1998 Davies Winners

Northwestern Memorial Hospital

Chicago, IL

Paul C. Tang, MD; Barb Boggs; Cindy Fellencer, RN; Susie Gorden; Mary Jaworski, RN.; Nancy Kreider, RN.; Michael LaRosa, PA.; Wendy Marquardt, RN.; M.S.N.; Carol Newcomb, MHSA.; Pat Sandlund, RN .; Jim Yamold; Sundeep Desai, M.D.; Gary Martin M.D.

At Northwestern Memorial Hospital, extensive research done on the process of care guided redesign of information-related tasks and workflow to maximize the benefits of improved information management. The project began with ethnographic studies of clinicians' information management needs at seven practice sites. Dr. Tang summarized some of the results: 81 percent of return visits were plagued by missing information, the mean number of Documentation Deficiency Units (DDU's) was 3.7 per patient encounter but ranged from one to twenty. They also found that physicians spent 37 percent of their time in patient education.

Based on the results, Northwestern focused on areas such as patient education, communication among the members of the care team, and clinical decision support, which they developed jointly with the vendor of their CPR system (EpicCare). Rules-based decision support now incorporates demographic information, problem list, medication list, medical history and orders, and/or encounter diagnosis. This tool is being applied in an ambitious disease and wellness management program. The implementation strategy includes an evaluation of an intervention group of clinicians (who use the CPR) and a control group.

Evaluation studies have demonstrated improvements in information availability and completeness, and both patient focus groups and physician satisfaction surveys report that physician-patient communication has been enhanced by the system. Dr. Tang also presented emerging results concerning the use of guidelines and clinical decision support I wellness (influenza vaccinations) and disease management (physician visits, emergency, and hospital care in patients with asthma). Involving physicians as direct users had many other advantages, including authentication of laboratory test results, documentation of telephone consultations, speedy processing of patient-requested prescription refills, and efficient initiation of referrals, correspondence, and admission notes.

Dr. Tang cited senior management commitment, receptive physicians, and reliance on local champions and power users as critical success factors. On the system side, these included a robust network infrastructure, real-time interfaces to external systems such as registration and laboratory, and ubiquitous clinician access (including from the hospital and from home. He advised others to consider the advantages of turning on system interfaces early to capture significant history by the tine clinicians start using it and use of document scanning to augment electronic access.