Doctors and Patients Using an Electronic Health and Medical Record: Research Studies Offer Multiple Views of 21st Century Health Care

By Tom Janisse, MD

"I already know you better (after several e-mails) than the internist I was seeing since 1990," wrote a new patient of Chuck Kilo, MD, MPH, at Portland's Greenfield Health, who believes that the relationship between doctors and patients is built on continuous communication, requiring multiple modes and encounters.[a] With the developing electronic capability that doctors and patients now have, to complement their traditional forms of interaction—the office visit, the hospital visit, the telephone—they can form quicker and deeper relationships than previously possible; and both can access data in a common electronic medical record. All of the Original Articles in this issue represent a research and applications view of various components of this developing integrated electronic capability.

Patients can now contact their physician by secure e-mail online—a new physician-patient e-communication—which resulted in Kaiser Permanente patients sending more than one million electronic messages to their physicians in 2006. E-communication will develop along the same continuum as have personal visits: from simple e-data to e-mail exchange to e-encounter to e-correspondence to e-conversation. The question becomes: How easily can doctors translate their patient-satisfying, personal office visit behaviors into a satisfying e-visit? Can doctors write a subjective, personal piece of e-correspondence? (MyChart—*A New Mode of Care Delivery: 2005 Personal Health Link Research Report*, page 14; see Figure 1 #1.)

With the electronic medical record available in the exam room, "it" could disrupt the personal visit. The effect that "it" has on patients depends on the doctor, though its intrusion can be positive, and, through involvement and by improved understanding, can enhance communication and relationship between patient and doctor. (*Implementing the Electronic Medical Record in the Exam Room: The Effect on Physician-Patient Communi-*
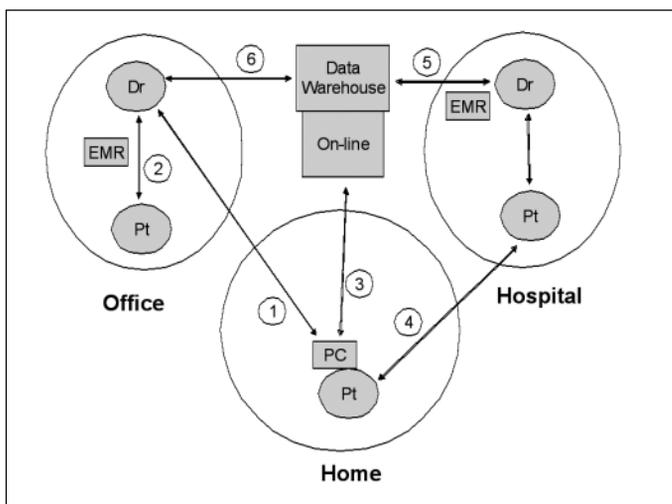

Figure 1. Research Studies: Realms of Health and Medical Care.
Pt = patient, Dr = doctor, PC = personal computer, EMR = electronic medical record.

cation and Patient Satisfaction, page 21; see Figure 1 #2.)

Online features accessible to patients at home include interactive, health e-programs, such as weight management, with positive outcomes of healthy behavior change. With a health e-program as part of the treatment plan, connection between patient and doctor builds without additional office visits. (*Obesity in the Kaiser Permanente Patient Population and Positive Outcomes of Online Weight-Management Programs,* page 25; see Figure 1 #3.)

As patients transition from home to the medical delivery system and back home, doctors and patients will be able to rely on an electronic reconciliation system to ensure that current outpatient medications continue when s/he becomes an inpatient, and inpatient medication changes continue when s/he becomes an outpatient again. (*Decreasing Medication Discrepancies*

Tom Janisse, MD, is the Editor-in-Chief of *The Permanente Journal* and publisher of The Permanente Press. E-mail: tom.janisse@kp.org

EDITORIAL OVERVIEW

Doctors and Patients Using an Electronic Health and Medical Record: Research Studies Offer Multiple Views of 21st Century Health Care

Between Outpatient and Inpatient Care Through the Use of Computerized Pharmacy Data, page 31; see Figure 1 #4.)

Surgical Intensive Care Unit glycemic control after Bariatric Surgery, reported from the Henry Ford Health System, exemplifies use of multiple hospital database and analytical systems that aid cycles of quality improvement work to advance clinical outcomes in the inpatient setting. (*Perioperative Tight Glycemic Control: The Challenge of Bariatric Surgery Patients and the Fear of Hypoglycemic Events, page 36; see* Figure 1 #5.)

Patients can benefit from doctors matching their health assessments with their documented medical histories through using a data warehouse to access information essential for understanding how adverse childhood events can result in unhealthy adult behaviors. (*Adverse Childhood Experiences and Smoking Persistence in Adults with Smoking-Related Symptoms and Illness,* page 5; see Figure 1 #6.)

This connection of electronic components becomes a web of electronic capability—a whole system of integrated data, information, programs, and communication—to enhance traditional in-person care, offering people a more complete health care experience.

By developing an eHealth Service, physician leaders define a new realm of health and medical care that is interactive, convenient, low cost, and personal. With its addition, medical and nursing care is now practiced in a whole-system context, without singular dependence on the office visit and the doctor as the only way to assess and treat a condition, or to improve health. Use of this electronic capability will transform medical care. ❖

[a] Principles of Clinical Medicine Presentation: "Creating Relationship in Primary Care," at Oregon Health and Science University, 2007 Jan.

Change

Change is hard because people overestimate
the value of what they have—
and underestimate the value of what
they may gain by giving that up.

— Flight of the Buffalo: Soaring to Excellence,
Learning to Let Employees Lead, *James A Belasco and
Ralph C Stayer, Warner Books: 1994.*