Predicting the Future of Healthcare Technology

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The 140-year-old health system that I work for, SSM Health, is proud of its rich history. About once each year, we pull out archived pictures and news clips from decades ago, and I always enjoy looking at the black-and-white pictures, which show clinical devices made from wood and metal that were considered state of the art at the time. It reminds me how far healthcare technology has come. However, I believe the next few decades will see changes in healthcare technology that will make today’s devices look as ancient as the ones in the old photos.

Technology in the future will likely consist of small personal devices and handheld applications, which will empower individuals to monitor their physiology from anywhere and transmit the information directly to their physician. Communication with care providers will grow while reducing the need for face-to-face visits.

It’s also fair to assume that most clinical devices will be computer based, networked, and part of a clinical system. Clinical devices will integrate more with electronic health records (EHRs). Data from EHRs will be collected and analyzed on a national and global scale. EHR and genetic data will be combined to create an actuarial-like predictor for each person, which alerts them to the likelihood of developing particular diseases. This will allow administration of personalized treatment plans that can prevent many effects of the disease from ever occurring.

Healthcare technology is guaranteed to continue developing at a rapid pace. But a change in the business of providing healthcare will have an even greater effect on the healthcare technology management (HTM) field.

Consolidation of hospitals and health systems will continue. In 20 years, we can expect to see a couple dozen mega-sized health systems and relatively few standalone hospitals. Unprofitable hospitals, especially those in rural areas, will be forced to close due to dwindling reimbursement dollars. Hospitals will become places where only very sick or injured people receive care, with most treatments shifting to outpatient centers and even the home setting. New outpatient centers will continue to pop up, as well as smaller specialty care hospitals.

Cost of care will also continue to become more transparent and important to payers and patients alike. This will force healthcare providers to compete more on cost. If this trend continues, I expect the emergence of more high-price, high-quality, technologically advanced healthcare providers to cater to cash-paying, wealthy clientele. Cost-conscious consumers will lead to an increased demand for low-cost providers, which may mean certain patients will tolerate receiving less technology and less personal care if it translates to lower cost.

These future scenarios will affect HTM professionals in the following ways:

• Fewer competing hospitals in a geographic area will reduce the need to maintain computerized tomography or magnetic resonance imaging equipment (or whatever replaces them) on every corner. The high cost of buying and supporting expensive medical devices will force most healthcare providers to cut back on buying the newest state-of-the-art technology every few years.
• The need to continue to manage costs will result in health systems looking to standardize with particular vendors. Purchasing decisions will be based more on cost versus the clinician’s vendor preference.
• HTM technicians can expect to spend more time traveling to outpatient sites, as care sites are dispersed throughout the community.
• The convergence of HTM and information technology will continue, and the lines will get more blurry. HTM technicians will need to know networking, computers, and software applications to stay relevant.

There’s a saying that “if you want to make God laugh, tell him what you think the future will bring (because you’re probably wrong).” My predictions are based on what I see in the industry right now, but that could all flip upside down with a signature on a new law or a major event. Only God knows what the future will bring. As far as I know, he’s keeping that secret to himself. The only things I can predict with 100% certainty are that change is constant, new healthcare technology will continue to be developed, and at some point it will break and somebody will need to fix it.