

Can Data Save a Life?

[Save to myBoK](#)

By Wendy James, RHIA, PMP

The technological advances that have taken place over the past 25 years have been nothing short of phenomenal. When I reflect on the things I have experienced, not only in my professional career, but the technological advances I have seen over the course of my life across the board in all facets of life, the effect is staggering. From safety-oriented upgrades we now take for granted like lap seatbelts and cars equipped with airbags, to the improbably yet amazingly real home monitoring system that notifies me whenever there is anything out of the norm, from climate control to movement at the front door. Think about it... who would have ever guessed this would be the type of environment we would live in today?

Technology has also been advancing in the healthcare industry. Suppose someone very close to you just had a major health event and has been admitted to the hospital. As health information management professionals that are “in the business,” so to speak, it could be said we are at a slight advantage to know that being admitted to the hospital may not result always in the best outcome, and are on the lookout for potential issues. Whether we like to think it or not, we know what can and sometimes does happen. For those who are not as informed, an incredible amount of trust and faith is given to those who are now caring for your loved one. When I think about those who are not familiar with healthcare, I get concerned because many times they do not have an advocate that is independent of those caregivers.

Take for example someone diagnosed with atrial fibrillation which not only presents itself as a more enlarged heart on a scan, but also is somewhat of an irregular heartbeat. When this person presents in the emergency room, if there is no one there as an advocate for this person, this person might receive medications because their blood pressure is not normal. These medications then cause the patient to hallucinate, which then might cause a misdiagnosis by the caregivers who are unfamiliar with this person. A patient's best defense is many times a loved one who remains diligent and passionate, asking questions each step of the way on the journey through the hospitalization. What may be normal for your loved one is not normal for someone else.

So how can our health information actually save a life? How many times have you entered in your demographics in triplicate, during the same episode of care for the same facility? We document our medications, we document our date of birth, we document our health history, we document our allergies, we document our past surgeries, we document our known problems... but who really reads it? To the caregiver, it's just data, but to me or my loved one, it's my health story, one that I am passionate about, one that I want to protect.

Not every patient is going to have an advocate available to them at all times while in the hospital. For those who do, they are lucky. There have been many times having that loved one in the room with you might have saved your life. Perhaps they questioned a medicine or questioned why a certain procedure was necessary. One of the challenges today's patients face is the general lack of continuity of care, limited knowledge of the patient's history, or the robotic response to automated and/or scheduled orders without consideration of the current conditions. Having an advocate present is sometimes nothing short of being a lifesaver.

The ability to provide such an ardent advocate for each patient is not currently possible or feasible. But what if it was? A new smart phone application, developed by Larry Trach at EMRConnect, is currently being tested that will provide a giant step forward in helping a patient safely navigate a hospital stay. This application will monitor data streams from the hospital's electronic health record from three different subject areas:

1. Registration and admit discharge transfer (ADT) messages
2. Provider access of your patient record
3. Clinical results like labs, vital signs, and other pertinent documentation

Registration and ADT monitoring

After registration is completed, you will be able to visually verify your demographic information, guarantor and emergency contacts, insurance information, advance directive, and providers assigned to your case. A registration system is susceptible to human and interface errors, such as registration overlays, bad medical record or account combines, and system interface errors. If any of your key demographics change during the course of your stay, you would be immediately alerted.

Monitoring Provider Access

Not all damage or injury is a result of medical malpractice. Inappropriate access to your health information by someone who is not on your care team can be a signal for identify theft, loss of confidentiality, and more. You will be able to see all the providers that accessed your record, what their role was, and what they did on your behalf. If you question a particular activity or access, a review request can be sent directly to the designated privacy officer or security team.

Clinical Monitoring for Predicting Harmful Conditions

Vital signs and labs can be good predictors of vital stress, over sedation, early detection of sepsis, and many other conditions or adverse events. Each time a new result arrives; it will be reviewed, scored, and combined with other key measures, risk factors, and co-morbidities. Because of the dynamic and sometimes chaotic nature of activities on the nursing unit, it is easy to miss a key piece of new information, such as a critical lab value, not to mention the latencies between time of care and time of documentation.

The monitoring application would allow a patient or the patient's designee to receive messages about their healthcare. There would be remote access for monitoring and message capability thus improving communication among all of the appropriate caregivers.

If we can wire our homes to provide us with up-to-the-minute information, in the interest of safety and security, then we should certainly be able to apply this same technology to healthcare. After all, there is nothing more important than saving a life.

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