

Denver Health: Co-Development at a Safety-Net Hospital

November 2011

Denver Health, the 500-bed safety-net hospital for the Denver area, faces unique opportunities and challenges. On the one hand, part of the operational lifeblood of the hospital is referrals and transfers of trauma patients to its facility from outlying hospitals in the region. On the other hand, operating within a public-hospital context, Denver Health's 150-member IT staff has always had to make do with less-than-unlimited financial resources. So it's not surprising that the organization should pioneer imaging-sharing advances through collaborative development work with its vendor, says Jeffrey Pelot, Denver Health's chief technology officer.

"To be clear," Pelot says, "trauma care is a money-making opportunity; and to be good at trauma, you have to do a lot of it. There are four other level 1 trauma hospitals in the Denver area. So this was a business development effort, and the intent was to provide a very quick and reliable method for level 2 and level 3 hospitals to contact us and to send images to help determine whether a patient should be transferred."

But the historical method for handling such situations involved 11 steps, he notes, including bringing a patient into Denver Health, facilitating physician-to-physician phone consults, burning a CD,—"and we might end up doing duplicate exams" because various time-lag elements.

Pelot says, "My PACS administrator came up with an idea for a solution. We approached what was Amicas at the time, and said, we'd really like to be able to receive images with great rapidity, as opposed to going through a typical CD-burning process. So they built a CDCOM router for us." Ultimately, the solution, which first went live at Denver Health three years ago, was enhanced and commercialized as iConnect, one of a suite of solutions from the Chicago-based Merge Healthcare.

Nowadays, when a remote hospital facility produces a diagnostic imaging study, that study can be communicated to Denver Health with the push of a button. The study is immediately



Andrew Steele, MD, director of medical informatics at Denver Health, uses the iConnect imaging solution that was co-developed by Denver Health and Merge Healthcare.

put into a pending status, so once the associated patient arrives at Denver Health, the study is assigned to that patient, with a medical record number immediately attached to it. As a result, more than an hour's worth of time is usually saved, which, in the context of trauma care, is an enormous time savings.

What's more, 27 care sites are linked to Denver Health through the solution, across three states, Colorado, Wyoming, and Nebraska. And the volume involved is significant, with more than 500 diagnostic imaging studies per quarter are involved. In addition, Denver Health has created a cardiology gateway, with cardiac image-sharing capability; and the organization also participates in a Web-facilitated tumor review board process with other hospitals in the region.

Asked what the lessons learned so far in Denver Health's venture have been, Pelot says, "We continue to learn stuff all the time. The biggest thing we've learned so far is that we're providing much better patient care, because we can decide far more rapidly whether a patient should be transported or not; and when we do transport, the chances of the patient surviving are very, very high."