Research in Progress by Family Physicians

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The Division of Primary Care of the Agency for Health Care Policy and Research (AHCPR) is working closely with a number of professional organizations to increase the capacity for research in family practice and primary care. As part of this process, a research agenda for primary care is under development. A recent AHCPR publication surveys the content of research in primary care and illustrates the varied research issues that are vital to the practice, organization, and financing of primary care in the United States. Three projects currently funded by AHCPR and conducted by family physicians illustrate the richness and diversity of research in primary care and the potential impact of such research on both family practice and national health care policy.

A Controlled Trial of a Health Maintenance Tracking System

Paul Frame, MD, is a practicing family physician in Cohocton, New York. He is currently conducting a 3-year, prospective, randomized controlled trial to compare the effects of a computerized health maintenance reminder system with those of a manual, flow-sheet–based system for the four small offices that make up his rural family practice. His system is integrated into the practice's computerized billing system, allowing him to track patient visits, generate both physician and patient reminders, and track adherence to needed health maintenance services. For the study, he has targeted seven health maintenance services that include tobacco use counseling, serum cholesterol screening, blood pressure screening, fecal occult blood screening, physician breast examination, screening mammography, and Papanicolaou smears.

The project will randomize the adult members of 1000 families in the four practice sites into experimental and control groups. For the experimental group, the computer system will generate a status report during the month of the patient's birth, which at the patient's next visit will be given to one of the five family physicians or to three nurse practitioners in the study. After the practitioner has reviewed the report, the patient will be given a reminder for each targeted health maintenance service that is overdue. For patients in the control group, the practitioners will maintain a manual flow-sheet for each of the health maintenance services and will be responsible for initiating mailed patient reminders when services are overdue. After both the manual and computerized systems have been in place for 2 years, chart audits will be used to compare patient compliance with health maintenance reminders and practitioner compliance with data recording, and to track the conversion of inactive to active patients within the practice population.

In spite of the mounting consensus on the value of clinical health maintenance activities, physicians have not widely incorporated routine health maintenance into their practices.[1,2] Among the many reasons cited for this lack, Dr Frame's study targets the organization and structure of the medical record for health maintenance intervention. Dr Frame and others have demonstrated the effect of manual flow-sheet–based systems on increasing adherence to health maintenance guidelines.[3–5] These systems, however, are labor intensive and rely heavily on continued physician motivation. Further, they are not easily adapted to reach the inactive patient who has not visited the practice recently. Although the impressive effects of computerized reminders systems have also been demonstrated,[6,7] many of the current computer applications are designed for larger computerized record systems and are beyond the reach of small, single-office practices. Dr Frame's study develops and tests relatively simple modifications of a standard office billing system that are intended to increase physician and patient awareness of those services that are due. His study is also unique in that the reminder is targeted not only at active patients, but also at inactive patients within the practice.

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Practice Variations in Prenatal and Intrapartum Care

Roger Rosenblatt, MD, is on the faculty of the Department of Medicine at the University of Washington, Seattle. He and his coinvestigators are conducting a study to describe the content and variation in prenatal and antepartum care practices for low-risk pregnancies. The study will draw from a stratified random sample of all obstetric providers in the state of Washington, including obstetricians, family physicians, general practitioners, and nurse midwives. The participating practitioners will be described by sociodemographic factors, practice arrangement, medical environment, malpractice experience, and current obstetric practice. A sample of pregnant women at low risk who begin prenatal care in the first trimester will be selected from each participating practice, and data will be collected from patient charts on the number of visits; total charges; content of each visit including laboratory tests ordered; aspects of intrapartum care including anesthesia used, fetal monitoring, imaging techniques, and mode of delivery; and outcomes in terms of neonatal and maternal morbidity and length of stay.

Health services research in recent years has focused especially on the variation in practice patterns for common conditions and for conditions and procedures that are expensive. This work, begun and championed by Wennberg,[8] has led to AHCPR's rather ambitious program of research in medical effectiveness. Obstetric care is among the most common and costly components of medical practice, yet there is relatively little information about the content of and variation in obstetric care. Dr Rosenblatt's study of practice patterns for low-risk pregnancies contributes to this important area, and illustrates the type of study of practice variation and medical effectiveness in the management of common problems that can be accomplished by family physicians.

Predictors of Health Care Utilization and Recurrence of Abdominal Pain

Alan Adelman, MD, is on the faculty of the Department of Family Medicine at the University of Maryland at Baltimore, and is chairman of the Research Committee of the Maryland Academy of Family Physicians. He is conducting a longitudinal, prospective study that will (1) examine the natural history of abdominal pain as a presenting complaint, (2) identify risk factors associated with both the recurrence and resolution of abdominal pain, (3) identify the factors associated with seeking medical care, and (4) describe the utilization patterns of those individuals with abdominal pain.

The study will identify approximately 500 adult patients from a large health maintenance organization who have had more than three episodes of abdominal pain within the last year or have sought medical care for abdominal pain but for whom no specific cause of the pain has been identified. Consenting patients will participate in a baseline interview to determine sociodemographic characteristics, psychological distress, and social supports. Patients will be instructed in how to use a health diary to record when the pain occurs, its intensity, and how it affects their usual activities. During the course of the prospective study, data from the computerized medical information system will describe utilization patterns and diagnostic information. Patients will be followed prospectively for a period of at least 1 year.

Abdominal pain is one of the most common reasons for visiting a primary care physician, yet very little is known about the epidemiology and natural history of abdominal pain in patients in the primary care setting. In this sense, abdominal pain is typical of a large number of undifferentiated problems for which there is an inadequate fund of knowledge on which to base rational diagnostic and treatment plans. The emergence of office-based research networks in family practice provides an opportunity to expand our knowledge in this area.[9–12] Dr Adelman's study will contribute information useful to family physicians caring for patients with this common complaint. His study illustrates the type of work that can be directed toward a better understanding of fatigue, headache, sleeplessness, and many other common problems.

References

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A Research Agenda for Primary Care

The Division of Primary Care of AHCPR has recently published a research agenda for primary care. Derived in large part from input solicited at the annual primary care research conferences held in March 1990 and January 1991, the agenda addresses a wide variety of research questions relevant to the practicing family physician. Copies of this document ("A Research Agenda for Primary Care: Summary Report of a Conference") as well as other AHCPR publications can be requested from the Publications and Information Branch, Room 18-12 Parklawn Bldg, 5600 Fishers Lane, Rockville, MD 20857, (301) 443-4100.