

1996 Davies Winner

Brigham and Women's Hospital

Boston, MA

Jonathan M. Teich, M.D., Ph.D.; John P. Glaser, Ph.D.; Robert F. Beckley; Meg Aranow; David W. Bates, M.D.; Gilad J. Kuperman, M.D., Ph.D.; Michael A. Ward; Cynthia D. Spurr

Dr. Teich provided the presentation for the Brigham and Women's Hospital. Ms. Aranow and Ms. Spurr participated in the lessons learned panel. The Brigham Integrated Computer System (BICS) was described as an ambitious redevelopment of the hospital's information system which was initiated in 1989. The project focused on two primary goals. The first was to establish a new technical platform that would support the hospital's continuing expansion, and provide the processing power and scalability needed for future developments. The second goal was to build new clinical information systems that would change the computer's role in the health care process. Moving up from its traditional role as reported or required facts, the computer would become an active partner in promoting optimal quality of care, reducing adverse events, and reducing costs.

The successful realization of these goals was due to a combination of several factors: strong organizational support for information systems, prescient technical design calls, a software design strategy focused on the caregiver's information needs, intensive groundwork from information systems management to prepare the institution for major cultural change, and quick responsiveness to user feedback. As a result of the successful implementation of these systems, BICS has been able to achieve and exceed the projected impact on quality and cost of care.

BICS is a fully integrated clinical and administrative computing environment. BICS includes a number of novel systems and features, which promote correct, well-informed, cost-effective patient care. The system runs on a network of more than 6,000 microcomputers; routine archiving of clinical data is not necessary. BICS handles an average of 40,000 sign-ons daily. A wide variety of clinical information is available to the caregiver using BICS; almost all specimen laboratories and patient studies are available on the system. A major theme of BICS development has been to organize this information into logical information displays, combining information from disparate sources for the caregiver's benefits. These make the practice easier and more convenient, and ensure that the caregiver has all of the relevant information needed for a given situation. A second theme has been the use of direct reminders, alerts, and algorithms to promote proper patient care, prevent adverse events, and improve resource utilization.