



Web-based Telehealth Systems Make Good Business Sense for Metro Hospitals

Telehealth systems often are associated with rural areas that lack adequate specialist coverage. However, a web-based telehealth system offers many financial benefits to metro hospitals, while helping them maintain their status designation and appease specialists who are frustrated with tough call schedules and long commutes.

When we developed our telehealth system in 2003, we wanted to extend stroke coverage to rural hospitals in Georgia that were unable to provide stroke care to patients who were visiting their ERs because they had no neurologist on staff. In the past, these stroke patients were transferred to the Medical College of Georgia (MCG) in Augusta for treatment, often too late to receive tissue plasminogen activator (tPA), a thrombolytic treatment that must be delivered within three hours of a stroke to be effective. A group of MCG Neurologists led by Dr. David C. Hess created REACH, or Remote Evaluation of Acute isCHemic stroke, an in-house service that allows MCG neurologists to remotely diagnose, evaluate and recommend treatment for stroke and other medical conditions from anywhere in the world using a Web browser. Today, more than 60 hospitals in seven states use the system. REACH is



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proving to be valuable for diagnosing other conditions, and its benefits are extending into metro hospitals.

How Web-Based Telehealth Works

REACH is used in a "Hub and Spoke" network of hospitals, where the hub hospital provides physician-consulting services to spoke hospitals for remote evaluation of medical conditions. These spokes initiate a consult request with a physician affiliated with a hub

using a REACH mobile workstation. Spoke hospital ER staff can use the web browser running on the laptop embedded in the cart to register a patient and request a consult with a remote physician.

The consulting physician, who can be anywhere in the world with a broadband internet connection, can use any laptop or PC to communicate with the hospital and evaluate the patient. The physician has complete control over the 2-way audio and video communication, can view all patient data and DICOM images, then use the integrated decision support tools to evaluate the patient and recommend treatment.

Financial Benefits

The benefits of web-based telehealth systems to rural hospitals are significant.

Smaller spoke hospitals now provide acute neurological care through telehealth. This trend creates higher margins for the spoke hospitals while reducing unnecessary transfers and delayed treatment.

Conversely, we have seen remarkable financial results among metro hospitals. Hub hospitals that have created teleneurology networks have increased transfers to their hospitals from smaller spokes, resulting in high margins for the inpatient admissions. This increase is due to the wide range of medical conditions that are transferred and admitted. A hub may see acute stroke transfers and admissions, as well as general neurology, neurosurgical, and neuro-interventional treatments. All of these admissions result in high margins to the receiving hospital. In fact, the margins emanating from these cerebrovascular transfers provide a quick return on investment. One transfer from a spoke hospital will, on average, generate enough revenue to recover the monthly cost of maintaining a telestroke system.

Other Benefits for Metro Hospitals

Aside from financial gains, a web-based telehealth system extends appealing benefits to specialists. A 2005 survey by the American College of Emergency Physicians found that 73 percent of ERs

deal with poor on-call coverage by specialists. This problem is growing, up from 67 percent in 2004. While the survey attributed lack of coverage in rural hospitals to the fact that no specialists are on staff, it noted that the problem in metro areas is that specialists simply don't want to be on call. Many Atlanta-based specialists have long commutes, and arrive at the hospital hours after the page arrives, thanks to traffic gridlock.

A web-based telehealth solution enables specialists to treat patients from anywhere: home, a restaurant, or even a vacation spot. More specialists on call means a better rating for your hospital, allowing you to maintain your designation as a stroke center, cardiac specialty center, advanced burn center, or other specialty designation.

By improving the quality of life for physicians, a Web-based telehealth solution can in turn increase the quality of care that metro hospitals provide to their patients. Doing this while realizing quick return on investment and higher financial margins make Web-based telehealth solutions something to seriously consider.

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