compounding law, the law never would have passed.

The compounding issue came to the forefront during the 2013 legislative session. In 2012, a tragedy occurred when a bulk compounding center in Massachusetts distributed a contaminated product. The Maryland General Assembly responded by passing a sterile compounding permit law. This legislation requires sterile compounding facilities to obtain a sterile compounding permit from the Maryland Board of Pharmacy, effective January 1, 2015, and to comply with certain other compounding, training, and reporting requirements.

The tragic incidents that occurred in Massachusetts dealt with facilities not with physicians' offices, and compounding not reconstitution of medicines. Nonetheless, the Board of Pharmacy, under the direction of the Attorney General, interpreted the new Maryland law and the word "compounding" to include reconstituting and/or mixing medicine prepared in a physician's office. The Board planned to require physicians' offices to obtain the permit and comply with the requirements of the law. Almost every physician does some type of reconstitution of medicine, and almost every practice in Maryland would have been adversely affected by the law.

During the 2014 session, MedChi worked with several specialties, such as oncologists, hematologists, and rheumatologists, to obtain an exemption from Maryland's law. Other specialties have since raised concerns about how this law negatively affects routine and highly appropriate medical procedures and may impede a physician's ability to deliver quality patient care.

Even with the temporary fixes, problems continued. The federal government subsequently passed a comprehensive law that was less complex and less restrictive than the Maryland law. MedChi continued to point out the flaws with the original legislation and asked for a permanent fix. Before the 2015 session began, MedChi met with key legislators and Board of Pharmacy representatives and explained how the overly broad definition of "compounding" places a burden on the practice of medicine. MedChi lobbyist Danna Kaufman, MedChi immediate past president Russell Wright, MD, and I argued for a legislative fix that will ensure that drugs administered to Maryland patients are safe but do not unduly burden or interfere with the practice of medicine.

In late 2014, the Maryland Board of Pharmacy voted to postpone the effective date of its regulations governing the sterile compounding permit program (COMAR 10.34.19 and COMAR 10.34.09)[2] from January 1, 2015, to July 1, 2015. As such, the Board will not be accepting applications for sterile compounding permits (or waivers thereof) or enforcing permit requirements until July 1, barring any legislative changes. Notice of this postponement was published in the Maryland Register in December 2014.[3]

At the strong urging of MedChi during the 2015 session, both Houses of the General Assembly have passed versions of a compounding act that will conform to federal law. It has taken numerous meetings, regulatory acts, and three pieces of legislation to fix an act that was passed in response to a tragedy, in which the evidence pointed in a different direction. Maybe it is time we demanded evidence based policy making in Maryland.

References:

1. Evidence-Based Medicine Working Group, "Evidence-based medicine. A new approach to teaching the practice of medicine," *JAMA* 268 (17): 2420–25 (Nov. 1992).

2. Code of Maryland Regulations, Title 10: Department of Health and Mental Hygiene, Board of Pharmacy, Fees Authority and Sterile Pharmaceutical Compounding Authority (accessible at http://www.dsd.state.md.us/comar/subtitle_chapters/10_Chapters.aspx#Subtitle34).

3. Maryland Register Online, State of Maryland, Office of the Secretary of State (accessible at http://www.dsd.state.md.us/MDRegister/mdregister.aspx).

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Whom We Look Up To

EDITOR'S CORNER

Bruce M. Smoller, MD

When we are children we look up to our parents, or perhaps to a favorite teacher or an uncle who showers devotion and smiles on us. As we move toward adolescence, we employ other role models gathered from the community, schools, religious organizations, Scouts. We continue to value our parents, but the stirring of individuation makes that relationship fraught; as encapsulated in that great book title, *Get Out of My Life, but First Could You Drive Me and Cheryl to the Mall?*"(Anthony E. Wolf, 1991).

As we move into adulthood, we begin to take on the trappings of authority that allow others to look up to us and learn from us. As we get into middle age, we become the prime authorities for our children, colleagues, and students. Finally, this culminates in our writing the rules and conditions, setting the boundaries and the formulations—the how to do it of family, social, and work life.

The concept of evidence based medicine in its pure form (before the adulteration of agencies, insurers, consultants, bureaucrats, and aggrandizers transmutes it to something less pure) is an attempt to apply treatments and algorithms of a diagnosis that, according to rigid standards of science, have shown the most promise to help the most patients to the healthiest end. By its use, evidence based medicine sets up a trade off…theoretically, it trades off generic outcomes against the flash of insight, the brilliance of the inspired "aha"—that solar flare of thought that the good doctor, because of good training and a fine mind, might come up with. Is it a fair trade? I have no idea. But I do know two things…the playing field has to be even, and we have to absolutely respect the authority to whom we look for the best evidence. Without those, this is a game whose time is over and the only thing that evidence based medicine will accomplish is a stifling of incentive and creativity to the point of incompetence.

The level playing field means that insurers can't be a part of determining what is or is not good treatment. The authority has to be squeaky clean and have no ulterior motives, such as the recent case of a doctor whose evidence was used by some company or other to compensate himself. It has to be free of the taint of bureaucratic cost cutting. Not that cost cutting is *a priori* inimical to good medicine, but it certainly is when physicians are coerced to use it as a major factor in their decisions.

It has to be unimpeachable research that doesn't get retracted twenty minutes later because the underpinnings were found to be flawed. Even the IOM has to deal with that one.

In a broader sense, though, it comes back to whom we look up to. Physicians are pretty savvy people. We have been through a lot and we generally know what we are doing. When we are stumped, we ask our colleagues. When we are sure, we proceed according to long years of training and experience. We have reached the position of the authority in our minds and those of our patients. Yes, we look up to those more knowledgeable in our field. We send patients for consults and to those who have proven records in the best treatments or diagnostic methods. While we respect authority, we too are authorities and the smell around evidence based medicine, as used by the many agencies, policymakers, and insurers, is the smell of the possible snooker; the use of evidence in its worst forms—to deny treatment, to appease the economy, to satisfy a politician.

We will look up to those who really know. We will rebel against those who really don't and say they do. If we look up to you as an authority and you try to blind us with dazzle and no substance, we will find out and we will never come back. We have no trouble looking up. It's just that the stakes are too high, and you had better be right, and if not, then honest.

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Introduction

Anne Sagalyn, MD

The long winter is over, and *Maryland Medicine*'s thoughts turn to evidence based medicine (EBM).

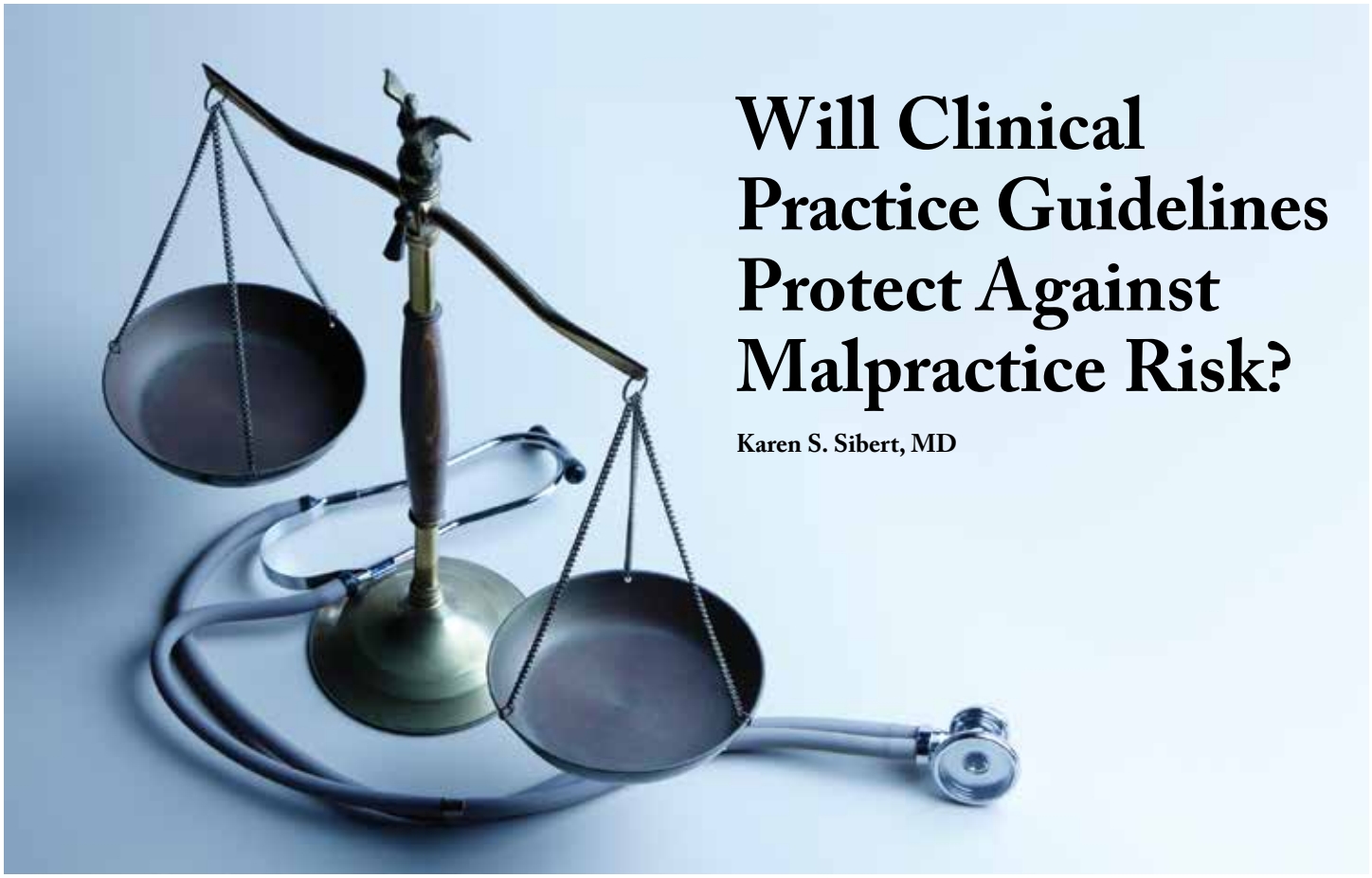
Karen Sibert, MD, a practicing anesthesiologist and associate professor at Cedars-Sinai in Los Angeles, former *Wall Street Journal* reporter, and author of the excellent blog "a penned point," writes about evidence based medicine and liability risk, in "Will Clinical Practice Guidelines Protect Against Malpractice Risk?"

Jesse M. Pines, MD, MBA, director of the Office for Clinical Practice Innovation, and an associate professor of Emergency Medicine and Health Policy at the George Washington University School of Medicine, and Joshua B. Stierwalt, MA, a scholar at the Office for Clinical Practice Innovation, look at the rational use of evidence based medicine in Maryland emergency rooms in "Emergency Care in Maryland: The Expanding Role of Evidence Based Medicine and the Medicare Waiver."

John W. Buckley, MD, weighs the American Board of Internal Medicine's (ABIM) maintenance of certification (MOC) requirements for recertification and finds them lacking in evidence, with multiple studies finding no correlation between successfully completing the MOCs and physician performance. The only element about MOCs beyond dispute is the financial gain they provide the ABIM.

I investigate evidence based medicine, in "What's the Evidence for Evidence Based Medicine?" EBM is only as good as the randomized controlled trials (RCT) and systematic reviews that power clinical guidelines. RCTs are flawed and frequently biased, and who decided that other sources of evidence lack legitimacy?

It is in sadness that my colleagues on the editorial board and I announce that Barton Gershen, MD, is ending his long run at *Maryland Medicine*. Bart is beloved around here for his wry smile, his gentle demeanor, his wit, and his erudition. He's pretty good with baseball statistics as well. In "The Trial," Bart goes out with a bang, uncovering an early court case involving Edward Jenner, the King of England, and EBM. In his final Word Rounds (at least for now), he tells us how his lifelong fascination with words began as a college freshman. We will miss seeing Bart on a regular basis and his love of elegant language in every issue; he can leave his post knowing his passion for language has been infectious. The editorial board looks forward to a Word Rounds contribution by Bart anytime he wants.



Will Clinical Practice Guidelines Protect Against Malpractice Risk?

Karen S. Sibert, MD

The best way to avoid being sued for malpractice is to make certain that all your patients are happy and all their outcomes are good.

Reality is seldom so rosy. Patients aren't necessarily happy even when their clinical outcomes are as good as they can get. In the event of an undesired outcome, an unhappy patient may easily become a litigious one. A 2011 study in the *New England Journal of Medicine*[1] estimated that 36 percent of physicians in low-risk specialties such as pediatrics, and 88 percent of physicians in high-risk surgical specialties, would face a malpractice claim by the age of forty-five. Those percentages climb to 75 percent of physicians in low-risk specialties and 99 percent of physicians in high-risk specialties by the age of sixty-five.

Flaws in Clinical Practice Guidelines

Can clinical practice guidelines protect us? We are all beset by the proliferating standards and guidelines of evidence based medicine. It's comforting to think that a court may consider adherence to a legitimate clinical practice guideline (CPG) as evidence of reasonable prudence and acceptable practice. At the same time, physicians know that guidelines are imperfect. Many guidelines are debated and revised over time, some are discontinued when they are found to do more harm than good, and some have been found to be contaminated by conflicts of interest.

Some examples follow:

- How long should dual antiplatelet therapy be continued after drug-eluting stent placement? Guidelines currently advise dual antiplatelet therapy for six months to one year after stent placement, and aspirin for life. The Dual Antiplatelet Therapy (DAPT) study[2] suggests that some patients may benefit from extending dual antiplatelet therapy beyond one year in terms of protection against myocardial infarction, but this benefit is accompanied by increased bleeding risk and a possible increase in all-cause mortality. Physicians are advised to "balance risk factors."

- Starting in 2001, there was a push toward much tighter control of blood glucose levels in intensive care unit patients. Tight glucose control after cardiac surgery became a quality measure tracked by the Surgical Care Improvement Project (SCIP) and the Joint Commission. The only evidence basis for tight control was a single-center study that associated intensive insulin therapy with improved outcomes, including fewer infections, less ventilator time, and a lower incidence of acute renal failure. But the results couldn't be replicated. In a landmark multicenter report published in 2009,[3] patients receiving intensive insulin therapy with glucose levels kept between 81 and 108 were shown to have more hypoglycemia, higher mortality, and no difference in morbidity or length of stay. Intensive insulin therapy promptly fell out of favor.

- Many hospitals in the last several years abruptly switched from povidone-iodine antiseptic solution to chlorhexidine-alcohol (ChloraPrep®) for skin preparation before surgery. They did so on the basis of a 2010 study[4] that claimed substantial benefit for ChloraPrep in reducing the risk of surgical site infection (SSI).

But in 2014 CareFusion Corporation, the manufacturer of ChloraPrep, agreed to pay the federal government $40 million to resolve Department of Justice (DOJ) allegations that the company paid kickbacks to boost sales of ChloraPrep and promoted ChloraPrep for uses that were not approved by the Food and Drug Administration. The DOJ complaint said the company paid $11.6 million in kickbacks to Dr. Charles Denham, who served at the time as co-chair of the Safe Practices Committee at the National Quality Forum and the chair of Leapfrog's Safe Practices Committee. He championed the use of ChloraPrep without disclosing his relationship with CareFusion. Subsequent studies have not demonstrated the superiority of any commonly used skin preparation agent in reducing the risk of SSI.

Though the evidence may be flawed, evidence based medicine has shown an alarming tendency to evolve from guidelines into inflexible rules, especially if payment is linked to them. Physicians may come under pressure from regulators and hospital administrators to apply these rules mechanically, with inadequate attention to context or to a patient's other health issues. As an excellent article in the *British Medical Journal* last year pointed out dryly, "The patient with a single condition that maps unproblematically to a single evidence-based guideline is becoming a rarity." A guideline for the management of one risk factor or disease "may cause or exacerbate another—most commonly through the perils of polypharmacy in the older patient."[5]

Each Case Is a Snowflake

Basing decisions on well-established clinical guidelines may be a reasonable line of defense against an accusation of malpractice. However, guidelines focus on general decision-making, while litigation focuses on the particular facts of the case under consideration. A plaintiff's attorney is likely to argue that a guideline should have been overruled by physician judgment in the plaintiff's individual case, if it led to a decision that caused harm to the patient.

One precedent-setting case in 1974 didn't help a physician who followed a practice guideline. In *Helling v. Carey* (83 Wash.2d 514, 519 P.2d 981), the plaintiff suffered from glaucoma that resulted in loss of vision. Her ophthalmologists didn't test her for this condition until she had been their patient for several years because she was still under forty, the age at which practice guidelines recommended testing. Though the incidence of glaucoma in younger patients is extremely low, the court found that the patient "is entitled to the same protection as afforded persons over forty," and that "reasonable prudence required the timely giving of the pressure test to this plaintiff." Noting that the test was simple and harmless, the opinion stated "that irrespective of its disregard by the standards of the ophthalmology profession, it is the duty of the courts to say what is required to protect patients."

> "Evidence based medicine and the use of clinical practice guidelines...can guide decision-making, but can't replace experience and judgment."

The cornerstone of defense against an accusation of malpractice traditionally has been to demonstrate that the physician's actions were consistent with customary practice in the relevant medical community. Today, however, new CPGs are often implemented to change physician practices, especially with an eye to making them more cost-effective. As a new guideline gains currency, it may become synonymous with customary practice, but in the short run it may be just the opposite. As long as courts use customary practice to set the legal standard, it may not be in a physician's best interest to be an "early adopter" of a new CPG.

The Choosing Wisely® campaign, created by the ABIM Foundation, intends "to help providers and patients engage in conversations to reduce overuse of tests and procedures." In a recent article in *Medscape Business of Medicine*,[6] William Sullivan, DO, JD, outlined how the Choosing Wisely recommendations could have adverse consequences for some patients and increase malpractice risks for physicians. For example, the recommendation not to order imaging studies for nonspecific back pain inevitably will miss some cases of cancer, infection, and cauda equina syndrome. If a physician orders a test that wasn't recommended, and a complication occurs as a result, then the argument could be made that it was negligent to order the test in the first place.

Successful Defense Based on CPG

Medical malpractice historically has been a matter of state law, not federal, and state courts have taken different approaches in their handling of CPGs. In some instances, CPGs have been deemed inadmissible as evidence, although there has been a trend toward accepting guidelines as "learned treatises" that can help in defense of physicians.

In one Tennessee case,[7] a patient presented to a cardiologist complaining of chest pain. The cardiologist followed evaluation guidelines created by the American College of Cardiology and the American Heart Association, and concluded that the patient didn't require admission to the hospital. The patient died at home three hours later from cardiopulmonary arrest. The court ruled in favor of the physician, finding that a majority of experts recognize these guidelines as a standard of care for the profession.

Another malpractice suit was filed on behalf of a plaintiff who underwent carotid endarterectomy and suffered a stroke resulting in permanent disability. The suit alleged that the physician hadn't provided her with adequate informed consent since she wasn't told about chelation therapy as an alternative treatment. The judge in this case accepted the defendant physician's motion for summary judgment, meaning that the case never went to trial at all. The physician introduced guidelines from the American College of Physicians and other medical societies, all concluding that chelation therapy was not a recognized, effective treatment for atherosclerotic disease.

Guidelines As a Legal "Safe Harbor"

Several states have attempted setting up "safe harbor" provisions to offer protection from malpractice lawsuits to physicians who follow accepted clinical guidelines. Maine's provision was the best-known

effort, initiated in 1990, but its statutory guidelines were not used to settle many legal disputes and eventually the legislation was repealed. Maryland also established an "Advisory Committee on Practice Parameters," but that legislation was repealed in 1999.

In February 2014, Representatives Andy Barr (R-KY) and Ami Bera (D-CA) introduced H.R. 4106, a bill named "Saving Lives, Saving Costs," which takes clinical guidelines and malpractice lawsuits to the federal level. The goal of this tort reform bill is to "establish a framework for health care liability lawsuits to undergo review by independent medical review panels"[8] if the physician adhered to applicable clinical practice guidelines. The basic provisions are the following:

- The Secretary of Health and Human Services (HHS) would publish approved clinical practice guidelines, and also set standards for guideline development.
- If a defendant physician alleges that care adhered to applicable guidelines, the defendant could move any liability action brought in a state court to a federal district court for review by a three-physician independent review panel.
- Favorable finding by the review panel could lead to dismissal of the claim, or if the defendant physician subsequently wins the case at trial, costs and attorneys' fees could be recovered from the plaintiff.

Some physicians might question the wisdom of involving the federal government in the process of establishing clinical guidelines. Another downside would be the inevitable pressure to follow approved guidelines in the interest of liability protection rather than because they represent the best clinical pathway for the patient. In March 2014, the bill was referred to the Subcommittee on the Constitution and Civil Justice, and the 114th Congress has taken no further action to date.

Conclusion

Evidence based medicine and the use of CPGs won't protect patients or physicians from all undesired outcomes or lawsuits, though they can be helpful in defense. They can guide decision-making, but can't replace experience and judgment. If a physician follows a new practice guideline, a plaintiff's attorney may argue that the new guideline was not the current community standard of care. Even if the physician follows an established guideline, an expert witness for the plaintiff could argue that the physician's judgment in the individual case should have differed from the guideline.

It's possible that linking practice guidelines to tort reform may ultimately be enough of an incentive to change physician practice. A transformation already appears to be underway in linking payment to the performance of "best practices." The question ultimately is whether American society will decide to replace the personalized authority of a physician's judgment with the impersonal rule of practice guidelines. For the foreseeable future, unfortunate clinical outcomes will often be subject to lawsuit on the grounds of individual physician malpractice or negligence. The best defense is good documentation of the decision process, the information and guidelines current at the time, the discussion of risks, and the agreement between patient and physician about the plan of care.

"The question ultimately is whether American society will decide to replace the personalized authority of a physician's judgment with the impersonal rule of practice guidelines."

References:

1. B. Anupam, S. Seabury, L. Darius, and A. Chandra, "Malpractice risk according to physician specialty," *New England Journal of Medicine* 365: 629–36 (2011).
2. A. Colombo and A. Chieffo, "Dual antiplatelet therapy after drug-eluting stents—How long to treat?" *New England Journal of Medicine* 371: 2225–26 (2014).
3. The NICE-SUGAR Study Investigators, "Intensive versus conventional glucose control in critically ill patients," *New England Journal of Medicine* 360: 1283–97 (2009).

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Emergency Care in Maryland:

The Expanding Role of Evidence Based Medicine and the Medicare Waiver

Jesse M. Pines, MD, MBA, MSCE, and Joshua B. Stierwalt, MA

Abstract: The 2014 Maryland Medicare Waiver alters the reimbursement model by transitioning from fee-for-service to global payments for hospitals. This increases the need for hospital-based emergency departments to become more cost-conscious, particularly regarding high-cost imaging and admission decisions. Evidence based medicine offers a potential solution to achieve these aims. Development and use of validated clinical decision rules and care pathways can reduce unnecessary testing and reduce hospital admissions where a patient could be treated as an outpatient. Paired with functional systems incorporating alternative care pathways and health information technology, clinical decision rules can reduce cost without sacrificing patient safety or experience.

The Affordable Care Act (ACA) and the Maryland Medicare Waiver have energized the need to re-examine processes in hospital-based emergency departments (ED). To meet new goals for cost-conscious care in EDs, the use of evidence based medicine (EBM) and alternative care pathways will need to be paired with functional systems to improve value and efficiency. Nationally, the ACA encourages hospitals to transition reimbursement from fee-for service to a global payment, or similar, model that rewards more efficient and lower cost care.[1-2] In Maryland, the Medicare Waiver has transitioned nearly all hospitals to a global payment model where hospitals effectively receive a fixed payment for Medicare and Medicaid patients.[3-5] Because EDs serve as the focal point for acute health events and the safety net for vulnerable populations, diagnostic and admission clinical decision rules and post-discharge alternative care pathways can be central to hospital cost reduction strategies.

Several factors make the application of EBM and the development of clinical pathways challenging. At its core, EBM seeks to apply "the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients" within the framework of physician experience and patient preferences.[6-8] The fragmentation of medical services, frequent lack of medical history, temporal pressures, and scarcity of evidence regarding costly routine decisions complicate these aims in the ED.[9] ED physicians are challenged to balance overuse and underuse of diagnostic testing in patients with whom they seldom have continuity of care. Overuse of testing costs more and can lead to higher downstream costs through false positives that may have limited clinical significance but require follow-up testing.[10-11] Underuse of testing can lead to misdiagnosis, ultimately worsening patient morbidity and mortality and resulting in longer and more costly hospital admissions.[12]

Although validated diagnostic testing decision rules do not exist for all important and costly decisions in the ED, there are several that can assist in identifying patients who may not need expensive tests. An exemplar of valid EBM in practice is the Canadian "C-Spine Rule," developed to help physicians assess and objectively identify cervical spine fracture.[13] A 2009 randomized cluster trial of twelve Canadian EDs showed a 12.8 percent decrease in diagnostic imaging use without missing any fractures after implementation of the C-Spine Rule in the intervention group (95% CI: 9%–16%, p=0.01).[13] The incorporation of this radiographic clinical decision rule demonstrates how ED physicians can safely reduce diagnostic testing and minimize patient ED visit times without missing important neck fractures. Validated clinical decision rules also exist for other tests frequently considered in the ED, such as knee and foot radiography, computed tomography head for minor head injury, and pulmonary embolism work-up.[14-15] While useful in guiding care, many of these rules are underused in the United States because there has been little incentive. Expanding the use of validated clinical decision rules for ED diagnosis offers a safe way to reduce costs and represents a fruitful area for future development.

Thoughtful examination and optimization of ED admission decisions, which can generate high downstream hospital costs, are another area for cost reduction. EDs increasingly serve as the front door to the hospital: from 1993 to 2006, the proportion of ED-originated hospital admissions grew "by 50.4%, from 11.5 million to 17.3 million."[16] ED admissions cost almost three times more than their ED outpatient counterparts.[17] Considerable inter-hospital and inter-physician ED admission rate variation signals an opportunity to develop objective admission decision rules and alternative care pathways.[18 - 19] Currently, the only example of a validated admission decision rule is the Pneumonia Severity Index, which has been shown to safely increase the proportion of pneumonia patients treated in outpatient

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settings. [20] The development of additional admission decision rules would serve as a benchmark to reduce admissions variation and cost. Further, because the admission decision is multifactorial, parallel development of quality alternative care pathways that emphasize post-discharge care coordination could help reduce "borderline admissions" by providing ED physicians with viable options to the binary admit or discharge decision. [21]

Functional systems and infrastructure also are needed to facilitate the use of diagnostic and admission decision rules and alternative care pathways. For example, clinical decision rules may be integrated into electronic health records to help guide decision-making. Alternative care pathways can connect EDs to outpatient providers so that health information can be transferred across settings and guarantee the post-ED discharge availability of short-term follow-up. The Chesapeake Regional Information System for our Patients (CRISP) is already helping to do this by providing additional information about prior ED healthcare encounters in outside facilities. [5,22] However, comprehensive functional systems that incorporate this technology and provide actual linkages to primary care providers, coaches, care navigators, and others can further bolster alternative care pathways, rationalize ED discharge as a viable option, and minimize the risk of patients becoming lost in a complex health system.

The new emphasis on population health and performance over volume requires hospital EDs to maximize efficiency and reduce cost. [21] To accomplish this, ED physicians need to use existing validated clinical decision rules, and researchers need to expand efforts to create evidence based rules. Paired with quality post-discharge care pathways and meaningful use of health information technology (HIT) in systems enabling seamless patient handoffs, EBM offers an opportunity to reduce cost without sacrificing patient safety or experience.

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References:

1. The Patient Protection and Affordable Care Act, Pub L No. 111-148, 124 Stat. 855. March 2010.
2. J.E. Galarraga and J. M. Pines, "Anticipated Changes in Reimbursements for U.S. Outpatient Emergency Department Encounters After Health Reform," *Annals of Emergency Medicine* 63(4) (April 2014):412–17.
3. The Maryland Health Services Cost Review Commission, *TPR Rate Setting Methodology* (accessed at http://www.hscrc.state.md.us/init_TPR.cfm, February 16, 2015).

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The Emperor's New Boards
(Or How I Learned To Stop Worrying and Love That Test)

John W. Buckley, MD

PERSONAL PERSPECTIVES

The "proclamation" arrived without fanfare two years ago. It came by first-class mail and was a personal letter to me from the emperor (CEO) of the American Board of Psychiatry and Neurology (ABPN). It could be, I thought, some sort of appreciation for my years of patient care as a board certified psychiatrist. I was, it seems, laboring under a gross misapprehension.

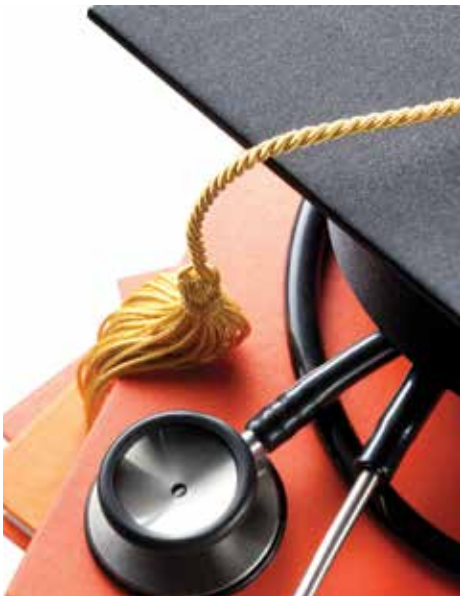
I read the letter, which proclaimed that MOC (maintenance of certification) status for grandfathers is not required. However, I went on to read that it is required that a physician informs the public that his or her status is "certified but not meeting MOC requirements." Of course, if I cared to apply (and pay dearly), I could take the ABPN exam and, if I pass, bask in the warm light of the ABPN empire. Changes to the MOC rules included specific education courses and checklists of approvals from peers and patients. It was at that point that I scanned the room for white rabbits or large mirrors that might be allowing reality to leak from my surroundings.

Continuing education, like apple pie, must be a good thing. The form that continuing education should take has never been established with scientific rigor. The lack of evidence for effective Continuing Medical Education (CME) has not slowed the industry. Offers arrive daily: seminars, courses, lectures. It is up to the individual to choose useful programs, often scrambling to satisfy state license requirements. The MOC, however, states that education approved by the empire is the only type acceptable for official credit. This maneuver by itself, without any question of educational merit, could widen the crevasse between town and gown.

All in all, the medical practitioner has become the most scrutinized worker in the United States. He must satisfy basic licensing requirements…but who offers him support? Our state publishes a quarterly list of transgressors along with their sins. Insurers dispute fees by delay, mistake, or other forms of (profitable) inefficiency. Patient care takes place in an atmosphere of defense and endless vigilance for error. Board performance, especially failure, can be used to sway juries in malpractice suits. ("My client has placed her life in the hands of a so-called specialist who had to repeat his board exams.")

The empire (ABPN) dates to 1934 and is one of the twenty-four members of the American Board of Medical Specialties (ABMS). Its mission includes "serving the public interest and promoting excellence in the practices…of psychiatry and neurology." It often follows the lead of ABIM (American Board of Internal Medicine), as internal medicine is the largest specialty group of the twenty-four members. The whole concept of board certification has become entrenched in the bureaucracy of medicine, but may not be related to "better" physicians, or improved outcomes. The science is skimpy. The justifications for the ever more esoteric sub-specialty approvals are self-promoting and the tome of communication has an adversarial tone. Written exams verge on TSA strip searches to catch cheaters. Between the line of "public reporting" is the threat of restrictions: hospital privileges, insurance panels, employment, and, ultimately, state licensure.

The testing process is very costly. In 2014, to add credentials for pain medicine, a physician was required to submit an application by February with a $700 application fee. If accepted, a physician would travel to an exam site in September and pay $1,200 for the exam. In 2015, a candidate for certification in child psychiatry, following a fellowship completed in Maryland, incurs student loans and prospects of costly testing. A $900 review course (many cost more) preceded a $1,500 written exam, and then travel to Atlanta for the $1,000 oral portion. Why not an exam fee for a standardized test given nearby like the SAT? Meanwhile, the physician CEO of ABPN had a salary of $500 to $600 thousand in 2011, along with added perks that brought the total compensation to more than $800 thousand. The staff is also very well paid. The ABPN reported net assets of just over $50 million at the end of 2011.



In this era of "evidence based" decisions, the ABMS cites studies that associate advancing age (and distance from training) with reduced competence. Yet the whole concept defies logic. If the recent graduates get the highest test scores, why not seek out the youngest and most recent graduate for your thoracic surgery, your thyroid malfunction, your disabling back pain, your severe depression? The traditional apprentice system is turned upside down by the preoccupation with credentials over qualifications. How does one measure competence? What does an exam say about a physician who communicates well, who neither over-treats nor under-treats, who uses judgment before expensive testing?

Of all the specialties, psychiatric competence may be hardest to quantify. But for any specialty, how can a board measure experience, wisdom? The ABPN cites statistical connections between state disciplinary actions (sex, lies, and substances) and lack of certification. I suspect that physician morality will not be deciphered by tests of knowledge or by patient testimonials. We await the return of Lamont Cranston to answer the question: "Who knows what evil lurks in the hearts of men?"

Whether it is the removal of a splinter or of a central nervous system (CNS) glioma, I would prefer a physician with some experience and some skill in the removal process. The score on a credentialing exam matters little compared with reputation. Does my family physician approve? Did my neighbor do well with his surgery?

For years, the ABMS has run a successful public relations campaign to promote the virtue of itself and its twenty-four member boards. Now there is groundswell of mutinous protest. The ABIM and followers have relaxed some requirements in response to "feedback from the field":

- A widely circulated pledge of noncompliance with ABIM's MOC.
- Formal protests by state medical societies seeking legislative relief from the MOC burden (without proof of benefit on practicing physicians).
- Medical bloggers questioning the basis for all board testing.
- Studies in major journals that find no difference in outcomes related to MOC status.
- Op-ed pieces in the public media noting the time-wasting feature of the MOC process.
- An investigator's discovery that an ABIM foundation had purchased a condominium in Philadelphia for $2.3 million.

It is time for the commoners to revert to the 1960s and "Question Authority." Should not the organizations that we join and support with dues support us back? Who will protect us from expensive, time-consuming intrusions with minimal scientific validity? The American Medical Association recently inquired on behalf of the rank and file into the concept of board certification, but it has not gotten much press. It is a bit scary that medical organizations (AMA, specialty societies, hospital groups) lend their support to the certification process. To endorse such credentials, organizations may enhance the appearance of quality. It is certainly a marketing tool. I hear about "our board certified specialists" every morning on WBAL radio ads for hospitals. The local psychiatric society now offers a for-credit course on how to navigate the new MOC rules. A profit for everyone!

Shouldn't our dues get us more options for improving our careers? Isn't pressure to satisfy expensive MOC requirements a case of taxation without representation? Shouldn't we demand more and better CME options? Shouldn't we have a vote for more research into the science of credentialing and useful education? The current system promotes what many educators abhor: teaching to the test.

Aside from the waste of time and money, what rankles most is that the emperor and I are supposed to be colleagues. We both wrestled with medical school and years of underpaid training with long hours. I'd like to think he would trust me with the care of a loved one and vice versa. Instead, I am treated as if I need more testable knowledge, and that I have fallen behind and must pay up to avoid excommunication from the specialist ranks. Mandela is not available to lead the downtrodden. Hoffa cannot be located to fight for the rank and file. What should a dues-paying member of organized medicine do? If really upset, you can open the window and shout that you are mad as blazes and not going to take it anymore. Then you should have an informed opinion about ABMS and your specialty board. Talk to peers. Join a committee. By all means obtain a copy of your board's tax return, IRS Form 990, which all nonprofits file and are labeled "open to public inspection." Don't be a sheep.

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What's the Evidence for Evidence Based Medicine?

Anne Sagalyn, MD

"In theory there is no difference between theory and practice. In practice there is."

—Yogi Berra

Evidence based medicine (EBM) sounds like a good idea. Developed as a teaching method for medical students, it quickly gained traction within the medical establishment. Described by David Sackett, in a landmark 1996 *British Medical Journal* article, as "the judicious use of current best evidence in making decisions about individual patients, integrating individual clinical expertise with the best evidence from systematic research,"[1] critics counter that along the way EBM lost its focus on both the individual patient and the physician experience and expertise.

Google EBM, and failure results in pages of articles excoriating EBM. Search for "EBM and success," or "EBM and positive results," and very little appears.

How did we get here? Isn't EBM what physicians have always done? Haven't physicians always used the best available evidence in concert with patient wishes and clinical expertise to make decisions? Why do so many of us mistrust EBM?

What's in a Name?

The answer begins with the name, which physicians find both amusing and insulting, as if in the dark ages before EBM, physicians practiced without evidence. EBM's power comes in part, from branding. Imagine if EBM were named randomized controlled trial (RCT) based medicine, or systematic trial based medicine—it would have gone nowhere.

Do Experienced Clinicians Need EBM?

For novice medical students, who require formulaic, rigid methodology to learn patient care, EBM makes sense. For experienced clinicians, RCTs and systematic reviews are critically important, but so are other lines of evidence. Clinical intuition is evidence; patient goals and desires are evidence too. Observational studies are evidence. Physiologic mechanisms are evidence. Experience is evidence. What physician hasn't treated the patient who stubbornly refuses to improve as physician and patient march down the list of evidence based treatment options, only to finally improve when the clinician steps out of the box and devises a treatment that works. The art and alchemy of medicine reside not in evidence based guidelines, but in the mind and expertise of committed physicians.

The Triumphs of EBM

EBM transformed AIDS from a death sentence into a chronic disease. The women's health initiative proved that, contrary to widespread clinical practice, estrogen in menopausal women caused harm. EBM is responsible for changing the calculus of cancer treatment, both in the discovery that some malignancies are best treated with watchful waiting, and in the expansion of treatments for the truly life threatening malignancies. Several orthopedic procedures were found to be no improvement over the tincture of time. Sadly, EBM is no match for Jenny McCarthy, the anti-vaccine activist (and one who does not let scientific evidence get in her way) who has a SiriusXM radio channel as well as a reality show coming later in 2015.

The Gold Standard: RCTs

Smallpox yielded to Edward Jenner's observational studies of cowpox vaccine. Penicillin-cured gonorrhea was also the result of simple observation. The history of medical progress rests on observation, and observational studies suffice when the question and answer are obvious: do vaccines work? Is it better to surgically remove gangrenous tissue? RCTs are a science of marginal gains, or the "low hanging fruit (interventions that promise big improvements) that were picked long ago."[2]

Large-scale RCTs wield considerable statistical power, which may conflate statistically significant, but clinically unimportant, effects. "RCTs evaluating treatments for cancer are reporting smaller incremental benefits than previously, amid grow-

ing recognition that RCTs underestimate and under-report harms from new cancer therapies."[3]

The majority of RCTs are funded by industry, with all the inherent biases. Industry funded studies over-report clinical efficacy while underreporting adverse effects.

RCTs are a closed system, that is, they measure, by design, the truth of a hypothesis (this treatment is better than no treatment) for a tightly defined group, eliminating most but not all confounders. RCTs enroll a select population—younger patients without multiple morbidities. The trial results don't generalize to the population at large.

The Hawthorne Effect

An understudied phenomenon, the Hawthorne, or observer, effect comes out of 1920s industrial science. A manufacturing plant, trying to improve production, tried various schemes. Shorter workdays, longer workdays, different lighting. No matter what the intervention, production increased, although not for the long term. Ultimately, the interaction with the observer/scientist was what improved productivity. Similarly, in medical research, a paradigm exists that may increase the apparent benefit of a treatment, at least for the length of the study. Who signs on for experimental treatments? Better educated patients who have failed conventional treatments and are eager to be cured. Who treats them? Friendly researchers, anxious to keep patients in the study. This is a new area of study, with conflicting findings, but it makes intuitive sense. If you are nice to your experimental subject, who is eager to improve, she may be more likely to improve for the life of the study, thereby yielding false positive results.

"Why Most Published Research Findings Are False"

This grim verdict is the title of a paper published in the journal PloS Medicine in 2005 by Dr. John Ioanides,[4] a Harvard trained mathematician and physician who studies the studies. His paper, the most downloaded in the history of the journal, elaborates the reasons why studies are less likely to be true, in the following scenarios:

- If they are small.
- If effect sizes are small.
- In hypothesis-generating studies versus confirmatory studies.
- If the design, definitions, outcomes, and statistical modes in the study are flexible.
- If there are financial interests involved.
- If the study is of a hot scientific topic.

To paraphrase Winston Churchill, EBM is not the best system of medical practice, but it's the one we've got.

Some years ago, I treated a frail, elderly man living a lonely existence. His wife and friends had died. His children lived far away. He was recently diagnosed with prostate cancer and a steeply rising PSA. His urologist wanted to treat with hormone therapy. My patient did not want the treatment and understood he would likely die of prostate cancer without treatment. His one pleasure in life was flirting with female volunteers at a soup kitchen, where he volunteered on Sundays. Losing his libido was a non-starter.

Plug this man into an EBM guideline and get what may be a reasonable plan for some male patients. For my patient, RCTs and systematic reviews were meaningless, if they didn't take into account how he wanted to live and die.

The challenge for EBM is keeping the patient front and center while negotiating the vagaries of the evidence.

Anne Sagalyn, MD, recently retired from private practice of psychiatry. She is a member of the Maryland Medicine *Editorial Board and remains involved in medical student education. Otherwise she can be found riding her horse. She can be reached at annesagalyn@mac.com.*

References:

1. David Sackett, "Evidence-based medicine: what it is and what it isn't," *BMJ* 312 (January 1996): 71.

2. Trisha Greenhalgh, Jeremy Howick, and Neal Maskrey,"Evidence based medicine, a movement in crisis," *BMJ* 348 (21 June 2014): g3725.

3. C. M. Booth and I.F. Tannock, "Randomised controlled trials and population-based observational research: partners in the evolution of medical evidence," *British Journal of Cancer* 110 (14 January 2014): 551–55.

The Trial: A Medical Allegory

Barton J. Gershen, MD

Government savants recently concluded that American physicians have failed to practice axiomatic and verifiable medicine. Therefore, our infallible government has decreed that henceforth patient care must be strictly based on science, consecrated by eminent scholars who, from time to time, provide their wisdom on appropriate techniques.

There has been some confusion as to what physicians were doing previous to this monumental decree, but the government's acumen, being beyond doubt, evidence based medicine will now become standard medical procedure.

Few know about the original attempts at evidence based medical practice, but Maryland Medicine*'s chief historian has unearthed one of the earliest cases of state-mandated evidence based practices, along with court transcripts of the malpractice case brought by the royal court of England against the unfortunate physician.*

The following is a dramatization of that event.

August 1796

The courtroom was filled with an atmosphere of critical anticipation. Abruptly, the door on the left side of the room opened, and prisoner M-2016, accompanied by two guards, was led to the Transgressor's Box. Shortly thereafter, the Heraldic trumpets blared forth, and the royal judge entered.

The Cursus Honorum stood and shouted "All rise." Judge Edward Princeps Manuel sat, and motioned all to be seated again. The Centurion stood, unfurled his scroll, and read: "The state charges Doctor Edward Jenner with the egregious crime of practicing non-evidentiary medicine."

Judge Manuel: "How does the defendant plead?"
Defendant Jenner: "Not Guilty, your honor."
Judge Manuel: "Is the prosecution ready to proceed?"
Prosecutor I.M. Torquemado: "We are, your honor."
Judge: "Is the defense ready?"
Attorney C.S. Darrow: "We are, your honor."

The judge then read the full indictment:

"Edward Jenner, you are accused of heedless ignorance of the established imperatives of the National Association of Medical Bureaucratic Yahoos (NAMBY), and the Providers Act of Much Better Information (PAMBI). To wit: No physician shall order medications or therapeutic procedures that have not been thoroughly tested in the manner directed by the Committee for Rational and Acceptable Practice. (CRAP)."

"Mr. Prosecutor, you may proceed."

The accused Jenner was sworn in, and Torquemado began to question him.

"Dr. Jenner, are you familiar with NAMBY, PAMBI, AND CRAP?"

"I am. Most of us who practice clinical medicine are aware of these government guidelines."

"I submit, Doctor, that they are more than 'guidelines;' they are directives. Would you not agree?"

"Yes, I suppose so."

"Thank you. Now, Doctor, are you an expert in treating the disease known as Small Pox?"

"Yes, I've had some experience with this disease."

"But would you consider yourself to be a **specialist** in managing this dreadful illness?"

"Well, perhaps not a specialist, but I have treated several patients…"

"How many, Doctor? 50, 100, perhaps more?"

"No. I've probably treated 5 or 6 patients with Small Pox."

"***5 or 6***? Is that all?"

"Yes. You see, I am a country doctor, and during the last great epidemic, our small village did not experience many infections."

"And from these limited occurrences, you consider yourself sufficiently knowledgeable to call yourself experienced in Small Pox therapy?"

"Yes, as much as any physician is capable of treating that illness. There are no effective treatments available, to my knowledge."

"To ***your*** knowledge! But have you the medical expertise of, say, Dr. Richard Bright, or Dr. Joseph Addison, or Dr. John Hunter—all of whom are currently respected members of Guy's Hospital in London?"

"Well, no, I wouldn't place myself within that august group. However, I consider myself…"

"So, you admit that your medical expertise is not that of these eminent physicians?"

"Yes, but…"

"And have any of them, to your knowledge, found a cure—or a prevention—for Small Pox?"

"To my knowledge, no."

"Yet you claim to have found a method for preventing Small Pox?"

"Yes, sir, I have."

The prosecutor faced the jury, smiled confidently, and then turned back to the defendant.

"Dr. Jenner, do you know a Master Jamie Phipps, and a Miss Sarah Nelmes?"

"I do."

"Did you, on or about May 14, 1796, diagnose Cow Pox lesions on the palms of Miss Nelmes, whom I believe works as a milk maid?"

"Yes, I did."

"And did you remove some pus from those lesions and insert this matter by needle into the arm of the eight-year-old child, Jamie Phipps?"

"I did."

"Please describe what happened after you had performed this transfer."

"The boy developed a low-grade fever and a few Cow Pox lesions, and after a week, he was well again."

"Doctor, did you next find a patient with active Small Pox lesions, remove some of the purulent material from that patient, and once again insert it via needle into the Phipps boy?"

"That is correct."

The prosecutor again faced the jury, this time with an expression of disbelief and shock. With his eyes fixed on the jury, he addressed the defendant:

"I assume, Doctor, that you were aware of the potential deadly possibilities of this reckless action?"

"I had good reason to believe that the pretreatment with Cow Pox would cause immunity to the subsequent Small Pox injection."

"I see. 'Good reason' based on previous experiments?"

"No, but there were one or two instances in which I had observed a patient with Cow Pox, who subsequently appeared to be immune to the Small Pox that was afflicting our community. I then deduced…"

"You had observed ***one or two*** instances—and from those observations ***deduced*** that Cow Pox infection prevented subsequent Small Pox?" There was an unmistakable sneer on Torquemado's face, and his tone dripped with vitriol.

"That's correct."

"Doctor, are you aware of the fact that one or two instances, ***cannot*** be regarded as sufficient evidence of a successful therapy? Are you not familiar with the Imperial canon, published by NAMBY and PAMBI, and authorized by CRAP, which clearly states that one must practice evidentiary medicine, or else be subjected to ridicule, scorn, and rejection by the government, not to mention no recompense from the treasury?"

"I am—but this therapy actually ***WORKS!!*** There are other methods of obtaining truth besides Double-blinded, Randomized, Placebo-controlled, trials. Simple observations and inductive reasoning will…"

Jenner was interrupted by the prosecutor.

"That will be all, Doctor. The Empire rests its case."

The defense attorney, Mr. C.S. Darrow, stood and faced his client.

"Dr. Jenner, do you believe you practice 'scientific medicine'?"

"Yes, sir, I do."

"And precisely what do you mean by 'scientific medicine'?"

"Knowledge gained through an academic education, scholarly correspondence, avid perusal of medical literature, clinical observations, and experimentation, all of which is recognized by my peers to be authoritative."

"Is the principle of twin-blinded, controlled, and randomized research, the only method upon which medical knowledge is based?"

"Certainly not. There are several scientific disciplines in which such methods are not available—yet they are considered quite scientific."

"Really? Can you provide the court with any examples?"

"Yes. Astronomy is clearly a scientific discipline, yet it is mainly a field based on observations and deductive reasoning. There is no way to randomize or control the heavens, yet our astronomical knowledge has proven accurate in many ways. Brahe, Copernicus, Kepler, and Galileo have precisely shown that we are in a heliocentric system, and accurately calculated earth's orbit around the sun. They have described the moons of Jupiter, and the craters of our moon. Edmund Halley calculated the orbital movement of the comet bearing his name, and accurately predicted its return in 1758. Kepler deduced his three laws of planetary motion, entirely through meticulous observations, inferences, and calculations. None of that involved—or could have involved—randomized, blinded trials."

"I see. And do you believe that medicine has confirmed some of its science via simple observations also?"

"Indeed I do. Observations have been a part of medical information since Hippocrates. Information gained in this manner is certainly less dependable than knowledge obtained by the strict scientific method. Randomized, twin-blinded, placebo-controlled studies offer more decisive information, but they are not always practical to perform on living people, the results are often population-specific, cannot be applied in all patients, and may vary considerably since humans are remarkably diverse in their biological constitutions. In addition, many 'truths' discovered in this manner prove to be incorrect, and are often supplanted, as new information surfaces. It has been said that the half-life of our working knowledge, is but ten years or so."

"Thank you, Dr. Jenner. You may step down."

The court did not recognize Edward Jenner's observations or his conclusions. He was fined by the court, and all physicians were ordered to ignore his assumptions. Regrettably, Small Pox continued to ravage entire continents unchecked—due to the absence of randomized double-blinded, placebo-controlled evidence.

Fortunately, the above melodrama is mere fiction, and the truth of Jenner's report actually did lead to millions of lives saved—and ultimately to the total eradication of Small Pox. On May 8, 1980, the World Health Organization made this announcement:

"Having considered the development and results of the global program on smallpox eradication initiated by WHO in 1958 and intensified since 1967 … WHO declares solemnly that the world and its peoples have won freedom from smallpox…."

Today, evidence based medicine remains the crowning mantra of official government policy.

Thankfully, we have diligent government bureaucrats to show us the way, through their own versions of NAMBY, PAMBI, AND CRAP.

Barton J. Gershen, MD, Editor Emeritus of Maryland Medicine*, retired from medical practice in December 2003. He specialized in cardiology and internal medicine in Rockville, Maryland.*

Physician Volunteerism: Making a Difference One Patient at a Time

Laurel G. Yap, MD Annual Resurrection Health Information Fair

For more than fifteen years, Laurel (Larry) Yap, MD, has coordinated a robust health fair for the parishioners of the Church of the Resurrection in Ellicott City, Maryland—the Annual Resurrection Health Information Fair. The fair provides free diagnostic screenings to interested and at risk individuals—bone densitometry screening, blood pressure counseling, and vision screening—and an exchange of community health resources. Each year about thirty physicians and other health care providers participate in the health fair. The fair receives support from the Howard County Health Department, Howard County Fire and Rescue, Howard County General Hospital, Saint Agnes Hospital, Harbor Hospital, and local commercial establishments.

The idea for the health fair came from the parish council, of which Dr. Yap is a member. One parish council member had a father who was saved by an automated external defibrillator (AED). With budget support, the parish council acquired an AED and began offering regular CPR/AED classes for parishioners. The church also formed a Resurrection Liturgy Medical Alert Team (the RLMAT), a group of trained volunteers who can offer help to someone during the liturgy if needed.

Dr. Yap and the other fair organizers are dedicated to promoting early detection and prevention to the community. One fall, an older parishioner received a vision screening at the health fair. The optometrist identified a problem and subsequently referred her to an ophthalmologist who did a surgical procedure. She was very thankful, knowing that her diagnosis could have been worse had she not attended the fair and received free screening.

Donna Cookson, RN (Health Fair Committee Member), Msgr. John Dietzenbach (Pastor, Church of the Resurrection), Howard County General Hospital volunteer nurse, Dr. Larry Yap.

Volunteering in your community? Participating in medical missions? Maryland Medicine *wants to hear from you. For more details, please contact Susanna Carey at scarey@montgomerymedicine.org.*

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2015 MARYLAND LEGISLATIVE SESSION
MEDCHI'S LEGISLATIVE AGENDA: A GUIDE TO PATICIPATING IN THE LEGISLATIVE PROCESS
Also Inside: Physician Volunteerism: Making a Difference One Patient at a Time

Final Words

WORD ROUNDS

Barton J. Gershen, MD
Editor Emeritus

This will be my last Word Rounds. I have written this column since the mid-1980s, initially for the *Maryland Medical Journal* (MMJ), and ultimately for its successor, *Maryland Medicine* (MM). However, after three decades, and many hours of angst, I feel that the time has come to end the series.

You may recall the account of how my romance with word origins began. In my freshman undergraduate year at the University of Vermont, all pre-med students were required to take an English course. None of us were pleased by that requirement, but on the first morning of that class we dutifully filed into the lecture hall and awaited the professor. He, too, was aware of our displeasure and returned the emotion with relish. As he entered the hall—a plump, unkempt, rumpled man with a green and purple tie, clearly stained with remnants of the previous day's dinner—we suppressed our laughter with some difficulty.

He glanced at us with a spiteful look, but then began to narrate the following tale:

In the year 316 C.E. a son was born to a Roman soldier and his wife. They named the child Martin and expected him to follow in his father's footsteps. At age eighteen, Martin joined the Roman Legion and was assigned to the cavalry in Gaul. However, he was not happy in his role as a warrior. Christianity had been decreed an official religion of the Roman Empire by the Emperor Constantine in 313 C.E., and Martin was a devoted member of that church. He was torn between loyalty to Rome—which expected him to spill the blood of enemies—and fidelity to his religion, which abhorred violence.

One frigid winter day, Martin and his troop were returning to their quarters in the walled city of Samarobriva (currently the city of Amiens, France). Outside the gates, the wretched, destitute indigents of that city were lying on the snow, not unlike our homeless street people today. He spotted one frail and elderly man, trembling uncontrollably from the cold. Martin reined in his steed and dismounted. He removed his heavy military cape and cut it into two sections, one of which he wrapped around the old man's shoulders. He placed the other remnant on his own back, remounted, and continued to the city. Not long afterward—unable to endure the military obligations which were anathema to his religious beliefs—Martin asked for and was granted a discharge from the military.

Subsequently, Martin entered the priesthood, established a monastery—the Abbey of Marmoutier—and finally rose to become Bishop of Tours. After his death in 397 C.E., Martin was beatified and ultimately canonized to become **Saint Martin**, the patron saint of Tours. His half cape became a sacred relic and was maintained by the Frankish Merovingian kings, carried into battle as a talisman, and kept in a special room during peacetime. In Latin, a cape was known as a *cappa*, since capes were hooded and the Latin term for head is *caput*. A small or half cape was given the diminutive *capella*, and the sanctified room in which Martin's cape was kept, also came to be known as the **capella room**. The monk who was charged with guarding that holy relic became known as a *cappellanu*. Through the ensuing years, as Latin developed into French and then English, *capella* became **chapel**, and *cappellanu* became **chaplain**.

Monks required a private area in which to practice their Gregorian chants, so it became a custom for them to rehearse in the *capella* (chapel). Since they sang unaccompanied by instruments, that genre of music became known as singing "in the manner of the chapel"— which in Italian is singing ***a capella***. Its literal meaning, however, is singing **"like a little cape."** So we have a term that began its life as an item of clothing and became a variety of music, thus changing its entire sense as it evolved.

I was stunned. A "Eureka moment" had just occurred for me. For the first time, I realized that the words we use not only have a source, but many have an extended and complex history as well.

My addiction to word derivations had begun, and through "Word Rounds," I have attempted to share that fascination with you.

Words such as the Latin *quando*, meaning "when," which was inserted into each actor's script during the sixteenth and seventeenth centuries, and indicated the moment he would enter the stage or speak his lines. Eventually, *quando* was simply shortened to "Q" and written in the margins of the script. Naturally, the pronunciation of that letter is **cue**, which is how that term was derived.

The Latin term for **mouse** is *mus*. Some whimsical individual of ancient Rome thought that the rippling movement of an athlete's contracting biceps looked like a mouse scurrying below the skin, and thus the word **muscle** was created.

The Latin term for **salt** is *sal*. Since salt was scarce in ancient times, Roman soldiers were given a stipend to purchase salt for themselves. The stipend was known as a *salarium*, from which the word **salary** ultimately derived. Individuals who were a bit vexatious were often said to have a "salty" personality, which eventually became **sassy**, used mainly for children who were disrespectful.

The New Testament describes the crucifixion of Christ on a hill just outside Jerusalem. In Aramaic, that hill was called **Golgotha**, meaning "skull-shaped," for its resemblance to a human cranium. The Latin translation of skull is *calvarium*, from which that hill became known as **Calvary.**

In 1738, Spanish marines boarded a British ship in the Caribbean. The Spaniards confiscated the ship's supplies, and the Spanish commander sliced off the British captain's left ear. One year later,

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Word Rounds continued ...

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that captain, Robert Jenkins, reported the assault to members of Parliament, which resulted in a British declaration of war on Spain. The war became known as "The War of Jenkins Ear." A crusty and irascible admiral named Edward Vernon, was assigned a ship and ordered to inflict reprisals on Spanish communities in the New World. Vernon had two outstanding idiosyncrasies. The first was his passion for wearing a long, heavy coat made in France, and known there as a *gros grain,* or "large grained" coat, because of the bulky mohair and wool material from which it was made. Since the British couldn't pronounce "gros grain," they called it a **grogram** coat, and the man who wore it was nicknamed "Old Grog" by his disrespectful men.

Vernon's second eccentricity was his directive that rum, which was provided once a week to each sailor as a reward, would be watered down to reduce drunkenness and also to ration the supply of rum. (Vernon was also quite stingy.)The watery mixture became known as **grog** (after "Old Grog"), and a sailor who became a bit tipsy was called **groggy**.

An interesting footnote to this story is that Vernon's aide was a lieutenant from the colonies named Lawrence Washington, elder half-brother to George Washington. When Lawrence Washington's tour of duty was completed, he returned home to his father's plantation, known as "Little Hunting Creek." In honor of his commanding officer, he renamed the estate **Mount Vernon**. (Apparently, Washington was one of the few men who liked Edward Vernon.)

A few Word Rounds essays have discussed **acronyms**—words created out of the first letters of a phrase. Words such as **radar**, from radio detection and ranging, and **Quantas** Airlines, from Queensland and Northern Territory Air Service, are among this group. **NOAA**, the National Oceanic and Atmospheric Administration, and **OSHA**, the Occupational Safety and Health Administration are familiar acronyms, as is **laser**, light amplification by stimulated emission of radiation.

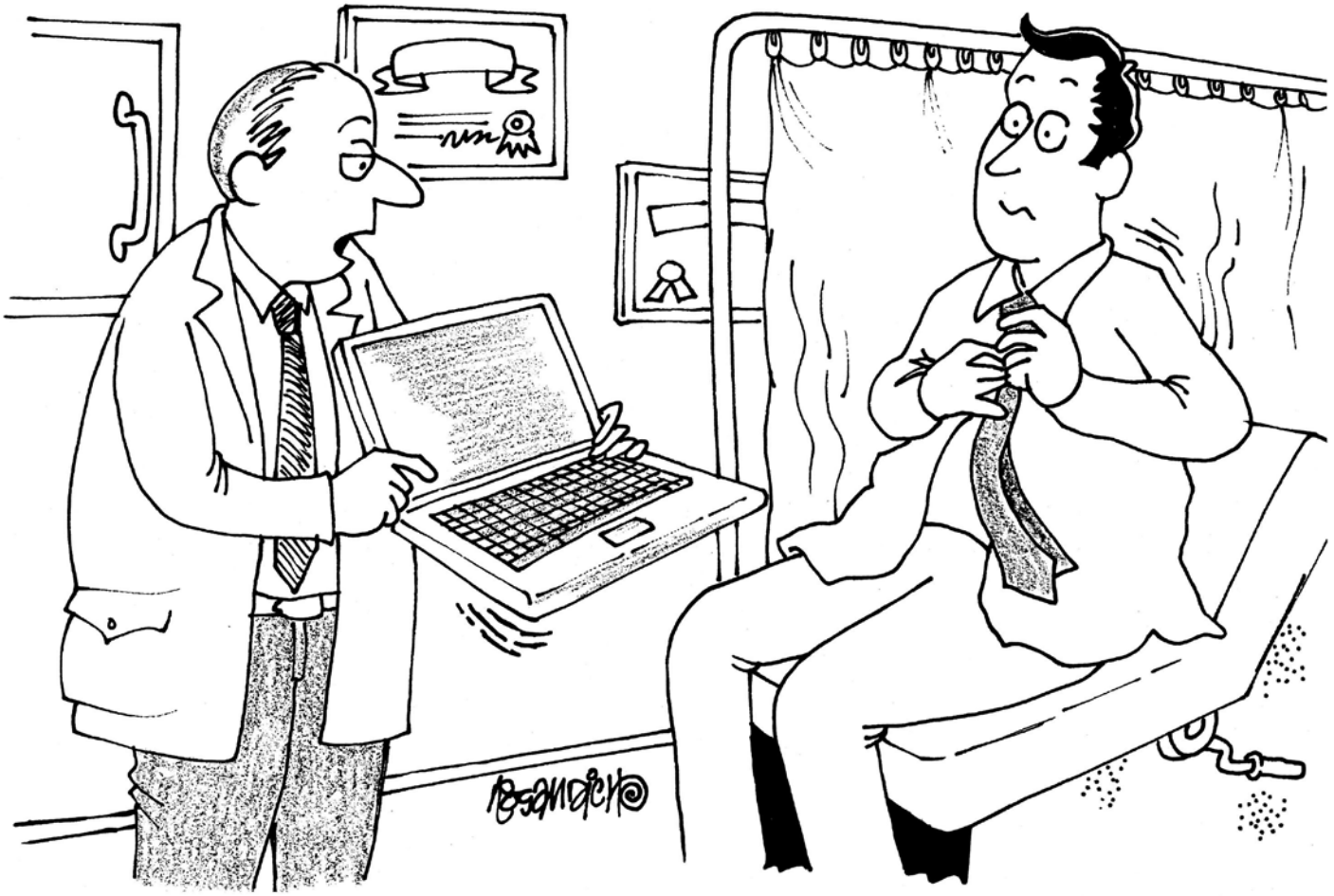
Many of my Word Rounds articles also discussed **eponyms**—words taken from proper nouns, such as the names of people or places—and lower cased. Jules **Leotard**, an acrobat, designed the outfit he used, and which is named for him. John Montagu, fourth Earl of Sandwich, was an inveterate gambler. Not wishing to leave the gaming table, he ordered a servant to place a slice of meat between two slices of bread, so that he could eat it without getting grease on his fingers. Thus was born the term **sandwich**. (By the way, the Earl of Sandwich was a Peerage granted by the king to administer Sandwich, Kent, an historic British town.) Other eponyms we've discussed over these past decades include Parkinson's Disease, silhouette, Uzi, Argyll Robertson, shrapnel, gorgonzola, Roquefort, chateaubriand, academy, stoic, Dupuytren's Contracture, and dozens of others.

I've enjoyed writing this column, and am delighted if my enthusiasm for word origins has kindled your interest, as well.

And that's my final word [for now].*

**Editorial comment added by* Maryland Medicine *editorial board as we refuse to accept Bart's retirement.*

THE LAST WORD



"If you want a second opinion, I'll ask my computer."

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