# Patient Safety America Newsletter

*May 2018* http://PatientSafetyAmerica.com *John T. James, Ph.D.*

***Question: What is the cost per year of hip and knee replacements in the U.S.?***
***a) $2 billion b) $20 billion c) $200 billion d) $2 trillion***

Book Review: **Why We Revolt – A Patient Revolution for Careful and Kind Care**
Victor Montori, MD

I was fortunate enough hear Dr. Montori, educated in Lima, Peru and now at the Mayo Clinic, speak near the end of the Lown Institute meeting in Washington, DC. His fascinating and dynamic talk led me to purchase his book. His spectacular message is that we together – clinicians and patients – must revolt against the poison of industrial medicine that blankets the U.S. He speaks and writes of health-care delivery centered on empathy, elegance, solidarity, and love. He imagines encounters between patient and clinician built around conversations that are not constrained by dictates of industrial medicine. Greed, so rampant in our current system, must be purged to restore medicine to its core purpose of health and healing.

Dr. Montori's book emanates from his heart and mind. From his heart we read of his passion for a statue by Auguste Rodin called *The Cathedral*. Its marble was formed into two slightly cupped, right hands facing each other, defining a space in between that Montori calls the dance or conversation. It is in this space that patient and clinician must spend time together. He also speaks of gently holding a young, poor woman in a crowded ward as tuberculosis steals her last breath from her body. His words will mess with *your* heart.

From Montori's mind the reader is told of the limitations of evidence-based medicine, especially when the so called evidence is biased by special interests. He observes that the tyranny of evidence may destroy the magical space defined by Rodin's hands. Protocol may require compliance with guidelines, but that compliance may destroy the clinician-patient conversation and lead away from shared-decision making. He notes that conversations cannot protect patients from fraudulent, incompetent or negligent clinicians.

I sense that Montori does not have a clear vision of how his proposed revolt will happen. Reform is not enough, he writes, it must be a revolution. How do we get the attention of policymakers, payers and managers? There will be friction as some lose their role in industrial medicine. The revolution must come from healthy patients; the truly sick are too disabled to mobilize. Buy his book. It's about $10 on Amazon. I'd rate it 5+ stars.

**IN THE MEANTIME, UNTIL WE HAVE THE PATIENT REVOLUTION…**

**Book Review: Doctors & Hospitals – Rules for Survival**
Robert M. Fox, JD and Chris Landon, MD

One unique thing about American sick-care is that many books have been written on how to deal with it and survive. I cannot think of anything else we buy that elicits so many guides on how to survive the experience. This book speaks loudly that we patients have endured a broken system far too long. Why should we need a survival guide to health

care? The answer is of course, "For now, it is dangerous." It may pose danger to health and to economic wellbeing. This guide is remarkable in its thorough treatment of survival tips, many of which I (supposing that I am well-informed) would not have considered. The guide is organized into 8 chapters, beginning with general rules about surviving out-patient care in the face of potentially serious illness. The authors go on to discuss ways to consider the pros and cons of surgery for any non-emergency condition. Once you have made an informed decision to undergo surgery, guidelines are provided for preparation of your hospital experience. This is followed by chapters on what to do as an inpatient, including ones on tests and medical devices, and one on medications. The book concludes with chapters on dealing with costs and medicolegal issues.

The reader senses that serious surgery is going to require a "battle stations" approach to surviving. The authors point out that sometimes the tips they describe may conflict with each other. For example, you should have surgery on the first three days of the week, but if the surgeon you carefully selected does surgery at the hospital you carefully selected only on Thursday, then something has to give. The rules are graciously peppered with stories to break up the catalog approach to delivering tips. It is a pleasant read, although a bit worrisome as one contemplates all that may go wrong.

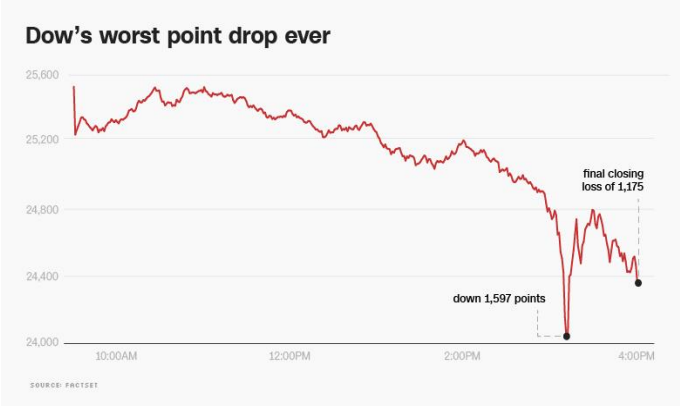
I'd recommend this book for two reasons. First, use it to discover how much you really should stay healthy so you do not need surgery. Secondly, if surgery cannot be avoided, then turn the book into a checklist of "to does" as you seek to survive. 5 stars. Publication pending.

## *Overuse of Hip and Knee Replacements*

Three authors wrote their opinion in *JAMA* of overuse of hip and knee replacements in the U.S. They noted that in 2014 more than 1.2 million replacements were performed. They report that in other high income countries the average replacement rates, per 100,000 people (2010 data) were 166 (hip) and 126 (knee). The comparable rates in the U.S. were 204 (hip) and 226 (knee), respectfully. The authors argue that patients are not given suitable material to make an informed decision about whether they may benefit from a replacement. In the U.S. there is a huge regional price variation, up to 5-fold, for replacements. The authors estimate that refusing to pay for inappropriate procedures could save almost $13 billion per year.

## *Mortality and Negative Wealth Shock*

It is well known that emotional stress may lead to adverse health consequences. One of the best ways to elicit emotional stress is to experience "negative-wealth shock." This was defined in a recent study by the loss of 75% of a person's net worth over 2 years or having no net worth at the start of the study. The study involved about 8,700 nationally representative people, of which 2,400 experienced negative wealth shock and 750 had no




net worth at the beginning of the study. These were adults with an average age of 55 years. In each group, the deaths over 20 years (1994-2014) of follow up were 31 per 1,000, 64 per 1,000, and 73 per 1,000 in the continuous wealth group, the negative-shock group, and the no-asset group, respectively. The authors point out that negative-wealth shocks may be caused by unexpected medical costs, confounding the association between negative-wealth shock alone and risk of death. The authors point out that they have not demonstrated a cause-and-effect relationship; however, they call for more research to determine if there may be opportunities for interventions to improve health.

## *The Healthcare of Children*

Without a doubt, children are my favorite people. The ones I know bubble with energy, curiosity, and absence of discrimination. One of the hardest questions asked of me by children is "Why."

On behalf of the children in my life, I would in return ask, "*Why* doesn't my health care reflect evidence-based care?" An editorial in the *JAMA* examined this question as it pertains to whether children receive the health care they should.

The editorialist notes that about a decade ago a study was published showing that children in the U.S. receive only 46% of the recommended care they should. A new study from Australia shows that in that country children receive about 60% of the recommended care. However, the latter study did not include preventive care, so a comparison is difficult. Australia, unlike the U.S., has a universal health-care system and a nearly unified electronic health-record platform (the U.S. has more than 40).

Despite the findings of these studies, the editorialist is critical of clinical practice guidelines for children because too many of these are based on scanty evidence of no more than expert opinion. He notes that the National Academy of Medicine has described the approach necessary to guarantee that clinical practice guidelines are evidence based, but it cannot be said that this is the case for pediatric guidelines. The editorialist calls for more research to establish better science from which dependable guidelines may be forthcoming.

**If you are looking after the health care of a child, be well informed about any medical conditions of the child. Never hesitate to ask why tests, imaging, or clinical evaluations are being performed. As the person who knows the child best, speak up if you feel something is amiss.**

## *Air Pollution and Your Health*

My home town of Houston is not known for its clean air, although I have noted since I moved here in 1989 that the air is noticeably less polluted. At times in the early 1990s, the air was so bad that my dog would not go outside to do his business. A recent report, highlighted in the *JAMA* and citing the Environmental Performance Index, notes that air pollution is still a serious health threat in many parts of the world. The report comes from the World Economic Forum with researchers from Yale University and Columbia University. Countries such as Switzerland, Denmark, Sweden, and Malta top the list of countries with clean air, whereas several developing countries are at the bottom. Although the U.S. overall has fair air quality, it still comes in 27th when all the environmental and greenhouse gas sources are considered. We rank behind almost all developed countries.

Unfortunately, the current trend is to relax standards for emissions into our atmosphere to pander to industrial interests. For example, The U.S. Environmental Protection Agency has proposed relaxing rules, thereby allowing petrochemical plants to emit far more compounds into the air, including carcinogens and respiratory irritants.

## *The Trail to Patient Harm*

I am a fan of evidence-based guidelines. Ideally, these are based on solid evidence, developed by unbiased experts, and put through rigorous peer review. What I did not know as an outsider is that guidelines drive "order sets" for inpatients that fit the conditions addressed by the guidelines. The problem is that guidelines change based on new evidence, and if the order set does not change with the guidelines, then the patient may be placed in harm's way. Two MDs describe a specific example of how this can happen. They refer to a story in which a patient, having had a heart attack, received a stent. There were complications, but the cardiologist followed the admission order set for the kind of heart attack the patient had experienced. This involved the administration of a beta-blocker. Apparently, a heart attack victim that has received a stent is unlikely to benefit from beta-blockers, especially if the patient is in heart failure, as this fellow was. The order set was an "extrapolation" from outdated guidelines, resulting in patient harm.

The point to be made is that guidelines are not always the answer to patient care; therefore, the clinician should be able to deviate as the patient's condition warrants. However, there must also be a rigorous procedure for keeping guidelines and derived order sets properly configured and up to date with best evidence. Physicians must be cautious when relying on order sets in electronic health records.

**The patient should know that medical care may be extremely complex and that keeping up with the best evidence, whether through one's**

**own reading or through decision aids, is essential. I might also observe that the sick-care system is not known for being a learning system. Old practices persist, and critical information may not be shared from one institution to another.**

## *Electronic Health Records and Patient Harm*

It does not matter whether you like or dislike electronic health records (EHRs), they are here to stay. As pointed out in the story above, EHRs whose order sets are biased or out dated may lead to harm. A team of investigators specifically asked if there are instances where EHRs may have led to patient harm. The investigators searched the Pennsylvania Patient Safety Authority database for entries from 2013 to 2016. Their search turned up 557 instances where EHR usability may have contributed to a patient-safety event. The usability parameters were then grouped into 7 usability categories to characterize the cause of the potential harm. For example, visual display, interoperability, and data-entry were among the categories.

The results suggest that of the 1.7 million reports scanned, the blame was rarely placed on usability of EHRs; however, this may be the old "tip of the iceberg" because there is likely to be huge underreporting of the role EHR usability played in patient-safety events. The two largest categories of potential patient-safety events in clinical processing were medication administration and order placement. **There is a message here for patient advocates**. **If something seems odd to you, for example, why do you want to give the patient an extra dose of that drug? or, "Why are there two separate EHRs for my patient?" Speak up.**

## *Family History and Risk of Breast Cancer in Older Women*

Like many things when it comes to predicting one's risk of certain cancers, the picture is complicated. A huge group of investigators studied the risk of breast cancer in women over 65 if they had had a first degree relative (mother, sister, or daughter) with breast cancer. They had nearly 11,000 cases of cancer to sort through. In the 65-74 age group a first degree relative with breast cancer increased the odds 50% that a woman could get breast cancer, and in the 75 and older group the odds increased by 60%. These findings have an important bearing on the age at which mammography screening is no longer sensible. The US Preventive Task Force guidelines recommend biennial screening for women between 65 and 74, but the data are insufficient to make a recommendation for women 75 and older. The data from this study may inform changes in the guidelines.

**The choices are difficult for older women with a first degree relative diagnosed with breast cancer. Screening can lead to undesirable follow up of findings that would never make an impact on a woman's life. However, dying of cancer because one never got screened is something no one wants.**

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Answer to question: (b) $20 billion, https://jamanetwork.com/journals/jama/article-abstract/2674674?redirect=true