MedicineBall is the new Moneyball. WikiLeaks meets medicine

In an age where the importance of data, statistics and predictive modeling win big games for baseball teams and make fat money for high-frequency traders, we are at the dawn of a new age of transparency in healthcare. It behooves every actor, in every sector, to use this new perspective to constructively illuminate best practices and redesign their infrastructure. The imperative is true operational, clinical and logistic efficiencies, honoring the value of people and institutions, all in the spirit of getting *the patient* the best outcome. It's the patient, stupid. Propublica, in a seminal article, *Making the Cut,* via data, shows us the power of transparency in complications rates during surgery.

Every modern industry uses 'big data' to understand the dynamics of their market landscape. This in turn, enables them to make decisions and develop strategies for gaining market share and building their brands. Fortress medicine has just received a shot over the bow regarding the power of this new *data perspective.* The entire field of medicine needs to craft visionary, courageous and mindful strategies that mandate the inclusion of the bright light of outcomes (data) into their private practices, clinics and large institutions.

Meanwhile, patients are already clamoring for the lubrication of data; currently it just doesn't flow—it lives in the Electronic Medical Record, an industry-centric database which is really a 'wait-a-base'.

Physicians and their patients, since the dawn of medicine, have existed in a world without clarity around outcomes and complication rates—

historically, there has been no meaningful way to collect and analyze it. No news was, in a perverse way, good news. Now the outcomes data feedback loop is in effect; forcing the house of medicine to take a data perspective on its future.

What Yelp has done for small business and Zagat has done for fine restaurants, CMS just did for the medical profession….and it just might be the needed dose of *datacillin* to start an honest conversation about the paucity of a 'design with data' mentality in medicine.

Medicine has always grappled with complications, death and disability, in the private halls of hospitals. These are called "M & M" rounds—and they occur on a regular basis. The goal of these rounds is to dissect major mistakes (mortality—capital 'M') and minor ones too (morbidity, little 'm').

These meetings are among peers and colleagues, in strict confidence, too share mistakes as a mechanism of improving. The Institute of Medicine in their acclaimed report, *To Err is Human,* highlights that many mistakes and death are human error. To be clear, they highlighted all forms of error; including nurses and pharmacists entering the wrong dose into the computers—not solely surgical complications. The point is that errors happen to frequently and people wind up dead or disabled as a result. #notgood

I have personally attended my own father leading M & M rounds to discuss an accidentally cut bile duct in a routine laparoscopic gall bladder removal. He was bummed out but not ashamed; rather he wanted to share his experience regarding variant anatomies (and we are mostly all different) that can lead to peril if specific maneuvers and procedures are

not artfully choreographed. Sadly for the patient, a bad outcome occurred, yet in the end, an entire surgical department learns from his 'mistake'. Morbidity and mortality rounds are meant to disseminate learnings, better practices and to highlight error in a constructive, albeit humbling way. Medicine is evolving from a humanity into a science, for sure; however it will never be purly a science as long as people are part of the equation.

What *Making the Cut* elucidates is a new world order in healthcare. Everyone on a surgical team is now part of the statistical modeling paradigm; for better or worse. Was the surgeon responsible?, was it the nurse, the anesthesiologist, the post-surgical care, the patient, the follow up care coordination process?—who is ultimately responsible for a bad outcome that is not clear-cut. In many cases, they may never be clear.

Some bad outcomes and complications are just plain bad luck…and hopefully the data isn't conflating all complications with a specific 'culprit'. We need to look carefully at how the CMS dataset was analyzed by the number crunchers. The last thing we need is a publication bias to morph into misconstrued lore.

Transparency on a grand scale will create the space for everyone to start talking to each other; stitching together the balkanized fiefdoms of medicine into coherent units that will all participate and own the outcome of individual patients—together. We can no longer hide behind the opaque veil of complexity and complex systems when in fact, taking care of patients is not complex, nor complicated. Just look at the orthopedist from small town Alabama with the best outcomes. What's his special sauce? According to Propublica, he took personal interest in follow up care. How important is follow up after an expensive, exisitential surgery?

After all, once a diagnosis has been made and treatment is commenced; the only way to know if a complication is imminent is to stay connected with your patient. If warning signs should arise, action should be taken. Simple as that; not complex.

Sadly, medical codes (any payment) do not really exist for follow up care…..

Physician Incomes = Physician Outcomes

The Centers for Medicare & Medicaid Services has made two significant moves int he past year. One is to start paying for the tele-management of poly-chronic care coordination (think the sickest of the sick). It's crazy that the government had to come up with that idea….the private sector is myopic when it comes to long term solutions in the context of quarterly earnings. Furthermore, on July 13th CMS just released new guidelines that will basically create a policy to enforce a warranty for surgical procedures; specifically hip and knee surgery. A critical element of 'the warranty' will be…wait for it, complication rates. The new paradigm in payment: Your income will be dependent on your outcomes: incomes = outcomes.

The crazy thing is that physicians, and I am one, have historically not participated in the data collection game nor the electronic systems that power their industry. Why? Well, it's an artifact of geeky computer science engineers building crappy code we hated using (and still, mostly do).

New sources of medical data, including patient generated data will give the ecosystem of medicine a new perspective, a *data perspective*. This

new prespective represents a once in a generation opportunity to rethink and redesign how medicine delivers care.

Ironically, this puts physicians into the precarious position of being in the "if you're not at the table, you may be on the menu' paradigm. Physician data is currently collected by EMR vendors, insurance companies, laboratory and radiology companies, pharmacies, revenue cycle management companies and a host of other third parties—but rarely the doctor….or if they do, it's the exception. I have a hard time believing that your friendly, local insurance company will happily supply doctors with unfettered access to their data werehouses. This data is expensive, comes at a premium and is often viewed through the lens of marketshare; not necessarily patient care.

Physicians and clinicians need step up and start collecting their own data. They can no longer be sucked into becoming a customer of a data-collection engine that sells your collected data (and can use it against you). The way the world works today looks something like this: A physician gets a report, a flat file, that is pre-analyzed by statisticians with conclusions drawn. #Nolo contendere.

Physicians have been reluctant to play the data game and for good reason; they are at an asymmetrical disadvantage when it comes to the computational power of large institutions and their 'crunched' data. The time is now for the physician community to wake up and realize that if we don't collect own our own data, and publish it; they will—and they will likely do it for their advantage.

The Centers for Medicare & Medicaid Services data that powers the Propublica article is a blunt instrument; like the first scalpel design- not

sharp, not precise, but effective in making it's point known. A growing chorus of physicians argue that they see a 'sicker population'; that their patients are 'more complex', and while this may be true, the data scalpels will become more sophisticated over time and physicians should be designing these tools with every major stakeholder for the sole purpose of getting the best outcomes. After all, patients want the best outcome and they are the whole point of medicine.

As the world of transparency descends on the fuzzy humanity of medicine, we all need to recognize that we are dealing with variable human anatomy, variable human physiology and human emotion.

Data holds *a* key; a very important one, however it does not hold *the* key. Participatory humanism plus data does.

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