Interventions improve primary care processes but not necessarily outcomes


Objective
To summarize programs designed to enhance the quality and economy of primary care.

Data Sources
MEDLINE (1980 to 1992) searches were done using the terms ambulatory care, ambulatory care facilities, primary health care, professional education, quality of health care, outcome and process assessment (health care), continuity of patient care, costs and cost analysis, efficiency, and activities of daily living.

Study Selection
Studies were selected if they met > 5 of 9 predetermined quality standards (data collection and validity, research question, program description, statistics, sample selection and size, follow-up, and biases).

Data Extraction
Data extracted included study design and quality, primary care goal, intervention, and effect of the intervention.

Main Results
1785 articles were identified, and 32 (26 randomized trials) met the criteria. More than half of the 5000 care providers were residents or housestaff. Primary care goals for which interventions showed improvements were reduction of physician-ordered services (10 of 10 studies), preventive care (computerized chart reminders, feedback and audit or checklists, smoking cessation [counseling reminders, and screening protocols] (7 of 10 studies), management and coordination (nursing protocols, multidisciplinary teams, and funds to improve group practices) (11 of 13 studies), appropriate use of services (4 of 5 studies), efficiency (2 of 3 studies), patient and general satisfaction (2 of 4 studies), access (2 of 4 studies), care shift from inpatient to outpatient settings (1 of 2 studies), costs and charges (2 of 5 studies), patient physical function (1 of 3 studies), and technical process (multidisciplinary teams and feedback) (2 of 16 studies). Interventions showed no improvement for continuity of care (4 studies), morbidity (4 studies), physical environment (2 studies), mortality (1 study), and humanistic processes (physician-patient relationships and patient and family psychosocial needs) (1 study).

Conclusions
Interventions to improve the quality and economy of primary care (especially computer-generated reminders, audit and feedback, social-influence-based methods, and shifting specific function to nonphysicians) show substantial improvements (>50% of studies were positive) in physician-ordered services, preventive care, management and coordination, use of services, efficiency, satisfaction, access, and shift from inpatient to outpatient settings. Interventions are less successful for improving continuity of care, morbidity, physical environment, mortality, humanistic process, costs and charges, physical function, and technical process. Source of funding: Department of Veterans Affairs.


or the problem-based format for records. According to Weed's (3) then-futuristic, computer-based, problem-oriented system, medical records should guide and teach. Barnett (4) argues that the most powerful use of information technology in undergraduate medical education will come when computer-based patient records are tightly integrated into educational resources and the student can learn at the instant the information is needed. The same can be said of postgraduate education. Perhaps how-to sessions on computer-based, problem-oriented patient records now should be a topic in primary care CME. The health care education equivalent of just-in-time manufacturing may be just around the corner.

As we continue to study the best ways to implement these changes, the humanistic aspect cannot be lost or made secondary. As managed care and economic realities force computers into patient care, we should be studying how best to bring them into the examination room without sacrificing the quality of the physician-patient relationship. Perhaps what we do best in providing health care is humanistic information processing. If so, we may see computerization continue to improve what we do and, eventually, improve outcomes.

Bruce Slater, MD
George Washington University
Herndon, Virginia, USA

References
Interventions improve primary care processes but not necessarily outcomes

Evid Based Med 1996 1: 61
doi: 10.1136/ebm.1996.1.61

Updated information and services can be found at:
http://ebm.bmj.com/content/1/2/61.citation

These include:

References
This article cites 1 articles, 0 of which you can access for free at:
http://ebm.bmj.com/content/1/2/61.citation#BIBL

Email alerting service
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Notes

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/