

Innovations Give a Glimpse of the Future

Scientists are pushing the frontiers of health care technology at the Center for Pervasive Computing (CPC) at Aarhus University in Denmark. Researchers there have developed an “intelligent bed” prototype, which has a built-in computer and sensors that monitor the patient. A screen displaying patient notes eliminates the need for both paper copies of bedside medical records and hand-held devices such as personal data assistants (PDAs).

CPC is also working to develop smart pens with computer chips, which clinicians could use to identify themselves to the displays, ensuring the confidentiality of patient information. Other innovations include tiny computers in pill boxes designed to trigger a light or beep at the bed of the patient who needs medication.

Until intelligent beds become the norm in health care facilities, another CPC project is aimed at supporting the mobility of data for clinicians. Three part-

ners—Aarhus University, IBM Denmark, and Aalborg Hospital—are investigating a concept they call “application roaming” through the design of user interfaces for small hand-held mobile devices.

This involves creating a flexible software architecture for mobile electronic patient records (EPR) that can automatically adapt itself to the device being used, as well as its working environment, according to CPC’s web site. This system would allow the user to change devices—from a PDA to a desktop computer, for example—without interruption or the need for user authentication. In addition, it would create a system in which the mobile device automatically recognizes its location, showing a list of patients in that area or even a specific patient’s EPR.

For more information on intelligent hospital beds and other projects at CPC, visit their web site at www.pervasivehealthcare.dk. ■

Shopping for Quality Care Online

Patients, their families, and care providers can now compare the quality of care offered in some of the acute-care hospitals and critical access hospitals.

A new web site—www.hospitalcompare.hhs.gov—contains data on the quality of some services health care facilities provide for certain conditions. Called Hospital Compare, the site is intended to help patients and their families make good health care decisions. From the health care industry’s perspective, the site would encourage hospitals to improve the quality of health care they provide.

The web site was created through the efforts of the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services along with the Hospital Quality Alliance (HQA). HQA is a public-private collaboration that promotes reporting on hospital quality of care. Participating

hospitals were given a slightly higher reimbursement rate for their Medicare patients if they shared data for three medical conditions: heart attacks, heart failures, and pneumonia.

The hospital quality measures listed at this web site are based on patients’ records. Data collected are converted to rates that measure how well the hospitals care for their patients.

The measures show how often participating hospitals provide some of the recommended care for adults with heart attacks, heart failures, and pneumonia.

Hospitals, doctors, scientists, and other health care professionals agree that Hospital Compare’s quality measures give a good snapshot of how well hospitals provide these specific types of care. Quality measures for other illnesses and conditions are still under development. ■