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Electronic Medical Records only "Distantly related to 'real' Electronic Patient Management"
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(Editor's note: This is the last in a series of articles which summarize Dr. Holly's address to the Massachusetts Medical Society's Medical Informatics meeting. The address entitled, "Beyond Electronic Medical Records: The Hope and Promise of Electronic Patient Management," invites The *Examiner*'s readers to think about new and improved ways of delivering health care.)

Remember, Dr. Senge said, "Yet, taking in information is only distantly related to real learning." It is the same with our health care world. The ability to accurately, efficiently and quickly document a patient encounter in a physician's office is "only distantly related to 'real' electronic patient management."

If all we generally talk about is Electronic Patient Records or Computerized Patient Records or Electronic Medical Records, or ...then everyone is going to get the idea that when they create the ability to produce an electronically generated document of a patient encounter, they have arrived. The problem with this is that many health care providers, who are very interested in joining the 21st-Century methodology of health care (EPM), are going to buy a product which they suddenly find is wholly inadequate for the tasks at hand.

To accomplish *metanoia* in medical informatics, I would immediately hold up the standard of Electronic Patient Management (EPM). I would describe it at least, if not define it. I would detail and illustrate its every aspect. I would model it where it exists, and I would dream about it where it does not.

And I would herald the truth that the ability to document a patient encounter only "gets you on to the playing field" in EPM. That ability is not the end point; and, the vendor who can only do that is not holding the winning hand.

Here are questions which must be answered in order to achieve EPM:

- How can this powerful tool be used to change and to improve provider behavior?
- How can this tool be used to improve communications among providers, which is one of the essential elements of changing behavior?
- How can the tool help providers monitor themselves, which is ultimately the best way of changing behavior? I have never met a physician or a health care provider who would admit to not wanting to provide excellent care. Now, I have met many who would not admit that they could improve, but none who would say,

"Well, I know that I am not giving the best of care, and, quite frankly, I don't care!" I have never heard that. How can we "tap" in to that desire to do "good" which most providers have?

And, if these are achieved, inevitably the quality of patient care and the cost of that care will go up and down respectively.

The elements of that task are at least the following:

1.   Establish a national standard of care or a "best practices" which confronts a provider EVERY TIME a patient is seen, no matter where the patient is seen.
2.   Establish a methodology for auditing the providers' compliance with "best practices."
3.   Enable that methodology to adapt dynamically to "changes" in those "best practices," as such changes are not only possible but inevitable.
4.   Create an environment, so much as is possible, where the provider is a partner in the process and not the victim of it legally or administratively

SAFIR records

The characteristics of an electronic-management system, which would be a "winner," in ascending order as to importance, but in descending order as to how people judge a product, **are:**

1.   **S**peed
2.   **A**ppearance
3.   **F**unctionalities
4.   **I**nteraction
5.   **R**esearch

SAFIR records will:

- Be fast enough to be functional, both from the standpoint of reaction time and from the standpoint of time and attention required to document a record in the presence of a patient.
- Be attractive enough so that providers less inclined to embrace the more important functions of electronic patient management will be drawn to EMR.
- Have the functionalities, which define a robust EMR. Any evaluation tool should have a weighted check list. It could be like the Olympics in that there would be **compulsory** exercises -- things which every system must demonstrate -- **optional** exercises -- functions which are highly desirable but not critical -- and then a **free style** exercise where the participant can demonstrate novelties.
- Interaction with other clinical functions is critical to electronic patient management. The system which is the fastest may not be the best if its speed is achieved at the expense of doing nothing but being a substitute for dictation and transcription of records. A system which allows in-patient and out-patient care

from the same database is superior. A system which allows "real time" ICU patient management which is useable from the provider's office, home, hotel room, etc, would have tremendous value. A system where the specialist and the generalist are using the same data base in the clinic, in the hospital, in the ER, in the physical therapy, in the home health, in the hospice, in the home would be the ideal.

- Research -- ultimately, the superior record must demonstrate its ability to allow **data** to become **information** to become **decision making** for improving the quality of care and for controlling cost. "Expensive" and "excellence" are not synonyms -- this aspect of the electronic patient management can prove once and for all that it is possible to decrease cost while increasing quality of care. In addition, the research aspect also can be used for clinical trials of medications, for managing the business side of medicine and for influencing provider behavior

Recently, I went to Houston with my wife's niece to see a world-renowned specialist for a life-threatening problem to this young, professional woman. I sat and watched as this specialist hand wrote a History and Physical. I then sat and watched while a Chief Resident repeated the same exercise, independent of the data collected by the specialist. I then sat and watched while the Junior Resident did the same thing. The nurse then collected the same data. I then went with our niece to the hospital where the admitting nurse collected -- in hand-written format -- the same data.

I listened as each one of them collected slightly different and, at significant, but not critical points, incorrect data. I thought, "Wow, these are the best we've got and they're using 19th-Century methodologies, while practicing 21st-Century, 'cutting age,' technological medicine." This is inefficient, expensive and at times, it can be dangerous medicine.

Changing behavior

First, there is no effective way to change behavior other than with systems which challenge the provider to either "do it the right way," or to document why another way is better.

Second, there is no effective way to make a change in behavior habitual without the ability to audit performance and to give "real time" feed back on standards and variances.

Third, using my illustration above, I suspect that we might not get this world-renowned specialist to document his data in an electronic format, but we can get him to review the patient's data which has already been electronically documented by others, and we can make that data available to the the chief resident, the junior resident, the office nurse, the hospital nurse, etc. As the specialist sees the benefit of a common patient database, I believe he/she could be personally motivated to begin documenting electronically.

Changing Processes

First, the goal must be correct. "Paperlessness" in a medical office is a by-product, not the end point for electronic patient management. It might be possible to eliminate all of the paper in an office without improving the process of healthcare delivery. **The goal must be ELECTRONIC PATIENT MANAGEMENT**! This must be reflected in name, in content, in addresses, in position papers, etc. If you have the wrong goal, even if you achieve your goal, you haven't effectively changed the process.

Second, there are different audiences. The complexity of the "process issue" is that the process changes from venue to venue. The small medical office needs electronic patient management as much, if not more, than the large metropolitan integrated-delivery hospital network, but the issues are so different as to make a common discussion almost unintelligible, except at the goal level.

Third, pictures are powerful motivators. In this case, it is pictures of those who are "doing it." Nike Corporation achieved great success doing what they are very good at. But, there is one thing they have never done. **They have never made a pair of shoes**. They are good at design, marketing and distribution, but they are not good at manufacturing shoes. Nike took its corporate name from the transliteration of the Greek word for "overcoming," which is *nike*. There are major obstacles to "overcoming" the inefficient and expensive process of disconnected health care delivery. One way to "NIKE" this process is to model, celebrate, and publicize those who have "done it" and/or who are "doing it."

Four, to change the process is going to require a degree of honesty which is painful. In *The Fifth Discipline*, Peter Senge says the following about "truth telling."

"We begin with a disarmingly simple yet profound strategy for dealing with structural conflict: telling the truth... (which) means a relentless willingness to root out the way we limit or deceive ourselves from seeing what is, and to continually challenge our theories of why things are the way they are. ..Telling the truth means continually broadening our awareness, just as the great athlete with extraordinary peripheral vision keeps trying to 'see more of the playing field.''...'telling the truth' means continually deepening our understanding of the structures underlying current events."

Conclusion

There has never been a more exciting time to be a part of health care. Those of us who are innovating in the area of medical informatics are participating in creating the future of health care. Few things could be as fulfilling.