



# Research Activities



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## Patient safety problems in hospitalized children are substantial

Children experienced a substantial number of potentially preventable patient safety problems during hospital stays in 1997, according to a new study conducted by researchers at the Agency for Healthcare Research and Quality. This first, comprehensive examination of the types of patient safety problems that children experience in hospitals found that the rates of such problems range from 0.2 (foreign body left during procedure) to 154.0 (birth trauma) problems per 10,000 discharge records.

Study authors Marlene R. Miller, M.D., M.Sc. (formerly of AHRQ and now with Johns Hopkins Children's Center), Anne Elixhauser, Ph.D., and Chunliu Zhan, M.D., Ph.D., also found that children who experienced a patient safety problem in the hospital faced a 2-18 times greater risk of death than children who did not have such a problem. They further indicated that the majority of birth trauma consisted of long bone and skull fractures, excluding collar bone. The

authors noted that these infants were more likely to be black or Hispanic and to be born in institutions that had no residents on staff, had a lower percentage of beds in intensive care units, or had a lower volume of inpatient surgical procedures.

For the study, which is one of very few patient safety studies on children's hospital stays, the researchers evaluated patient safety problems involving in-hospital procedures. They used hospital discharge data to identify patient safety problems and, by definition, were only able to capture some types of problems. The types of problems captured by these measures include lacerations and perforations during elective surgery, postoperative infection, transfusion reactions, foreign bodies left during procedures, infections from procedures, misadventures in obstetrical care and anesthesia (e.g., shock during delivery or due to anesthesia), and birth trauma. According to the study authors, the total number of patient safety problems would have

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## Patient safety

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been much greater if medication errors could have been included in the study.

Researchers applied preliminary Patient Safety Indicators including postoperative infections and blood transfusion reactions to the Kids Inpatient Database (KID), a compilation of data such as hospital stays, mortality rates, and charges from 22 States collected as part of AHRQ's Healthcare Cost and Utilization Project (HCUP)

database. HCUP covers approximately 3.8 million hospital discharge records for children under 19 years of age and can be used to generate national estimates. The preliminary PSIs have been further refined and released publicly by AHRQ as internal screening tools for hospitals and hospital systems and medical groups to identify quality improvement opportunities.

Details are in "Patient safety events during pediatric hospitalization," By Drs. Miller,

Elixhauser, and Zhan, in the June 2003 issue of *Pediatrics* 111, pp. 1358-1366. Reprints (AHRQ Publication No. 03-R042) are available from AHRQ.

**Editor's Note:** For more information on AHRQ's Patient Safety Indicators and the Healthcare Cost and Utilization Project, go to <http://www.qualityindicators.ahrq.gov/> (for PSI information) and <http://www.ahrq.gov/data/hcup/> (for information on HCUP and the KID). ■

## Quality Improvement/Patient Safety

### Physicians have an important role to play in improving patient safety and quality of care

The Institute of Medicine's 1999 report, *To Err is Human*, sounded an alarm when it revealed that between 44,000 and 98,000 Americans die each year from medical errors. A September 2001 conference,

cosponsored by the Agency for Healthcare Research and Quality and the American Board of Internal Medicine, examined "The Role and Responsibility of Physicians to Improve Patient Safety." Three papers from the conference were

published recently and are described here.

**Editor's note:** See the December 2002 issue of *Research Activities*, page 23, for a summary of an article by AHRQ Acting Director Carolyn M. Clancy, M.D., and her colleagues that presents background information on the topic and an introduction to the conference papers.

**Classen, D.C., and Kilbridge, P.M. (2002, October). "The roles and responsibility of physicians to improve patient safety within health care delivery systems." *Academic Medicine* 77(10), pp. 963-972.**

These researchers propose a new organizational approach to patient safety and care quality that presents safety as an organizational effort and medical error as a shared problem between health care delivery organizations (HCDOs) and physicians. They assert that physician incentives, such as bonuses and leadership opportunities, are necessary to link physicians and the delivery system around the issue of quality and safety of care.

Their organizational model to improve patient safety and care quality includes eight components: organizational accountability; a culture of safety that defines the organization's approach to safety; learning environment; defined objectives for patient safety

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## Physicians and patient safety

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programs; internal monitoring/surveillance; implementation of standard process and technology solutions; measurement and monitoring of care; and integration of what's learned into new or modified program objectives.

The researchers suggest that HCDOs and their associated physicians pursue joint malpractice liability arrangements that are prorated for measured performance in safety. HCDOs and their medical staffs should work in concert to create a financial incentive structure to improve safety and quality without significant financial disincentives for either group. Practicing physicians should actively assess the impact of organizational patient safety and other quality improvement initiatives on the safety of care delivered to their patients. Finally, physicians' professional organizations should lobby for the addition of patient safety to medical education and training programs, and they should advocate for changes in professional scope-of-care laws to foster team-based, process-of-care initiatives to improve safety of care for the organization.

**Becher, E.C., and Chassin, M.R. (2002, October). "Taking health care back: The physician's role in quality improvement." *Academic Medicine* 77(10), pp. 953-962.**

Physicians are emerging victorious from the managed care battlefield, according to these authors. Managed care plans are reducing or eliminating utilization review, broadening their hospital and physician networks, and easing

access to physicians within networks. However, employers, governments, and health plans are not returning to the days when they simply paid the increasing costs for whatever care physicians ordered. Instead, they talk about creating a market in health care in which consumers have information about quality and price and make their own choices.

These authors suggest that now is an opportune time for physicians and the organizations they guide to take a leadership role in improving care quality. This is one way that physicians and organizations can regain much of the autonomy over the practice of medicine previously lost to government and managed care. The authors describe how physicians can engage in quality improvement in a four- or five-physician primary care practice, a 50-physician multispecialty group, and a 450-bed community hospital.

**Brennan, T.A. (2002, October). "Physicians' professional responsibility to improve the quality of care." *Academic Medicine* 77(10), pp. 973-980.**

The medical profession has not clearly endorsed and participated in the measurement of quality—whether it be patient satisfaction, compliance with cost-effective guidelines, or outcome measures—in a way that shows professional commitment, asserts this author. Meanwhile, the field has been forfeited to some extent to insurance companies, government, and regulatory bodies.

The European Federation of Internal Medicine, the American Board of Internal Medicine, and the American College of Physicians/American Society of Internal Medicine have recently outlined the tenets of an activist

medical profession in a draft Physician Charter. It consists of three major principles: commitment to lifelong learning and continuous professional development; commitment to honesty with patients, including errors in care; and commitment to improving the quality of care.

In keeping with this charter, the author notes that medical education must allow time for instruction in and discussion of quality issues and methods for improvement.

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## Physicians and patient safety

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Recertification of doctors (like airline pilots) must be done in a continuous public fashion. Physicians must be honest with

their patients, informing them when an injury has been caused by a mistake (physicians must endorse a blame-free environment focused on the need for system changes to reduce errors). And finally, physicians face a professional

crossroads; they need to broaden the agenda on quality and not allow themselves again to be led by regulators, insurance companies, and employers if they are to retain the social trust critical to the profession. ■

## Clinical Decisionmaking

### Chemotherapy and radiation following surgery for colorectal cancer are underused, and use varies by hospital

Chemotherapy following surgery improves survival for patients with stage III colon cancer, and chemotherapy combined with radiation therapy following surgery improves survival for patients with stage II or III rectal cancer. Yet, only two-thirds of potentially eligible patients with colorectal cancer in California received adjuvant chemotherapy and radiation therapy, according to a study supported by the Agency for Healthcare Research and Quality (HS09869).

Although some patients will refuse these treatments or have clear clinical contraindications, treatment rates of 80 percent or greater are attainable in community practice, says John Ayanian, M.D., M.P.P., of Harvard Medical School. This suggests that these evidence-based therapies may be underused despite a national consensus endorsing them.

Dr. Ayanian and his colleagues used the California Cancer Registry to identify 1,422 patients diagnosed during 1996 to 1997 with stage III colon cancer and 534 patients diagnosed with stage II or III rectal cancer. They also surveyed physicians or reviewed office records for 1,449 of these patients to determine therapy use and reasons for not using therapies. Adjusting for demographic, clinical, and hospital characteristics, chemotherapy was used less often

among older and unmarried patients, and radiation therapy was used less often among older patients, black patients, and those initially treated in hospitals that cared for a low volume of colorectal cancer patients.

Adjusted rates of chemotherapy varied significantly among individual hospitals: 79 and 51 percent, respectively, at hospitals that were one standard deviation above and one standard deviation below the average of 67 percent. Reasons given by physicians for not providing adjuvant chemotherapy or radiation therapy included patient refusal (30 percent and 22 percent, respectively), coexisting illness (22 and 14 percent, respectively), or lack of clinical indication (22 and 45 percent, respectively). However, over 40 percent of doctors perceived that chemotherapy was not indicated for stage II rectal cancer or that radiation therapy was not indicated for stage II or III rectal cancer, despite widely publicized guidelines supporting the use of these therapies.

More details are in "Use of adjuvant chemotherapy and radiation therapy for colorectal cancer in a population-based cohort," by Dr. Ayanian, Alan M. Zaslavsky, Ph.D., Charles S. Fuchs, M.D., M.P.H., and others, in the April 1, 2003 *Journal of Clinical Oncology* 21(7), pp. 1293-1300. ■

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## Diabetes education programs can help patients manage their condition, especially if they are recently diagnosed

**B**ehavioral studies show that people usually make changes in smoking, eating, or exercise behaviors after going through several stages: precontemplation (not considering making a change in the next 6 months), contemplation (seriously considering a change in the next 6 months), preparation (have decided to change their behavior and are about to do so), action (have made a change in behavior in the past 6 months), and maintenance (behavior change has been sustained for at least 6 months). A recent study demonstrated that five weekly 2-hour educational sessions were enough to advance most people with diabetes one or more stages of change for at least one of three behaviors important to lowering excessively high blood glucose levels: diet, exercise, and self-monitoring of blood glucose (SMBG).

Those who had been diagnosed with diabetes for less than 2 years

were significantly more likely to advance at least one stage of change for diet and exercise than those with diabetes for more than 2 years. Furthermore, this advance was significantly associated with a decline in blood glucose levels comparable to drug therapy, says Jacqueline A. Pugh, M.D., of the University of Texas Health Sciences Center-San Antonio. Her work was supported in part by the Agency for Healthcare Research and Quality (HS07397, Minority Medical Treatment Effectiveness Research Program, MEDTEP).

Dr. Pugh and her colleagues randomly assigned 428 adults (65.5 percent female, 75.8 percent Hispanic) with type 2 diabetes to one of two types of 2-hour diabetes education sessions once each week for 5 weeks. The researchers interviewed patients 1 to 4 weeks before and 6 months after the classes to determine stages of behavioral change.

Advancement through one or more stages of change was more common for diet (68 percent) and SMBG (43 percent) than for exercise (36 percent). This may reflect the fact that a large proportion of the diabetes class time was devoted to nutrition and blood glucose control, and exercise did not receive as much attention during the sessions. A 0.9 percent decline in hemoglobin A1C (blood-glucose) level was observed for those who advanced one stage of change or more for diet, and a 0.89 percent decline was observed for those who advanced one stage of change or more for exercise.

More details are in "Stage of change advancement for diabetes self-management behaviors and glucose control," by Michael L. Parchman, M.D., Teshia G. Arambula-Solomon, Dr.P.H., Polly Hitchcock Noel, Ph.D., and others, in the January 2003 *Diabetes Educator* 29(1), pp. 128-134. ■

## Educating older men and women about the dangers of hypertension could increase their blood pressure control

**U**nder new government guidelines, normal systolic blood pressure (BP), which reflects pressure on the artery walls when the heart contracts, is less than 120 mm Hg systolic. Normal diastolic blood pressure, which represents pressure on the artery walls between beats, is less than 80 mm Hg. Yet, a new study found that nearly one-third of older Americans, whose systolic blood pressure was 140 mm Hg or higher, didn't think they had high blood pressure. Their limited awareness of the dangers of

systolic hypertension was a greater barrier to BP control than medication costs. Also, many older Americans preferred to integrate traditional approaches to BP control, such as medication and lifestyle changes, with complementary and alternative strategies.

To improve blood pressure control among older Americans, clinicians and health educators need to increase awareness and understanding about the

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**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.

## Blood pressure control

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dangers of systolic hypertension. Also, health care workers need to use a more holistic approach to managing high blood pressure (HBP), according to the researchers who conducted the study. Their work was supported in part by the Agency for Healthcare Research and Quality (HS10871). Lead author, Brent M. Egan, M.D., of the Medical University of South Carolina, and his colleagues conducted telephone interviews with a nationally representative sample of 1,503 adults 50 years of age or older to determine their hypertension awareness, knowledge, attitudes, and health behaviors.

Only 27 percent of those surveyed acknowledged that the top number (systolic BP) can determine the presence of HBP. Of those who reported systolic

values of more than 140 mm Hg, 30 percent stated they did not have HBP, including 36 percent in the 140 to 150 mm Hg range, 11 percent in the 160 to 179 mm Hg range, and 18 percent in the 180 mm Hg or more range. Among those who acknowledged current HBP, 80 percent reported taking medications “precisely as prescribed.” Cost was a major factor for only 4 percent of the remaining 20 percent who no longer took medications or took fewer than prescribed. When asked what HBP information was most important, 34 percent reported alternative therapies and 28 percent reported prevention strategies.

See “Awareness, knowledge, and attitudes of older Americans about high blood pressure,” by Dr. Egan, Daniel T. Lackland, Dr.P.H., Neal E. Cutler, Ph.D., and others, in the March 24, 2003 *Archives of Internal Medicine* 163, pp. 681-687. ■

## Results of hearing tests in young children are influenced by testing technique, age group, and middle-ear fluid

**N**ext to the common cold, middle ear infection (otitis media, OM) is the most commonly diagnosed illness in U.S. children, with the peak incidence from ages 6 to 30 months. Although most OM episodes subside within several weeks, middle-ear effusion (MEE, fluid in the ear) can persist for 3 months or longer in up to one-fourth of children and may impair hearing. Studies are underway to determine if there are lasting effects of early-life OM on speech, language, cognition, and psychosocial development.

Children with MEE in both ears generally have worse hearing than those with MEE in one ear or no MEE on audiometric test results. However, test results are also influenced by the children’s ages when tested and the testing technique, according to a study supported in part by the Agency for Healthcare Research and Quality

and the National Institute for Child Health and Human Development (HD26026).

Researchers led by Jack L. Paradise, M.D., at the University of Pittsburgh and Children’s Hospital of Pittsburgh, tested 1,055 otherwise healthy children younger than age 3 with no MEE, unilateral MEE, or bilateral MEE for age-specific hearing threshold levels. In general, hearing threshold levels were highest (indicating poorer hearing) in the youngest children tested with visual reinforcement audiometry (VRA, animated toys were activated after a child’s head turn in response to sound) and lowest in the oldest children tested with conventional audiometry. Mean VRA thresholds were significantly higher in the 6- to 8-month age group than in older age groups.

Thresholds were lowest in children with normal middle-ear status, intermediate in children

with unilateral MEE, and highest in children with bilateral MEE. On average, the presence of bilateral MEE was associated with 10 to 15 dB worse hearing than the normative values for the corresponding age group. These findings underscore the importance of taking into account not only the child’s middle ear status, but also the technique used in audiometric testing and the child’s age, when evaluating the clinical significance of hearing test results in young children.

See “Hearing levels in infants and young children in relation to testing technique, age group, and the presence or absence of middle-ear effusion,” by Diane L. Sabo, Ph.D., Dr. Paradise, Marcia Kurs-Lasky, M.S., and Clyde G. Smith, M.S., in *Ear & Hearing* 24(1), pp. 38-47, 2003. ■

## Patients should be assessed for risk of cardiac arrhythmia if they are prescribed certain QT-prolonging drugs

**P**rolongation of the QT interval on the electrocardiogram (ECG) can predispose a person to torsades de pointes, a potentially fatal ventricular arrhythmia. The use of QT-prolonging medications—such as certain antiarrhythmics, antipsychotics, antibiotics, and antidepressants—can put patients at risk for torsades de pointes. Although the use of QT-prolonging medications is common, there is relatively little information available to help clinicians and patients make good decisions to minimize the risk of this serious complication.

A review was conducted by researchers at the Duke University Center for Education and Research on Therapeutics, which is led by Judith Kramer, M.D. The research was supported in part by the Agency for Healthcare Research and Quality Centers for Education and Research on Therapeutics (CERTS) cooperative agreement program (HS10548). For this review, the researchers surveyed a group of experts on the QT interval. The majority of experts said they would always check an ECG before and after starting certain antiarrhythmics, one-third to half would always check an ECG before and after starting certain antipsychotics, and less than one-third would always

check an ECG before and after starting certain antibiotics or antidepressants.

Sana M. Al-Khatib, M.D., M.H.S., and her colleagues cite a list of medications that experts considered likely to cause QT-prolongation, propose ways to enhance risk management of these medications, and suggest proper monitoring of the QT interval in patients receiving them. They note that, in addition to certain medications, other factors that predispose a person to QT prolongation and higher risk of torsades de pointes include older age, female sex, low left ventricular ejection fraction, left ventricular hypertrophy, ischemia, slow heart rate, and electrolyte abnormalities including low blood levels of potassium and magnesium. Although the paucity of data on the QT interval precludes prediction of absolute risk of torsades de pointes for individual patients, high-risk situations can be defined based on clinical variables, conclude the authors.

See “What clinicians should know about the QT interval,” by Dr. Al-Khatib, Nancy M. Allen LaPointe, Pharm.D., Dr. Kramer, and Robert M. Califf, M.D., in the April 23, 2003 *Journal of the American Medical Association* 289(16), pp. 2120-2127. ■

## Efforts to address emerging resistance to fluoroquinolone antibiotics must consider inappropriate use in the ER

**F**luoroquinolone (FQ) antibiotics such as levofloxacin and ciprofloxacin are highly potent, target a broad-spectrum of bacteria, and are tolerated well by most patients. However, increasing FQ use in recent years has resulted in FQ resistance by several types of bacteria, including the bacteria that cause pneumonia. Strategies to limit this emerging FQ resistance should target the frequently inappropriate FQ use in hospital emergency departments (EDs), recommend the authors of a new

study. They found that 80 percent of FQ use among ED patients was inappropriate.

The study was conducted by researchers at the University of Pennsylvania Center for Education and Research on Therapeutics, and was supported in part by the Agency for Healthcare Research and Quality Centers for Education and Research on Therapeutics (CERTS) program cooperative agreement (HS10399). The researchers judged appropriateness of FQ prescribing among 100 ED patients at two hospitals based on

existing hospital antibiotic management guidelines.

Of these 100 ED patients, 81 received an FQ for an inappropriate indication. (Inappropriate rate use in hospitalized patients have ranged from 40 percent to 71 percent.) Of these cases, 53 percent were judged inappropriate because another medication was considered first-line treatment, 33 percent because there was no evidence of infection based on the documented evaluation, and 14 percent because of insufficient evaluation (inability

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## Resistance to fluoroquinolone

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to assess the need for antibiotic therapy). Another disturbing finding was that, of the 19 patients who received an FQ for an appropriate indication, only one received both the correct dose and duration of therapy.

Guidelines recommend FQ use in a variety of clinical situations,

including pneumonia in certain circumstances, certain types of gastroenteritis, chronic prostatitis, urinary tract infection if the patient is allergic to the first-line therapy, certain HIV-associated infections, and for other indications. While use of many antibiotics, including FQs, for hospitalized patients required approval by the Antimicrobial Management Program in the two hospitals studied, the hospital EDs

did not require approval for use of any medication.

More details are in "Fluoroquinolone utilization in the emergency departments of academic medical centers," by Ebbing Lautenbach, M.D., M.P.H., Lori A. Larosa, Pharm.D., Nishaminy Kasbekar, Pharm.D., and others, in the March 10, 2003 *Archives of Internal Medicine* 163, pp. 601-605. ■

## Long-Term Care

### Variations in hospitalization rates for nursing home residents may be due to facility and market characteristics

No benchmarks exist to determine which hospital transfer rates are acceptable for nursing home residents, which vary two- to five-fold across studies. These variations are not due solely to actual differences in resident case mix, but also to facility and market influences, according to a recent study that was supported in part by the Agency for Healthcare Research and Quality (HS07585).

Mary W. Carter, Ph.D., of West Virginia University, and Frank W. Porell, Ph.D., of the University of Massachusetts, analyzed State Medicaid case-mix reimbursement data from 1991 to 1994 from 527 Massachusetts nursing homes. They linked these data with Medicare claims and nursing facility data to produce 72,319 person-quarter observations. The researchers then controlled for individual resident characteristics to estimate the influence of facility-level and market-level factors on variations in hospitalization rates.

Individuals residing in nonprofit facilities, facilities with a patient case mix with heavier care demands, those classified as intermediate care facilities, and those with a greater proportion of resident days reimbursed by Medicare showed a 9 percent, 13

percent, 27 percent, and 11 percent, respectively, lower risk of hospital transfer in the next quarter than otherwise similar residents in other nursing facilities.

In contrast, residents residing in facilities operated by management chains instead of being independently managed, with a greater percentage of Medicaid reimbursed resident days, and that spent a greater proportion of total nursing expenses for licensed practical nurses, appeared to be at 7 percent, 10 percent, and 30 percent, respectively, greater risk of hospitalization in the next quarter than similar residents in other nursing homes. The 2.39-fold difference between counties with the lowest and highest probability of resident hospitalization, after controlling for resident and facility factors, suggests that the likelihood of a resident being hospitalized reflects at least in part, broader hospital bed and physician supply factors.

See "Variations in hospitalization rates among nursing home residents: The role of facility and market attributes," by Drs. Carter and Porell, in the *Gerontologist* 43(2), pp. 175-191, 2003. ■



## Defending against lawsuits may divert considerable resources from nursing home quality improvement efforts

Nursing homes, many of them already struggling to keep financially solvent, used considerable funds in 2001 to defend against lawsuits, more than half of them filed in Florida and Texas, according to a Web-based survey of U.S. attorneys. This rise in nursing home litigation raises concern about the quality of care in nursing homes. Furthermore, the money these facilities spend to defend against lawsuits diverts resources from resident care, which may further exacerbate problems in quality of care, caution Harvard University researchers, David G. Stevenson and David M. Studdert, L.L.B., Sc.D., M.P.H. Their work was supported in part by the Agency for Healthcare Research and Quality (K02 HS11285).

The researchers conducted an online survey of plaintiff and defense attorneys who practice in

the area of nursing home litigation about the details of the claims they handled in 2001. The 278 responding attorneys (from 37 States) and their firms were involved in 4,677 and 8,256 claims, respectively, in the year prior to the survey. More than half of these claims were in Florida and Texas, States that account for 10 percent of U.S. nursing home residents. More than half of the claims nationwide were for wrongful deaths, followed by pressure ulcers/bed sores (42 percent), dehydration/weight loss (32 percent), emotional distress (30 percent), falls (nearly 30 percent), and other problems.

The average recovery amount among paid claims—whether resolved in or out of court—was about \$406,000 per claim, nearly twice the level of a typical medical malpractice claim (\$207,000). The

estimated worth of the open claims analyzed represent 2.3 percent of the \$99 billion spent on nursing home care nationwide in 2001 (60 percent coming from Medicaid and Medicare), and they amount to 23 percent of Florida's and 15 percent of Texas' annual nursing home expenditures. Evaluation of the cost-effectiveness of nursing home quality improvement initiatives should consider their potential to reduce the number and severity of lawsuits, suggest the researchers.

See "The rise of nursing home litigation: Findings from a national survey of attorneys," by Mr. Stevenson and Dr. Studdert, in the March 2003 *Health Affairs* 22(2), pp. 219-229. ■

## Racial/Ethnic Disparities

### Distrust of diagnosis and belief in alternative cures may partly explain blacks' lower rate of lung cancer surgery

Patients who don't undergo surgery for stage I and II non-small cell lung cancer can expect to survive less than a year. In contrast, those who undergo surgery have a median survival of 4 years, and 5-year cure rates approach 40 percent. Yet, more blacks than whites (36 vs. 23 percent) who have been diagnosed with this disease elect not to have surgery.

In order to tease out the factors driving the apparent racial difference in lung cancer surgery, Samuel Cykert, M.D., and Nancy Phifer, M.D., of the University of North Carolina School of Medicine, surveyed 181 diverse individuals about how they valued conditions relevant to lung cancer surgery. Participants were age 50 and older, 113 were white, and 68 were black.

The researchers, who were supported in part by the Agency for Healthcare Research and Quality (HS10861), used a survey and the standard gamble

approach to determine the health utility score (HUS) for progressive lung cancer. The patient was guaranteed an intermediate health state (progressive lung cancer), then offered an intervention that could convert this disease state to normal health (cure) or immediate death. The patient was asked to express the risk of death that he or she was willing to take to avoid progressive lung cancer and achieve normal health. After controlling for other demographic factors, the HUS (with 0 equaling death and 1 perfect health) for progressive lung cancer was nearly twice as high in blacks as whites (0.32 vs. 0.18), meaning that blacks did not consider living with the progressive disease as horrible as whites.

However, the model incorporating utility data for blacks did not show that this attitude changed the

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## Lung cancer surgery

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surgical decision from the perspective of quality-adjusted life years. Lung cancer surgery remained heavily favored over the non-surgery decision (2.32 vs. 0.48 quality-adjusted life years) in baseline decision analysis for both blacks and whites. Factors that did profoundly affect blacks' decisions against surgery

included their distrust of diagnosis, belief in alternative cures, and religious beliefs that their cancer would spontaneously subside.

See "Surgical decisions for early stage, non-small cell lung cancer: Which racially sensitive perceptions of cancer are likely to explain racial variation in surgery," by Drs. Cykert and Phifer, in the March 2003 *Medical Decision Making* 23, pp. 167-176. ■

## Factors beyond insurance coverage affect racial/ethnic disparities in health care

**D**espite marked improvements in overall national health, racial and ethnic minorities continue to have poorer access to high-quality health care services and different patterns of use compared with whites. Since whites are more likely than any other group to have insurance coverage, recent health policy reforms have focused on expanding health insurance coverage to reduce these disparities. However, insurance coverage alone will not eliminate disparities because other factors also play a role, conclude Samuel H. Zuvekas, Ph.D, and Gregg S. Taliaferro, Ph.D., of the Center for Cost and Financing Studies, Agency for Healthcare Research and Quality.

Drs. Zuvekas and Taliaferro used data from the 1996-1999 Medical Expenditure Panel Survey (MEPS), county-level health care system data, and data from other sources to examine the roles that insurance coverage, the health care delivery

system, and external factors play in explaining racial/ethnic disparities in access to outpatient care among patients of all ages. About 5 percent more blacks than whites and 15 percent more Hispanics than whites lacked a usual source of care throughout the 1996-1999 period. Blacks and Hispanics were much less likely than whites to use non-ER outpatient treatment, and they made fewer visits than whites did. This finding was particularly pronounced among children younger than age 18, for whom variation in health care needs is less.

Health insurance explained 42 percent of the black-white disparity in having a usual source of care but only 24 percent of the Hispanic-white disparity in this measure and even smaller proportions of the disparities in outpatient visits. Measures of variation in health care system capacity, such as number of physicians or beds per capita,

explained almost none of the differences between groups.

Other factors explained 53 percent of the black-white disparity in having a usual source of care, with local area demographic and economic indicators (28 percent), income (17 percent), and demographic characteristics (16 percent) being the most important factors, while education explained little. In contrast, education explained about 20 percent of the Hispanic-white and 10 percent of the black-white gaps in use of outpatient care, while income explained little.

More details are in "Pathways to access: Health insurance, the health care delivery system, and racial/ethnic disparities, 1996-1999," by Drs. Zuvekas and Taliaferro, in the March 2003 *Health Affairs* 22(2), pp. 139-153. Reprints (AHRQ Publication No. 03-R028) are available from AHRQ.\*\* ■

## Problems with doctor/patient communication may help to explain disparities in use of health care

**B**lacks and Latinos are hospitalized and undergo surgery or other invasive procedures that require a doctor's order at lower rates than white patients, even when their access to care, diagnosis, and illness severity are the same. This suggests that

disparities in health care use emerge after the patient gets to the doctor, in the context of the doctor-patient interaction, not from difficulties in getting to the doctor in the first place. Poor communication between doctors and minority patients may be one

source of racial disparities in the use of health services, according to the findings from a recent study that was supported in part by the Agency for Healthcare Research and Quality (HS10876).

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## Doctor/patient communication

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Texas researchers led by Carol Ashton, M.D., M.P.H., of the Baylor College of Medicine, and her colleagues point to evidence indicating that racial and ethnic disparities in health care and health outcomes are not due solely to either racial bias on the part of doctors or patient preferences. Communication is important. Patients from different ethnic groups may be more or less inclined to provide a health narrative (how they view their

condition and its cause) to the doctor, may use different terms to describe the same phenomenon, and may screen out views that they think the doctor will find unacceptable (for example, non-Western beliefs about illness). Also, ethnic and cultural norms influence a patients' willingness to ask questions, express concerns, and be assertive during a medical interaction.

Patients who ask more questions and express more concerns receive more information from doctors who, in turn, perceive them as better communicators. These researchers suggest that during

each patient encounter doctors should provide openings and prompts to help the patient do four things: provide a health narrative, ask questions, express concerns, and be assertive. Providing patients with pocket cards and waiting room videotapes on "how to talk with your doctor" also may be useful.

More details are in "Racial and ethnic disparities in the use of health services," by Dr. Ashton, Paul Haidet, M.D., M.P.H., Debora A. Paterniti, Ph.D., and others, in the February 2003 *Journal of General Internal Medicine* 18, pp. 146-152. ■

## Health Care Costs and Financing

### Heart disease, cancer, and trauma injury top the list of the 15 most costly medical conditions in the United States

The most expensive medical condition in the United States in 1997 was heart disease, which was associated with \$58 billion in expenditures, followed by cancer (\$46 billion), and trauma-related injuries (\$44 billion). Heart disease accounted for about 10 percent of total expenditures in 1997; cancer and trauma accounted for 8 percent each. However, pulmonary conditions affected the largest number of people (41 million), followed by trauma (37 million), and hypertension (27 million). These are the findings of a study by Joel W. Cohen, Ph.D., and Nancy A. Krauss, M.P.H., of the Center for Cost and Financing Studies, Agency for Healthcare Research and Quality.

In response to an Institute of Medicine request for AHRQ to examine a set of priority conditions, the researchers used 1997 data from the Medical Expenditure Panel Survey (MEPS) to identify the 15 most expensive medical conditions. The MEPS provides estimates of health care use, spending, sources of payment, and insurance coverage for the U.S. civilian noninstitutionalized population.

The researchers examined both direct health care costs for the conditions and the total costs for all medical care incurred by people with these conditions.

They found that, in general, higher mean expenditures were associated with the extent to which spending was related to inpatient hospitalization. For example, inpatient care accounted for about two-thirds of expenditures for cerebrovascular disease and cancer—the top two conditions in terms of mean expenditures—but only about one-quarter of expenditures were for infectious diseases and skin disorders, the least expensive conditions in the set. On the other hand, more than half of average spending for kidney disease (which had the third highest mean expenditures) was for outpatient care, most likely related to dialysis. Most people with at least one of the top 15 conditions had other medical problems. Per capita spending increased as much as 8- to 11-fold for people with three or more medical conditions versus only one.

More details are in "Spending and service use among people with the fifteen most costly medical conditions, 1997," by Dr. Cohen and Ms. Krauss, in the March 2003 *Health Affairs* 22(2), pp. 129-138. Reprints (AHRQ Publication No. 03-R029) are available from AHRQ.\*\* ■

## Allergic rhinitis care costs have soared in the past decade due to newer antihistamines and other medications

The direct costs of allergic rhinitis have increased substantially since the introduction of second-generation antihistamines and intranasal corticosteroids as first-line treatment for the problem. Annual direct costs for allergic rhinitis nearly tripled, from \$1.23 billion in 1987 to \$3.4 billion in 1996, according to a study conducted by researchers at the Duke Clinical Research Institute and Duke University Medical Center. Their work was supported in part by the Agency for Healthcare Research and Quality (Centers for Education and Research on Therapeutics cooperative agreement HS10385).

Nearly 8 percent of the U.S. population suffered from allergic rhinitis in 1996. The researchers analyzed resource use and costs for allergic rhinitis based on 1996 data from AHRQ's Medical Expenditure Panel Survey and found that the majority of direct medical costs for the problem were for prescription medications (47 percent) and

outpatient visits (52 percent). Over half (51 percent) of the money spent for prescriptions was for second-generation antihistamines, 25 percent was for intranasal corticosteroids, and 5 percent was for first-generation antihistamines. Costs for outpatient physician visits for patients receiving immunotherapy were \$524 per year compared with \$42 per year for patients not receiving immunotherapy.

Overall, 58 percent of patients with allergic rhinitis received one or more prescription drugs to treat the condition during the study year. Among these patients, the mean prescription expenditures were \$131, including \$50 in out-of-pocket expenditures. However, insurance type made a difference. The mean prescription medication expenditure for Medicaid-insured individuals was \$103, \$155 for those with private insurance, \$213 for those with other insurance, and \$69 for individuals who had no prescription drug coverage, who

also paid more out of pocket than those who were insured.

It is assumed that the increased expenditures for nonsedating antihistamines will be offset by the impact of symptom control on workforce productivity and the resulting increase in the Gross National Product (GDP). Lack of sedation with these drugs, compared with older sedating antihistamines, is expected to be seen in fewer accidents resulting in deaths or injuries. An analysis to test these assumptions is needed, conclude the authors.

More details are in "Direct costs of allergic rhinitis in the United States: Estimates from the 1996 Medical Expenditure Panel Survey," by Amy W. Law, Pharm.D., Shelby D. Reed, Ph.D., John S. Sundry, M.D., Ph.D., and Kevin A. Schulman, M.D., in the February 2003 *Journal of Allergy and Clinical Immunology* 111, pp. 296-300. ■

## Researchers examine access to care and satisfaction among SSI enrollees in Tennessee's Medicaid program

Supplemental Security Income (SSI) recipients are poor people who are too disabled to work. These individuals, whose disabilities range from blindness and severe asthma to mental retardation and cerebral palsy, often need long-term specialist care or require extensive social supports and care coordination to address chronic limitations in functioning. SSI recipients are enrolling in Medicaid managed care. Their health care needs are extensive, diverse, and complex, and those needs may represent a challenge to managed care organizations in

programs like TennCare, Tennessee's Medicaid managed care program.

According to a recent study, SSI recipients enrolled in TennCare have similar or slightly worse access to care than other TennCare enrollees. A significant minority of SSI enrollees report unmet needs for care, such as not getting referrals to specialists, prescription drugs, and special medical equipment. The study was conducted by Steven C. Hill, Ph.D., of the Agency for Healthcare Research and Quality's Center for Cost and Financing Studies, and

Judith Wooldridge, M.A., of Mathematica Policy Research, Inc.

Mathematica conducted computer-assisted telephone surveys of urban SSI and other urban TennCare enrollees to assess their access to care, care coordination, and satisfaction. Results revealed that SSI enrollees had mixed experiences, and they faced problems in areas particularly important to people with disabilities. For example, compared with other TennCare enrollees, SSI adults had longer travel times to

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## Access to care

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providers, and fewer SSI children could get an appointment within 1 week. Adult SSI enrollees rated their managed care organization lower than other enrollees, and all SSI enrollees were less satisfied with provider communication, such as explanation of medical procedures.

Nearly one in five SSI enrollees had to wait for their plan to approve care, most often for

specialist or other physician care or for prescription drugs. About 6 percent of SSI adults and 4 percent of parents of SSI children said their plan failed to refer them to a specialist or therapist, and the consequences for those affected were often serious. About one in five SSI adults had unmet needs for physician care, and 17 percent had unmet needs for prescription drugs. Six percent had unmet needs for special medical equipment, mostly wheelchairs, other mobility aids, respiratory aids, and neck, back,

and knee braces. About 10 percent of adult SSI enrollees and 12 percent of children did not have someone to arrange or coordinate medical care, mental health care, personal care, or social services.

See "SSI enrollees' health care in TennCare," by Dr. Hill and Ms. Wooldridge, in the May 2003 *Journal of Health Care for the Poor and Underserved* 14(2), pp. 229-243. Reprints (AHRQ Publication No. 03-R040) are available from AHRQ.\*\* ■

## Agency News and Notes

### AHRQ names new senior advisor for women's health

AHRQ Director Carolyn M. Clancy, M.D., has announced the appointment of Rosaly Correa-de-Araujo, M.D., M.Sc., Ph.D., as the Agency's Senior Advisor for Women's Health. Dr. Correa is a cardiovascular pathologist trained at the National Heart, Lung, and Blood Institute.

Before assuming her new position as Senior Advisor on Women's Health, Dr. Correa worked with AHRQ's Evidence-based Practice Centers Program,

overseeing the development of various evidence reports on topics of clinical relevance to women's health. She also provided support to AHRQ's women's health program through her involvement in numerous interagency workgroups and committees.

Prior to joining AHRQ, Dr. Correa acquired vast experience on the safe use of medications in the elderly through numerous years of work involving the development and maintenance of a database on

evidence-based geriatric pharmacotherapy for clinical decision support. As Senior Advisor for Women's Health, Dr. Correa will work closely with Agency staff, AHRQ's Advisory Committee on Women's Health, and a host of other relevant groups in and outside the Department of Health and Human Services to maintain AHRQ's leadership role in improving health care for women. ■

### AHRQ moves to new home

The Agency for Healthcare Research and Quality has relocated to the John M. Eisenberg Building in Rockville, MD, effective June 16, 2003. The new building, located at 540 Gaither Road, Rockville MD, 20850, near the Shady Grove Metro station, is named after Dr. John M. Eisenberg, AHRQ's director from 1997 until his death in 2002. Please update your databases to reflect the Agency's new address.

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AHRQ, a part of the U.S. Department of Health and Human Services, is the lead Federal agency charged with supporting research designed to improve the quality of health care, reduce its cost, improve patient safety, decrease medical errors, and broaden access to essential services. ■



### Task Force considers routine screening for dementia

The U.S. Preventive Services Task Force has found insufficient evidence to recommend for or against routine screening for dementia in older adults. However, the Task Force notes that primary care clinicians should remain alert to signs of dementia whenever deterioration is suspected based on direct observation, patient report, or concerns raised by family members, friends, or caretakers. The Task Force recommendation appears in the June 3, 2003, issue of the *Annals of Internal Medicine*.

Dementia is a progressive brain dysfunction. Symptoms of dementia include loss of recent memory, difficulty performing familiar tasks, problems with words, confusion about time and place, poor judgment, problems with abstract thinking, changes in mood and personality, and loss of initiative. In its review of screening for dementia in the primary care setting, the Task Force found:

- Good evidence shows that some screening tests can successfully detect dementia. However, age and education of the patient affect the accuracy and interpretation of some tests, producing misleading results.
- Medications such as cholinesterase inhibitors can slow the rate of decline in cognitive function, but the evidence is less clear on their ability to improve key activities of daily life.
- The evidence is insufficient to determine whether the benefits observed in drug trials conducted in specialized neurological clinics can be generalized to patients in primary care settings.

- No data are available to assess the potential harms of dementia screening, such as social stigma, depression, and anxiety. Dementia results from destruction of brain cells most often caused by Alzheimer's disease. People over age 65 are most at risk for dementia. Studies show that 3 percent to 11 percent of people over age 65 and 25 percent to 47 percent of people over age 85 have evidence of dementia. Between 60 percent and 70 percent of patients with dementia have Alzheimer's disease. The siblings and children of patients with Alzheimer's disease have twice the risk for the disease compared with the risk for the general public. Hypertension and other cardiovascular risk factors also can be associated with increased risk for dementia.

There is no way to prevent or cure dementia, leading many to question the potential benefits of earlier detection. Early detection of dementia could be beneficial if it led to improved treatment through informed decisionmaking and use of medications to slow progression of the disease. However, the evidence supporting these potential benefits is of poor quality, and patients still face a risk of potential harms such as needless anxiety from false-positive test results. Thus, the Task Force found that more research is needed to determine whether any benefits of screening outweigh the potential harms.

The AHRQ-sponsored Task Force, the leading independent panel of private-sector experts in prevention and primary care, conducts rigorous, impartial assessments of all the scientific evidence for a broad range of preventive services. Its

recommendations are considered the gold standard for clinical preventive services. The Task Force based its conclusions on a report prepared by a team of researchers led by Malaz Boustani, M.D., M.P.H., from AHRQ's Evidence-based Practice Center at RTI/University of North Carolina at Chapel Hill.

The Task Force grades the strength of the evidence from "A" (strongly recommends), "B" (recommends), "C" (no recommendation for or against), "D" (recommends against) or "I" (insufficient evidence to recommend for or against screening). The Task Force found insufficient evidence to recommend for or against routine screening for dementia in older adults ("I" recommendation). This recommendation is very similar to the 1996 Task Force recommendation that found insufficient evidence to recommend for or against screening for dementia with standardized instruments in asymptomatic persons.

The recommendations and materials for clinicians are available online at [www.ahrq.gov/clinic/3rduspstf/dementia/dementtr.htm](http://www.ahrq.gov/clinic/3rduspstf/dementia/dementtr.htm). Clinical information is also available from the National Guideline Clearinghouse™ at [www.guideline.gov](http://www.guideline.gov). Previous Task Force recommendations, summaries of the evidence, easy-to-read fact sheets explaining the recommendations, and related materials are available from AHRQ. See the back cover of *Research Activities* for ordering information. ■

## New evidence reports now available

The Agency for Healthcare Research and Quality has published three new evidence reports that were developed by AHRQ-supported Evidence-based Practice Centers (EPCs). There are 13 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. EPC reports and summaries are

published by AHRQ and are available online and through the AHRQ clearinghouse. Visit the AHRQ Web site at [www.ahrq.gov](http://www.ahrq.gov) or see the back cover of *Research Activities* for ordering information.

- *Diffusion and Dissemination of Evidence-based Cancer Control Interventions*. Evidence Report/Technology Assessment No. 79. Summary (AHRQ Publication No. 03-E032)\*\* and full report (AHRQ Publication No. 03-E033).\*
- *Results of Systematic Review of Research on Diagnosis and Treatment of Coronary Heart*

*Disease in Women*. Evidence Report/Technology Assessment No. 80. Summary (AHRQ Publication No. 03-E034)\*\* and full report (AHRQ Publication No. 03-E035).\*

- *Diagnosis and Treatment of Coronary Heart Disease in Women: Systematic Reviews of Evidence on Selected Topics*. Evidence Report/Technology Assessment No. 81. Summary (AHRQ Publication No. 03-E036)\*\* and full report (AHRQ Publication No. 03-E037).\* ■

## Research Briefs

**Berliner, E., Ozbilgin, B., and Zarin, D.A. (2003).** "A systematic review of pneumatic compression for treatment of chronic venous insufficiency and venous ulcers." *Journal of Vascular Surgery* 37, pp. 539-544.

Available data cannot be relied on to inform the optimal choice of compression therapy or optimal protocol for patients with chronic venous insufficiency (CVI) or venous ulcers, according to a technology assessment on the use of pneumatic compression devices for these problems. As a result of the assessment, the Centers for Medicare & Medicaid Services issued a decision that pneumatic compression will be covered only for patients with refractory edema with significant ulceration of the lower extremities after a 6-month trial of standard therapies, such as compression stockings, has failed. The researchers reached their

conclusions following a systematic review of the literature and selection of eight pertinent studies for more in-depth review. Three studies showed that the devices could alleviate symptoms of CVI, but none of the studies directly measured whether the devices could prevent the occurrence of venous ulcers. Some studies of the treatment of venous ulcers did not show a benefit for pneumatic compression, but others showed that pneumatic compression healed long-standing chronic ulcers that had not healed with other methods. Reprints (AHRQ Publication No. 03-R032) are available from AHRQ.\*

**Berner, E.S., Baker, C.S., Funkhouser, E., and others. (2003).** "Do local opinion leaders augment hospital quality improvement efforts?" (AHRQ

grant HS08843). *Medical Care* 41(3), pp. 420-431.

The influence of physician opinion leaders was positive for only one of five quality of care indicators for unstable angina (UA) examined in this study. To maximize adherence to best practices through physician opinion leaders will require more research on how these physicians influence health care delivery in their organizations, suggest the researchers. They compared the impact on five quality indicators with no intervention (NI), a traditional Health Care Quality Improvement Program (HCQIP), and a physician opinion leader (OL) in addition to the HCQIP. Quality indicators included electrocardiogram within 20 minutes, antiplatelet therapy within 24 hours and at discharge, and heparin and beta-blockers during

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## Research briefs

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hospitalization among 2,210 patients with UA from 21 hospitals. The only significant postintervention difference in compliance with UA guidelines was greater improvement for the OL group in the use of antiplatelet therapy at 24 hours in both hospital-level and patient-level analyses compared with the HCQIP and NI groups.

**Croskerry, P. (2003, January).** “Cognitive forcing strategies in clinical decisionmaking.” (AHRQ grant HS11592). *Annals of Emergency Medicine* 41(1), pp. 110-121.

All disciplines of medicine are subject to pitfalls in clinical reasoning, as well as caveats for avoiding them. Examples of typical pitfalls affecting emergency department (ED) physicians include: abandoning the reading of an x-ray of an ED patient after identifying one fracture, since there may be more; failure to look for coingestants in the context of a self-poisoning; and failure to look for medical problems once a psychiatric diagnosis has been made. Cognitive forcing strategy is a form of cognitive debiasing designed to help clinicians make better decisions by recalling vivid lessons they have learned from past errors that have harmed patients. In the first step, the clinician is taught the value of stepping back from the immediate situation and reflecting on the thinking process. The second step is knowledge of particular cognitive errors. The third step requires identification of the particular scenario in which the cognitive error is likely to occur, and the fourth step is the selection of a cognitive forcing strategy. The adoption of this method provides a systematic approach to cognitive

root-cause analysis in the avoidance of adverse outcomes associated with delayed or missed diagnoses and with the clinical management of specific cases.

**Fink, K.S., Phillips, R.L., Fryer, G.E., and Koehn, N. (2003, March).** “International medical graduates and the primary care workforce for rural underserved areas.” *Health Affairs* 22(2), pp. 255-262.

International medical school graduates (IMGs) do not appear to be the solution to physician shortages in U.S. rural underserved areas (RUAs), concludes this study. The authors found that IMGs who came to the United States for postgraduate training were no more likely than U.S. medical school graduates (USMGs) to practice primary care in RUAs. The researchers analyzed the 2000 American Medical Association Masterfile and Area Resource File to calculate the percentage of primary care IMGs, relative to USMGs working in RUAs. They found that 2.1 percent of both primary care USMGs and IMGs were in RUAs. USMGs were more likely to be family physicians than IMGs but less likely to be internists or pediatricians. Given the belief by many groups that physicians are oversupplied but poorly distributed, the focus of future policies should be directed at increasing the percentage of primary care physicians who locate in RUAs. However, attention should be given to the appropriate primary care specialty distribution.

**Mukamel, D.B., Weimer, D.L., Zwanziger, J., and Mushlin, A. (2002).** “Quality of cardiac surgeons and managed care contracting practices.” (AHRQ grant HS09803). *Health Services Research* 37(5), pp. 1129-1144.

These researchers examined the association between the contracts managed care organizations (MCOs) had with cardiac surgeons and the quality of care provided by the surgeons using data from the New York State Cardiac Surgery Reports. The study included all cardiac surgeons offering coronary artery bypass graft surgery and 78 percent of MCOs in New York State in 1998. The association between surgeon quality and MCO contracts did not vary significantly by MCO type and ownership, but it did vary by region and type of quality measure. MCO contract probability showed a tendency to decrease with a surgeon’s risk-adjusted mortality rates (RAMR), low volume of bypass surgery (usually associated with poorer quality), and low-quality outlier status (RAMR higher than the State average) and to increase with high-quality outlier status (RAMR lower than the State average). Low-volume surgeons were more likely in Downstate New York (40 percent) than Upstate New York (23.7 percent), and the existence of contracts with high-quality outliers was more than twice as likely in Downstate areas as in Upstate areas (35.6 vs. 17.6). These regional differences in MCO contracting behavior suggest that MCO contracting with cardiac surgeons depends to some extent on local market conditions, such as competition among MCOs and sophistication of individual consumers or employers.

**Ng, P.C., Barzilai, D.A., Ismail, S.A., and others. (2003, March).** “Evaluating invasive cutaneous melanoma: Is the initial biopsy representative of the final depth?” (NRSA training grant T32 HS00059). *Journal of the American Academy of Dermatology* 48, pp. 420-424.

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## Research briefs

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Suspected melanoma (skin cancer) is often biopsied for diagnosis and then reexcised with appropriate margins based on the melanoma depth. Therefore, an accurate representative biopsy of the deepest portion of the lesion is important for further management. These researchers retrospectively examined the accuracy of preliminary biopsies performed by a group of predominantly experienced dermatologists on a total of 145 cases of cutaneous melanoma. They compared Breslow depth on preliminary biopsy with Breslow depth on subsequent excision to determine whether the initial diagnostic biopsy was performed on the deepest part of the melanoma. Of nonexcisional initial shave and punch biopsies, 88 percent were accurate, with Breslow depth greater than or equal to subsequent excision Breslow depth. Both superficial and deep shave biopsies were more accurate than punch biopsy for melanomas less than 1 mm. Excision biopsy was the most accurate method of biopsy. The researchers conclude that deep shave biopsy is preferable to superficial shave or punch biopsy for thin and intermediate depth (less than 2 mm) melanomas, when an initial sample is taken for diagnosis.

**Wang, C., Schwaitzberg, S., Berliner, E., and others. (2003, March). "Hyperbaric oxygen for treating wounds." (AHRQ contract 290-97-0019). *Archives of Surgery* 138, pp. 272-279.**

Wounds often have a reduced oxygen supply that impairs infection fighting activities and wound healing. The use of hyperbaric oxygen therapy (HBO), intermittent inhalation of 100 percent oxygen in chambers

pressurized about 1 atmosphere absolute) is based on the premise that raising tissue oxygen levels will enhance wound healing ability. However, this systematic review of the literature found that high-quality randomized controlled trials to evaluate the short- and long-term risks and benefits of HBO are necessary to better inform clinical decisions. They identified studies from technology assessment reports on HBO and a Medline search from mid-1998 to August 2001 that evaluated the use of HBO for wound care and reported clinical outcomes. Results suggested that HBO may be beneficial as an adjunctive therapy for chronic nonhealing diabetic wounds, compromised skin grafts, osteoradionecrosis, soft tissue radionecrosis, and gas gangrene compared with standard wound care alone. Serious adverse events associated with HBO included seizures and pressure-related traumas, such as pneumothorax. Reprints (AHRQ Publication No. 03-R034) are available from AHRQ.\*\*

**Willging, C.E., Semansky, R.M., Waitzkin, H. (2003, March). "New Mexico's Medicaid managed care waiver: Organizing input from mental health consumers and advocates." (AHRQ grant HS09703). *Psychiatric Services* 54(3), pp. 289-291.**

States are required by Federal law to obtain waivers before they can enroll vulnerable populations, including people with serious mental illness, in Medicaid managed care programs. However, they are not obliged to elicit comments from community stakeholders, and each State determines the extent of public involvement in developing Medicaid managed care waivers. According to this study of the New Mexico waiver experience, there is

a need to institutionalize formal structures for public consultation about waiver programs to ensure responsiveness to the concerns of vulnerable groups. In January 2000, New Mexico's Medicaid agency requested a renewal of its Medicaid managed care waiver, despite concern about increasing numbers of Medicaid-eligible children and adults with serious mental illnesses who needed intensive services but were unable to obtain them under managed care. Consumers, patient advocates, and providers developed coalitions throughout the State and with national organizations to lobby for Federal intervention by CMS. The resulting assessment of the State's Medicaid monitoring data revealed significant underuse of the intensive services effective for serious mental illness and linked Medicaid managed care to manpower shortages and decreased financial support for mental health safety-net institutions. Ultimately, State legislators required New Mexico's waiver renewal to include the creation of a provisional advisory committee, composed of State officials, consumers, patient advocates, and providers, to redesign Medicaid mental health services. This could be a model for other States that are establishing waiver programs for mental health services.

**Wyrwich, K.W., Fihn, S.D., Tierney, W.M., and others. (2003, March). "Clinically important changes in health-related quality of life for patients with chronic obstructive pulmonary disease." (AHRQ grants HS10234, K02 HS11635). *Journal of General Internal Medicine* 18, pp. 196-202.**

The goal of treatment for patients with chronic obstructive pulmonary disease (COPD) is to relieve symptoms such as labored

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## Research briefs

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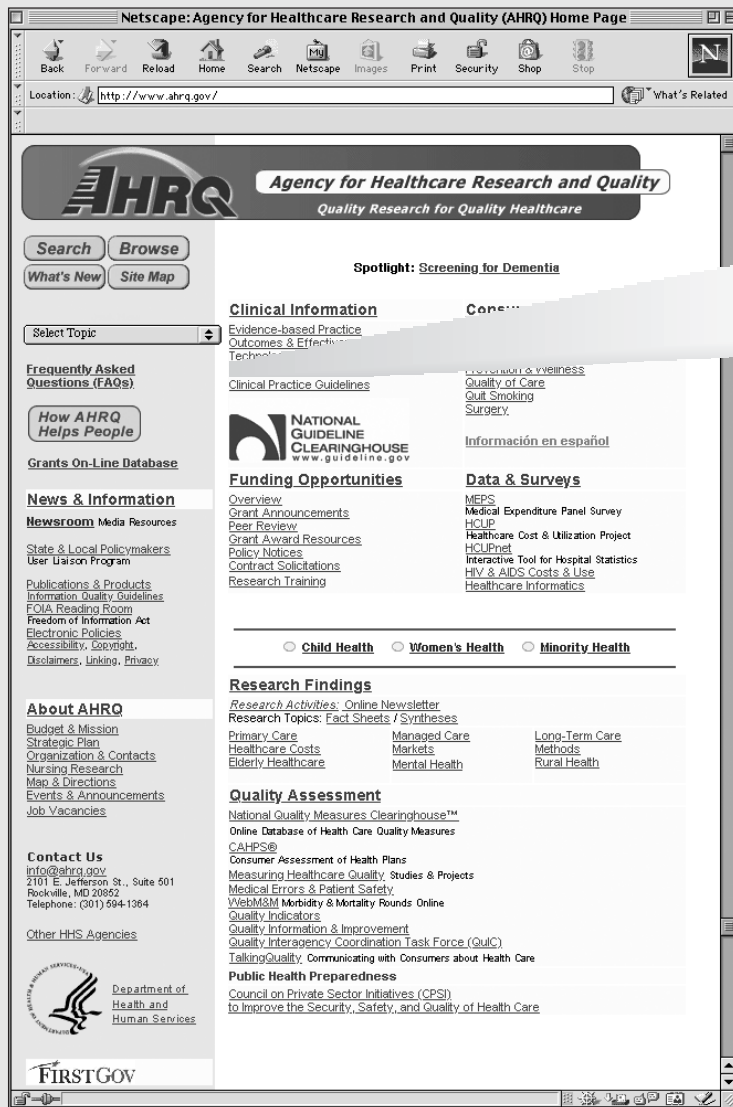
breathing and to enhance functioning. How patients view important changes in health-related quality of life (HRQOL) does not reflect an informed clinical evaluation. The goal of this study was to establish clinically important difference standards from the physician's perspective for use of two HRQOL measures among patients with COPD. The

investigators assembled a nine-member expert panel of physicians familiar with the use of the Chronic Respiratory Questionnaire (CRQ), a disease-specific HRQOL measure, or the generic Medical Outcomes Study Short-Form 36-item Health Survey (SF-36) to assess patients with COPD. After several rounds of discussions, the expert panel established small, moderate, and large clinically important change levels for the

CRQ and the SF-36. Levels for detecting clinically important differences on the CRQ were equal to or slightly higher than previous studies based on patient-reported differences. Clinically important differences on the SF-36 (Version 2.0) were noticeably larger than previous estimates based on cross-sectional differences between clinically defined patient groups. ■

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