



Appian

Eliminate Medical Mistakes in the Care Continuum

by Fritz Haimberger

EXECUTIVE PERSPECTIVE
HEALTHCARE PROVIDERS



Falling right behind the number one leading cause of death, heart disease, and the second leading cause of death, cancer, falls medical errors with over 250,000 each year.

SUMMARY

Medical errors are now the third leading cause of death in the United States¹. Only heart disease and cancer are higher on the list. This jarring statistic can be linked back to a lack of process control, communication, and accountability among health professionals at various stages of the care continuum.

Remedies do exist, but will require a digital transformation in the provision of healthcare services.

This perspective considers challenges facing the healthcare industry and describes how a digital overlay can help providers streamline the process for treating patients in a responsible manner. With the proper digital technology in place, it is possible to hold workers accountable for their actions, and provide checks and balances to decrease life-threatening errors.

FIXING REPEATABLE MISTAKES

When an error happens in most fields, an analysis is done to find the root cause of the problem. Where did the lapse happen? Why did it happen? And how can we prevent it from happening again?

Similarly, when a disease, like Alzheimer's or breast cancer, is killing tens of thousands of Americans each year, significant research is done to fight that disease. The larger community becomes involved as well, for example entering a 5K walk/run, knowing that part of the registration fee can help this research get back to the root of the problem, and hopefully, come up with a solution that will spare lives.

Yet, should one fall victim to one of the above diseases, one is more likely to die from an error being made during treatment, than from the disease itself. The latest study released in May 2016 on the top causes of death in the United States from Johns Hopkins University researchers reveals:

Falling right behind the number one leading cause of death, heart disease, and the second leading cause of death, cancer, falls medical errors with over 250,000 people meeting their demise from these each year.

So where are the medical error 5K fun-run fundraisers? Where is the heightened awareness of this issue if it has become such a deadly trend? And there, in turn, lies the problem.

THE SILENT KILLER

Medical errors are perhaps the most extreme form of a silent killer. Not many people are aware that they are happening, and little research is put into their prevention.

According to U.S. News and World Report, the five most preventable medical errors are:

1. Medication errors
2. Too many blood transfusions
3. Too much oxygen for premature babies
4. Healthcare-associated infections
5. Infections from central-lines

Many medical mistakes happen after a patient leaves the hospital.

With the rising frequency of these errors, patients are suffering the ultimate consequence. It's not only patients at risk, but also healthcare providers who must pay for the mistakes. They take an emotional toll, but also a financial one with malpractice insurance coverage and lawsuits.

IT'S NOT JUST AT HOSPITALS

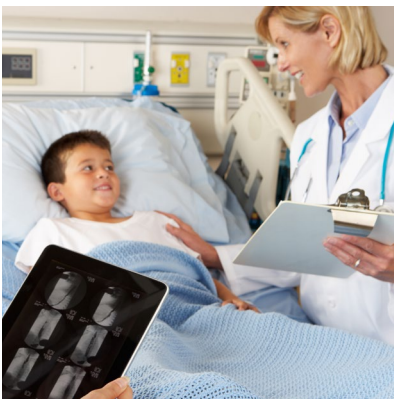
When people think of medical errors, the first thing that comes to mind for most are the huge gaping errors highlighted by the media -- the wrong leg being operated on or the wrong patient having an incorrect procedure performed. But those are the rarities, and mistakes don't always happen at the hands of physicians and nurses inside a hospital.

In fact, many medical mistakes happen after a patient leaves the hospital. A recent case, featured in the Washington Post, explained how a Missouri woman died as a result of the wrong medication being dispensed to her during her tenure in a home health program. It started with the pharmacy tech writing down the wrong medication, went on to the pharmacist not catching the mistake when the prescription was filled, and then extended to her home healthcare nurses not seeing the issue when they dispensed the drug.

Ultimately, the error wasn't detected until it was too late and she was days away from death as a result of taking the incorrect medication.

THE RIGHT HAND DOESN'T KNOW WHAT THE LEFT IS DOING

This medication incident illustrates that a disjointed process with few checks and balances raises risk and presents fertile ground for errors to happen. There were several times and several people who could have, and should have, caught these errors before it got to the point of no return.



One of the biggest factors causing these repeated medical errors is the lack of organization and communication when it comes to medical records.

Of the \$30 billion in “Meaningful Use” incentives that Congress appropriated to help shift the system to Electronic Medical Records (EMRs) – to ensure better coordination of care and reduce errors across the board – relatively little went to nursing homes, rehabilitation facilities, or providers working with individuals in their homes.

In addition, when people move from provider to provider, each likely has a different form and instance of electronic records management in use. Oftentimes, patients assume their records are transmissible between the separate providers, when in fact, for example, their radiologist’s EMR system can’t work with their general practitioner’s EMR system.



TECHNOLOGY TRENDS THAT IMPACT QUALITY

Despite the leaps and bounds forward that the industry has made in the EMR space as a result of the ARRA/Meaningful Use incentive program, the disjointed care continuum still rears its ugly head on occasion. Health information exchanges are starting to become more prolific, but not all providers are able to communicate effectively with the exchanges, thereby reducing their effectiveness. A single, easy-to-use platform across multiple provider entities that permits the clear communication of a patient’s treatment plan is not something that has traditionally been seen as a possibility, however, it is now a very viable reality.

Studies² have found that healthcare technology can have a positive impact on quality, including patient safety. However, in contrast, there are studies that show a less promising view, and have found that technology improperly applied might in fact cause more harm than good.

EMRs, while a major step forward in the digitization of healthcare, cannot assure quality care if it is disconnected from the people and processes that surround the patient.

AN INFUSION OF DIGITAL

There is an important role that digital can play to reduce human error. Digital capability to support healthcare knowledge workers can help cut down on medical errors, hold their processes accountable, decrease potentially fatal risks, and minimize associated costs.

Digital enables “intelligent” healthcare management, allowing major provider and payer organizations across the world to focus on their patients. Rather than expending energy and resources on additional cogs in the mechanism of care delivery, healthcare provision is streamlined.

The characteristics of a successful digital transformation are:

- Efficiency in core processes through automation
- Enhanced guidance for knowledge workers to gain satisfied providers, payers, and patients
- Ability to access and use data across systems and obtain current, complete, and actionable information
- Improved collaboration with the ability to work together on tasks and actions
- Enterprise mobility giving patients, payers, and providers real-time access to claims and billing, and medical records being available anytime, anywhere
- Increased regulatory and security compliance; including HIPAA and PCI compliance with applications that utilize Protected Health Information
- Immediate visibility into transactions, health events, and patient interactions, with real-time, actionable, and configurable reports

The result: faster and smarter actions by customer-facing employees, increased collaboration and productivity across the organization, and holistic visibility.

THE RIGHT DIGITAL PLATFORM

With Appian Records, Appian solves the business performance and visibility problems created by siloed sets of enterprise data across the organization. The result: faster and smarter actions by customer-facing employees, increased collaboration and productivity across the organization, and holistic visibility into the overall health of the business for executives.

Appian Records provide segregation of duties to keep track of who does what and when for increased accountability. Whether it is a task worker who has a simplified interface to conduct routine, repetitive work throughout the day...or perhaps a patient care manager who needs a 360-degree view of the inner-workings of the entire organization in real-time...Appian provides the appropriate levels of access and visibility based on the role and provisioning of the user.

Appian helps cut down on the increased risk of error that comes when paper records enter the process. Take the Affordable Care Act for instance: the benefits signup process was intended to permit completion and auto-issue-resolution for all potential members online; however, what happens when a member-to-be does not have access to the internet? Paper forms are filled out and mailed in, while the entire eligibility process becomes manual and laborious.

This solution allows for all incoming documents pertaining to a patient's continuing care to be digitally routed to the patient's electronic medical record, kicking off appointment scheduling, insurance eligibility checks, and many other processes.

What if those manually-filled out forms could be scanned and OCR'd and then run through the automated eligibility process as was intended in the first place? It is possible, and it now does happen...with Appian.

Under the Affordable Care Act, Appian Case Management handles 70 million records, and has performed 35 million application verifications. Throughout this process, there has not been any unplanned downtime and each one of these application verifications has gone off without a hitch. This system started in an on-premise environment and has now successfully migrated to running on the public cloud.

What happens when orders, lab results, or radiographic images are sent to a hospital to be added to your medical record...however, they end up sitting in an "inbox folder" in the HIM or Medical Records department at the mercy of the current nine day backlog of the HIM technician? What if there were a central electronic repository put in place by your local hospital into which all documents pertaining to your health care could be digitally submitted?

Currently in use at a major 90-hospital Integrated Delivery Network (IDN) in the Midwest is the Appian Inbound Document Management solution. This solution allows for all incoming documents pertaining to a patient's continuing care to be digitally routed to the patient's electronic medical record, kicking off appointment scheduling, insurance eligibility checks, and many other processes that would otherwise necessitate manual intervention which exponentially increases the potential for human-added errors.

With Appian Inbound Document Management, medical records won't sit in the "inbox folder" in the HIM office or wait on an extended backlog. They'll be right there, ready to help patients get the best quality of care, in real-time.

Appian works hand-in-hand with the Continuity of Care Document (CCD) standard that enables physicians to send a patient's electronic medical information to other providers. Even if that other provider runs on a different EMR system, no information will be lost, thus, improving patient care.



TAKE THE NEXT STEP

The solution is simple; the right digital platform translates to lower risk of error and fewer mistakes. By implementing Appian at your health care facilities, you will be able to realign and recenter your sights on delivering the best patient care possible as you work to reduce the potential for medical mistakes through automation.

Take the next step to achieve the drastically-needed reduction in deaths caused by medical errors and be a revolutionary cog in the wheel of improved patient care.

Contact Appian to learn more about what is possible on the digital transformation journey with the Appian Platform.

ABOUT THE AUTHOR



Fritz Haimberger is a healthcare consulting, sales, and management executive with over fifteen years of HIT, clinical operations, and revenue cycle experience. With a strong background in healthcare administration and operations, business development and IT systems design, he has extensive experience focusing on provider solutions both in the U.S. and internationally, including Canada, Ireland, and the UK. Having been with Appian for over a year and leading the company's global healthcare provider industry practice, Mr. Haimberger holds a B.E. in Biomedical Engineering from Vanderbilt University and resides with his family in Nashville, TN.

1. Study released by Johns Hopkins University researchers in May 2016
2. https://www.krannert.purdue.edu/academics/MIS/workshop/papers/ra_120310_1.pdf

