Clinical Computing at The Beth Israel Deaconess Medical Center
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Clinical Computing System
The Beth Israel Deaconess Medical Center East Campus clinical computing system, developed by the Center for Clinical Computing, is a heavily used, integrated hospital information system. There are more than five thousand terminals and workstations located throughout the hospital, ambulatory, and satellite facilities. Each week clinicians access patient information more than sixty thousand times and send more than thirty thousand pieces of electronic mail. Clinicians use the computing system to look up the results of all diagnostic studies, to send and receive electronic mail, and to perform a variety of decision support tasks, including bibliographic retrieval via PaperChase, clinical data base retrieval, computer assisted expert consultation, and clinical calculation.

Online Nursing Assessment
Beth Israel Deaconess East Campus nurses use an online Functional Health Pattern admission assessment program for documentation on all inpatients. This tool has been shown to reduce the average time required to perform an admission assessment from sixty to thirty minutes. In the Emergency Unit (EU) an online documentation program is available to nurses from laptop computers stationed in every room. This system has facilitated communication between EU and inpatient nurses and has provided all clinicians with a thorough and readable account of the patient’s visit to the EU.

Online Medical Record
The Online Medical Record (OMR) is fully integrated within the Beth Israel Deaconess East Campus clinical computing system. Any terminal or workstation in the hospital, satellite site, or clinicians’ office has access to information contained in the OMR. One registry of patients assures that no duplication of patient identifiers or demographic information is necessary.

All physicians and nurse practitioners at Healthcare Associates (HCA), the primary care internal medicine practice at Beth Israel Deaconess East Campus, use the OMR to document patients’ problems, progress notes, medications, preventive care and health screening. Since its inception the OMR has been expanded to include multiple hospital-based and satellite ambulatory primary care and subspecialty practices.

CareWeb™
In 1996, Beth Israel and New England Deaconess hospitals merged to form the Beth Israel Deaconess Medical Center. The clinical data at Beth Israel is stored in a custom built M-based system. The clinical data at the Deaconess is stored in a Sybase clinical data repository.

CareWeb™ is a WWW-based system that enables clinicians to view a consolidated medical record built from the databases of both campuses. Using the W3EMRS architecture, HL7 messaging and sophisticated security methods, CareWeb™ is a robust, scalable, easy to use system that serves as a model for the electronic linkage of healthcare delivery systems.

Security and Confidentiality
Security and confidentiality is a primary concern for all aspects of our clinical information systems. Every user is issued an access key with specific limitations. Additional controls include tracking every instance of clinical information look up, requiring users to enter a reason for access to patient information, and making the identity of persons who access and their reason for access, available to patients and the patient’s primary care provider.

References