



Patient Safety America Newsletter

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<http://PatientSafetyAmerica.com>

John T. James, Ph.D.

Question: If a letter grade were assigned to the ability of cardiologists to interpret an ECG it would be:

- a) A
- b) B
- c) C
- d) D
- e) F

Book Review: **Still Not Safe – Patient Safety and the Middle Management of American Medicine**

By Robert L. Wears, MD, and Kathleen M. Sutcliffe

I had the honor of meeting and listening to a presentation by Dr. Wears, a long-time champion of improving patient safety. We were presenting at a Nurse Symposium in Jacksonville, FL. He seemed to struggle with discomfort during his presentation. I learned a few months later that he had died and that his planned book on the history of patient safety would have to wait for someone to finish it. Dr.

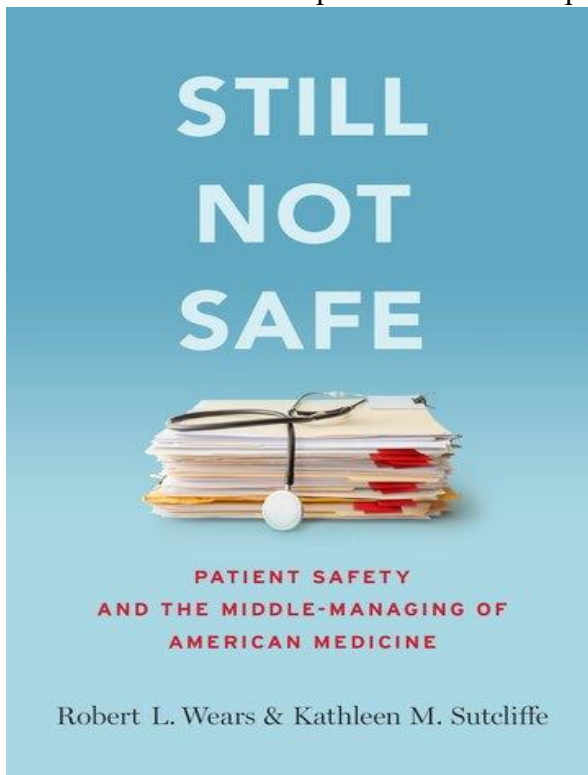
Sutcliffe was the one to do that. She is a distinguished professor at Johns Hopkins University and specializes in how high-risk organizations can best manage that risk by being reliable and resilient. This combination of authors created a darkly remarkable, academic book that is generally critical of the way improvements in patient safety have been pursued in the U.S.

After tracing early efforts to improve patient safety, the authors describe how the Institute of Medicine (IOM) book *To Err is Human* catalyzed patient safety. They go on to criticize the idea of evidence-based medicine and suggest that physicians have good reason not to follow guidelines based on this principle. They disdain a scientific-bureaucratic approach to improving

patient safety. They devote a whole chapter to quality improvements in anesthesia that began well before the IOM report, asking why safety improvements in anesthesia happened but no such improvements have happened in the rest of medical care. They lament the ‘fact’ that patient safety was dominated by health professionals to the exclusion of valuable safety knowledge from other industries and safety experts.

As far as medical errors are concerned, they dislike that term, instead saying that we should speak of ‘harm’ to patients, which tends to diffuse

blame. The authors describe the early days of the National Patient Safety Foundation and the founding of agencies such as the Agency for Healthcare Research and Quality. They call for setting aside our hindsight bias in searching for mistakes, instead focusing on radical fundamental change that is forward looking and systems based. They frequently lament ‘medicalization’ of patient safety. By this they mean that the patient safety movement has been coopted by people associated with the medical



industry, leaving out experts in safety science outside the industry. They point out that patients come with their stories of harm, but they have been generally excluded from the dialog for

improvements in patient safety. One chapter reflects on the slow progress being made toward safer care, compiling a table of comments by experts to that effect.

The authors opine on the future of patient safety, declaring that it is likely to fall into ever-increasing bureaucracy, may get rebranded, or it may wither and die. They believe the last possibility is unlikely. Their ‘vision for reformation’ includes medical factions abandoning their hubristic character and engaging psychology and engineering. They admit that the healthcare industry is far more complex than any of the industries such as aviation and nuclear energy, that have become exemplars of how to do safety. They end with the catchy admonition – unless we in patient safety change, nothing will change in patient safety.

I agree with about 60% of this book’s assertions. I think the core principle of applying evidence-based medicine is at the center of how to improve patient safety. The use of this principle is still trapped behind the nonsense idea of ‘standard of care.’ The book fails in three major ways. First, it fails to acknowledge the need for more patient involvement in patient safety and that this is beginning to happen. Secondly, it neglects the great number of lives shortened because needed care, harm from omission if you will, has not been delivered. Finally, it does not appreciate the importance of shared decision-making as a fundamental driver of much safer care. This is an academic book published by Oxford University Press. It is an interesting read but is not for the casual reader in patient safety. 3 Stars.

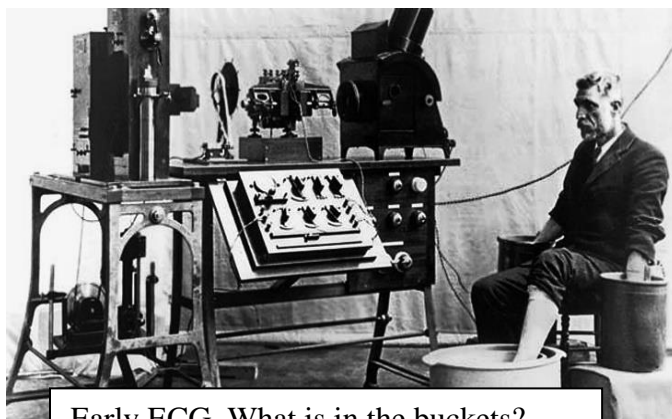
Your Electrocardiogram (ECG)

William Einthoven invented the first useful ECG in 1895 and received a Nobel Prize for it in 1924. In 1920 the first ECG following a heart attack was published in *Archives of Internal Medicine* (Now *JAMA Internal Medicine*). One might suppose that after a century of use, physicians would be able to interpret an ECG with keen accuracy. A team of MDs just published in that same journal a meta-analysis of journal reports of the accuracy with which doctors interpret ECGs. It is not encouraging.

From an initial run of 1138 studies, the [investigators found](#) 78 that described the accuracy of ECG interpretation. Taking all levels together, the

accuracy was 54% before training and 67% after formal training. The pre-training accuracy improved as doctors matured; accuracies were as follows: medical students, 42%; residents, 56%; practicing physicians, 68%; and cardiologists 75%. The investigators opined that additional training is needed across all levels of physician practice.

To be honest, the results of this study puzzled me. Are doctors not periodically tested to determine if they have mastered the basics of their medical discipline? How is it that interpretation of something as basic as an ECG cannot be accomplished with superb accuracy? Patients may wish to protect themselves from ECG misinterpretation. One way is to have a baseline ECG taken. Then at each of your physicals when an ECG is taken, ask if there are any changes, even minor ones. If there are, then ask for a second opinion about the clinical significance of those changes. Do not let your heart be one that is broken.



Early ECG. What is in the buckets?

End of Life Care – Advantage Plan?

I am no expert on Medicare plans. With that qualifier, I herein summarize a study comparing the quality of care, as judged by the family of beneficiaries in Medicare or Medicare-Advantage (MA) plans. The investigators [found that families](#) more often rated the care of their deceased family member to be better with ordinary Medicare than with MA. Family members were 28% more likely to say care was not excellent and 48% more likely to say they were not kept well informed as life ended for the MA beneficiary. The authors conclude that Medicare needs to ensure that quality of care for MA patients near the end of life is maintained.

An [opinion](#) on this study suggested that the differences in perceived quality may be due to administrators of the MA plans. These plans receive a fix fee for patient care, so it is in their best interest to limit costly care. Networks tend to be narrower for MA plans, perhaps contributing to suboptimal care. On the other hand, in a fee-for-service system, patients may receive too much ‘care’ near the end of life. End-of-life care is a call for family members or other advocates to be especially vigilant that the treatment of the patient is centered on what can be done FOR the patient rather than TO the patient.

Warnings on Unhealthy Foods

When is the last time you read the nutrition label of a food you were thinking of buying and deemed the food to be unhealthy, and then bought it anyway? I think most people seldom read nutrition labels and rarely decide something is unfit to eat because it contains unhealthy ingredients. Two [experts wrote](#) an appeal for the U.S. to consider warning labels that cannot be overlooked for foods that are deemed unhealthy. Chile, Mexico, Israel, Peru, and Uruguay have already done this. In those countries, foods are deemed unhealthy if they contain added-sugar, salt, and saturated fat.

The push back in the U.S. is likely to come from affected industries who claim that under the first amendment such warnings would be ‘compelled commercial speech.’ Legal rulings at the state level suggest that the requirements for implementing such speech could be met. States could mandate warnings, but to be most effective, this warning system should happen at the federal level with the FDA deciding which nutrients warrant a warning and at what concentration. In the days of COVID-19 we are experiencing warning-fatigue; however, once the pandemic has been brought under control, one might hope for sensible laws to warn the public about unhealthy foods.

COVID-19 Articles and Links

Herd Immunity and Vaccination

Three experts explain [herd immunity](#) in the context of our current pandemic. Herd immunity happens when a sufficient portion of the population, (herd immunity threshold) becomes immune from

infection, either by being exposed to the virus or by vaccination. Present data and simple models show that this percentage is about 60%. The WHO estimates that the infection fatality rate is about 0.5%. The population of the U.S. is about 330 million, so almost 200 million people (60% of 330 million) will have to be infected to attain herd immunity. The number of deaths associated with this will be about $0.005 \times 200 \text{ million} = 1 \text{ million}$.

Proponents of the practice of spreading herd immunity by discarding protective measures argue that the vulnerable population can be isolated from those ‘earning’ herd immunity through exposure. The authors argue that this is impractical. Fatality rates from infection estimated by the [CDC \(USA Today\)](#) are roughly half that of the WHO, so maybe our calculation above would only be 1/2 million deaths to achieve herd immunity. The point of the article seems to be that we must remain cautious until an effective vaccine is widely available.

Comorbidities & COVID-19 Deaths

A team of 5 [investigators looked](#) at 25 studies and combined the results in a meta-analysis that included more than 65,000 patient records. They asked which comorbidities were associated with death from COVID-19. They found the following: cardiovascular disease (2.25), hypertension (1.82), diabetes (1.48), congestive heart failure (2.03), chronic kidney disease (3.25), and cancer (1.47). A value of (1.00) means there was no additional risk of an association when compared to patients without any comorbidities.

Willingness to Accept COVID-19 Vaccine

A group of investigators [surveyed](#) almost 2,000 Americans to determine their willingness to accept a COVID-19 vaccine given various scenarios. If 1.0 is total willingness, then the change in willingness given various scenarios was as follows:

Change efficacy or source	Effect
Efficacy increase from 50 to 70%	+7%
Efficacy increase from 50 to 90%	+16%
Protection from 1 to 5 years	+5%
Vaccine came from China	-13%
CDC endorsement vs Trump endorsement	+9%
Likelihood serious side effects 10^{-4} to 10^{-6}	+7%

The authors opine that their findings could be used to guide public health campaigns seeking to encourage vaccination.

NEJM: Dying in a Leadership Vacuum:

<https://www.nejm.org/doi/pdf/10.1056/NEJMe2029812?listPDF=true>

Risk of COVID-19 transmission during flights appears small (JAMA Patient Page):

https://jamanetwork.com/journals/jama/fullarticle/2771435?utm_source=silverchair&utm_medium=email&utm_campaign=article_alert-jama&utm_term=mostread&utm_content=olf-widget_10082020

COVID-19 and pre-existing conditions are Americans' biggest worries:

<https://www.commonwealthfund.org/publications/podcast/2020/oct/covid-19-and-preexisting-conditions-are-voters-biggest-health-care>

Dealing with high drug prices:

<https://www.commonwealthfund.org/publications/fund-reports/2020/oct/getting-lower-prescription-drug-prices-key-drivers-costs>

Discussion tool for folks considering a hospital procedure:

https://mdic.org/wp-content/uploads/2020/10/Patient-Discussion-Tool-FINAL_DIGITAL-10.8.203.pdf

Fall of the CDC in the days of COVID-19

(ProPublica):

<https://www.propublica.org/article/inside-the-fall-of-the-cdc>

Cat and Mouse with COVID-19 (The 'not so' Great Barrington Declaration):

<https://www.infectioncontroltoday.com/view/viewpoint-the-not-so-great-barrington-declaration>

Americans struggle with economic and mental health issues from COVID:

<https://www.commonwealthfund.org/publications/podcast/2020/oct/americans-are-struggling-mental-health-and-economic-impact-covid-19>

Twitter removes false statement by Trump's MD advisor who says masks do not work:

<https://www.nbcnews.com/politics/donald-trump/twitter-removes-tweet-top-trump-covid-adviser-saying-masks-don-n1243841>

What is herd immunity (JAMA PP):

https://jamanetwork.com/journals/jama/fullarticle/2772168?guestAccessKey=90916f88-926e-4fbd-af99-e2b7f50cb1&utm_source=silverchair&utm_medium=email&utm_campaign=article_alert-jama&utm_content=olf&utm_term=101920

Americans dying at higher rate from COVID than in other countries: <https://www.npr.org/sections/health-shots/2020/10/13/923253681/americans-are-dying-in-the-pandemic-at-rates-far-higher-than-in-other-countries>

COVID risk calculator for a specific activity you select (clever):

https://mycovidrisk.app/?utm_source=fbia&fbclid=IwAR1wHGmO-TvVCX-qQ8Va7OM4y_N5iD6Bt5USBnRaOy8P0qJi3_Gja3tEzo8

Racial bias in COVID care, NM indigenous people

(USA Today): <https://www.usatoday.com/in-depth/news/nation/2020/10/20/native-american-navajo-nation-coronavirus-deaths-underfunded-health-care/5883514002/>

For Latinos healthcare is top priority:

<https://www.nbcnews.com/news/latino/latino-voters-health-care-top-issue-obamacare-gains-reverse-under-n1244001>

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Answer to question: c) 75%, see story on reading electrocardiograms