Industry Perspective: The New Age of Information Gathering in Healthcare

by Pietro Parravicini, CEO/President, Anoto

Healthcare continues to be an industry where paper remains the primary source for capturing information. Currently, as many as 80 percent of physicians still rely on traditional pen and paper to gather patient data. It's what they're comfortable with and it's what they've used for years. However, because of the Health Information Technology for Economic and Clinical Health Act (HITECH Act), which went into effect in February 2010, healthcare professionals now need new ways to capture information. The HITECH Act, part of the 2009 economic stimulus package, aims at encouraging more physicians to adopt electronic health records (EHRs).

The Act itself promises maximum incentive payments for Medicaid and Medicare to those who adopt and use "certified" EHRs. In fact, according to the U.S. Department of Health and Human Services, doctors are eligible to receive as much as $44,000 in total incentives from Medicare for "Meaningful Use" of a certified EHR beginning in 2011. Physicians reimbursed by Medicaid can receive up to $63,750 starting in 2011, based upon state-defined guidelines. On top of the incentives offered, the HITECH Act also promises penalties for those who don't comply. In fact, doctors who refuse to adopt EHRs by 2015 will be penalized one percent of Medicare payments, rising to three percent over three years.

In order to take advantage of these new incentive payments and avoid penalty costs, healthcare facilities are looking toward leading-edge technology to meet their information capturing needs. Digital pen and paper technology is gaining significant traction in the industry because it is easy to use and requires minimal user training. It is also non-intrusive during patient-doctor interactions. Both aspects are essential components for healthcare workers, many of whom are still accustomed to using simple pen and paper. For them, digital pen and paper technology has been a seamless transition. The result is an easy migration path to electronic records – a win-win for healthcare facilities who will receive incentives for transitioning to EHRs.

How the Solution Works
Digital pen and paper technology involves two components: First is a digital pen, that looks and works just like an ordinary pen but is actually equipped with a miniature digital camera that captures up to 70 images per second. The second component is ordinary paper printed with a barely-visible Anoto dot pattern that can be applied to any type of healthcare form. The digital pen reads the dot pattern, allowing it to pick up every pen stroke written. Healthcare workers are able to go about their normal workday meeting with patients. At the end of their shift, they simply dock the pen at their computer (or transmit data from the pen via Bluetooth through a mobile phone) and all of the information gathered is instantly transferred to the central database. There is also still a paper copy they can keep on file if needed.

Better Results While Doing Less
As mentioned previously, digital pen and paper technology allows for a seamless transition to EHRs without the risk of downgrading the quality of patient care. The fundamental strengths of writing with pen and paper are preserved, as healthcare workers can continue using such a natural interface to gather data that, in this case, just happens to be digital. All the while, the technology delivers the efficiency benefits derived from automated capture, processing, interpretation and wireless transmission of information in real-time.

As healthcare facilities that have adopted the solution have found, the benefits are striking:

* **Improved patient care**
Due to the technology’s immediate availability of data to back-end systems, healthcare workers are able to spend less of their workday entering data manually and more of it with patients.

* **Highly portable**
Unlike other forms of technology that could be damaged easily, such as tablets, digital pen and paper is durable and simple for healthcare workers to carry with them from patient to patient. The digital pen can be dropped without concern and there’s no fear of breaking a screen, etc.

* **Avoidance of workflow interruptions**
There is minimal training required, as the pen acts and feels like an ordinary pen, it just happens to be digital.

* **Secure**
The technology is encrypted, so both healthcare facilities and patients can rest assured that information remains private and untouched.

* **Cost Savings**
Healthcare facilities achieve significant efficiencies using digital pen technology, helping them to reduce operating costs and save time.

Reference Case

As the official Pocono Raceway medical provider, Lehigh Valley Health Network (LVHN) deployed T-System's DigitalShare (powered by Anoto partner Shareable Ink) as a patient documentation system during the "5-Hour Energy 500" August 5-7, 2011. With the closest hospital at least thirty minutes away, DigitalShare let LVHN bring the capabilities of a hospital emergency department right to the track.

The team of approximately 60 LVHN physicians, nurses, emergency medical technicians and paramedics treated patients at three emergency care facilities at the raceway, documenting encounters on a familiar paper template by using a digital pen with advanced functionality from Anoto. With electronic data at their fingertips, LVHN staff could quickly pinpoint gaps in emergency personnel and then rapidly mobilize appropriate resources. They also analyzed post-race data, generating statistics about the volume of patients treated, the types of illnesses and injuries seen to help prepare for future event needs.

Conclusion
When introducing leading-edge technology to the healthcare industry, the first consideration – after ensuring quality of patient care – should be the needs of the end-users and their work processes. Often, a relatively simple solution such a digital pen and paper can yield better results than more "sophisticated" technology that users find cumbersome and time-consuming. That said, it is critical to take a holistic approach: only when the front-end technology is tightly integrated with records, databases and other systems can it deliver the greatest benefits. As more and more healthcare facilities will discover as they make the transition over to EHRs, digital pen and paper technology plays an integral role in making the switch as effortless as possible.

www.anoto.com [1]

Posted by Janine E. Mooney, Editor

November 28, 2011

Source URL (retrieved on *09/30/2014 - 3:31am*):
http://www.wirelessdesignmag.com/articles/2011/11/industry-perspective-new-age-information-gathering-healthcare?qt-most_popular=0

Links:
[1] http://www.anoto.com