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Research Activities

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Highlights

Departments

Regular Features

Teaching hospitals provide better care for older heart attack patients

Elderly patients treated for heart attack at teaching hospitals are more likely to survive and receive better quality care than those treated at hospitals that do not train physicians, according to a nationwide study supported in part by the Agency for Healthcare Research and Quality (HS09446 and HS08843).

The University of Alabama at Birmingham researchers who conducted the study found that Medicare patients aged 65 and older who received care for myocardial infarction at teaching hospitals were more likely to still be alive 2 years after being discharged—the maximum followup period studied—than similar patients who were treated at non-teaching hospitals. Further analysis revealed that the lower heart attack death rate found for patients treated in teaching hospitals could be attributed to their receipt of better quality of care.

This is the most extensive and in-depth study to date of quality of patient care and mortality as they relate to hospital teaching status, according to Catarina I. Kiefe, M.D., Ph.D., one of the study's senior authors. Dr. Kiefe and her colleagues found that the patients of major teaching hospitals—academic medical centers with more than one intern for every 10 patients—were more likely to be given aspirin during their stays, if appropriate, than patients treated in non-teaching hospitals (91.2 percent vs. 81.4 percent). Aspirin helps prevent blood clots, which can cause a repeat heart attack or stroke.

The major teaching hospital patients also were more likely to be given beta-blockers and angiotensin-converting enzyme inhibitors (ACE inhibitors) upon discharge, when appropriate, (48.8 percent vs. 36.5 percent and 63.6 percent vs. 58 percent, respectively). Beta-blockers slow the heart rate and reduce contractions of the heart muscle; ACE inhibitors reduce constriction of blood vessels. Usage rates for these drugs at minor teaching hospitals—facilities with one or fewer interns for every 10 patients—were lower than those of major teaching hospitals but higher than the rates for non-teaching facilities.

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Quality of care for heart attack patients

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The study found no significant differences between teaching and non-teaching hospitals in the use of angioplasty—an invasive procedure for opening clogged arteries—or thrombolytic drugs, which are used to dissolve blood clots, with the relatively small number of patients who were ideal candidates for these treatments.

The study was based on Medicare data on 114,129 randomly selected patients from all 50 States who were treated for heart attack between February 1994 and July 1995.

Details are in "Teaching versus non-teaching hospitals: Mortality and quality of care for Medicare patients with acute myocardial infarction," by Jeroan J. Allison, M.D., Dr. Kiefe, Norman W. Weissman, Ph.D., and others, in the September 13, 2000 issue of the *Journal of the American Medical Association* 284(10), pp. 1256-1261. ■

Women's Health

Negative attitudes about mammography lead some low-income black women to skip their appointments to have the procedure

Breast cancer is the second leading cause of cancer deaths among black women today. Unfortunately, black women tend to have low mammography screening rates, which plays a role in delayed diagnosis leading to a disproportionate number of deaths from breast cancer among black women. A recent study supported in part by the Agency for Healthcare Research and Quality (HS07400) reveals that knowledge of screening recommendations and access to free mammograms often are not enough to get poor black women to keep mammogram appointments. Negative attitudes and other factors also play a role in black women's failure to keep appointments for screening mammography.

Despite referrals by a clinician for a mammogram, knowledge of mammogram screening recommendations, and access to low-cost or free mammography services, women harboring negative attitudes were more likely than other women to miss mammogram appointments. These were women who believed that getting a mammogram was embarrassing or was unnecessary in the absence of symptoms. Women who had no history of a benign breast mass were also more likely to miss mammogram appointments. Knowledge of breast cancer screening recommendations had no impact on missed appointments.

Age was inversely related to appointment compliance; women aged 70 and older were less likely to miss a mammogram appointment compared with women 40 to 49 years of age. Also, women referred for a mammogram by a nurse practitioner or physician's assistant (who may have more effective communication styles than doctors) were 70 percent less likely to miss their appointments than women who were referred by a physician.

Based on these study findings, the Morehouse School of Medicine researchers conclude that health education strategies need to address breast cancer screening attitudes among women as well as their knowledge. In addition, physicians need to more effectively encourage mammography, and health care systems should incorporate reminder systems into

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Negative attitudes about mammography

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their services. The researchers interviewed 574 low-income black women with screening mammogram appointments at an urban hospital to determine predictors of mammogram appointment noncompliance.

See "Factors related to noncompliance with screening mammogram appointments among low-income African-American women," by Sherry R. Crump, M.D., M.P.H., Robert M. Mayberry, M.P.H., Ph.D., Beverly D. Taylor, M.D., and others, in the May 2000 *Journal of the National Medical Association* 92, pp. 237-246. ■

Adjustment for breast cancer survivors often involves turning their tragedy into positive meaning

Women who survive breast cancer typically confront fear of cancer recurrence, altered family life and marriage, challenges to sexuality and body image, fatigue and physical discomfort, financial strain, and feelings of loss and anger. However, some women also experience positive effects as a result of their illness. These range from a reappraisal of life, a new attitude toward life, increased self-knowledge or self-change, and reordering of priorities. This ability to attribute positive meaning to their illnesses may be the key to adjustment for these women, according to Elizabeth Johnston Taylor, Ph.D., R.N., of the University of Southern California.

In a study supported by the Agency for Healthcare Research and Quality (National Research Service Award fellowship F32 HS00078), Dr. Taylor interviewed 24 women diagnosed with breast cancer (who varied by race, age, and illness experience) in the past 2 years about how they coped with their illness. The interviews uncovered four phases for transforming the personal tragedy into something positive: encountering darkness, converting darkness, encountering light, and reflecting light. Encountering the darkness involved pain, asking "Why me?", depression, crying, and confusion. The second phase, converting the darkness, involved accepting that some questions were unanswerable and choosing to live beyond the questions. Women in this phase tended to ask, "Where do I go from here?"

The outcome of converting darkness to light was the ability to readily value the benefits or positive meanings inherent in their illness—that is, to see the significance in it. This helped them set priorities, such as family and friends, which in turn led them to encounter the light. They began to enjoy the beauty of nature and each day, adopted an attitude of getting on with their lives, stopped putting things off, and placed value on their time. Those who advanced to stage four, reflecting light, felt that their internal transformation made them a better person and that they were more sensitive to the needs of others. This was typified by involvement in cancer survival organizations or activities. Doctors and nurses can help women adjust to breast cancer by urging them go beyond asking "Why me?" to "How will it make me a better person?" They should not discourage women from encountering the psychospiritual pain necessary for personal transformation, concludes the author.

See "Transformation of tragedy among women surviving breast cancer," by Dr. Taylor in the *Oncology Nursing Forum* 27(5), pp. 781-788, 2000. ■

Also in this issue:

Clinicians should give high priority to parents' wishes in decisions about neonatal ICU care for very low birthweight infants

Neonatal technology has improved the survival of extremely low birthweight (ELBW) infants of borderline viability. The issue of whether or not to actively treat such infants continues to be debated. A new study suggests that ELBW adolescents and their parents often report that despite their severe disabilities, these young people have a decent quality of life, an opinion that may not be shared by their doctors. As a result, the parents' perspective should be given priority in neonatal intensive care decisions about ELBW infants, recommend Saroj Saigal, M.D., F.R.C.P., and colleagues at McMaster University. The study was supported in part by the Agency for Healthcare Research and Quality (HS08385) through its Patient Outcomes Research Team (PORT) project on strategies for care of very low birthweight infants, which is led by Nigel Paneth, M.D., M.P.H., of Michigan State University.

The researchers developed a preschool health status classification system for children less than 4 years of age based on the same conceptual framework as the Health Utilities Index (HUI) systems. The HUI allows individuals to score certain health states from perfect to worse-than-death and to compare their preference for one health state with another. These researchers have been involved in assessing the health status and health-related quality of life (HRQL) of ELBW children since the early 1990s. At age 8 years, the children's health status was classified on the basis of assessments performed by health professionals.

The 150 ELBW infants and 124 matched controls described in this study were born in Ontario between 1977 and 1982. The mean age of the children at the time of the interview was 14 years. The teenagers rated their own health states and four preselected hypothetical health states. Their parents were asked to rate the health status of their children and to imagine themselves living in the health state of their own child for the next 60 years.

A total of 100 physicians and 103 neonatal nurses participated in the study and rated five hypothetical health states ranging from a mild, single-attribute problem to having multiple complex problems. The researchers then compared preferences for selected hypothetical health states from the perspectives of the health care professionals, ELBW teens, and their parents.

They found that ELBW teens valued their quality of life, despite their sometimes multiple impairments. Also, ELBW adolescents and their parents provided higher ratings for severely disabled health states than did health professionals.

These findings suggest that the perceived value of life changes appreciably when an individual has to cope with a disability. They also confirm that the HRQL measurement adds an important dimension to the conventional biomedical approach of enumerating neurologic impairments and other disabilities.

More details are in "Perception of health status and quality of life of extremely low-birth weight survivors: The consumer, the provider, and the child," by Dr. Saigal, in the June 2000 issue of *Clinics in Perinatology* 27(2), pp. 403-419. ■

Note: Only items marked with a single (*) or double (**) asterisk are available from AHRQ. Items marked with a single asterisk (*) are available from AHRQ's clearinghouse. Items with a double asterisk (**) are also available through AHRQ InstantFAX. Three asterisks (***) indicate NTIS availability. See the back cover of *Research Activities* for ordering information. Consult a reference librarian for information on obtaining copies of articles not marked with an asterisk.

Using a simple set of clinical criteria can reduce unnecessary cervical spine x-rays in patients with blunt trauma

Doctors x-ray the cervical spine of nearly all patients with blunt trauma because they want to rule out hidden cervical spine injuries. However, a new study suggests that when doctors use a simple set of clinical criteria they can identify patients who have a very low probability of spinal injury and consequently do not need spinal x-rays. Using these criteria can reduce unnecessary cervical spine x-rays of blunt trauma victims, concludes William R. Mower, M.D., Ph.D., of the University of California, Los Angeles.

In a study supported by the Agency for Healthcare Research and Quality (HS08239), Dr. Mower and colleagues examined the ability of five clinical criteria—no midline cervical tenderness, no focal neurologic deficit, normal alertness, no intoxication, and no painful, distracting injury—to predict which blunt trauma patients would be unlikely to have cervical spine injury. They examined the performance of these criteria (decision instrument) in 34,069 patients who underwent x-rays of the cervical spine after blunt trauma at 21 centers across the United States.

This approach identified all but 8 of the 818 patients who had cervical spine injury (99 percent sensitivity). Only two of the patients classified as unlikely to have an injury according to these criteria were considered to have a clinically significant injury. Also, only one of these two patients had to undergo surgery to repair the injury. According to these results, x-rays could have been avoided in the cases of 4,309 (12.6 percent) of the 34,069 evaluated patients.

More details are in "Validity of a set of clinical criteria to rule out injury to the cervical spine in patients with blunt trauma," by Jerome R. Hoffman, M.D., Dr. Mower, Allan B. Wolfson, M.D., and others, in the July 13, 2000 *New England Journal of Medicine* 343(2), pp. 94-99. ■

Studies suggest better ways to manage elderly hip fracture patients with delirium and end-stage dementia

Elderly hip fracture patients can fall into many clinical categories. Some are in good health and their only problem is a fractured hip. Some patients develop perioperative delirium, a condition that usually resolves spontaneously by hospital discharge. This type of delirium is clearly distinct from that suffered by medically ill patients and should be managed differently, according to a recent study. On the other hand, patients with end-stage dementia who are in the hospital for hip fracture repair don't fare very well. In fact, their poor prognosis may call for more comfort care than life-saving technologies, according to a second study. Both studies, which were supported in part by the Agency for Healthcare Research and Quality (HS09459), are described here.

Brauer, C., Morrison, S., Silberzweig, S.B., and Siu, A.L. (2000, June). "The cause of delirium in patients with hip fracture." ***Archives of Internal Medicine*** **160, pp. 1856-1860.**

Delirium strikes 11 to 42 percent of the hospitalized elderly, but it affects one-fourth to half of elderly patients hospitalized for hip fracture. Delirium is associated with increased risk of death, delayed rehabilitation, prolonged hospital stays, poorer posthospital functioning, and an increased risk of nursing home placement. However, delirium affecting patients hospitalized for hip fracture repair surgery is different from that suffered by hospitalized medically ill patients and should be managed differently, concludes this study.

Mount Sinai School of Medicine researchers found, for example, that delirium tended to resolve spontaneously without intervention by the time of discharge in 74 percent of hip fracture patients. In contrast, the literature suggests that medically ill patients tended to have more prolonged courses. Finally, the researchers identified a definite cause of the delirium in only 7 percent of patients. They identified a probable cause in 20 percent of patients and a possible cause in 11 percent of patients. In 61 percent of episodes, delirium was attributed to one or more comorbid conditions. The only other large study of medically ill patients identified a definitive or probable cause of delirium in 56 percent of cases.

Rather than focusing mainly on pursuing the cause of the dementia in hip fracture patients, doctors should manage the symptoms of the delirious episode using environmental, behavioral, and

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Delirium and dementia

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pharmacologic interventions (for example, major tranquilizers), conclude the researchers. Their findings were based on a review of medical charts and daily interviews with 571 hip fracture patients (50 years of age and older) admitted to four New York City hospitals.

Morrison, R.S., and Siu, A.L. (2000, July). "Survival in end-stage dementia following acute illness." ***Journal of the American Medical Association*** **284(1), pp. 47-52.**

Nearly 2 million people in the United States are in the final stages of a dementing illness such as Alzheimer's disease. They cannot recognize family members, depend on others for help with daily activities, are unable to communicate, and suffer from repeated infections and other complications. This study shows that when elderly patients with end-stage dementia were hospitalized for hip fracture or pneumonia they didn't fare well. They had a four-fold increase in 6-month mortality compared with elderly cognitively intact adults with the same diagnoses (53 vs. 13 percent for pneumonia patients and 55 vs. 12 percent for hip fracture patients).

Despite these large differences in mortality between cognitively intact and demented patients, care for these two groups of patients varied little. That's unfortunate, say the Mount Sinai School of Medicine researchers who conducted the study. They recommend that care for demented patients should focus more on comfort care and minimize burdensome "life-saving" interventions. They argue that these interventions are especially burdensome for those with dementia because they cannot understand the reasons for tests or treatments, prepare for them emotionally, refuse them if desired, or request analgesia.

Their study found that hip fracture and pneumonia patients with end-stage dementia received just as many burdensome procedures (for example, arterial blood gas measurement, phlebotomy, and urinary catheter insertion) as cognitively intact patients, and only 7 percent of them had a documented decision to forego a life-sustaining treatment other than cardiopulmonary resuscitation (CPR). Only 24 percent of patients with end-stage dementia and hip fracture, a very painful condition, received a standing order for pain killers (analgesics). Finally, there were few discussions with family members about the goals of hospital care. These findings are based on a prospective 6-month study of 59 cognitively intact and 39 demented elderly hip fracture patients and 39 cognitively intact and 80 demented pneumonia patients in a large hospital in New York City between September 1996 and March 1998. ■

Outcomes/Effectiveness Research

Patient self-testing of blood coagulation times has the potential to improve outcomes for patients at risk of stroke

Anticoagulation therapy that prevents blood clots is frequently prescribed for patients at risk of a first or subsequent stroke. Patients receiving this therapy must have regular blood tests to ensure that their blood is sufficiently thin to prevent clotting but not so thin as to produce excessive bleeding or hemorrhage.

With some patients, the optimal interval for testing may be once or twice a week, an office visit frequency that may be inconvenient for the patient and time consuming for the physician. The development of point-of-care blood analyzers now gives these patients the alternative of patient self-management (PSM) in which they perform most of their blood tests at home and make many of their own medication adjustments. PSM is a promising model of care that could improve anticoagulation management in a way similar to the improvement that glucose monitoring has brought to the management of diabetes. However, only a few studies have directly compared PSM to other approaches to anticoagulation management.

In a recent study, Duke University researchers Gregory P. Samsa, Ph.D., and David Matchar, M.D., review the evidence that correlates more frequent testing with improved patient outcomes and discuss the implications of these findings for the design of randomized controlled trials that would compare PSM with high quality anticoagulation management outside the home. From the limited studies now available, they infer that more frequent testing could increase the

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Self-testing of blood coagulaton times

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time during which the patient's blood is thinned to the recommended target range (time in target range = TTR). They further conclude that the relationship between TTR and clinical outcomes (that is, bleeding and thromboembolism) is sufficiently strong to support the use of TTR as a primary outcome variable in any randomized controlled trial assessing the effectiveness and cost-effectiveness of PSM. Dr. Matchar is the principal investigator and Dr. Samsa is the project director of the Stroke Prevention Patient Outcomes Research Team (PORT), which is supported by the Agency for Healthcare Research and Quality (PORT contract 290-91-0028).

For more details, see "Relationship between test frequency and outcomes of anticoagulation: A literature review and commentary with implications for the design of randomized trials of patient self-management," by Drs. Samsa and Matchar, in the *Journal of Thrombosis and Thrombolysis* 9, pp. 283-292, 2000. ■

Health Care Delivery

Chronic disease patients who complain to their doctors about their medications are twice as likely to stop taking them

Patients who have a chronic disease such as hypertension, diabetes, or heart disease typically must take several medications to manage their condition. These medications can be costly, and they may have disturbing side effects. In fact, one of every five chronic disease patients complained to his or her primary care doctor about a medication during the 1980s, according to a study supported by the Agency for Healthcare Research and Quality (HS08431).

Complaints ranged from medication cost and side effects to not liking the medication or feeling that it was not working. Complaining patients were twice as likely not to comply with their medication regimens (fail to take it or be confused about how to take it) as patients who did not complain.

Nearly half of the time (45 percent), doctors changed the patient's medication in response to complaints or adherence problems. However, doctors did nothing in response to 27 percent of patients who complained about their medication(s) and 33 percent of patients who said they were having trouble complying with their medication regimen. The authors suggest that this inattention to patient complaints may have stemmed from physicians' unsuccessful efforts to deal with medication problems during previous medical encounters with the patients.

More research is needed on how to improve the ways doctors respond to patients' medication complaints and adherence problems. Also, policies are needed that will give doctors adequate time to explore patients' attitudes about their medications and modify medication regimens to make them acceptable to both patients and providers, concludes Betsy Sleath, Ph.D., of the University of North Carolina at Chapel Hill. Study findings are drawn from 503 audiotaped physician interactions with adult chronic disease patients in the mid-1980s at outpatient settings in 11 U.S. and Canadian communities.

See "Patient expression of complaints and adherence problems with medications during chronic disease medical visits," by Dr. Sleath, Betty Chewning, Ph.D., Bonnie Svarstad, Ph.D., and Debra Roter, Dr.P.H., in the Summer 2000 *Journal of Social and Administrative Pharmacy* 2, pp. 71-80. ■

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ICU patients are more likely to receive the care they prefer if they discuss it with their doctor

Many Americans fear spending their last days of life in an intensive care unit (ICU) attached to "life saving" machinery. Seriously ill ICU patients who prefer palliative or comfort care to extraordinary life saving measures are twice as likely to get that care if they discuss their care preferences with their doctors. Yet only one-third of seriously ill ICU patients do so, concludes a study supported in part by the Agency for Healthcare Research and Quality (HS08158).

For example, 45 percent of ICU patients at five medical centers preferred an approach to care that focused on extending life, even if it meant having more pain, and 36 percent wanted their medical care to focus on their comfort, even if it shortened their life. Among those who wanted life-extending support, 88 percent said they obtained it, 2 percent said current care was aimed at comfort, and 10 percent did not know what the current approach to their medical care was.

Among those who preferred palliative care, only 29 percent said they obtained it, 47 percent said care was contrary to their preferences, and 24 percent did not know what the current approach to their medical care was. Patients who discussed their preferences for palliative care with a physician were nearly twice as likely as other patients to believe that their treatment was palliative. Yet few patients discussed their treatment preferences with their doctors. Based on interviews conducted during the second week of hospitalization, only 38 percent of patients (or their surrogates) reported that their physicians had talked with them about their prognoses, and only 34 percent said they had talked to their doctors about their preferred approach to care.

Improved communication between patients and health care providers is needed so that patients receive care that is tailored to meet their goals and preferences, concludes Joan M. Teno, M.D., M.S., of Brown University. Dr. Teno and her colleagues evaluated the decisionmaking and outcomes of 1,494 seriously ill patients who stayed in one of five ICUs for at least 14 days (median stay 35 days) and were enrolled in a larger treatment outcomes study. The researchers interviewed patients, surrogate decisionmakers, and physicians about prognosis, communication, and goals of medical care.

See "Decision-making and outcomes of prolonged ICU stays in seriously ill patients," by Dr. Teno, Elliot Fisher, M.D., M.P.H., Mary Beth Hamel, M.D., M.P.H., and others, in the May 2000 *Journal of the American Geriatrics Society* 48, S70-S74. ■

Researchers identify key features of effective collaborative health care teams

Health care delivery is moving toward collaboration among diverse health care professionals who provide comprehensive patient care. These collaborative health care teams often manage the care of outpatients with less redundancy, more efficiency, and fewer omissions than individual clinicians, conclude the authors of a study that analyzed the detailed workings of a collaborative care team at one outpatient center. They found that the types of professionals attending a patient were determined by the patient's problem.

A primary care physician saw all patients, determined which additional health care services were required, and initiated arrangements to obtain the necessary services for the patient. Many patients were also seen by a nurse practitioner, particularly those with cardiac difficulties and AIDS, illnesses requiring the type of comprehensive, frequent followup provided by nurses. However, only patients whose needs required additional consultation were also seen by medical consultants, such as those with gastrointestinal, urological, and gynecological difficulties, and only patients with cardiac diseases were seen by a cardiologist.

Communication focused primarily on the care of specific patient-related problems. Other issues, such as moving patients through the clinic and hospital efficiently, coordinating team activities, and other administrative issues also were discussed as

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needed to meet patient needs (22 percent of interactions were concerned with team functioning and organizational issues).

Face-to-face verbal communication (most often used), e-mail, and voice mail were the most effective means of communication (effective nearly 100 percent of the time). The pager was found to be an ineffective means of communication, accounting for 33 percent of all failed messages. Team members interacted frequently, especially physicians and nurse practitioners, who communicated more with each other than with professionals who had more distinct roles, such as mental health practitioners. Distributed responsibilities allowed the team to process massive amounts of patient information, reducing the cognitive load on individuals, according to the researchers. The research was supported in part by the Agency for Healthcare Research and Quality (HS08749; Charles Safran, M.D., of Harvard Medical School, principal investigator).

See "The collaborative health care team: The role of individual and group expertise," by Vimla L. Patel, Ph.D., D.Sc., Kayla N. Cytryn, R.N., Ph.D., Edward H. Shortliffe, M.D., Ph.D., and Charles Safran, M.D., in *Teaching and Learning in Medicine* 12(3), pp. 117-132, 2000. ■

One-fourth of generalists and three-fourths of specialists have a subspecialty within their primary specialty

The rapid expansion of medical knowledge and technology in recent decades has prompted more and more doctors to specialize. According to a recent study, one-fourth of generalists (internists and pediatricians) and three-fourths of specialists now have a subspecialty of expertise in their area. For general internists and pediatricians, subspecialties primarily focused on groups of patients, such as women, the elderly, children with developmental problems, or adolescents. Specialists reported focused expertise in areas specific to their specialty. For example, cardiologists tended to specialize in areas such as echocardiography and electrophysiology. The study was supported in part by the Agency for Healthcare Research and Quality (National Research Service Award training grant T32 HS00020).

Focused expertise may secure a niche amid a potential excess of specialists, particularly in hospital and nonrural settings. It also may provide opportunities for additional earnings from referrals and procedures that often accompany such expertise. In fact, one academic medical center now offers a fourth year of internal medicine residency training to enable residents to develop expertise in a subspecialty. Similar trends are evident in pediatrics, with the emergence of fellowship training and certification in fields such as adolescent medicine and behavioral-developmental pediatrics.

Generalists with focused expertise may be particularly useful in managed care organizations or in geographic areas with fewer specialists. For example, a group of primary care doctors, each with complementary expertise, might share knowledge and skills and thus require fewer consultations with specialists. On the other hand, excessive and narrow subspecializing may yield fragmented care and inefficient referral to multiple or inappropriate specialists, cautions Nancy L. Keating, M.D., M.P.H., of Harvard Medical School and Brigham and Women's Hospital. Dr. Keating and her colleagues surveyed 1,370 licensed general internists, pediatricians, cardiologists, infectious disease specialists, and orthopedic surgeons in Massachusetts, who graduated from medical school before 1993.

More details are in "Physicians' reports of focused expertise in clinical practice," by Dr. Keating, Alan M. Zaslavsky, Ph.D., and John Z. Ayanian, M.D., M.P.P., in the *Journal of General Internal Medicine* 15, 417-420, 2000. ■

Hospital grades on quality-of-care report cards may not truly reflect actual quality at a specific hospital

Hospital quality of care report cards grade hospital care based on the outcomes of patients compared with the outcomes of similar patients cared for at other hospitals. These report cards are being used more often by managed care organizations, health care consultants, and other groups when assessing hospitals. However, a recent study suggests that the validity of these report cards may depend on the methods used to adjust for patient severity of illness (risk of poor outcomes) and may not truly reflect the quality of care at a specific hospital. The study was supported by the Agency for Healthcare Research and Quality (HS06274, Wally R. Smith, principal investigator).

Roy M. Poses, M.D., of Brown University, and colleagues compared the outcomes of congestive heart failure (CHF) patients arriving at the emergency departments of three hospitals: a university hospital, a Veterans Affairs (VA) medical center, and a community hospital. Before they accounted for differences in patients' initial levels of sickness at each hospital, it appeared that patients at the university hospital were more likely to be alive 30 days (93 percent) and 1 year (68 percent) after leaving the hospital than the patients at the community hospital (85 percent at 30 days) and VA hospital (61 percent at 1 year). However, after accounting for the initial levels of patient sickness at the three hospitals using different methods to adjust for illness severity, it was unclear which hospital's patients did better.

Hospital rankings depended on the method used to adjust for patient severity of illness, which included four disease-specific survival prediction models and four generic models appropriate for CHF patients. No model was clearly superior to the others in the ability to discriminate among patients with different actual rates of survival. The authors conclude that relying on survival outcome report cards that use one of the currently available risk-adjustment methods may lead to seriously flawed conclusions about the quality of care at particular hospitals.

See "Results of report cards for patients with congestive heart failure depend on the method used to adjust for severity," by Dr. Poses, Donna K. McClish, Ph.D., Wally R. Smith, M.D., and others, in the July 4, 2000 *Annals of Internal Medicine* 133 (1), pp.10-20. ■

Policies that provide postretirement health benefits to the near-elderly may encourage some workers to retire early

With the leading edge of the baby boom generation now turning 50, the number of near-elderly men and women will rise dramatically in coming years. By 2010 there will be almost as many Americans aged 55 to 64 as those aged 65 and older. Although people over age 65 have access to health insurance through Medicare, the near-elderly have very limited options for affordable health insurance other than employment-related coverage. However, there has been a strong downward trend in recent years in the generosity of retiree health benefits offered by employers, and few other routes to insurance exist for people in this age group.

These concerns have led policymakers to consider a number of initiatives aimed at increasing access to health insurance for the near-elderly, such as proposals to allow people younger than age 65 to buy into Medicare. However, critics charge that such policies will induce the near-elderly to retire early at a time when the labor force is shrinking due to retirement of the baby boom generation. A recent study agrees. The study, which was supported in part by the Agency for Healthcare Research and Quality (HS07048), found that older male workers with retiree health benefits were 68 percent more likely to retire than colleagues who would lose employment-based health insurance

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upon retirement. Even the level of premium cost sharing in retirement relative to the cost while working did not appear to influence the retirement decisions of older workers.

Ultimately, policymakers will need to balance the benefits of increased access to postretirement health insurance against the labor force effects associated with such policies, conclude Jeannette Rogowski, Ph.D., and Lynn Karoly, Ph.D., of RAND in Washington, DC. They developed a model to analyze the role of health insurance in the retirement decisions of older workers. The researchers used data from the 1992 and 1996 waves of the Health and Retirement Survey to estimate how access to postretirement health insurance and the cost of that insurance affected the retirement behavior of older male workers.

More details are in "Health insurance and retirement behavior: Evidence from the health and retirement survey, by Drs. Rogowski and Karoly, in the *Journal of Health Economics* 19, pp. 529-539, 2000. ■

Sigmoidoscopy and stool blood tests are the most cost-effective screening tests for colon cancer

Flexible sigmoidoscopy, a screening technique to examine the lining of the last part of the colon, performed every 5 years and the annual stool blood test are the two most cost-effective strategies for colon cancer screening in asymptomatic adults aged 50-85 years. In a study funded by the Agency for Healthcare Research and Quality, Rezaul K. Khandker, Ph.D., and colleagues compared the cost-effectiveness of eight screening strategies based on guidelines published in 1997 by the American Gastroenterological Association.

The cost-effectiveness analysis measured the costs arising from screening against the gains that it yielded, compared with doing no screening. Flexible sigmoidoscopy conducted every 5 years ranked lowest in terms of cost per life-year saved at $12,636 in 1994 dollars, followed by the annual stool test—a technique to detect blood leaking from a polyp or tumor in the colon—at $14,394.

Colonoscopy, a costly procedure that directly examines the entire colon and permits immediate removal of precancerous polyps, is inherently the most effective strategy. The study found that reducing the cost of colonoscopy by 50 percent would make performing this test the second most cost-effective choice if performed every 10 years. The study showed that the appeal of alternative screening strategies was dependent on how many years it took for a polyp in the colon to undergo the genetic changes that transform the growth into cancer.

After sigmoidoscopy every 5 years and the annual stool blood testing, the other strategies, in the order of declining cost-effectiveness under the likeliest assumptions, were sigmoidoscopy every 3 years, double-contrast barium enema every 5 years, colonoscopy every 10 years, annual stool blood testing plus sigmoidoscopy every 5 years, annual stool blood testing plus sigmoidoscopy every 3 years, and colonoscopy every 5 years.

These cost-effectiveness ratios compared favorably with other types of screening. For example, mammography screening for women between the ages of 50 and 69 years had a cost-effectiveness ratio of $21,400 in 1995 dollars. The Pap smear with AutoPap—a computer-assisted rescreening technology—conducted every 2 and 3 years for women aged 20 to 65 years yielded ratios of $42,666 and $16,259, respectively, using 1996 dollars.

For more details, see "A decision model and cost-effectiveness analysis of colorectal cancer screening and surveillance guidelines for average-risk adults," by Dr. Khandker, Jane Dulski, M.P.H., Jeffrey B. Kilpatrick, B.A., and others in the Summer 2000 *International Journal of Technology Assessment in Heath Care* 16, pp. 799-810.

The full report from this study, *Cost-Effectiveness Analysis of Colorectal Cancer Screening and Surveillance Guidelines* (AHRQ Publication No. 00-R051), is available from AHRQ.* ■

Washington State employees find CAHPS® health plan assessments to be easy to understand and useful

CAHPS® comprises a collection of state-of-the-art instruments that can be used by employers and other purchasers of health care coverage to survey consumers about their experiences with their health insurance plans. Results from the surveys can be compiled and summarized in a report for use by enrollees to help them choose among plans. The Agency for Healthcare Research and Quality launched CAHPS® in 1995. In 1996, the Health Care Financing Administration adapted CAHPS® for use by Medicare enrollees.

In a recent study supported by AHRQ (HS09205), the CAHPS® survey was distributed to nearly 16,000 enrollees in 20 health plans offered to employees by the Washington State Public Employees Benefits Bureau. The survey was distributed to random samples of up to 600 adults enrolled in each of the plans; 8,204 surveys were completed. The survey included questions that measured 10 domains of health plan performance such as ease of getting needed care, care without a long wait, ease of finding a personal doctor, ability of doctors to communicate with patients and spend enough time with them, and ease of obtaining referrals to specialists.

Survey results were summarized in a report that described the types of health plans available, rated their performance, and compared the performance of each plan relative to the other plans. The report included a worksheet for each employee to identify the plans that scored well on domains most important to him or her and to assess the benefits and coverage offered by each plan, the cost of the plan, and the availability of providers and their locations.

The report was distributed to 97,000 households, and reactions to the report were obtained from more than 1,500 people. More than three-quarters of those who were mailed the report said they saw it. A large proportion said they read most or all of it, and most thought it was easy to understand, contained information needed to rate plans, and helped them to learn about the differences between plans. Employees who used the CAHPS® performance report were more likely than those who did not to switch plans and to report that they were confident they had selected the best plan for their situation.

More details are in "Providing consumers with information about the quality of health plans: The Consumer Assessment of Health Plans demonstration in Washington State," by Edward Guadagnoli, Ph.D., Arnold M. Epstein, M.D., Alan Zaslavsky, Ph.D., and others, in the July 2000 *Joint Commission Journal on Quality Improvement* 26(7), pp. 410-420. ■

All health care providers will soon be affected by federally mandated standardization of health insurance billing

Today, patients who walk into a drugstore to purchase prescribed medication can simply swipe their insurance card, which enters their insurance and personal identification data in the pharmacists' information system. In turn, the pharmacist keys in the drug information and the system determines the patient's eligibility, coverage for that drug, and copayment responsibility. The pharmacist later receives electronic payment for the portion of the prescription costs not paid by the patient. Under a portion of the 1996 Health Insurance Portability and Accountability Act (HIPAA), which is scheduled to become effective in 2002, similar transactions will be possible in physicians' offices, hospitals, and outpatient clinics.

The goal is standardization of health insurance billing to reduce billing costs and time, provide greater certainty of coverage and payment responsibility, and establish a privacy standard for personal health information. J. Michael Fitzmaurice, Ph.D., of the Agency for Healthcare Research and Quality, and Jeffrey S. Rose, M.D., of CyberPlus Corporation, recently published an article in which they described several key features of the HIPAA legislation.

First, health care providers do not have to engage in electronic health transactions, but if they do, they must comply with HIPAA transaction data standards. Second, health plans must be able to accept transactions in a standard HIPAA format, may not refuse or delay a transaction, or adversely affect the

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entity sending it for lack of proper content. Those covered by HIPAA security and privacy standards must protect the health care information they maintain and transmit electronically from improper access, alteration, or loss and must not wrongfully disclose individually identifiable health information. However, some major barriers to HIPAA implementation remain: the costs of making the transition to meet the legislated standards, testing and certifying that covered entities meet HIPAA standards, and obtaining resources to implement and maintain features like the national provider identifier (a 10-digit code for use in electronic claims processing that will be unique to each provider and assigned for life).

See "Cutting to the chase: What physician executives need to know about HIPAA," by Drs. Fitzmaurice and Rose, in the May 2000 issue of *The Physician Executive* 26(3), pp. 42-49. Reprints (AHRQ Publication No. 00-R041) are available from AHRQ.** ■

HIV/AIDS Research

Florida's Medicaid AIDS waiver program improves patients' health and reduces costs, especially for hospital care

More than half of the people living with AIDS use health care services provided by State Medicaid health insurance programs for the poor. Because of their condition, people with AIDS are at increased risk of hospitalization or nursing home placement. During the 1990s, several Medicaid programs initiated waivers for home and community-based services for people with AIDS in an attempt to reduce hospital costs.

Besides traditional Medicaid services, people with waivers are eligible to receive 15 other services such as case management, personal care services, and home-delivered meals. A recent study of Florida's Medicaid AIDS waiver program, Project AIDS Care, from 1993-1997 found that adult AIDS patients who did not participate in the waiver program had significantly higher hospital costs than program participants, after controlling for age and ethnicity.

Florida adults enrolled in the waiver program tended to have more education and have higher incomes but were more seriously ill than those not enrolled. The waiver services they used most frequently were medical supplies, skilled care, meals, homemaker services, personal care, and help with household chores.

Total monthly Medicaid expenditures for AIDS patients without waiver services were about 10 percent higher than those for patients with waiver services, and average monthly spending, excluding drugs, was almost 78 percent higher. Those without waiver services also incurred about $882 or 335 percent higher inpatient costs but spent about 61 percent less per month on drugs than waiver program participants did. Thus, the higher drug spending of waiver participants was only a fraction of the inpatient costs of nonparticipants.

Those with waivers had regular contact with a case manager who could ensure both regularity of care and help with complex medication compliance, reducing the need for expensive hospital care. Because Florida's Project AIDS Care provided people with AIDS with valuable services not otherwise available under Medicaid, it was a success, conclude Jean M. Mitchell, Ph.D., of Georgetown University, and Kathryn H. Anderson, Ph.D., of Vanderbilt University. In the study supported by the Agency for Healthcare Research and Quality (HS09560), they analyzed Florida Medicaid eligibility records and Medicaid claims between 1993 and 1997.

See "Effects of case management and new drugs on Medicaid AIDS spending," by Drs. Mitchell and Anderson, in the July 2000 *Health Affairs* 19(4), pp. 233-243. ■

Kaposi's sarcoma is more likely to develop in HIV-infected people who also have herpesvirus type 8 infection

Kaposi's sarcoma (KS) is the most prominent AIDS-defining cancer. Now scientists have discovered that human herpesvirus type 8 (HHV-8), a herpesvirus discovered in 1994, may actually be the causal agent for KS. According to recent findings from the Multicenter AIDS Cohort Study, there is strong evidence that, in addition to HHV-8 infection, other conditions (for example, a suppressed immune system) are necessary to cause KS. In fact, the risk of developing KS is increased if HHV-8 seroconversion (development of antibodies to HHV-8) occurs after a person becomes infected with the human immunodeficiency virus (HIV) that causes AIDS. The researchers tested for HHV-8 in the stored blood of 400 homosexual men with known dates of HIV-1 seroconversion (plus or minus 4.5 months).

The researchers compared times from HHV-8 seroconversion to KS for the 69 men who became infected with HHV-8 after acquiring HIV-1 to the 182 men who were HHV-8 seropositive before their HIV-1 infection. None of the men developed KS before coinfection with HIV-1. Men who developed HHV-8 antibodies after HIV-1 infection had more than double the risk of developing KS (risk ratio, 2.55) than men infected with HHV-8 before HIV-1. The risk of developing KS among HHV-8-infected men increased by 60 percent for each year of HIV-1 infection. Faster CD4 cell loss and higher HIV-1 RNA levels significantly predicted the more rapid development of KS in men acquiring HHV-8 after HIV-1.

HHV-8 probably remains latent in an immune-competent host in a way similar to that of other herpes viruses, cytomegalovirus, and Epstein-Barr virus. The lack of KS, despite infection with HHV-8 before HIV-1 infection supports this conclusion, explains lead author, Lisa P. Jacobson, Sc.D., of Johns Hopkins School of Hygiene and Public Health. She suggests that it may be the immunosuppression and possibly the stimulation of cytokines (proteins released in response to antigens) brought on by HIV-1 infection that promote the oncogenic process of HHV-8 (conversion of normal cells into cancer cells). Given the evidence that HHV-8 infection alone is not sufficient for the development of KS, there is little need to identify and closely monitor HHV-8-infected people, unless they are placed at further risk via a compromised immune system, conclude the authors. The Multicenter AIDS Cohort Study is cofunded by the National Institute of Allergy and Infectious Diseases, the National Cancer Institute, and the Agency for Healthcare Research and Quality.

For more details, see "Interaction of human immunodeficiency virus type 1 and human herpesvirus type 8 infections on the incidence of Kaposi's sarcoma," by Dr. Jacobson, Frank J. Jenkins, Ph.D., Gayle Springer, M.L.A., and others, in the June 2000 *Journal of Infectious Diseases* 181, pp. 1940-1949. ■

Total costs in the United States for treating people with HIV disease were $7 to $8 billion in 1996

The Centers for Disease Control and Prevention (CDC) estimates that between 650,000 and 900,000 people are infected with HIV in the United States and that 500,000 of these people know that they are infected. Most people with HIV disease depend on public sources to pay for needed services, making it important for public agencies to have accurate estimates of HIV treatment costs. According to a recent study, the total costs for treating people with HIV disease in the United States in 1996 were between $6.7 and $7.8 billion, with an average annual cost of treating each person estimated at between $20,000 and $24,700.

Existing cost estimates are derived from a sample of people with HIV disease to extrapolate the cost of treating all people with the disease (patient-based approach). This study by Fred J. Hellinger, Ph.D., and John A. Fleishman, Ph.D., of the Agency for Healthcare Research and Quality, compares estimates using this approach with those of two novel approaches, payer-based estimates (for example, estimates from Medicaid and Medicare) and provider-based estimates (for example, estimates of hospitals, doctors, and pharmaceutical firms). The HIV Cost and Services Utilization Study (HCSUS), the most recent

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patient-based study, used a national probability sample of 4,042 people with HIV disease from 145 providers in 28 metropolitan areas and 51 providers in 25 rural areas. The researchers using HCSUS data estimated total costs for treating all people with HIV during the first 6 months of 1996 at $6.7 billion and the average per person cost at $20,000.

The total estimate based on data from payers was $7.2 billion, and the provider-based approach yielded a total estimate of $7.8 billion. All of these estimates have their flaws. However, the fact that they are based on different data sources that have different assumptions and still yield similar estimates should give analysts confidence in the range of cost estimates they provide, note the authors. They nevertheless call for better information about the cost of treating people with HIV disease, since most available data are derived from convenience samples that use poorly documented methods to estimate costs.

More details are in "Estimating the national cost of treating people with HIV disease: Patient, payer, and provider data," by Drs. Hellinger and Fleishman, in the June 2000 *Journal of Acquired Immunodeficiency Syndromes 24*, 182-188. Reprints (AHRQ Publication No. 00-R058) are available from AHRQ.** ■

Researchers examine access to care, symptom prevalence, and health care services for patients with HIV infection

The HIV Cost and Services Utilization Study (HCSUS) is a national probability sample of 2,776 adults under treatment for HIV infection. Five studies supported by the Agency for Healthcare Research and Quality (HS08578) using HCSUS data were recently published and are summarized here. The first study shows that HIV-infected blacks and other vulnerable groups have less access to antiretroviral therapy than others with HIV disease. The second study concludes that the prevalence and impact on life of HIV-related symptoms are substantial but vary by care setting and patient characteristics.

The three remaining studies focus on the effects of HIV infection on patients and their families. HIV has a profound impact not only on patients who have the disease but also on their families. More than 120,000 American children with HIV-infected parents face financial, social, medical, and emotional hardships stemming from the disease, but their families have few support services to help them cope. In addition, HIV-infected parents often forego needed medical and dental care because they need to take care of their children or need the money for basic necessities such as food and rent. Thus, clinical and social support services for people affected by the HIV epidemic should have a family focus.

Andersen, R., Bozzette, S., Shapiro, M., and others. (2000, June). "Access of vulnerable groups to antiretroviral therapy among persons in care for HIV disease in the United States." ***Health Services Research*** **35(2), pp. 389-416**.

This study suggests that patients with HIV disease who are black or poor have less access to antiretroviral therapy than other patients. The researchers analyzed HCSUS data to correlate the impact of certain predisposing and enabling factors with receipt of highly active antiretroviral therapy (HAART) in 1996.

The most important determinant of early access to HAART was level of need, as measured by lowest CD4 count. Those with the lowest CD4 count (0-49), indicating greater severity of illness, were over five times more likely to get HAART than those with CD4 counts of 500 or greater.

Yet the adjustment for need had practically no impact on the likelihood of receiving HAART for the most vulnerable groups: female intravenous drug users (IDUs), the least educated, and minority groups. They were 41 to 65 percent less likely to have access to HAART than other HIV-positive groups, regardless of clinical need. This suggests that these patients lacked enabling resources beyond mere need, such as higher income, being tested for HIV at an anonymous test site, and ability to get a same-day appointment at the usual source of care.

After adjusting for need, female IDUs were 41 percent less likely (odds ratio, OR 0.59) to have early access to HAART than homosexual males, and patients with less than a high school education were half

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(OR 0.51) as likely to receive HAART as those who had completed college or graduate education. Finally, blacks were much less likely (OR 0.35) to have early access to HAART than whites. The authors conclude that substantial inequities exist regarding one's "place in line" for receiving the most efficacious drug therapies for HIV disease.

Mathews, W.C., McCutchan, A., Asch, S., and others. (2000, July). "National estimates of HIV-related symptom prevalence from the HIV Cost and Services Utilization Study." *Medical Care* 38(7), pp. 750-762.

HIV-infected people experience a broad range of symptoms that vary depending on individual characteristics and site of care. About half of HIV-infected people surveyed as part of HCSUS experienced fever/night sweats (51 percent), diarrhea (51 percent), nausea/anorexia (50 percent), and dysesthesia or impaired sensation, (49 percent). Other prevalent symptoms included severe headache (40 percent), weight loss (37 percent), vaginal symptoms (36 percent of women), sinus symptoms (35 percent), eye trouble (32 percent), cough/dyspnea (30 percent), thrush (27 percent), rash (24 percent), oral pain (24 percent), and Kaposi's sarcoma (4 percent).

Women and injection drug users (IDUs) suffered the most symptoms, followed by people with lower levels of education, lower income, and Medicare enrollment, as well as those who received followup at teaching hospitals. Medicare beneficiaries had a high mean number of symptoms (41) compared with a low of 26 for those with private insurance. People who had an income of more than $25,000 per year had the lowest mean symptom score (30) of income groups. Symptom number scores also varied by race/ethnicity from 33 for black patients to 40 for those neither white, black, nor Hispanic in origin. IDUs were more symptomatic (41), while those reporting heterosexual contact were less symptomatic (31). Finally, patients cared for at teaching facilities were more symptomatic (38) than those being seen at non-teaching sites (34).

Symptoms were quite bothersome for most, with people rating individual symptoms in the highest two (most bothersome) of five categories in 37 to 67 percent of cases. After adjusting for CD4 count, an indicator of illness severity, the degree to which symptoms were bothersome, like symptom number, varied significantly by teaching status of the care setting, exposure/risk group, educational achievement, sex, annual income, employment, and insurance category. However, the variation was small. The clinical importance of small differences in symptom frequency and bothersomeness needs to be better understood to inform policy changes, conclude the authors.

Schuster, M.A., Kanouse, D.A., Morton, S.C., and others. (2000, July). "HIV-infected parents and their children in the United States." *American Journal of Public Health* 90(7), pp. 1074-1081.

This study found that over one-fourth (28 percent) of adults (60 percent of women and 18 percent of men) being treated for HIV or AIDS had children younger than 18 years. Fifty-three percent of those with children had more than one child, 29 percent had two, 14 percent had three, and 10 percent had four or more. In fact, 12 percent of women conceived and gave birth to their youngest child after diagnosis. Women were more likely than men to care for their children at home (76 vs. 34 percent). Among HIV-infected parents living with children, 24 percent lived with at least one other HIV-infected adult, and 1 percent were homeless.

Many of the parents surveyed had reached a fairly advanced stage of illness, which affected their ability to care for their children. For example, 21 percent of these parents had been hospitalized in the previous 6 months, and 18 percent needed home health care. Unfortunately, these adults and their children had few financial, emotional, and social supports to help them cope with this stigmatizing and potentially fatal disease. Some parents lacked social networks that traditionally assist in caring for children, with 20 percent reporting no close friends, and 16 percent seeing family members once a month or less.

One-fourth of parents had no one to lend them money, and 16 percent had no one to help with chores. About 20 percent of the children did not live with either parent, with grandmothers most often filling the gap, followed by other relatives and unrelated adoptive or foster parents. Sixty-seven percent of HIV-infected parents were participating in one or more government program to supplement income. The authors note, however, that informal family care arrangements often do not quality for financial assistance.

Stein, M.D., Crystal, S., Cunningham, W.E., and others. (2000, July). "Delays in seeking HIV care due to competing caregiver responsibilities." *American Journal of Public Health* 90(7), pp. 1138-1140.

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Women with AIDS (and less often men) may have children, HIV-infected relatives, or partners who require care. They often delay medical care for themselves because they are caring for others, according to this study. Answers to a HCSUS survey question on the topic revealed that 14 percent of women and 6 percent of men with HIV disease had delayed seeking care for themselves in the previous 6 months as a result of caring for someone else. Women with HIV disease were nearly twice (odds ratio, OR 1.6) as likely as men to put off needed care, and HIV-infected people with a child in the household were nearly twice as likely (OR 1.8) to put off care as those without children.

In addition, nearly equal proportions of men and women lived with another HIV-positive person, and they were 1.8 times more likely to put off needed care than those who did not live with an infected partner. These findings confirm that people living with AIDS often act as family caregivers, and that this role often leads them to delay seeking their own care. The authors emphasize the need for supportive services for HIV-infected women, such as free on-site child care in medical facilities where they receive care. It must be noted, however, that women who are using drugs may avoid child care assistance for fear of losing custody of their children.

Marcus, M., Freed, J.R., Coulter, I.D., and others. (2000, July). "Perceived unmet need for oral treatment among a national population of HIV-positive medical patients: Social and clinical correlates." ***American Journal of Public Health*** **90(7), pp. 1059-1063.**

Nearly one of every five HIV-infected people who were interviewed as part of the HCSUS study said they needed dental care that they did not receive (unmet need) in the last 6 months. This perceived unmet need was related more to social and economic factors than to stage of infection (CD4 cell count). For instance, the odds of not getting needed dental care were doubly high for those on Medicaid in States without dental benefits (odds ratio, OR 2.2) as in States with such benefits. Patients with incomes under $10,000 also had twice the risk of unmet need (OR 2.2) compared with those who had incomes over $25,000. The same was true for those with less than a high school education (OR 1.8) compared with those who had a bachelor's degree or higher. Finally, blacks were more likely to have an unmet need for dental care than whites (24 vs. 16 percent).

Dental insurance mattered. Those with no dental insurance and not covered by Medicaid were almost three times as likely to have a perceived unmet need as those with private insurance. Those covered by Medicaid but living in States without adult dental benefits were four times more likely to have unmet dental need than those with private insurance. Yet in States where the Medicaid programs included dental benefits, there was no significant difference between Medicaid-insured people and those with private dental insurance.

The authors conclude that an expansion of Medicaid dental benefits may reduce unmet need for dental care among HIV-infected people. It also may improve their quality of life and have an impact on the course of the disease, since for some, unmet need for dental care was associated with either pain or infection. These findings are based on answers to questions about dental need in the HCSUS survey. ■

Agency News and Notes

AHRQ expands program to improve safe and effective use of medical products

The Agency for Healthcare Research and Quality has provided $4.8 million in additional funding for the Centers for Education and Research on Therapeutics (CERTs) program, which the Agency administers in cooperation with the Food and Drug Administration. The funding for three new centers, which covers a 3-year period, brings AHRQ's investment in CERTs to date to approximately $12.9 million.

The CERTs program will boost the positive impact on patient care of medical products—drugs, biologics, and medical devices, according to AHRQ Director John M. Eisenberg, M.D., who announced the awards. The new centers join four centers funded in September 1999 when AHRQ launched the CERTs program.

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CERTs program

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The goal of the program is to improve the quality of health care and reduce costs by increasing awareness of the benefits and risks of new uses or combinations of medical products and by improving the effectiveness of existing ones. The newest centers are:

- Harvard Pilgrim Health Care CERT. Principal investigator Richard Platt, M.D. Total projected funding $2,572,315. Project period 9/1/00 - 8/31/03. This center will develop and determine the utility of large databases for studying the effectiveness and safety of antibiotic use in children, drugs for preventing congestive heart failure, and outcomes from the use of hypoglycemics in patients with diabetes. It will bring together nine members of the HMO Network and their researchers, as well as investigators from medical schools, schools of public health, and pharmacy schools.
- University of Pennsylvania CERT. Principal investigator Brian L. Strom, M.D. Total projected funding $1,391,164. Project period 9/1/00 - 8/31/03. This center will conduct research on ways to reduce resistence to antimicrobial drugs and other research, such as drug utilization and subsequent intervention studies, medication safety studies, efficacy and effectiveness investigations, and studies on research methodology.
- University of Alabama at Birmingham CERT. Principal investigator Kenneth Saag, M.D. Total projected funding $804,623. Project period 7/1/00 - 6/30/03. This center will study therapeutics used for rheumatoid arthritis, osteoporosis, and other musculoskeletal diseases (MSD). The center will disseminate new knowledge about MSD therapeutics, including their cost-effectiveness and effects on health-related quality of life and ways to minimize the adverse effects of these therapeutics.

Other AHRQ-supported CERTs are located at Duke University, Georgetown University, the University of North Carolina, and Vanderbilt University. Go to the CERTs Web site at http://www.certs.hhs.gov for more information on the CERTs program. ■

AHRQ releases three new evidence reports

Three new evidence reports were released recently by the Agency for Healthcare Research and Quality. They present the results of systematic reviews of the evidence on anesthesia for cataract surgery, acute exacerbations of chronic obstructive pulmonary disease, and prevention of venous thromboembolism after injury. The reports were prepared by Evidence-based Practice Centers (EPCs) supported by the Agency for Health Care Research and Quality. The reports provide organizations with comprehensive, science-based information on common, costly medical conditions and new health care technologies.

There are 12 AHRQ-supported EPCs; they systematically review the relevant scientific literature on topics assigned to them by AHRQ and conduct additional analyses when appropriate prior to developing their reports and assessments. The goal is to inform health plans, providers, purchasers, and the health care system as a whole by providing essential information to improve health care quality. Evidence report summaries are now available from AHRQ, both online and in print from the AHRQ Clearinghouse and AHRQ InstantFAX.** Copies of the full evidence reports will be available in the near future.

Anesthesia Management During Cataract Surgery. For this report, the EPC examined the risks and benefits of different forms of regional anesthesia and sedation in patients undergoing cataract surgery. The report was prepared by the Johns Hopkins University Evidence-based Practice Center (contract 290-097-0006). Surgery for age-related cataract is the highest volume surgical procedure performed on Medicare beneficiaries, with approximately 1.5 million of these procedures performed in this population in 1996. Because cataract surgery is typically performed on an outpatient basis, it usually involves the application of a local anesthetic in addition to systemic sedation administered by an anesthesiologist or a nurse anesthetist.

Previous research has found substantial national and international variations in anesthesia management strategies for cataract surgery. The variations are due primarily to the preferences of surgeons and anesthesia

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providers, along with the characteristics of cataract patients. There is uncertainty, however, as to which strategy or strategies provide the best mix of patient comfort, desirable outcomes such as pain control, and freedom from anesthesia-related complications.

The EPC's study concludes that currently employed approaches to anesthesia management provide adequate pain control for successful cataract surgery. However, more data are needed on patient preferences and cost-effectiveness to determine the optimal strategies for anesthesia management during cataract surgery. Among the study's findings are that topical anesthesia does not provide the degree of pain control provided by the various injection techniques, although topical anesthesia is clearly quite effective and avoids the rare complications potentially associated with injection techniques. The literature provides strong evidence that peribulbar and retrobulbar blocks perform similarly. Another common technique, sub-Tenon's block, also appears to be less painful and at least as effective in pain control as the other blocking techniques. Regional blocks using needles have a small but definite risk of major complications, including globe perforation and retrobulbar hemorrhage. There is only weak evidence that intravenous or intramuscular sedation or analgesia improve anxiety control, pain relief, and patient satisfaction with cataract surgery.

The EPC also found that having an anesthesiologist or other anesthesia provider present for every case of cataract surgery is associated with increased costs; however, clinicians do prefer it. Additional data are needed on clinician and patient preferences to determine the cost-effectiveness of this practice. Cataract surgery patients have a high level of satisfaction with anesthesia management regardless of the strategy used. Patients receiving intravenous sedation have a higher rate of postoperative nausea and drowsiness than patients not receiving these agents.

The report also presents background information, describes the methodology used by the EPC, and identifies a number of priorities for future research on anesthesia management during cataract surgery. Copies of the summary (AHRQ Publication No. 00-E014) are available from AHRQ.** The full evidence report (AHRQ Publication No. 00-E015)* is expected to be available by late 2000.

Management of Chronic Hypertension During Pregnancy. The purpose of this report, which was prepared for AHRQ by the University of Texas Health Science Center at San Antonio (contract 290-97-0012), is to help physicians make informed choices about therapeutic interventions for pregnant women with chronic hypertension and to aid organizations in developing guidelines for treatment of this condition. Chronic hypertension, defined as hypertension diagnosed before pregnancy or before 20 weeks gestation, complicates from 1 percent to 5 percent of all pregnancies. This condition is associated with serious maternal and fetal complications, including superimposed pre-eclampsia, fetal growth retardation, premature delivery, placental abruption, and stillbirth.

Addressed in the report are 10 specific questions concerning diagnosis and treatment decisions faced by clinicians who provide care for pregnant women with mild to moderate hypertension. The authors find that the data on treatment of women with hypertension during pregnancy were too scant to prove or disprove clinical improvements of at least 20 percent. Furthermore, although evidence on the adverse effects of antihypertensive agents during pregnancy is limited, there is reason to be cautious in the use of angiotensin-converting enzyme (ACE) inhibitors. The existing studies do not allow determination of an optimum blood pressure for initiating and maintaining treatment in these women. Limited data on low-dose aspirin do not suggest a significant effect on problems related to pregnancy-associated chronic hypertension, according to the report.

Copies of the report summary (AHRQ Publication No. 00-E010), which includes background and recommendations for future research, are available from AHRQ.** Copies of the full report (AHRQ Publication No. 00-E011)* are expected to be available in late fall 2000.

Prediction of Risk for Patients with Unstable Angina. This report evaluates the published data on techniques for clinicians to divide patients who have sudden-onset angina in groups at high and low risk of life-threatening problems. Unstable angina is a pattern of symptoms that is new in onset, changing in severity or frequency, occurring at rest, and/or lasting longer than 20 minutes. Three key questions were addressed in the report, which was prepared by the University of California, San Francisco/Stanford Evidence-based Practice Center (contract 290-97-0013).

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1. What are the immediate clinical and electrocardiographic characteristics that are independently associated with an increased risk of adverse events in patients with either diagnosed unstable angina or chest pain that suggests cardiac ischemia?
2. What is the prognostic value of a positive or negative troponin test in such patients?
3. Are chest pain units and emergency department protocols effective, cost-saving, and safe for triage of patients with suspected unstable angina or myocardial infarction?

In the report, the authors discuss the evidence related to these questions. They found that a positive troponin value was associated with a significant increase in the risk of death in a number of studies. Similarly, the few randomized trials of chest pain units consistently show decreased hospital days and costs when compared with traditional emergency room care. The report presents background information about unstable angina, discusses the methodology used in developing the report, and identifies areas for future research.

Copies of the report summary (AHRQ Publication No. 00-E030) are available from AHRQ.** Copies of the full report (AHRQ Publication No. 01-E001)* are expected to be available in late fall 2000. ■

AHRQ names second child health scholar

The Agency for Healthcare Research and Quality has named Howard Bauchner, M.D., as the Agency's second Child and Adolescent Health Scholar-in-Residence. Dr. Bauchner will work with the Center for Primary Care Research to conduct research on issues related to primary care for children, health disparities, and physician-patient communication and decisionmaking.

Dr. Bauchner comes to AHRQ from the Boston University School of Medicine and Boston Medical Center, where he serves as Professor of Pediatrics and Public Health, Director of the Division of General Pediatrics, and Associate Vice-Chair for Academic Affairs. He has built an excellent academic division focusing on clinical, health services, and policy research. He also serves as project director of Boston University's faculty development program and the National Research Service Award fellowship program where he organized the academic/research seminar for all junior faculty and fellows.

Dr. Bauchner received his bachelor's degree from the University of California, Berkeley, and his medical degree from Boston University School of Medicine. His appointment is effective September 1, 2000, through June 30, 2001.

The appointment of Joseph Thompson, M.D., the Agency's first Child and Adolescent Health Scholar, ended on August 31. Dr. Thompson has assisted with the refinement of existing tools and development of new databases for use in child health services research, including a new national database, the Child-National Inpatient Database in the Healthcare Cost and Utilization Project (HCUP), which will be available later this year. In addition, Dr. Thompson helped develop a new classification system for use with the HCUP databases. He also developed a child-relevant analysis of Medical Expenditure Panel Survey (MEPS) data and the CAHPS® Benchmarking Database and provided leadership in the development of quality measures for children with special health care needs.

Editor's Note: AHRQ is seeking new applicants for the Child and Adolescent Health Scholar-in-Residence Program, which is cosponsored by the Ambulatory Pediatric Association, the American Academy of Nursing, the American Academy of Pediatrics, the Association of Medical School Pediatric Department Chairs, and the Society for Adolescent Medicine. Scholar candidates from all health research and policy backgrounds, including medicine, nursing, allied health, and the social and behavioral sciences, are encouraged to apply. Applications for the next round are due February 1, 2001. Visit the "Child Health" section of AHRQ's Web site at http://www.ahrq.gov/ child/scholar.htm for more information and application instructions. ■

HHS Secretary appoints new members to AHRQ's National Advisory Council

Health and Human Services Secretary Donna E. Shalala has appointed eight new members to the National Advisory Council (NAC) for the Agency for Healthcare Research and Quality. The Council provides advice to the Secretary and to the Director of the Agency. The 21-member Council is composed of private-sector experts and includes top Federal health officials. The new members are:

- William Allen Schaffer, M.D., F.A.C.P, Chief Medical Officer, Senior Vice President, Medical Strategy & Health Policy, CIGNA HealthCare, Hartford, CT.
- William Allen Schaffer, M.D., F.A.C.P., Chief Medical Officer, Senior Vice President, Medical Strategy and Health Policy, CIGNA HealthCare, Hartford, CT.
- Robert F. Meenan, M.D., M.P.H., M.B.A., Dean and Professor of Health Services at Boston University School of Public Health, Boston, MA.
- William F. Jessee, M.D., President and Chief Executive Officer of the Medical Group Management Association, Englewood, CO.
- Janice H. Platner, J.D., M.P.A., Director of Programs, National Breast Cancer Coalition, Washington, DC.
- Arthur Garson, Jr., M.D., M.P.H., Senior Vice President and Dean for Academic Operations, Baylor College of Medicine, Houston, TX.
- Marita G. Titler, Ph.D., RN, F.A.A.N., Director of Research, Quality and Outcomes Management, Department of Nursing Services and Patient Care, University of Iowa Hospitals and Clinics, Iowa City, IO.
- Mary Wakefield, Ph.D., R.N., F.A.A.N., Professor and Director of the Center for Health Policy at George Mason University, Fairfax, VA.
- Jo Ivey Boufford, M.D., Dean, Robert F. Wagner Graduate School of Public Service, New York University, New York, NY.

The reappointed Council members are:

- Donald Berwick, M.D., M.P.P., President and CEO, Institute for Healthcare Improvement, Boston, MA. (Council Chair)
- Colleen Conway-Welch, Ph.D., Professor and Dean, Vanderbilt University School of Nursing, Nashville, TN.
- Dennis G. Fryback, Ph.D., Professor, Department of Preventive Medicine, University of Wisconsin, Madison, WI.
- Vanessa N. Gamble, M.D., Ph.D., Vice President for Community and Minority Programs, Association of American Medical Colleges, Washington, DC.

In addition to the private-sector members, representatives from seven Federal agencies serve as ex-officio members of the Council: the National Institutes of Health, the Department of Defense, the Centers for Disease Control and Prevention, the Department of Veterans Affairs, the Office of Personnel Management, the Food and Drug Administration, and the Health Care Financing Administration. ■

Announcements

AHRQ funds new projects

The following research grants, small project grants, conference grants, and National Research Service Awards were funded recently by the Agency for Healthcare Research and Quality. Each listing includes the project title, principal investigator, performing organization, project number and dates, and funding. Note that research findings usually are not available until a project has ended or is nearing completion.

Research Projects

Alternative health care delivery models for children

Project director:	Christopher Forrest, M.D., Ph.D.
Organization:	Johns Hopkins University Baltimore, MD
Grant number:	AHRQ grant HS00003

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New research projects

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Project period: 9/15/00 to 8/31/04
First year funding: $105,975

Assess and improve the quality of care for low back pain
Project director: Nancy J. Birkmeyer, Ph.D.
Organization: Dartmouth College
Hanover, NH
Grant number: AHRQ grant HS11288
Project period: 9/15/00 to 8/31/05
First year funding: $89,158

Better pediatric outcomes through chronic care
Project director: Judith Fifield, Ph.D.
Organization: University of Connecticut Health Center
Farmington, CT
Grant number: AHRQ grant HS11068
Project period: 9/30/00 to 9/29/03
First year funding: $529,821

Centers for education and research on therapeutics (CERTs)
Project director: Brian L. Strom, M.D.
Organization: University of Pennsylvania
Philadelphia, PA
Grant number: AHRQ grant HS10399
Project period: 9/01/00 to 8/31/03
First year funding: $449,592

Comprehensive outcomes of frail elders in the community
Project director: Kenneth E. Covinsky, M.D.
Organization: University of California
San Francisco, CA
Grant number: AHRQ grant HS00006
Project period: 9/30/00 to 9/29/05
First year funding: $52,785

Detailed profile of end-of-life care in Medicare
Project director: Dorcas J. Lynn, M.D.
Organization: RAND Corporation
Santa Monica, CA
Grant number: AHRQ grant HS10561
Project period: 9/30/00 to 9/29/01
First year funding: $313,931

Diabetes education multimedia for vulnerable populations
Project director: Ben S. Gerber, M.D.
Organization: University of Illinois
Chicago, IL
Grant number: AHRQ grant HS11092
Project period: 9/01/00 to 8/31/03
First year funding: $498,990

Economic impact of breast-feeding promotion intervention
Project director: Karen A. Bonuck, Ph.D.
Organization: Montefiore Medical Center
Bronx, NY
Grant number: AHRQ grant HS10900
Project period: 9/01/00 to 11/30/03
First year funding: $148,033

Evidence-based decision aids to improve women's health
Project director: Jeanne-Marie Guise, M.D.
Organization: Oregon Health Sciences University
Portland, OR
Grant number: AHRQ grant HS11338
Project period: 9/15/00 to 8/31/05
First year funding: $119,542

Health plan responses to medicare HMO premium payments
Project director: Randall P. Ellis, Ph.D.
Organization: Boston University
Boston, MA
Grant number: AHRQ grant HS10620
Project period: 9/01/00 to 8/31/02
First year funding: $145,644

HMO research network CERT
Project director: Richard Platt, M.D.
Organization: Harvard Pilgrim Health Care
Boston, MA
Grant number: AHRQ grant HS10391
Project period: 9/01/00 to 8/31/03
First year funding: $848,367

Hospitalization of nursing facility residents
Project director: Joan Buchanan, Ph.D.
Organization: Harvard Medical School
Boston, MA
Grant number: AHRQ grant HS10645
Project period: 9/30/00 to 9/29/03
First year funding: $598,751

Improving outcomes in hypoplastic left heart syndrome
Project director: Pamela Jenkins, M.D., Ph.D.

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New research projects

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Organization: Dartmouth College
Hanover, NH
Grant number: AHRQ grant HS00010
Project period: 9/01/00 to 8/31/05
First year funding: $131,268

Improving the delivery of effective care to minorities
Project director: Mark R. Chassin, M.D.
Organization: Mount Sinai School of Medicine
New York, NY
Grant number: AHRQ grant HS10859
Project period: 9/13/00 to 8/31/05
First year funding: $1,077,072

Improving the evidence for unstable angina guidelines
Project director: David A. Katz, M.D.
Organization: University of Wisconsin
Madison, WI
Grant number: AHRQ grant HS10466
Project period: 9/01/00 to 8/31/02
First year funding: $46,629

MCO use of a pediatric asthma management program
Project director: Michelle M. Cloutier, M.D.
Organization: University of Connecticut
Farmington, CT
Grant number: AHRQ grant HS11147
Project period: 9/11/00 to 8/31/03
First year funding: $297,174

Model for use of the urinary incontinence guideline in U.S. nursing homes
Project director: Nancy M. Watson, Ph.D.
Organization: University of Rochester School of Nursing
Rochester, NY
Grant number: AHRQ grant HS11064
Project period: 9/01/00 to 8/31/03
First year funding: $392,844

New approach to the allocation of decisional authority
Project director: Simon Whitney, J.D., M.D.
Organization: Baylor College of Medicine
Houston, TX
Grant number: AHRQ grant HS11289
Project period: 9/15/00 to 8/31/04
First year funding: $125,515

Optimizing risk adjustment for measuring ICU quality
Project director: Laurent G. Glance, M.D.
Organization: University of Rochester
Rochester, NY
Grant number: AHRQ grant HS11295
Project period: 9/01/00 to 8/31/03
First year funding: $113,330

Pediatric evidence-based medicine: Getting evidence used at the point of care
Project director: Robert L. Davis, M.D.
Organization: University of Washington
Seattle, WA
Grant number: AHRQ grant HS10516
Project period: 9/01/00 to 8/31/03
First year funding: $329,406

Point of care delivery of research evidence
Project director: E. Andrew Balas, M.D., Ph.D.
Organization: University of Missouri
Columbia, MO
Grant number: AHRQ grant HS10472
Project period: 9/01/00 to 8/31/03
First year funding: $509,658

Risk adjustment of 1-year health status outcomes in coronary artery disease
Project director: John A. Spertus, M.D.
Organization: Saint Luke's Hospital
Kansas City, MO
Grant number: AHRQ grant HS11282
Project period: 9/01/00 to 8/31/04
First year funding: $365,157

Smoking control in MCH clinics: Dissemination strategies
Project director: Clara Manfredi, Ph.D.
Organization: University of Illinois
Chicago, IL
Grant number: AHRQ grant HS10544
Project period: 9/01/00 to 8/31/03
First year funding: $637,805

Tenn-care gaps for children: Asthma clinical outcomes
Project director: William O. Cooper, M.D.
Organization: Vanderbilt University
Nashville, TN
Grant number: AHRQ grant HS10249

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New research projects

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Project period: 9/01/00 to 2/28/02
First year funding: $241,318

Two-stage model for colorectal cancer screening
Project director: Sarah T. Hawley, Ph.D.
Organization: Baylor College of Medicine
Houston, TX
Grant number: AHRQ grant HS00007
Project period: 9/15/00 to 8/31/03
First year funding: $70,245

UCLA/Drew/RAND program to address disparities in health
Project director: Martin F. Shapiro, M.D., Ph.D.
Organization: University of California
Los Angeles, CA
Grant number: AHRQ grant HS10858
Project period: 9/01/00 to 8/31/05
First year funding: $334,645

Workplace health benefits and employee health
Project director: Anthony T. Losasso, Ph.D.
Organization: Northwestern University
Evanston, IL
Grant number: AHRQ grant HS11294
Project period: 9/15/00 to 8/31/05
First year funding: $68,424

Small Grants

Clinical decision rules for pediatric pneumonia
Project director: E. Melinda Mahabee-Gittens, M.D.
Organization: Children's Hospital Medical Center
Cincinnati, OH
Grant number: AHRQ grant HS11038
Project period: 9/01/00 to 8/31/01
Funding: $73,935

Cost-effective nutritional well-being in older adults
Project director: Elizabeth A. Gollub, B.A.
Organization: Florida International University
Miami, FL
Grant number: AHRQ grant HS10787
Project period: 9/01/00 to 8/31/01
Funding: $31,444

Examination of flexible spending accounts
Project director: Mark H. Showalter, Ph.D.
Organization: Brigham Young University
Provo, UT
Grant number: AHRQ grant HS10829
Project period: 9/01/00 to 8/31/01
Funding: $28,164

Family influences on children's health and health care
Project director: Whitney P. Witt, M.P.H.
Organization: Johns Hopkins University
Baltimore, MD
Grant number: AHRQ grant HS11254
Project period: 9/01/00 to 8/31/01
Funding: $31,804

Hospital-reported medical injury in children
Project director: Anthony D. Slonim, M.D.
Organization: Children's National Medical Center
Washington, DC
Grant number: AHRQ grant HS11022
Project period: 9/01/00 to 8/31/01
Funding: $81,400

Hospital services areas for pediatrics
Project director: Mark F. Guagliardo, Ph.D.
Organization: Children's Research Institute
Washington, DC
Grant number: AHRQ grant HS11021
Project period: 9/01/00 to 8/31/01
Funding: $81,223

Is quality care cost effective? HEDIS 2000 evidence
Project director: Peter J. Neumann, Sc.D.
Organization: Harvard University
Cambridge, MA
Grant number: AHRQ grant HS10709
Project period: 9/01/00 to 8/31/01
Funding: $80,858

Secondary drug prevention of stroke in long-term care
Project director: Brian Quilliam, R.P.H.
Organization: Brown University
Providence, RI
Grant number: AHRQ grant HS11256
Project period: 9/30/00 to 9/29/01
Funding: $31,705

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New research projects

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Conference Grants

AMIA 2000 annual symposium
Project director: J. Marc Overhage, M.D., Ph.D.
Organization: American Medical Informatics Association
Bethesda, MD
Grant number: AHRQ grant HS10115
Project period: 9/01/00 to 2/28/01
Funding: $25,000

Closing the gap: Applying injury prevention science to health
Project director: Stephen W. Hargarten, M.D.
Organization: Medical College of Wisconsin
Milwaukee, WI
Grant number: AHRQ grant HS10111
Project period: 8/15/00 to 8/14/01
Funding: $30,000

Crisis of academic medical centers
Project director: Henry J. Aaron, Ph.D.
Organization: Brookings Institution
Washington, DC
Grant number: AHRQ grant HS10108
Project period: 8/15/00 to 8/14/01
Funding: $30,000

Dartmouth symposium on pediatric sedation
Project director: Joseph P. Cravero, M.D.
Organization: Dartmouth College
Hanover, NH
Grant number: AHRQ grant HS10110
Project period: 8/22/00 to 8/21/01
Funding: $30,000

Health care privacy: Measuring performance
Project director: Matthew K. Wynia, M.D.
Organization: American Medical Association
Chicago, IL
Grant number: AHRQ grant HS10928
Project period: 8/15/00 to 8/14/01
Funding: $35,000

Measuring mental health outcomes fairly
Project director: Michael S. Hendryx, Ph.D.
Organization: Washington Institute of Mental Illness Research and Training
Spokane, WA
Grant number: AHRQ grant HS10112
Project period: 9/15/00 to 9/14/01
Funding: $20,000

National quality forum: First annual meeting
Project director: Kenneth W. Kizer, M.D.
Organization: National Forum for Healthcare Quality Measurement and Reporting
Washington, DC
Grant number: AHRQ grant HS10114
Project period: 9/01/00 to 8/31/01
Funding: $20,062

Partners in transition: Adolescents and managed care
Project director: Lois Salisbury, J.D.
Organization: Children Now
Oakland, CA
Grant number: AHRQ grant HS10109
Project period: 9/01/00 to 8/31/01
Funding: $28,563

Small grant program for conference support
Project director: Betty Williams Fomby
Organization: Southern University Center for Wellness
Baton Rouge, LA
Grant number: AHRQ grant HS10932
Project period: 9/15/00 to 9/14/01
Funding: $20,000

Women's health conference
Project director: Gwendolyn P. Keita, Ph.D.
Organization: American Psychological Association
Washington, DC
Grant number: AHRQ grant HS10113
Project period: 9/01/00 to 2/28/01
Funding: $20,000

National Research Service Awards

Minority predoctoral fellowship program
Fellow: Matthew F. Hudson, M.P.H.
Organization: Dartmouth College
Hanover, NH
Grant number: NRSA fellowship F31 HS11280; Ann B. Flood, Sponsor
Project period: 1-year fellowship
Funding: $40,360

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New research projects

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Prospective computer grouping of reason for ED visit

Fellow:	Frank C. Day, M.D.
Organization:	University of California Los Angeles, CA
Grant number:	NRSA fellowship F32 HS00141; David L. Schriger, sponsor
Project period:	1-year fellowship
Funding:	$42,628

Role of a regular source of care for at-risk youth

Fellow:	Tanisha V. Carino, B.A.
Organization:	Johns Hopkins University Baltimore, MD
Grant number:	NRSA fellowship F31 HS00150; Chirstopher B. Forrest, sponsor
Project period:	1-year fellowship
Funding:	$33,520

Validation of an EMS triage rule for children in motor vehicle accidents

Fellow:	Craig D. Newgard, M.D.
Organization:	Harbor-UCLA Research and Education Institute Torrance, CA
Grant number:	NRSA fellowship F32 HS00148; Roger J. Lewis, sponsor
Project period:	1-year fellowship
Funding:	$42,182 ■

Research Briefs

Engels, E.A., Schmid, C.H., Terrin, N., and others. (2000). "Heterogeneity and statistical significance in meta-analysis: An empirical study of 125 meta-analyses." (AHRQ grants HS08532, HS10064, NRSA training grant T32 HS00060). ***Statistics in Medicine*** **19, pp. 1707-1728.**

Meta-analysis is used to synthesize results from randomized controlled trials in clinical medicine. However, an important issue is how to incorporate heterogeneity (variation among the results of individual trials beyond that expected from chance) into summary estimates of treatment effect. Another consideration is which metric to use to measure treatment effect. For trials with binary outcomes, there are several possible metrics, including the odds ratio (a relative measure) and risk difference (an absolute measure). This study of 125 meta-analyses found that for most meta-analyses, summary odds ratios and risk differences agreed in statistical significance, leading to similar conclusions about whether treatments affected outcome. Heterogeneity was common regardless of whether treatment effects were measured by odds ratios or risk differences. However, risk differences usually displayed more heterogeneity than odds ratios.

Lawthers, A.G., McCarthy, E.P., Davis, R.B., and others. "Identification of in-hospital complications from claims data: Is it valid?" pp. 785-795; McCarthy, E.P., Iezzoni, L.I., Davis, R.B., and others. "Does clinical evidence support ICD-9-CM diagnosis coding of complications?" pp. 868-876; and Weingart, S.N., Iezzoni, L.I., Davis, RB., and others, "Use of administrative data to find substandard care: Validation of the complications screening program." pp. 796-806. (AHRQ grant HS09099). August 2000 ***Medical Care*** **38(8).**

The first study examined the validity of the Complications Screening Program (CSP), which uses claims data to identify hospital complications. The researchers wanted to find out if ICD-9-CM codes used to identify complications were coded completely and accurately and whether the CSP algorithm successfully separated conditions present on admission from those occurring in the hospital. The CSP screens for 28 potential complications, for example, postoperative pneumonia, using specific ICD-9-CM secondary diagnosis or procedure codes referred to as "trigger codes." Eight-nine percent of the surgical cases and 84 percent of the medical cases had their CSP trigger codes corroborated by re-review of the medical record. For 13 percent of the surgical cases and 58 percent of the medical cases, the condition represented by the code was judged to be present on admission rather than occurring in-hospital.

The second study examined whether medical records contained clinical evidence supporting the ICD-9-CM discharge diagnosis and procedure codes used by the CSP to identify complications. Overall, 30 percent of medical and 19

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Research briefs

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percent of surgical patients lacked any documented evidence in the medical record, even physicians' notes. Rates of confirmatory clinical evidence varied widely across the complication screens. Some complications, such as postoperative heart attack, had most cases confirmed by explicit clinical criteria, while other complications had fewer than 60 percent of cases confirmed using clinical evidence. These findings raise serious questions about the clinical validity of CSP codes, which are increasingly being used to evaluate hospital performance and determine payment.

The third study used administrative data to validate whether the CSP identified complications of care and potential quality problems. The researchers stratified acute care hospitals by observed-to-expected complication rates and randomly selected hospitals within each State. They randomly selected cases flagged with one of 17 surgical complications and 6 medical complications. Physicians confirmed flagged complications in 68.4 percent of surgical and 27.2 percent of medical cases. They identified potential quality problems in 29.5 percent of flagged surgical and 15.7 percent of flagged medical cases but in only 2.1 percent of surgical and medical controls. The authors conclude that for some types of complications, screening administrative data may offer an efficient approach for identifying potentially problematic cases for physician review.

Seid, M., Varni, J.W., and Kurtin, P.S. (2000, August). "Measuring quality of care for vulnerable children: Challenges and conceptualization of a pediatric outcome measure of quality." (AHRQ grant HS10317). ***American Journal of Medical Quality*** **15(4), pp. 182-188.**

This article addresses conceptual and practical issues in the assessment of pediatric health care quality, outlines a conceptual model for measuring quality, and describes ongoing research to validate an outcome measure of health care quality for vulnerable children. The authors point out that pediatric quality measurement is distinct from that for adults, due to development, dependence, differential epidemiology, demographic factors, and differences between the child and adult health service systems. They assert that a noncategorical approach to quality measurement, rather than one based on illness status or specific condition, is necessary to adequately measure quality for the majority of children, both healthy and ill. One promising noncategorical measure of pediatric health care quality is health-related quality of life (HRQOL). The Pediatric Quality of Life Inventory (PedsQL), a brief, practical, reliable, valid, generic pediatric HRQOL measure, is a suitable candidate measure, which the authors describe. ■

AHRQ to cosponsor ISTAHC's 2001 conference

The International Society of Technology Assessment in Healthcare (ISTAHC) will hold it's 2001 conference June 3-6, in Philadelphia, PA. The meeting will be hosted by ECRI, one of the Agency for Healthcare Research and Quality's 12 Evidence-based Practice Centers (EPCs). Examples of topics to be covered include:

- Usefulness of cross-cultural and cross-national assessments.
- Use of new national and international clinical guidelines.
- Role of government in advancing/slowing diffusion of new technology.
- Integrating complementary/alternative medicine with the latest advances in biomedicine.
- Lessons learned from industry about communicating research results to physicians and patients.
- Ways to integrate the results of technology assessment into day-to-day medical practice.
- Reconciling evidence-based medicine with emotional need and fear.
- Assessing biotechnologies.
- Evaluating new diagnostic technologies.

If you are interested in presenting at the conference, the deadline for receipt of abstracts is December 1, 2000. For more information or to request a copy of the brochure, contact ECRI at 5200 Butler Pike, Plymouth Meeting, PA 19462; phone 610-825-6000; fax 610-834-1275; e-mail ISTAHC@ecri.org. Go to www.ISTAHC2001.org to visit the conference Web site.

ISTAHC serves as an international forum for researchers and clinicians focused on evidence-based assessment of health care technologies, including pharmaceuticals, devices, and medical and surgical procedures. ECRI is an international nonprofit health services research agency and collaborating center of the World Health Organization. ■

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