Intranets -- From EMR to ER and Beyond

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In the article, "Next Generation: How Internet Technology Propels the Electronic Medical Record" (*Journal of AHIMA*, September 1999), we spotlighted a few of the many facilities using Web technology for the EMR. A complete list of facilities with similar systems is probably beyond the scope of this article, but some other sites include the University of California, San Diego; University of Minnesota, Minneapolis; University of Missouri, Columbia; University of Wisconsin, Madison; Partners of Boston, Care Group of Boston, and Children's Hospital of Boston.[1] Other centers that use some sort of Web-based clinical information system are the University of Iowa Hospital and Clinics, Iowa City;[2] University of Virginia, Charlottesville;[3] West Virginia University, Morgantown;[4] MacGregor Medical Association, Houston;[5] Boston Medical Center;[6] Overlake Hospital, Bellevue, WA;[7] and even Celebration Health,[8] a 60-acre health campus that is part of Disney's planned city in Orlando, FL.

While great strides are being made in the use of Web-based technology for storing patient data, these systems (particularly those using intranet technology) provide a cost-effective communications and business tool for other uses as well. Here are a few notable applications:

At Kansas University Medical Center, every patient room in the 425-bed hospital has a personal computer, each of which is connected to the hospital's Web server, allowing appropriate users to access radiologic diagnostic images. Similar radiology projects using intranet technology have been developed at the University of Pennsylvania Medical Center in Philadelphia and at the University of California Los Angeles Medical Center.[9]

In Milwaukee, an emergency medical system connects nine area hospitals via the Web. Emergency medicine providers in Grand Rapids, MI, are working on a system whereby 95 emergency vehicles will soon all have laptops and modems linked to the area's 20 hospitals.[10] A project in Washington by a group called ComCare (an alliance of healthcare, law enforcement, transportation, and telecommunications groups) is being developed to unify voice and data communication in emergency medicine. This group is attempting to standardize 911 service and even mandate "smart" (technology-equipped) cars.[11] The University of Kentucky Chandler Medical Center in Lexington uses an intranet application to link the entire emergency room for faster access to patient medical histories, billing information, outpatient data, and physician on-call information.[12]

Children's Health System in Birmingham, AL, has an intranet that is used as a publishing database for departments within the institution.[13] Eli Lilly & Company is using Web technology to aid in preparing new drugs for submission to the FDA, expediting the process of taking a drug to market.[14] The National Library of Medicine provides access to its databases through the Internet (including MEDLINE) and the Centers for Disease Control and Prevention provides access to its disease and morbidity database, CDC WONDER.[15]

Notes

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12. Ernst & Young, LLP. "Executive Summary: The Role of the Internet in Healthcare." Monograph. Ernst & Young, 1997, pp. 1-27.

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14. Ernst & Young, "The Role of the Internet in Healthcare."

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