To Cut Health Costs, Focus on the First Minutes of Care



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In medicine, timing is everything. Consider the harrowing events after the crash-landing of Asiana Airlines Flight 214 last July 6th 2013. The injured streamed into San Francisco General Hospital and Trauma Center by the dozens. For the medical professionals at SFGH involved in responding to this scene of mass triage, the passengers and crew injured in the crash presented a series of splitsecond challenges: how to assess the full extent of the damage, who to treat first, and what treatment to provide?

Through four waves of patients over the course of six-anda-half hours, with lives that could be lost or irrevocably damaged with each passing minute, what emerged in the stories of the men and women who treated the injured was a heroism informed by a common element: in each case, within the first minutes of care, arriving at the correct diagnosis was the critical issue, and in patient after patient, the radiology department became the nerve center of operations. Physicians and nurses from other departments congregated in the main Radiology reading room to review CT scans and X-rays to make rapid-fire diagnoses. Together, they immediately considered the most important questions - Is there a fracture? Are there internal injuries? Does this patient need immediate surgery? - and then decided on next steps.

These are moments we can imagine fairly easily. Popular television shows - from ER to House to Grey's Anatomy

- have long dramatized how crucial early moments of care are for trauma victims. But what most don't realize is that very same principle - that early, accurate intervention matters - applies across the entire health care system, not just in trauma cases, but in nearly all cases.

It is in the first 15 minutes of a medical encounter - which. studies show, is the average amount of time that patients meet with their primary care physician - that up to half of all medical costs are set in motion. It is health care's version of Harry Potter's famous "Sorting Hat," a wizard's hat that magically determines in the first hours at Hogwart's School of Witchcraft and Wizardry which one of four very different fraternity-like houses each new student is to be assigned.

In medicine, the first 15 minutes is the pivotal timeframe in which symptoms coalesce to define an individual as a "heart patient" or a "stroke patient" or "asthmatic," sending them down a specific road toward further tests, evaluation and eventual therapy. Known as an "anchoring bias," an incorrect diagnosis could lead physicians to ignore new symptoms or information that could lead to a different recommendation.

Why is this important? At a time when the Institute of Medicine estimates that between 20 and 50 percent of health care dollars are either wasted or unnecessary, there is increasing data to suggest that a good deal of that inefficiency is due to care that never needed to be delivered - in large part, because the initial diagnosis was incorrect. For example:

· Diagnoses that are missed, wrong or delayed affect an estimated 10 to 20 percent of cases, numbers much greater than drug errors or surgery on the wrong patient or body part;

• As far back as 1991, the Harvard Medical Practice Group study found that diagnostic error accounts for 17 percent of preventable errors in hospitalized patients, while autopsy studies covering four decades reveal that nine percent of patients experienced a major diagnostic error that went undetected while they were alive;

- A 2012 study found that 40,500 people die each year due to fatal diagnostic errors in U.S. intensive care units, nearly equal to the lives taken annually by breast cancer;
- In a review of 25 years of U.S. malpractice claim payouts, from 1986 through 2010, researchers at Johns Hopkins found that diagnostic errors-not surgical mistakes or improper medication-accounted for 35 percent of total claims, generated payments of nearly \$39 billion and resulted in death or disability almost twice as often as other error categories;
- <u>A 2009 report</u> published in the Journal of the American Medicine Association found that diagnostic errors account for 40,000 to 80,000 hospital deaths in the U.S. each year, with errors of diagnosis being the most common, the most costly, and the most deadly form of medical error;
- A recent commentary on a <u>Texas VA study</u> as reported by Kaiser Health News estimates that "with more than half a billion primary care visits annually in the United States... at least 500,000 missed diagnostic opportunities occur at U.S. primary care visits, most resulting in considerable harm."

Third, support research to create better diagnostic tools. Medical technology is often perceived as a driver of health care costs, and there is certainly some truth to that. But the In other words, the first 15 minutes of medicine could be latest innovations in imaging and diagnostic testing can health care's most expensive. lower costs by improving the odds of a correct diagnosis. Tests like troponin, for instance, can help doctors assess Diagnosis - and, more importantly, misdiagnosis - matters. whether a patient is experiencing a heart attack, which So how can we better understand this phenomenon, and leads to quicker, more effective treatment.

what can we do to address it? Four things.

Fourth, fund studies to build a better baseline for action. First, bring better coordination to our health care system. The founding president of the Society to Improve Just one in three diagnostic mistakes result from physicians' Diagnosis in Medicine recently observed that not a single mental mistakes, according to a 2005 analysis by the hospital in America is trying to count diagnostic errors -Archives of Internal Medicine. The majority are the result even though a 2011 study of 6,000 physicians found nearly of our disjointed health care system, from delayed tests half encounter preventable diagnostic errors every month. to malfunctioning equipment to missed hand-offs between Establishing a better baseline can help medical facilities of physicians. The Affordable Care and Patient Protection all kinds prevent errors. Act incentivizes coordination of care, moving away from our current system that rewards doing *things* (paying a fee Instinct, intuition and experience will always be vital for every service performed, with no regard for results) to medicine. But if we can put more technologically and toward a system that rewards doing the *right things* advanced, evidence-based tools in the hands of skilled (paying for better results). Anchoring the system in results providers, we can turn the most expensive 15 minutes will create a stronger incentive to get the initial diagnosis of medicine into the most successful. right.

Second, embrace technology. Advanced software can help More on: Cutting costs, Health, Innovation



physicians make better decisions. Arecent Harvard study found that using so-called clinical decision support (CDS) software to help physicians pinpoint the correct diagnosis and treatment over a three-year period shortened length of hospital stay by 370,000 days per year while lowering mortality rates.

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