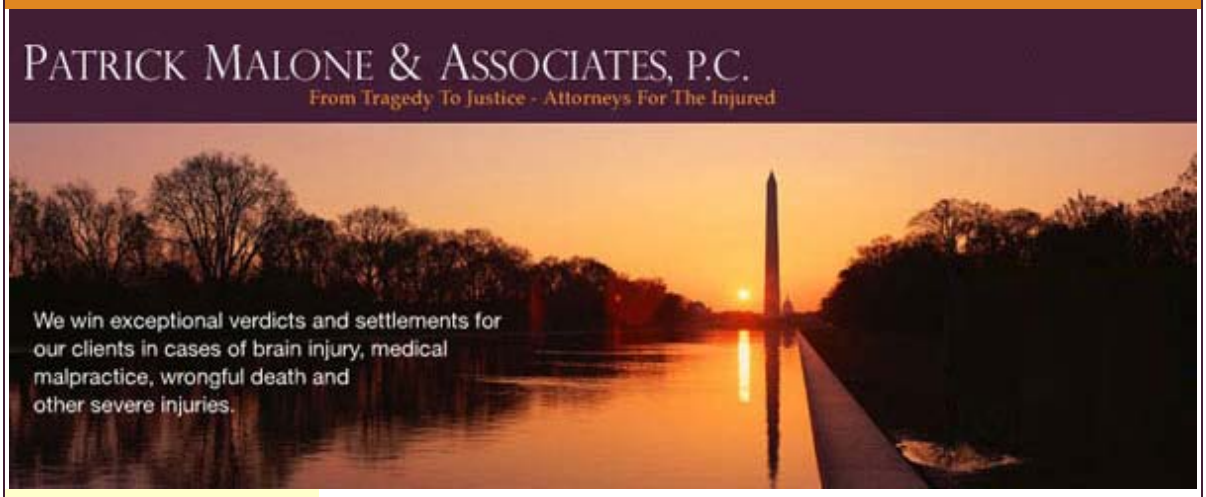
Getting the Best Medical Care: a Newsletter from Patrick Malone



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Our firm's website

Read an excerpt from Patrick Malone's book: ***The Life You Save: Nine Steps to Finding the Best Medical Care -- and Avoiding the Worst***

The Truth Will Out: Gaps in the Science of Nontraditional Medicine

Dear Patrick,

Last month we turned a skeptic's eye on the appeal of non-traditional medical therapies, also known as "Complementary and Alternative Medicine" (CAM). This month, we explain why science isn't exactly a close, personal friend of many CAM claims, and the difference between what's plausible, and what's proven.

First, a prelude from the not-so-distant past.

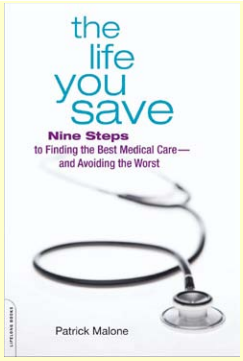
A Prescient Warning about the Shortage of Critical Thinking

In 1999, members of Congress heard about science and critical thinking from someone you might think of as the opposite of a scientist: a magician. James Randi spoke about fooling people in the spirit of "it takes one to know one:"

"On the Internet, in television commercials, in fact via all the media, the American people are being offered merchandise, medical systems, financial services and investment plans. That pursuit of opportunity on the part of the entrepreneur is what we call 'The American Way,' and we must applaud originality and an applied work ethic, of course.

"But when business becomes hucksterism," Randi continued, "the public needs to be protected. How valid are these offers that promise instant weight loss, renewed vitality, overnight youth and cures for everything from high cholesterol to poor circulation? And how can we educate young people to judge these claims?"

James Randi is renowned both as a magician and a debunker of quackery and its dubious cousins in the paranormal. The James Randi Educational Foundation promotes critical thinking by



Learn More

Read our Patient Safety Blog, which has news and practical advice from the frontlines of medicine for how to become a smarter, healthier patient.

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encouraging the public and media to be informed about claims too good to be true, including many pertaining to health care.

As Randi told Congress, "I rather favor education over legislation, so that citizens will avoid surrendering to the charlatans due to better information and an understanding of how the real world works. There is no mightier weapon than education."

Science Is the Tortoise...

When so-called "celebrities," inside or outside of the medical profession, promote unproven alternative treatments, Americans want to believe them.

The actress Suzanne Somers dismisses conventional cancer treatments and writes books promoting questionable--or demonstrably ineffective--therapies such as laetrile (an extract of apricots) and coffee enemas. Such measures are less uncomfortable, invasive and expensive than chemotherapy or radiation, and we want to believe they work.

Psychiatrist Daniel Amen, who appears frequently on public television fundraisers, advises everyone to get a colorful PET scan of the brain. We want to believe it can help us beat the blues. But there's no clear evidence it works, not when you compare PET-scanned patients to patients who are conventionally treated without these scans.

In a thoughtful article, "The Scientific Method and Why It Matters," C2C, Canada's journal of ideas, explains how the controlled experiment is the only way to prove something works or doesn't. That usually involves a random sample of study subjects, some of whom get the proposed treatment, and some get a placebo (a "sugar" pill or some other inert substance). Neither the subjects nor the researchers know which group gets which treatment--a double-blind, randomized clinical trial in which factors such as gender, age and prior health get randomly distributed so as not to skew results.

"Thanks to the scientific method," the journal article says, "we have accumulated vital information about medical conditions: Surgery, chemotherapy and radiation lower the mortality rate from cancer, whereas reliance on homeopathic remedies is a death sentence. Fluoride in proper amounts reduces dental cavities, although too much fluoride can lead to mottled and brittle teeth. ... The MMR vaccine dramatically reduces the likelihood of contracting measles, mumps and rubella without increasing the incidence of autism. We know all these things because of properly conducted and replicated studies."

Yet science is slow.

Studies take years to accumulate enough data to be "statistically significant." Then the results must be confirmed before anyone can say with certainty what has been proved.

Understandably, people feel whip-sawed when one day the media are promoting a new! improved! treatment for, say, bone loss, only to champion a different approach 10 years later. Usually, the media gloss over a study's complications--it takes effort to understand the complexities of science, more effort to communicate it and a public willing to listen. But we want information "fast," not necessarily "good."

As the journal C2C notes, "[W]hile conventional scientific wisdom may be wrong at any point in time on any subject, the scientific method is a continuing source of correction and improvement. We do not know everything, but we do know how to test what we think we know and how to develop better approaches over time."

... Alternative Medicine Is the Hare

People who are ailing, in pain and desperate for relief understandably will consider any treatment. They're at the mercy of treatments that seem plausible, even if they haven't been proved, the journal C2C suggests, because:

1. The scientific method is cautious and lacks optimism. Sometimes, science offers little or no hope, especially to sufferers of maladies for whom science knows no "cure." "Multiple sclerosis, for example, is a terrible disease that adversely affects both the length and quality of life. We know a lot about its neural mechanisms, but we do not understand its causation. There is no cure, and existing symptomatic treatments are only moderately effective and have unpleasant side effects. Is it any wonder, then, that sufferers turn to Dr. Paolo Zamboni's venoplasty treatment (enlarging allegedly constricted blood vessels in the neck) even though it is supported mainly by flimsy anecdotal evidence? I might try it, too, if I suffered from MS."

2. The scientific method is unnatural. Survival for early humans depended on making snap decisions based on whatever was happening at the moment. The same is true today. When, for example, you have a lump in your breast, you might waffle between seeing a surgeon or a homeopath. (That's someone who treats disorders with tiny doses of natural substances that, supposedly, produces symptoms of disease in a healthy person.) Your decision might be more influenced by conversations with friends and relatives about the effects of mastectomy than by any consensus in the medical literature. "We depend on limited anecdotal evidence in almost everything we do, from buying a new computer to seeking medical treatment," the journal explains.

3. The scientific method seeks truth; less restricted communication has other objectives. The purpose of political communication is to sway opinion, build coalitions and claim power. Facts and truth aren't priorities. Politicians pander, scientists don't. Practitioners of CAM who lack a scientific argument find other persuasive ways to attract patients, and when politicians are afraid of seeming out of touch with what constituents want, bad things can happen, as the journal points out. "Demands for action led the federal government to authorize a $6-million clinical trial of Dr. Zamboni's venoplasty as a treatment for MS even though the procedure is supported mainly by anecdotal evidence and not the combination of basic science, epidemiology and trials with animal models that usually

precede the expensive decision to proceed to trials with human subjects."

When Nontraditional Medicine Does Not Put Safety First

In a companion piece, "Why 'Natural' Medicine Is Not the Same as Safe Medicine," the C2C journal says that more than 5,000 studies on herbal medicine alone have been published in the last five years. "Natural health products are not always as natural as many people think," it says, "nor are they always safer or better for you than medications designed in a laboratory. Claims of effectiveness are often exaggerated. Only careful study of such claims in clinical trials will help us understand what works and what does not."

But there's no money in studying natural substances as painstakingly as Big Pharma researches new prescription drugs. That's a huge reason why there is so little solid science about things like glucosamine for joint pain, and St. John's Wort for depression. And just because something is natural, just because something comes from "nature" and isn't the result of a new chemical recipe, does not make it safe.

"Some of the most potent toxins in the world come from natural sources," says the journal, noting, for example, arsenic and snake venom. Bad reactions to natural substances abound--poison ivy, anybody? Peanut allergy? The herb St. John's wort causes the body to metabolize several conventional medications faster than normal, so if you take it with the blood-thinner warfarin or a birth control pill, their effects can be compromised.

Remarkably, many patients who use CAM have doctors who are unaware of this--a scary proposition, indeed. As reported on MedPage Today.com, a survey of cardiology patients in Scotland found that more than half used at least one complementary therapy, and most hadn't informed their doctors.

Bad outcomes, of course, are worse than no outcomes, but there are plenty of those, too. C2C says that some studies confirm the traditional use of natural products, "but more often, the studies show that natural health products do not work as well as originally thought." The Cochrane Collaboration, which summarizes available clinical study evidence on specific products, found that cranberry juice or tablets do help to prevent urinary tract infections, but echinacea, a plant-based cold remedy has had mixed results, and those might be barely noticeable.

Information Resources

If you're considering using CAM, you must approach it as you would any other medical treatment--learn as much as possible about the procedure or product, its risks, purported benefits and how it interacts with other treatments you might take, including over-the-counter drugs and food.

This education effort is difficult because science is lacking and bogus claims abound. The National Institutes of Health's National Center for Complementary and Alternative Medicine (NCCAM) is the federal

government's official effort to recognize nontraditional medicine, but some critics, including Dr.Stephen Barrett of Quackwatch.org, find its definitions misleading and its purpose simply to perpetuate itself rather than provide trustworthy information.

Quackwatch helps separate the scientific wheat from the sleazy chaff, including fraud alerts. Sign up for its Consumer Health Digest, a weekly email that summarizes scientific reports, news reports, website evaluations, research tips and other information relevant to consumer protection and consumer decision-making.

The site also offers help in classifying alternative therapies:

- Genuine alternatives are comparable methods that have met science-based criteria for safety and effectiveness.
- Experimental alternatives are unproven but have a plausible rationale and are undergoing responsible investigation. (For example, a 10%-fat diet to treat coronary heart disease.)
- Questionable alternatives are groundless and lack a scientifically plausible rationale. The archetype is homeopathy, which claims that "remedies" so dilute that they contain no active ingredient can exert powerful therapeutic effects.

And remember that most TV health news reports, and many Web and print stories, focus only on the sexy news bites, not necessarily the science. To learn how to spot the difference, see HealthNewsReview.org, which helps consumers critically analyze claims about health-care interventions.

Recent Health Care Blog Posts

Here are some recent posts on our patient safety blog that might interest you.

- More cautions are piling up about robotic surgery. If your surgeon has plenty of experience doing it the old-fashioned way, but is just getting started with his new robot toy, watch out! I always tell patients, when you're offered something new, don't be dazzled, find out what kind of experience the doctors have with it. It's your life, not theirs.
- Myths of medical malpractice lawsuits, as published in a medical journal.
- When a doctor has a bad temper, patient safety can suffer.

Past issues of this newsletter:

Here is a quick index of past issues of our Better Health Care newsletter, most recent first.

To your continued health!

Sincerely,

Patrick Malone
Patrick Malone & Associates