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JANE MACNEIL/ELSEVIER GLOBAL MEDICAL NEWS

Dr. Kathleen M. McCauley, R.N., Dr. W. Michael Alberts, FCCP, and Dr. John E. Heffner, FCCP, discussed the workforce shortage at a press conference.

HRSA Report Projects Gaps In Critical Care Services

BY NANCY NICKELL
Elsevier Global Medical News

The rapid growth of the elderly population in the United States may create a shortage of critical care physicians in the United States—a shortage that could lead to tens of thousands of potentially preventable deaths in the country's intensive care units, a new federal report warns.

The report has prompted critical care societies to outline solutions and press lawmakers and federal health agencies for greater help in boosting the nation's supply of critical care intensivists.

Policy makers can attack the problem three ways: by "increasing supply, increasing efficiency, or decreasing the need for intensive care," said Dr. W. Michael Alberts, FCCP, president of the American College of Chest Physicians.

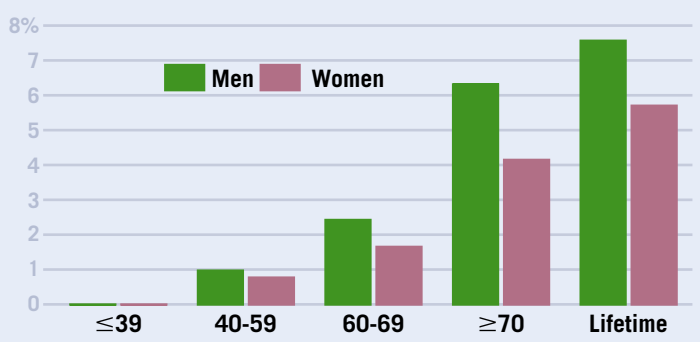
With the nation's elderly population rising rapidly, "demand for intensivists will continue to exceed available supply through the year 2020 if current supply and demand trends continue," according to the report, entitled "The Critical Care Workforce: A Study of the Supply and Demand for Critical Care Physicians."

The federal Health Resources and Services Administration (HRSA) produced the report for Congress, which asked the agency in 2003 to examine the adequacy of the critical care workforce.

See **Critical Care** • *page 2*

VITAL SIGNS

Probability of Developing Invasive Lung And Bronchus Cancers by Age



Notes: For those free of cancer at beginning of age interval. Based on cancer cases diagnosed during 2000-2002.

Sources: National Cancer Institute, American Cancer Society

ELSEVIER GLOBAL MEDICAL NEWS

FDA Approves Novel Smoking Cessation Agent

At 12 weeks, 44% were smoke free.

BY TIMOTHY F. KIRN
Elsevier Global Medical News

The Food and Drug Administration's approval last month of the drug varenicline may help a significantly greater percentage of patients quit smoking than bupropion, according to federal officials and others.

The drug was judged from early trials to show such promise that it was put on the approval fast track 6 months ago.

"This is the first time we have had a drug that we can say is better than the other drugs," said Dr. John R. Hughes, professor of psychiatry at the University of Vermont, Burlington, and a founding member of and spokesperson for the Society for Research on Tobacco and Nicotine. "I think this is a significant advance."

Varenicline tartrate (Chantix, Pfizer Inc.) is approved for use twice a day (1 mg) for 12 weeks, with another 12 weeks for those who are successful in quitting during the first 12 weeks. The drug is not approved for adolescents. In the pivotal trials, varenicline was never used in combination with other smoking-cessation agents, so the label will recommend not combining the drug with bupropion or a nicotine patch.

The FDA had six trials of varenicline to review for approval, five of which were placebo-controlled and randomized, said Dr. Curt Rosebraugh, a deputy director of the Center for Drug Evaluation and Research at FDA, in a press conference.

In the two 12-week trials that compared varenicline with bupropion (150 mg twice daily), a combined 44% of subjects taking varenicline were smoke free during the final 4 weeks of the trial, compared with 30% of bupropion-treated subjects and 17% of placebo-treated subjects. Participants in those studies on average had smoked 21 cigarettes a day for 25 years.

See **FDA Approves** • *page 4*

INSIDE

Complication Rates Reflect Poorly on PAC

BY JANE SALODOF MACNEIL
Elsevier Global Medical News

SAN DIEGO — The controversial and widely used pulmonary-artery catheter produced no survival benefit but caused more complications than the central venous catheter in a prospective trial that randomized 1,001 patients with acute lung injury.

Investigators reported similar mortality, ventilator-free days, and days not spent in the intensive care unit for the two arms of the trial. However, patients given a pulmonary-artery catheter (PAC) had about twice as many catheter-related complications, mostly arrhythmias, during catheter placement.

"Even the group of patients who entered the trial in shock did not get benefit of this catheter, which provided more information [than a central venous catheter]," Dr. Arthur P. Wheeler, FCCP, said during a press conference at the International Conference of the American Thoracic Society, where he reported catheter results from the Fluid and Catheter Treatment Trial (FACTT).

"And that was a commonly held belief," added Dr. Wheeler, of Vanderbilt University, Nashville, Tenn., who led the catheter portion of the trial. "If someone was going to benefit, it was going to be the sickest group of patients who had shock, and we didn't see it."

As a result, investigators from the National Heart, Lung, and Blood Institute's Acute Respiratory Distress Syndrome Clinical

See **PAC** • *page 7*

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Demand Likely to Exceed Supply

Critical Care • *from page 1*

Almost 500,000 people die in ICUs each year, according to the report, and 360,000 of them are not managed by intensivists. If they were, an estimated 54,000 lives could be saved annually, according to a study cited by HRSA researchers (Eff. Clin. Pract. 2000;3:284-9).

Although intensivists direct the care of only one-third of critically ill patients, the proportion of patients who are receiving care under the direction of an intensivist has increased dramatically in recent years. Increasing the proportion of ICU patients whose care is directed by an intensivist from one-third to a more optimal level of two-thirds would save lives—but it would also push the need for intensivists from 3,100 in 2000 to 4,300 by 2020.

The result: A shortage of about 1,200 intensivists in 2000 could grow to an estimated shortfall of 1,500 in 2020—or 129% above the projected supply.

Battling Burnout

As demand for critical care specialists grows, so does the burden on existing intensivists—prompting many of them to consider early retirement. More than half of intensivists expect to retire by age 60, and almost a third expect to retire by age 55, according to a report in 2000 by the Committee on Manpower for the Pulmonary and Critical Care Societies (COMPACCS).

Retirement isn't the only factor that may worsen the shortfall. Difficulty attracting physicians to the field, gender issues, and the proportion of international medical graduates (IMGs) could also leave the nation unable to meet its critical care needs.

Currently, intensivist fellowship positions are not fully filled, said Dr. Alberts, who is a professor of oncology and medicine at the University of South Florida, Tampa. The number of newly trained critical care medicine fellows per year has actually dropped from 110 in 1998 to 86 in 2004, according to the HRSA report. In fact, less that 1% of U.S. medical school graduates are expected to choose to practice as intensivists. Medical students find the long, irregular hours and the stress of working in ICUs discouraging, added Dr. Alberts.

Although 86% of pulmonologists and critical care physicians are men, a greater proportion of the younger generation of intensivists are women. Because female physicians tend to work fewer hours and retire sooner, the number of hours provided could fall, the report's authors cautioned.

The large proportion of critical care fellows who are international medical graduates may add to the uncertainty. Those IMGs may face visa restrictions that force them out of the United States. However, data on the actual numbers of IMGs who return to their home countries are unavailable, the report's authors stated.

Seeking Solutions

Creation of more critical care specialists won't be easy, the HRSA report acknowledged. "Simple solutions to the critical care workforce problem are not likely to be found in the near future," the report's authors said.

The rise of intensivist-managed ICUs could help meet some of the unmet demand. Encouraging intensivists and pulmonologists trained in critical care to spend more of their work hours in the ICU might increase supply as well. But the report's authors cautioned that such strategies may require significant financial incentives.

Better management of demand could come as more hospitals use in-house, full-time intensivists to ensure appropriate utilization of critical care services and reduce unnecessary ICU admissions. Improved education regarding end-of-life issues might help physicians and patients make better treatment decisions and potentially reduce the number of days of ICU care.

Organizational changes could improve patient access in a different way, notably in rural areas. "One example is the increased use of electronic ICUs, where specialist physicians and nurses monitor and help treat critically ill patients in widely scattered hospitals," the authors stated.

To help close the projected shortfall, four critical care societies have outlined their own proposals to increase the efficient use of current critical care resources and boost the supply of intensivists in the future (see sidebar).

The Critical Care Workforce Partnership—composed of the American College of Chest Physicians, the American Association of Critical-Care Nurses, the American Thoracic Society, and the Society of Critical Care Medicine—also announced plans to work with Sen. Richard J. Durbin (D-Ill.) on legislative and regulatory steps.

"The looming critical care work force shortage is an issue that affects every one of us and needs to be addressed now," said Dr. Mark J. Rosen, chief of the division of pulmonary and critical care medicine at Beth Israel Medical Center, New York, and president-elect of the ACCP. "We, or our loved ones, will most probably spend time in an ICU, and we will demand excellent care for ourselves and our families. Without an adequate workforce, that care will simply not be available." ■

For a copy of the HRSA report, visit www.chestnet.org/practice/gr/hrsa.php.

Societies See Ways to Expand Workforce

The Critical Care Workforce Partnership outlined a series of steps that could help manage the supply of and demand for critical care services now and in the coming decades:

- **Enhance efficiency.** The societies are calling for incentives to optimize the distribution of critical care providers. They're also recommending a greater reliance on technology, via telemedicine and electronic medical records, to help the current critical care specialists deliver more services. Cross-training physicians in critical care would be another way to increase the available supply of critical care professionals.
- **Increase supply.** More critical care providers could be trained by expanding medical school and nursing school capacity and increasing the number of federally funded graduate medical education slots for critical care. Targeted programs to reduce the education debts of critical care physicians and nurses could also attract more providers to the field. And the J-1 visa waiver program could be used to steer more international medical graduates into federally designated underserved areas.
- **Manage demand.** More critical care research focused on the elderly population should be paired with the exploration of alternative care options for elderly patients who have high-mortality conditions. A campaign to educate Americans about critical care medicine's limits and benefits could further affect demand.

IN THIS ISSUE

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CHEST PHYSICIAN

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Drug Boosted Smoking Abstinence

FDA Approves • *from page 1*

In the follow-up period during one of those trials, 22% of varenicline-treated individuals were still smoking abstinent at a year, compared with 16% of bupropion subjects and 10% of placebo subjects. Smoking abstinence was monitored in the trials by self report and with weekly expired carbon monoxide testing.

Notable side effects of the drug in the trials included nausea (experienced by 30% of patients in one trial), insomnia, and vivid dreams. The nausea was transient and considered mild to moderate.

The nausea and other side effects were generally not bothersome enough that subjects quit their regimen, Dr. Hughes noted, and a rate of 30% for nausea is not out of line with what is seen in trials of bupropion and other smoking-cessation agents. Only 10% of subjects quit varenicline because of side effects.

Varenicline is the first drug that was specifically designed for nicotine dependence. Bupropion, though approved for smoking cessation, is an antidepressant.

Varenicline is a novel selective nicotinic receptor partial agonist. As such, it not only eases withdrawal craving but also partially blocks the nicotine effect of smoking. This second property interferes with the reinforcement a smoker receives from lighting up, a benefit that thwarts the potential for relapse, Dr. Hughes and the FDA's Dr. Rosebraugh noted. ■

Dr. Susan M. Harding, FCCP, comments: *We now have a new pharmacotherapy option for smoking cessation. Varenicline binds to nicotine receptors and also dampens the central effects of nicotine, which is important in patients who have a smoking relapse. Varenicline's 1-year follow-up data are encouraging—higher than bupropion—but are still less than optimal with only 22% of treated patients remaining smoking abstinent. Preliminary data show that rimonabant, a selective cannabinoid-1 blocker, improved smoking abstinence rates, compared with placebo; however, it is not FDA approved for smoking cessation, only for obesity therapy (J. Am. Coll. Cardiol. 2006;47:1919-26). Pharmacotherapy is only one tool of many in our smoking cessation tool box and should be combined with other interventions for successful long-term smoking abstinence.*

Pneumococcal Vaccine Cuts Risk of hMPV

Children vaccinated with three doses of pneumococcal conjugate vaccine had a reduced rate of human metapneumovirus-associated infections of the lower respiratory tract, as well as a lower rate of clinical pneumonia than did children given placebo, researchers reported.

Dr. Shabir A. Madhi of the University of the Witwatersrand, Bertsham, South Africa, and colleagues performed an analysis of data from nearly 40,000 children—some of whom had been infected with HIV—who had been given three doses of

HIV-FREE AND HIV-INFECTED CHILDREN WHO RECEIVED THE VACCINE HAD LOWER INCIDENCE OF CLINICAL PNEUMONIA (55% AND 65%, RESPECTIVELY).

a polysaccharide–protein conjugate vaccine (PCV) or placebo in an ongoing phase III study.

Dr. Madhi and coinvestigators tested nasopharyngeal aspirate samples of the children who had been hospitalized with lower respiratory tract infection (LRTI) for evidence of human metapneumovirus (hMPV), which was discovered only 5 years ago, as well as for HIV and C-reactive protein (J. Infect. Dis. 2006;193:1236-43).

They found that for vaccinated children without HIV infection, the hospitalization rate was 46% lower than that of children who received placebo. For HIV-infected children, the reduction was 53% versus placebo.

The incidence of clinical pneumonia also was reduced for both HIV-free and HIV-infected children who received vaccine (55% and 65%, respectively).

These results "suggest that bacterial coinfections, particularly pneumococcal infections, are an essential part of the pathogenesis of most severe hMPV infections progressing to pneumonia," they said. This means that children hospitalized with hMPV-associated pneumonia "should be treated with antibiotics."

—John R. Bell

Statins May Offer Protection During Flu Outbreaks

A 5-year study in the Netherlands linked statin therapy to a 26% reduction in respiratory disease.

ARTICLES BY
PATRICE WENDLING
Elsevier Global Medical News

NICE, FRANCE — A provocative study has identified an association between the use of statins and favorable outcomes during influenza epidemics.

In the retrospective cohort analysis, statin therapy was associated with substantial reductions in mainly respiratory diseases, but also in death from all causes, Dr. Theo Verheij said at the 16th European Congress of Clinical Microbiology and Infectious Diseases.

As for the mechanism, it is theorized that statins could have anti-inflammatory properties or an effect on immune status, he said. Three small studies have shown that statins have an anti-inflammatory effect in patients with bacteremia. In addition, a recent study identified an association between statin use and reduced sepsis in patients hospitalized for acute coronary syndrome, ischemic stroke, or revascularization (Lancet 2006;367:372-3).

Dr. Verheij and his colleagues assessed patients, aged 50 years or older, from the primary care network of the University Medical Center in Utrecht, the Netherlands. The patients were followed up during eight epidemic and nonepidemic influenza seasons from 1998 to 2003, said Dr. Verheij, a professor of general practice with the university.

The primary end point was a composite of community-acquired pneumonia, prednisone-treated acute respiratory disease, myocardial infarction, stroke, and death from all causes. Adjustments were made in the analysis for age, gender, insurance, number of general practice visits, concomitant medicine use, medical conditions including diabetes mellitus and psychiatric disorders, and influenza vaccination.

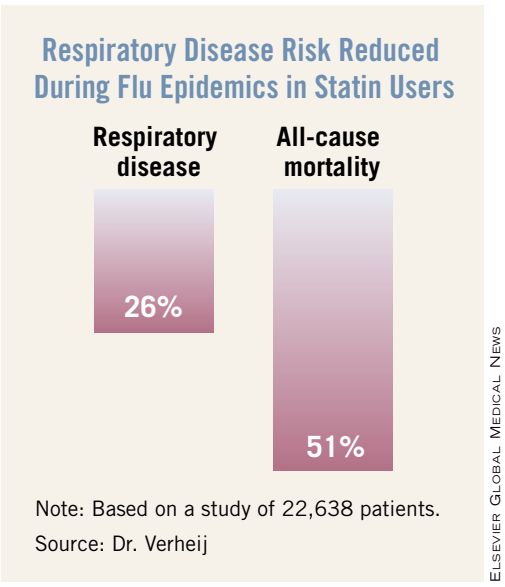
A total of 22,638 patients provided 130,558 person-periods (each influenza season was considered a period). Statin therapy (simvastatin, pravastatin, fluvastatin, atorvastatin, and rosuvastatin) was used in 6,982 (5.3%) person-periods and influenza vaccinations in 36,556 (28%). The primary end point occurred in 3.2% of person-periods, and most events (72%) were respiratory in nature, reported Dr. Verheij.

During influenza epidemics, statin therapy was associated with a 33% reduction in the primary end point (relative risk [RR] 0.67), a 26% reduction in respiratory disease (RR 0.74), and a 51% reduction in all-cause mortality (RR 0.49); these results were significantly different from outcomes in patients who were not using statins. The risk of pneumonia was reduced by 28% (RR 0.62) and the risk of acute respiratory disease was reduced by 21% (RR 0.79).

The findings were consistent across subgroups defined by age, cardiovascular disease, or exposure to influenza vaccination. In nonepidemic influenza seasons, there was no significant reduction in risk, except for all-cause death.

A dose-response relationship convinced the investigators that statin therapy provided a protective effect, Dr. Verheij said. Statin therapy was associated with a 33% reduction of any event among patients taking less than two daily defined doses and a 44% reduction among those taking two or more daily defined doses (RR 0.67 and 0.56, respectively, compared with patients who did not use statins).

The findings should be used to direct future studies into potential implications, particularly during pandemics, he said. ■



ELSEVIER GLOBAL MEDICAL NEWS

Pneumonia May Be Tamed by Short-Course Antibiotics

NICE, FRANCE — Clinicians should consider shorter, less burdensome regimens as part of an overall strategy to improve antibiotic compliance, Dr. Thomas File Jr.. FCCP, said at the 16th European Congress of Clinical Microbiology and Infectious Diseases.

High cure rates are possible with high-dose, short-course therapy when a potent, rapidly acting antibacterial agent is used, and pharmacodynamic principles are applied.

Respiratory tract infections, such as pneumonia, are traditionally treated with a 7- to 14-day course of antibiotics. But findings from in vitro and in vivo studies suggest that pathogens can be eradicated in 24-48 hours with effective agents.

"So why do we need to use 7 to 14 days?" Dr. File said.

In vitro and in vivo studies suggest pathogens can be eradicated in 24-48 hours with effective agents.
DR. FILE

Evaluations of shorter-course therapies include a study in which once-daily telithromycin 800 mg was shown to be equivalent to twice-daily clarithromycin 500 mg in a 10-day regimen for community-acquired pneumonia (Clin. Ther. 2004;26:48-62). Similarly, levofloxacin 750 mg for 5 days was as effective as 10 days of levofloxacin 500 mg in patients with mild to severe community-acquired pneumonia (Clin Infec. Dis. 2003;37:752-60).

More recently, phase III randomized trials have shown that a single 2-g oral dose of azithromycin microspheres (Zmax) was comparable to a 7-day regimen of levofloxacin 500 mg/day in patients with community-acquired pneumonia (Antimicrob. Agents Chemother. 2005;49:4035-41) and comparable to 10 days of levofloxacin in patients with acute bacterial sinusitis (Otolaryngol. Head Neck Surg. 2005;133:194-200).

Zmax, which was approved in the United States in 2005, has a unique microsphere formulation that releases the active drug in the small intestine rather than stomach, reducing gastrointestinal side effects, said Dr. File, who has received honoraria and clinical support from Pfizer Inc., which markets Zmax.

Unpublished pharmacokinetic data suggest that five to eight times more drug is delivered to the site of infection, which maximizes bacterial eradication and thereby helps reduce resistance, he said.

Clinicians should familiarize themselves with the pharmacokinetic and pharmacodynamic parameters of an individual agent and its minimum inhibitory concentration to improve bacterial eradication. Local resistance patterns also should be taken into consideration when choosing an antibiotic.

For example, penicillin resistance in isolates of *Streptococcus pneumoniae* during 1998-2000 was just 4% in the Netherlands but a staggering 32% in Ireland (J. Antimicrob. Chemother. 2003;52:229-46).

Finally, Dr. File urged physicians to educate their patients about the proper use of antimicrobials, not only to reduce patient expectations but also to ease the pressure on physicians to prescribe unwarranted antibiotics, both of which have contributed to overprescribing of these drugs.

"Patient satisfaction is not compromised by the absence of an antibiotic prescription, provided that the patient understands the reasons," said Dr. File, professor of internal medicine, Northeastern Ohio Universities College of Medicine, Rootstown, Ohio. ■

Maternal Asthma May Increase Risk of Premature Birth

MIAMI — Maternal asthma was a significant risk factor for premature birth and low birth weight, even if the mother's asthma was diagnosed years before delivery, Dr. Joel Liem reported at the annual meeting of the American Academy of Allergy, Asthma, and Immunology.

"Physicians and other health care professionals need to assess present and past asthma, up to 5 years prior, in order to properly assess the risk for premature labor," Dr. Liem told reporters at a press conference at the meeting.

ASTHMATIC MOTHERS WERE 2.8 TIMES AS LIKELY TO GIVE BIRTH TO A PREMATURE CHILD AT LESS THAN 28 WEEKS.

The investigators used information from the Manitoba Health Services Insurance Plan database, a population-based health care administrative and prescription database that has records of every child born in Manitoba, Canada, as well as their mothers' records. Maternal asthma was defined two ways: as an ICD-9 code of 493 (asthma) in 1995 or a prescription for an asthma medication in 1995; or an ICD-9 code 493 in 1990-1995 or an asthma medication prescription in 1995.

Using the first definition, the prevalence of asthma among the mothers was 5.5%. But there was no statistically significant association between maternal asthma and prematurity or low birth weight.

When the definition covering a longer time period was applied, maternal asthma was found to be a significant risk factor for the development and degree of prematurity and low birth weight, with a prevalence rate of 10.4%, said Dr. Liem, an epidemiologist with the University of Manitoba, Winnipeg.

A total of 881 babies (6.3%) were born at a gestational age of less than 37 weeks, and 691 babies (4.9%) had a birth weight of less than 2,500 g. Compared with nonasthmatic mothers, asthmatic mothers were 2.8 times more likely to give birth to a premature child at less than 28 weeks, and 3 times more likely to give birth at less than 32 weeks. The relative risk of asthmatic mothers giving birth at less than 37 weeks was 1.13, while their relative risk of having a postterm baby at more than 42 weeks gestation was 0.63.

The relative risks of an asthmatic mother having a low-birth-weight baby of less than 1,000 g, 1,500 g, 2,000 g, and 2,500 g were 3.8, 3.23, 1.9, and 1.3, respectively. ■

Dr. Susan M. Harding, FCCP, comments: *Although retrospective review of databases may over- or underreport disease prevalence, these data support the notion that maternal asthma is a potential risk factor for premature birth.*

Comfort of Dying Patients Enhanced by Order Set

Intervention stimulated staff to recognize and treat symptoms such as pain and dyspnea more often.

BY MITCHEL L. ZOLER
Elsevier Global Medical News

NASHVILLE, TENN. — Key elements of palliative care were integrated into the acute and intensive care realms of a hospital by instituting a comfort care order set.

The order set led to significant increases in the use of opioids and do-not-resuscitate orders, as well as greater documentation of pain and dyspnea, Dr. F. Amos Bailey said at the annual meeting of the American Academy of Hospice and Palliative Medicine.

"Increased symptom documentation indicates that the intervention was successful in stimulating staff to recognize symptoms such as pain and dyspnea, and empowering them to order and administer opioids significantly more often," said Dr. Bailey, director of palliative care at the VA Medical Center in Birmingham, Ala.

Dr. Bailey and his associates compared the medical records of 108 terminally ill patients who were treated at the medical center from January to June 2001, before implementation of the new comfort care orders, to the records of 95 patients who were treated during January to June 2003. The order set was implemented during July 2001 to June 2003.

The order set specified the best practices during a patient's last days and hours of life, based on methods that had been developed in the home hospice setting.

These orders included recommendations for managing pain and other symptoms, and discontinuing burdensome interventions and medications. Opioids were highlighted as the medications of choice, with morphine as the opioid of choice because of its availability in immediate-release formulations that are liquid, sublingual, or intravenous.

The order set also included psychosocial interventions for patients and their families, and care plans for skin, mouth, eyes, secretions, diet, and the patient's environment.

The percentage of patients with opioid orders jumped from 57% before implementation of the order set to 83% following implementation. Do-not-resuscitate orders rose from 62% of patients to 85%. Both differences were statistically significant, Dr. Bailey reported at the meeting.

Patients' pain was documented in their charts 29% of the time before implementation, compared with 58% after the order set was in place. Dyspnea documentation rose from 31% to 78%.

Plans of care for managing pain and dyspnea increased from 10% and 6% of patients, respectively, preimplementation to 54% and 63% after the order set was instituted.

The order set also boosted morphine use, which rose from 49% of patients before the new procedures to 82% 2 years later. Orders for less optimal opioids did not change.

During the final 72 hours of a patient's life, opioid use jumped from 14% of patients preimplementation to 71% after, a statistically significant difference. The average total opioid dose during this period rose from 31.9 mg before the order set was implemented to 53.1 mg after it was instituted. ■

Dr. Paul A. Selecky, FCCP, comments: *This study illustrates the improvement in patient care that can occur at the end of life with the appropriate use of opioids supported by an approved comfort care order set.*

State Program Helps Hospitals Institute Palliative Care

BY MELINDA TANZOLA
Elsevier Global Medical News

A California program has helped hospitals establish palliative care services, according to a recent study evaluating the program 1 year after its completion.

Given that more than half of people in the United States die in a hospital, end-of-life care is an important part of hospital services. Established palliative care services might help hospitals better provide for these patients and their families.

The California Hospital Initiative in Palliative Services (CHIPS) program was designed to assist hospitals in organizing such programs (Arch. Intern. Med. 2006;166:227-30).

Dr. Steven Z. Pantilat of the University of California at San Francisco and associates recruited all types of hospitals across California for the program. Hospitals interested in joining the program had to demonstrate their readiness, obtain administration approval, and pay a $2,500 fee.

The typical hospital participating in CHIPS was a large, not-for-profit, private hospital in an urban setting that had a hospitalist program.

The 38 participating hospitals sent three-person multidisciplinary teams to a skills conference where they were paired with a CHIPS mentor. For 10 months, mentors consulted regularly with the teams.

Between 8 and 11 months after the first conference, a reunion conference was held focusing on participants' needs, challenges, and successes. Two cohorts of hospital teams have completed the program.

A follow-up cross-sectional telephone survey was conducted 29 months after the initial conference for cohort 1 (18 months for cohort 2). By the time of the survey, of the 32 hospitals without a palliative care program, 19 had established new palliative care consultation services, a success rate of 60%. The six hospitals with existing services continued to offer them, giving an overall success rate of 66%. Urban hospitals and those with a hospitalist program were significantly more likely to establish new programs.

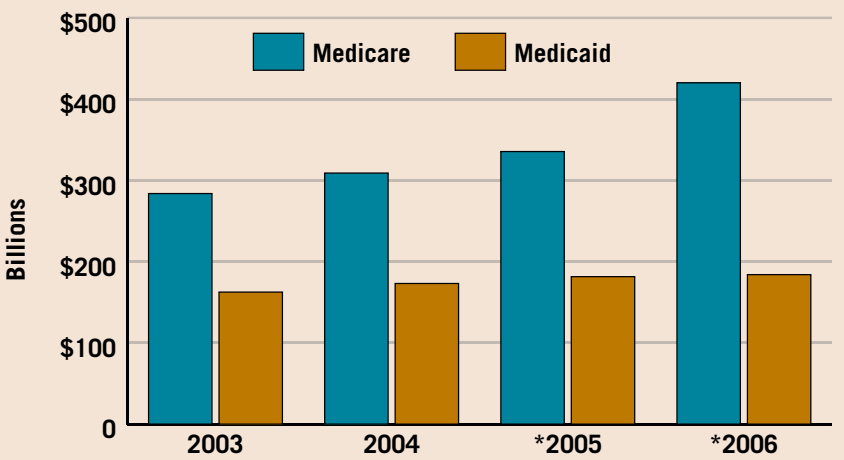
The investigators commented that "it takes time to implement a palliative care consultation service," suggesting that ongoing mentoring and assistance could be beneficial.

In fact, 60% of the hospitals participating in the program helped other hospitals develop palliative care services. ■

Dr. Paul A. Selecky, FCCP, comments: *As a member of one of the hospitals who participated in the CHIPS training program and later received an AHA Circle of Life Award, I can readily attest to the success of this program and our greatly enhanced ability to meet the palliative care needs of our patients.*

DATA WATCH

Medicare Spending to Increase by 25% in 2006



*Estimated costs.
Source: Health Affairs 2006;25:w61-w73

Study: Steroids Not Appropriate for Persistent ARDS

BY SHERRY BOSCHERT
Elsevier Global Medical News

Giving methylprednisolone to patients with persistent acute respiratory distress syndrome did not improve overall survival and increased the risk of death in patients who received the drug more than 14 days after ARDS onset, according to a multicenter, randomized, controlled trial in 180 patients.

Sixty days after the start of treatment with moderate-dose methylprednisolone in 89 patients or with placebo in 91 patients, 26 patients in each group had died, an insignificant difference, reported investigators in the Acute Respiratory Distress Syndrome (ARDS) Clinical Trials Network of the National Heart, Lung, and Blood Institute (N. Engl. J. Med. 2006;354:1671-84).

At 180 days, 28 patients in the methylprednisolone group and 29 in the placebo group had died.

The study enrolled patients from 25 U.S. hospitals 7-28 days after the onset of ARDS. These patients were critically ill, on continuous mechanical ventilation, with persistent bilateral opacities on chest x-rays, and had a ratio of the partial pressure of arterial oxygen to the fraction of inspired oxygen of less than 200.

Among the patients who started methylprednisolone or placebo 14 days or more after the onset of ARDS, those given the corticosteroid were significantly more likely to die. Two (8%) of 25 patients who started placebo 14 or more days after the onset of ARDS died within 60 days, compared with 8 (35%) of 23 patients who started methylprednisolone in that time frame. The death rate did not differ between groups for patients who began the drug or placebo within 7-13 days after the onset of ARDS.

Contrary to results, the investigators had hypothesized that methylprednisolone would improve clinical outcomes, based on suggestions from previous data. Although four studies using high-dose, short-course corticosteroids did not improve survival in patients with early-phase ARDS, several small case series suggested that moderate-dose corticosteroids might benefit patients with persistent ARDS.

The current study randomized patients to receive either IV methylprednisolone diluted in 50 mL of 5% dextrose in water or IV placebo consisting of the dextrose and water. Methylprednisolone administration began with a single dose of 2 mg/kg of predicted body weight, followed by 0.5 mg/kg of predicted body weight every 6 hours for 14 days. For the 7 days after that, the dose of 0.5 mg/kg of predicted body weight was administered every 12 hours, and then the drug was tapered over a period of 2-4 days.

Despite having no effect on overall mortality, methylprednisolone did improve cardiopulmonary physiology within 3-7 days and altered the course of ARDS, the investigators noted. During the first 28 days, patients on the drug had more days free of shock and out of the ICU, compared with the placebo group. At 28-day and 180-day time points, the drug group had more ventilation-free days, compared with the placebo group.

The length of hospitalization did not differ between groups. Although patients on methylprednisolone were extubated earlier, they also were significantly more likely to go back on assisted ventilation, which may be a key reason why their early physiologic improvements did not translate into improved survival, the investigators said. The study was too small to show why patients in the drug group resumed assisted ventilation at a higher rate.

The drug group had lower rates of pneumonia and septic shock, but also had more severe neuromyopathy and higher average glucose levels at several time points during the study, compared with the placebo group.

"This clinical trial clearly indicates that corticosteroid therapy does not provide a better outcome in ARDS, but it also raises certain questions," Dr. Peter M. Suter wrote in an editorial in the same issue.

The key question is how corticosteroids affect biologic mechanisms to improve pulmonary and cardiovascular functions when given to patients after 7 days of persistent ARDS but lead to higher mortality if given after 14 or more days of ARDS, said Dr. Suter of the University of Geneva (Switzerland). He speculated that the drug's inhibition of the inflammatory response in late phases of ARDS negatively interferes with physiologic defense and repair mechanisms, which are enhanced by inflammation. ■

Dr. Mark T. Dransfield comments: *The results of this study do not support the routine use of corticosteroids for patients with persistent ARDS but do not put the issue to rest. Although the use of steroids in those with ARDS lasting more than 14 days appears harmful, a beneficial effect among some patients with 7-13 days of refractory ARDS may still exist. Clinicians should be aware that the study enrolled a highly selected population (5% or 180 out of 3,464 eligible subjects enrolled), and that many patients they routinely encounter with ARDS, such as those with pre-existing lung disease, cirrhosis, or immunosuppression, were excluded. Whether the results apply to these patients is not known.*

Think Stress Hyperglycemia in Nondiabetic Sepsis Patients

BY PATRICE WENDLING
Elsevier Global Medical News

NICE, FRANCE — A new study suggests that stress hyperglycemia may be an important predictor of morbidity and mortality in nondiabetic patients with sepsis.

The study included 242 nondiabetic patients hospitalized with severe sepsis in three hospitals in southwestern Greece during a 1-year period.

Hyperglycemia was defined as an admission or in-hospital fasting glucose level of 126 mg/dL or more, or a random blood glucose level of 200 mg/dL or more on two or more evaluations.

Stress hyperglycemia—a transient elevation of blood glucose levels due to various factors including stress, injury, and surgery—was present in 20% of the patients, Dr. Lydia Leonidou reported at the 16th European Congress on Clinical Microbiology and Infectious Diseases.

Moreover, a significantly higher percentage of septic patients with stress hyperglycemia died, compared with patients who had normal glucose levels (43.4% vs. 13.2%).

Stress hyperglycemia was not related to a genetic predisposition to diabetes mellitus.

Only 6% of hyperglycemic patients had a first-degree relative with diabetes, compared with 11% of normal glycemic patients, reported Dr. Leonidou and her colleagues at the University of Patras (Greece).

Sources of infection in all patients were: respiratory tract 42%, urinary tract 35%, intraabdominal 16%, central nervous system 3%, soft tissue 3%, and endocarditis 1%.

Hyperglycemic patients were older than normal glycemic patients, but the difference was not statistically significant (73.4 years vs. 65.7). There was no significant difference in gender, body mass index, C-reactive protein, blood cultures, and hospitalization days between groups. Hemoglobin A_{1c} levels were significantly higher among hyperglycemia patients (5.73% vs. 5.44%) but were within the normal range of 4%-5.9%.

Patients with stress hyperglycemia had a significantly higher sepsis-related organ failure assessment (SOFA) score than patients with normal glycemia (mean 4.9 vs. 2.9).

This finding left some in attendance at the presentation to question whether stress hyperglycemia caused poor outcomes or was just another surrogate marker like SOFA scores.

Lead author Dr. Charalambos Gogos responded, "We believe that hyperglycemia is not [just] a surrogate marker, but something you have to fight in your patients with good glycemic control." ■

Routine Use Discouraged

PAC • *from page 1*

Research Network, which conducted the trial, had concluded that "the pulmonary-artery catheter should not be routinely used to manage patients who have acute lung injury and acute respiratory distress syndrome."

Dr. Wheeler's presentation coincided with early online publication of the study (N. Engl. J. Med. 2006;354:2213-24) and an editorial supporting its conclusions (N. Engl. J. Med. 2006;354:2273-4).

"The bottom line with respect to PAC use is that it should no longer be part of the routine management of a number of conditions for which it has been widely used," wrote Dr. Deborah Shure, Master FCCP, alluding in the editorial to previous studies that reported no benefit in heart failure and high-risk surgical patients.

The FACTT investigators and the editorial said PAC could still be useful as a diagnostic tool in patients who already had acute lung injury for more than 48 hours or who had other comorbid conditions.

"This does not mean PAC is not useful in all patients who are critically ill," Dr. Wheeler said.

The trial screened 11,511 patients, of whom 1,001 were randomized in groups with similar baseline characteristics. All patients but one were included in the analysis: 513 in the PAC group, and 487 in the central venous catheter (CVC) cohort.

About a third of the patients met criteria for shock (37% in PAC and 32% CVC). About 36% of PAC patients and 30% of CVC patients received a vasopressor at baseline. During the 60 days after randomization, the two groups had similar mortality (27.4% PAC and 26.3% CVC). During the first 28 days, the PAC group had 13.2 ventilator-free days, while the CVC group had 13.5.

While the CVC group had more days out of the intensive care unit during the first week (0.88 days CVC vs. 0.66 days PAC), the investigators noted that "the differences were small and not significant at day 28" (12.5 days CVC vs. 12 days PAC).

Complications were uncommon and occurred at similar rates in both groups: 0.08 per insertion of PAC vs. 0.06 per insertion of CVC. As the PAC group had about 50% more catheter insertions (2.47 vs. 1.64), it had more complications in total.

Even the group of patients who entered the trial in shock did not get benefit of this catheter.
DR. WHEELER

All told, 100 PAC patients and 41 CVC patients had complications. These included 42 arrhythmias in the PAC group vs. 7 arrhythmias in the CVC cohort.

"The [difference in] information from these two catheters did not change mortality. It did not change important measures of how circulation worked. It did not improve lung function. It did not alter the kidney function," Dr. Wheeler said, adding that PAC "was associated with roughly twice as many complications."

Also known as the Swan-Ganz catheter, PAC provides more hemodynamic information than the central venous catheter, but did not undergo the scrutiny Congress mandated for medical devices in 1976.

A 1996 observational study suggesting that PAC might increase morbidity and mortality led to randomized, controlled trials, including the FACTT study, which found no benefit. ■

Pulmonary Perspectives

Does Sleep Apnea Kill You? Does Treatment Help?

Treatment of obstructive sleep apnea (OSA) with continuous positive airway pressure (CPAP) lowers blood pressure (Becker et al. *Circulation* 2003; 107:68; Pepperell et al. *Lancet* 2002; 359:204), reduces the risk of car crashes (George. *Thorax* 2001; 56:508), and lowers the death rate associated with untreated OSA (Marin et al. *Lancet* 2005; 365:1046; Campos-Rodriguez et al. *Chest* 2005; 128:624). No other treatment for OSA has been documented to confer such benefits. However, two recent papers documenting studies (Yaggi et al. *N Engl J Med* 2005; 353:2034; Bradley et al. *N Engl J Med* 2005; 353:19:2025) have raised concerns about the benefits of CPAP treatment.

Dr. Deborah Shure, Master FCCP
Editor
Pulmonary Perspectives

Dr. Aymarah Robles, FCCP
Deputy Editor
Pulmonary Perspectives

Obstructive Sleep Apnea: Stroke and Death

The first study demonstrated that a group of almost 700 patients with sleep apnea had roughly double the risk of stroke or death over about a 3.5-year period than did matched control subjects without sleep apnea after controlling for multiple confounders, including hypertension (Yaggi et al. *N Engl J Med* 2005; 353:2034). In this study, an increased risk of stroke occurred, despite the fact that all patients with sleep apnea were offered treatment, suggesting that treatment has no effect on stroke risk in patients with sleep apnea.

Are we to conclude from this study that CPAP treatment does not reduce the risk of strokes in those with OSA? Probably not—and this is for several reasons. First, only about half of those with OSA reported using CPAP for 4 or more hours, five or more nights a week. Since self-reported CPAP use is notoriously lower than actual use, the real number using CPAP was probably even lower.

In addition, the subjects in this study had a mean age of about 60 years. The excess mortality and most striking CPAP treatment benefit associated with OSA are for those under the age of 50 years (Marin et al. *Lancet* 2005; 365:1046; Lavie et al. *Eur Respir J* 2005; 25:514).

The cohort group in this study may simply have been too old to demonstrate a benefit from treatment. Further, this relatively old population may have had untreated sleep apnea for years prior to enrollment in this study. In other words, the CPAP treatment may have been too little, too late. Alternatively, it is also possible that the 3.5 years of follow-up was too short a time to show a benefit for stroke reduction with CPAP treatment.

Central Sleep Apnea and Congestive Heart Failure

The second paper was the long-awaited report from the Canadian Positive Airway Pressure trial (CANPAP) on the use of CPAP for patients with central sleep apnea and congestive heart failure (Bradley et al. *N Engl J Med* 2005; 353:2025).

Because this study involved patients with *central* sleep apnea, it is inappropriate to draw conclusions about the effects of CPAP treatment on patients with *obstructive* sleep apnea, based on the study results. This study, which was underpowered and terminated early, failed to show that CPAP reduced mortality for those with central sleep apnea and heart failure.

In fact, although there was an early divergence in survival favoring the control group, after 18 months, the divergence favored the CPAP group.

The authors noted, "We cannot exclude the possibility that upward titration of CPAP reduced cardiac output in some patient with low filling pressure, owing to more vigorous diuresis or other medical interventions." Of note, CPAP was started in an unmonitored sleep laboratory or hospital bed, starting at 5 cm H_2O, then increasing over 1 or 2 nights to 10 cm, or "the highest pressure tolerated."

The senior author of this report pointed out that "CPAP increased exercise capacity" (*ie*, 6-min walking distance), indicating a clinically beneficial effect. CPAP had no effect on the combined rate of death and cardiac transplantation, and, no, it did not kill people; there were 32 events in each group.

This has to be put into perspective. Drug trials in which mortality is the end point have invariably required at least 2,000 patients to demonstrate a difference between groups. CANPAP had only 258 patients, so it was clearly underpowered to be able to show with certainty that it does or does not improve mortality" (T. D. Bradley, MD; personal communication; March 12, 2006).

Does Treatment Help?

Neither of these studies was designed to assess the effects of CPAP treatment on mortality or stroke in patients with OSA, and they should not be construed to demonstrate that CPAP does not reduce morbidity or mortality from OSA, especially since we have quite a bit of evidence to the contrary. My take on these papers is that they highlight the importance of finding and treating sleep apnea before the damage is done and of working with patients to achieve effective compliance. The ACCP Sleep Institute is addressing both these issues by developing an educational program for primary care physicians and chronic disease management guidelines for care of patients with OSA. ■

Barbara Phillips, MD, MSPH, FCCP
Professor
Division of Pulmonary, Critical Care and Sleep Medicine
University of Kentucky
College of Medicine and School of Public Health
Lexington, KY

Editor's Insight

This *Perspective* provides an excellent analysis of the significance of two important studies that received considerable attention in the popular press. They are easy studies to misinterpret without an in-depth reading and analysis. In addition to providing this clear analysis, Dr. Phillips also highlights interesting issues and concepts. One important concept is that the "damage is done." We have perhaps not always thought about how sleep apnea exerts its effects on the cardiovascular system. The idea that recurrent hypoxia may contribute to atherosclerotic cardiovascular disease, as well as hypertension, is important. Another important idea is our need to focus on effective therapies and compliance with them. Dr. Phillips correctly points out that neither study was designed to address the effect of CPAP use on OSA, but the Yaggi study is certainly a reminder of the prevalence of the compliance problem. Innovative technology and effective physician and patient education are clearly needed. An effective therapy is only effective if it is applied. We have a long way to go.

—Editor

NEWS FROM THE COLLEGE

AMERICAN COLLEGE OF CHEST PHYSICIANS

PRESIDENT'S REPORT

The Road Ahead: Challenges and Rewards

BY DR. W. MICHAEL ALBERTS, FCCP

Believe it or not, I am actually at my "day job" office at the Moffitt Cancer Center in Tampa while writing this month's report. After due deliberation, among the myriad of possibilities, I thought I would report some highlights of my presidential report to the Board of Regents at the meeting that was recently held in Tucson.

Before that, and at the risk of straying from my intended subject, let me say the actual meeting was outstanding and extremely productive. Over 400 attendees and their guests attended. In addition to the actual Board of Regents meeting, a number of other groups and committees met, including the Pulmonary and Critical Care Fellowship Training Directors, the Health and Science Policy Committee, the Continuing Education Committee, the Quality Improvement Committee, the Industry Advisory Committee, the Sleep Institute, the Critical Care Institute, the Marketing Committee, and the CHEST Foundation Board of Trustees.

I was especially pleased that the College was able to organize and produce two fellows educational conferences (the 4th Critical Care and Sepsis Conference and the 1st COPD Conference). There was a lot going on that week, and thanks goes to the College staff for skillfully organizing this logistical challenge and producing an "ACCP class event."

Back to my intended topic, it is traditional for the President to provide the Board with a report on what has happened since the last Board meeting. I will be pleased to send you the full text and PowerPoint slides of my report but, in brief, the first 4 months have been a whirlwind.

Looking back, I estimate that I spend, on average, 2 to 3 hours per day on College business or planning.

I have really enjoyed the first third of the year and feel a real sense of accomplishment.

In the first few months, I have worked with the staff and the Executive Committee on finance and budget topics and an international strategy; held a leadership/staff retreat; further developed the ACCP's Sleep and Critical Care Institutes; fostered intersociety relations; held the ACCP Capitol Hill Caucus; and further developed the goal of "enhancing the value of membership" through efforts of the Practice Management Committee and the Councils of NetWorks and Governors, among many other issues.

I am sure that the upcoming two-thirds of the year will be as challenging but just as rewarding (but more on that in future columns). ■

AMERICAN COLLEGE OF CHEST PHYSICIANS

NEWS FROM THE COLLEGE

CRITICAL CARE COMMENTARY

Combating the Communication Crisis in Critical Care

In 1956, for the first time, a dedicated team of physicians and nurses came together to care for critically ill patients. It was the beginning of the model of care that is now standard in our modern ICU setting. Since that time, the advances in medical treatment options for critically ill patients have grown in both numbers and sophistication, offering even the most gravely ill an increased chance at survival. What has not changed in the 50 years since the first ICU teams came together is the devastation felt by the families and friends of those critically ill patients who end up in the ICU. The mixture of uncertainty, fear, stress, and confusion is as prevalent today as it was in 1956. The multidisciplinary, multitasking team, operating in a high-tech and fast-paced environment, must seem both chaotic and intimidating to the families of today's ICU patients. At a time when families are clinging to hope and waiting for news, communication can be both sporadic and hard to understand. Many families are unable or unwilling to ask clarifying questions that allow them to better understand what is happening. An important but undervalued or poorly understood element is the role families or surrogates play in communicating critical information about the patient's medical history and their preferences concerning treatment.

The medical profession has recognized the need for developing and implementing standard protocols that give healthcare delivery teams the guidance they need to provide the best evidence-based care available. These protocols address areas in the ICU setting, such as ventilator-associated pneumonia, glycemic control, and sepsis management. Providing excellent communication to patients and their families should be held to that same standard. Excellent communication cannot mean simply providing more information. Instead, hospitals need to look at providing a safe environment that fosters trust and helps medical professionals recommend treatment options with realistic outcomes, thus allowing families to help determine the direction of their loved one's care. Understanding the need for a structured and evidence-based approach to family satisfaction and communication led The CHEST Foundation to develop the Critical Care Family Assistance Program (CCFAP).

The CCFAP toolkit was developed through an Eli Lilly Foundation grant to increase the scientific evidence between patient/family satisfaction and outcomes, and to shift ICU standards toward a patient- and family-centered model of care. The toolkit was built not from guesswork but from the input and evidence gathered in ICU settings in a variety of health-care settings from academic to community-based institutions. Evidence of the CCFAP effectiveness can be found in the September 2005 supplement to *CHEST*. To view these articles, go to www.chestjournal.org/content/vol128/3_suppl.

The CHEST Foundation is not the only organization that has recognized the need to change the way information is delivered in today's health-care system. In 2006, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) added a patient safety goal that states, "Encourage the active involvement of patients and their families in the patient's own care as a patient safety strategy." The JCAHO's rationale was that effective communication with patients and their families about all aspects of their care, treatment, or services is an important characteristic of a culture of safety.

The patient safety goals are not the only area in which patient satisfaction is being addressed. The ongoing development of performance measure sets that will be used to evaluate both physicians and institutions include measures on the patient's experience of his or her care. In the future of health care, the perception of care will be as important as the actual care provided. Critics argue that focusing too much on patient and family satisfaction will create a harsh economic burden for the institution. However, in a recently completed study at Barnes-Jewish Hospital in St. Louis, Mo., Dr. Tom Ahrens and his team documented a 1-year savings of $630,000 by helping families better understand the treatment options and prognosis for their loved ones (Ahrens et al. *Am J Crit Care* 2003; 12:317). A physician-nurse team followed up the attending physician's status report with a consultation that ensured families truly understood the treatment options available, the recommended care plan, and the likely outcomes. In a recent lecture, Dr. Ahrens pointed out that without the study protocol in place, the previous ICU communication procedures, once again, become the dominant culture. This observation points to the need for the structured approach and involvement outlined in the CCFAP.

Critical Care Institute
American College of Chest Physicians

We have seen in past research from the SUPPORT study that providing clear and more frequent communication is not enough (*JAMA* 1995; 274:1591). Establishing trust is a crucial element of effective communication. The culture of the institution and the ICU must support a patient- and family-centered philosophy. Part of establishing trust with patients and their families is establishing trusting relationships among the care team.

Developing a multidisciplinary team of those affected by changes is the key to a successful cultural transformation. The emergence of leaders within the team is essential to motivate others to set priorities, outline realistic goals, and overcome resistance within the current hospital environment. It is productive to assign a "point person" or project coordinator to take the lead on assembling the core team, assigning roles, and ensuring completion of tasks. The core team members can vary, depending on the design of the hospital environment, but the team most often includes physician and nursing staff from the ICU and surgery departments, as well as pastoral care, social work, dietary, environmental management, respiratory care, music and massage therapy, patient services, pharmacy, information systems, and facilities management.

The process really begins by completing a needs assessment to identify what is working well, along with the gaps in the current communication processes, protocols, and patient care services. Thus, a framework is developed to guide the team in planning interventions that will ultimately help transform the culture of the patient-care environment. Enlisting the full support of the hospital administration by aligning program goals with the hospital mission, outlining the need for change, and asking for required resources is an important aspect to getting started. The team's initial plan may change along the way, but if it has support from the hospital administration and commitment from the team to create a true patient- and family-centered environment, change will occur.

At one of the pilot sites where the CCFAP was developed and implemented, it became clear to the team that it had truly arrived at a culture change. A patient in the ICU who had been improving suddenly worsened and, despite the best efforts of the team, the patient was lost. It was a difficult message to communicate to the family, and it involved an attending physician who had fought participating in the program from its inception. Instead of a battle of wills, the physician not only embraced the help of his ICU team but also invited the entire team to his home as a catharsis, allowing the team members to talk through the difficult situation.

This story illustrates how working with the tools provided in the CCFAP can help an institution build a culture that supports the patient, the family, and the staff. Even institutions that are doing a good job can improve through having a structured approach to patient- and family-centered care and communication.

The CCFAP is a tool that, if implemented, can help a dedicated team build a lasting structure of trust, communication, and cooperative care. Making this a reality at your institution requires someone stepping forward to initiate action.

Visit www.chestfoundation.org, or purchase the toolkit at www.chestnet.org.

If you would like more information, contact Michael Bourisaw, Director of ACCP Institutes, at (847) 498-8373 or mbourisaw@chestnet.org. ■

Michael Bourisaw, Director of ACCP Institutes and Jennifer Pitts, Manager of Institute Development

Web-Based Practice Management Education Makes Its Debut

The Health Affairs Division debuted a new approach to providing ACCP members with valuable practice management information. The inaugural ACCP Webinar (Web-based interactive seminar) was held on April 26, the first in a series of four. Entitled "Revenue Cycle Management: Getting Paid For Your Services," it provided 45 physicians and practice administrators and managers with the knowledge to assess and diagnose how well they manage their office revenue cycle.

This Web-based seminar afforded an unlimited number of registrants the opportunity to register and participate from the comfort of their own offices. Participants received program materials via e-mail prior to the Webinar. During the session, they had the opportunity to take part in a live question and answer session. Polling questions were also used, allowing immediate feedback on how each practice was performing as measured against other participating practices. Everyone received a complimentary CD-ROM as a practice resource for the staff unable to participate. CD-ROMs of all live practice management Webinar events are available at the ACCP Online Store at www.chestnet.org.

Upcoming Webinars include:

- Wednesday, June 7, 2006: Operational Overhead: Analysis and Management
- Wednesday, June 14, 2006: Using Nonphysician Providers in Your Practice
- Wednesday, June 28, 2006: Your Patient's First Impression: Who Greets Them?

Contact Joyce Bruno at the ACCP: jbruno@chestnet.org. ■

AMERICAN COLLEGE OF CHEST PHYSICIANS

NEWS FROM THE COLLEGE

Practice Management Information You Need to Know

BY MARLA BRICHTA

Assistant Vice President, Health Affairs

On an ongoing basis, the Centers for Medicare and Medicaid Services (CMS) forwards information important to you and your practice. Two recently sent notices follow:

▶ The new Medicare Enrollment Applications (Form 855) are now available on the CMS Web site. Go to www.cms.hhs.gov/MedicareProviderSupEnroll/ and click on Enrollment Applications on the left side of the page.

All providers and suppliers are encouraged to use the new forms immediately.

▶ Beginning, May 1, 2006, CMS announces the capability for health-industry organizations to submit health-care providers' applications for National Provider Identifiers (NPIs) to the National Plan and Provider Enumeration System (NPPES) via Electronic File Interchange (EFI).

With EFI, a CMS-approved health-industry organization can submit a health-care provider's NPI application data, along with the application data of many other health-care providers, in a single electronic file in a CMS-specified format.

EFI is an alternative to health-care providers having to apply for their NPIs via the Web-based or paper application process. After the NPPES processes a file, it makes available to the organization a downloadable file containing the NPIs of the enumerated health-care providers.

Interested health-industry organizations should avail themselves of the EFI materials available from the CMS NPI page (www.cms.hhs.gov/NationalProvIdentStand/) and from the NPPES page (https://nppes.cms.hhs.gov) before downloading and completing the certification statement (available at https://nppes.cms.hhs.gov) and registering as EFI organizations.

A completed certification statement must be approved by CMS before an interested health-industry organization can participate in EFI. ■

NEWS FROM THE COLLEGE

AMERICAN COLLEGE OF CHEST PHYSICIANS

The CHEST Foundation: IMAGINE the Power of 10

Throughout this year and next, The CHEST Foundation, the philanthropic arm of the American College of Chest Physicians, will be commemorating its 10th anniversary of service to ACCP members, their patients, and the community with the celebration of "IMAGINE the Power of 10."

As The CHEST Foundation is *your* foundation, "IMAGINE the Power of 10" kits will be made available to ACCP leadership with an appeal to join us in this celebration by becoming involved and promoting our four key areas of programming: tobacco prevention, critical care, humanitarian service, and clinical research awards.

Some of the fun and interesting ways that you can become involved in this celebration include:

- Contributing 10 hours of community service to make 10 Lung Lessons™ presentations to children in your community.
- Recruiting 10 colleagues to apply for awards sponsored by The CHEST Foundation.
- Educate 10 colleagues about The CHEST Foundation, and ask them to make a contribution.

For complete information on the "IMAGINE the Power of 10" kits and the 10th anniversary celebration, please go to www.chestfoundation.org to find other opportunities to help increase awareness of The CHEST Foundation among our ACCP colleagues and the public.

We encourage you to "IMAGINE the Power of 10!"

2006 Awards Dinner to Be Hosted by Paul Shaffer

The CHEST Foundation cordially invites you to join in the festivities as it recognizes the humanitarian service of ACCP members worldwide. The event will also celebrate the 10th anniversary of The Foundation.

Save the Date to attend The CHEST Foundation's 8th annual Making a Difference Awards Dinner, to be held on Saturday, October 21, 2006, from 7:00 PM to 10:30 PM. This year's venue will be held on the 23rd floor of the Wells Fargo Building in downtown Salt Lake City, Utah.

Paul Shaffer, musical director for *The Late Show with David Letterman,* will join us again to host this exciting evening. Tickets and registration for the event will be available beginning July 2006 at www.chestfoundation.org.

If you would like more information, contact Teri Ruiz at (847) 498-8308, or at truiz@chestnet.org.

Humanitarian Project Development Grants—Deadline Draws Near

Applications for the 2006 Humanitarian Project Development Grants are being accepted up until the deadline of June 15, 2006. Special grants will be given to support projects addressing health-care issues related to Hurricanes Katrina, Wilma, and Rita in the United States Gulf Coast area. Please see the application form for more information at www.chestfoundation.org/humanitarianAwards/ index.php.

The CHEST Foundation's Ambassadors Group

The Ambassadors Group is seeking new members. Membership is open to friends and spouses of ACCP members. Annual dues are $35. College and high-school youth are invited to join with annual dues of only $10.

Included among the many activities undertaken by the Ambassadors Group are presentations on lung health to elementary school students in their local communities, sales of the popular Love Your Lungs™ wristbands, Love Your Lungs™ poster contest, and raising funds to support one Humanitarian Recognition Award for 2006. Exciting events and activities are planned for CHEST 2006.

For more information about projects and activities, go to www.chestfoundation.org/specialInitiatives/ambassadorsGroup.php. Prospective members can apply for membership online at this site.

The Ambassadors Group is also seeking members and volunteers for the following subcommittees:

- Membership/Volunteer Appreciation
- Community Outreach (Tobacco prevention programs)
- Marketing/Communications
- Poster Contest
- Fundraising
- Hospitality

For information, contact Sandra Zelman Lewis, PhD, at slewis@chestnet.org, or contact Sue Ciezadlo, MA, at sciezadlo@chestnet.org.

Managing Depression and Anxiety Is Key in COPD

Understanding the interplay between depression and anxiety and chronic illness is important in the evaluation and treatment of patients with COPD. Plan now to attend this 2-day workshop, September 15 and 16, at the ACCP headquarters in Northbrook, IL. The workshop, supported by a grant from the National Institute of Mental Health, will bring together a multidisciplinary group of investigators and clinicians who will focus on the current best practices and future directions in the detection and management of depression and anxiety in COPD patients. Physicians, nurses, respiratory therapists, and psychologists are encouraged to attend the workshop. Janet Maurer, MD, FCCP, is Chair, and Nicola Hanania, MBBS, FCCP, is Co-Chair of the workshop, who, along with leading experts, will explore:

- Epidemiology, disease burden, and economic impact
- Disease burden in special populations
- Screening and screening implications for public policy
- Different management models for the COPD population
- Barriers to diagnosis and management: primary care and patient perspectives

Breakout groups following the presentations offer the opportunity for you to assist in developing recommendations for implementation of current knowledge and suggestions for future research.

This program is a project of the ACCP Clinical Pulmonary Medicine NetWork.

To register or for more information go to www.chestnet.org/education/courses/dmdaCOPD06/index.php.

AMERICAN COLLEGE OF CHEST PHYSICIANS

NEWS FROM THE COLLEGE

Inside NetWorks: e-Advisory NetWork Needs Your Input

Cultural Diversity in Medicine

The population in the United States is diverse in terms of ethnicity, culture, and religion—collectively referred to as "culture." Within each culture, there are subcultures, so one cannot generalize patients' practices and beliefs. Black, Hispanic, and Asian patients were more likely than white patients to report they had been treated with disrespect by their health-care providers. The Association of American Medical Colleges recognizes this deficiency in "cultural competence" by physicians and recommends that medical education include training and evaluation. The Liaison Committee on Medical Education mandates, "The faculty and students must demonstrate an understanding of the manner in which people of diverse cultures and belief systems perceive health and illness and respond to various symptoms, diseases, and treatments."

Additionally, similar mandates come from the Accreditation Council for Graduate Medical Education and from some states for continuing medical education. Considering current recommendations, mandates, and this NetWork's focus on making a difference in the health care of minorities, a full-day postgraduate course, "Culture-Competent Health Care: An Education Program for Chest Physicians," was proposed by the NetWork and accepted for the program at CHEST 2006. The course promises to be a practical and relevant source of information in this area.

Disaster Response

Disaster Response NetWork Steering Committee member, Capt. Dennis E. Amundson, MC, USA, FCCP, will be serving as one component of a large team addressing the global response against the spread of avian or pandemic influenza. In conjunction with the US Department of Health and Human Services, US Department of Defense, local disaster medical assistance teams, and Harvard University, Dr. Amundson will be serving on board the hospital ship, USNS Mercy, on a humanitarian mission to tsunami-stricken areas of Indonesia, during which time multiple communication and medical technologies will be tested that will advance patient care in the event of a global outbreak of disease. While aboard the USNS Mercy, Dr. Amundson will present the ACCP disaster medicine postgraduate course, "Beyond the First Response," to fellow military surgeons. On Tuesday, October 24, at CHEST 2006, Dr. Amundson will discuss his experiences and lessons learned. Additionally, on Thursday, October 26, he will lead a panel discussion with Dr. Lindell K. Weaver, FCCP, and Dr. Peter A. Marco, FCCP, regarding respiratory complications following disaster.

e-Advisory

The e-Advisory NetWork Steering Committee is working on a Web site development guide, which will provide a standard Web page format for content on the NetWork Web pages. The Executive Committee of the ACCP Board of Regents has provided directives to the committee's initial draft proposal and is very supportive of this project. The e-Advisory NetWork's mission is to promote and facilitate pulmonary and critical care medicine education using information technologies and telecommunications. The e-Advisory NetWork welcomes input on what should be included on the NetWork Web pages and suggestions for how the ACCP Web site could be used to enhance ACCP membership, increase involvement, and meet member needs. Suggestions can be e-mailed to the e-Advisory NetWork Chair at networks@chestnet.org.

Interstitial and Diffuse Lung Disease

The IDLD NetWork has a project that incorporates pulse oximetry into cardiac stress testing at various participating medical centers. This pilot project is headed by Dr. Imre Noth, FCCP. Patients who present with a complaint of dyspnea are often first referred for cardiac stress testing when they may have evolving ILD as the cause of their dyspnea. Diagnosis may be delayed if no cardiac abnormalities are detected and lung disease (which may manifest as exertional oxyhemoglobin desaturation) is not suspected. As effective treatments for pulmonary fibrosis become available, earlier diagnosis and treatment may prevent it from progressing to more severe disease.

Members of the IDLD and Transplant NetWorks are serving on the Health and Science Policy Committee panel to draft an evidence-based guideline, "Monitoring of Immunomodulatory Drugs in Patients With Diffuse Lung Disease and/or Transplant." This guideline will allow pulmonologists who use immunosuppressive therapies to optimally monitor their patients for untoward drug reactions that may complicate treatment.

The IDLD NetWork Web page, www.chestnet.org/networks/idld/index.php, features an ILD questionnaire that is useful in the clinic setting, a patient guide on IPF, and registries of ACCP members with special interest in sarcoidosis and IPF. We encourage ACCP members to join the IDLD NetWork and welcome project ideas.

Interventional Chest/Diagnostic Procedures

The ACCP Interventional Chest/Diagnostic Procedures NetWork Steering Committee is sponsoring a multi-institutional study to better understand the dynamics of fellowship bronchoscopic education/training. The study design is a prospective 2-year protocol evaluating the impact of training modalities for bronchoscopy. The initial cohorts will include first-year fellows from the Carolinas, Virginia, and New York City. The study will begin with baseline testing of first-year fellows at the Carolina Bronchoscopy course hosted at Duke University, July 7, 2006. Subsequent acquisition of cognitive and technical skill sets will be monitored over the course of the academic year.

This study meets several goals of the ACCP, including to provide and develop health profession education and health-related research through development of measurable, competency-based bronchoscopy skills and improved training for pulmonary fellows. Currently, there is no standardized manner to assess fellows for bronchoscopy skills or knowledge and an overall lack of competency metric for any level of bronchoscopic procedures. Recent fellows and program directors' surveys supported the need to have an excellent, broad scope of procedural training during fellowship for optimal fellow's satisfaction and post fellowship credentialing.

The hope is that this project will be the start of evidence-based data and metrics that will eventually allow the above issues to be addressed. ■

NEWS FROM THE COLLEGE

AMERICAN COLLEGE OF CHEST PHYSICIANS

Inside the ACCP: Continuing Medical Education

BY ED DELLERT, RN, MBA
ACCP Vice President, Educational Resources

The history of medical education is one of tradition, culture, and prestige in the many organizations and institutions that are the basis for the health-care delivery system that exists today. Murray Kornfeld founded ACCP on the premise of "medical education" for both physicians and the public as it relates to teaching about the clinical effects of tuberculosis.

A variable that fluctuates during the history of medical education for many physicians is "time." How much time is there during a physician's day that could be considered "discretionary" and allow the use of that time for tasks that really make a contribution to their professional goals? How much of that "discretionary" time do physicians put forth toward ongoing professional education? Some educational strategies that have developed are, in part, based upon seven recommendations to improve physician "lifelong learning," as suggested by the Council of Medical Specialty Societies:

1. Medical societies, along with their respective boards, should define the core curriculum for the CME program.
2. CME providers should address one or more of the following competencies when developing educational activities:
   - Patient care that is compassionate, appropriate, and effective
   - Medical knowledge and the application of this knowledge to patient care
   - Practice-based learning and improvement that involves investigation of patient care, appraisal of the medical literature, assimilation of scientific evidence, and improvements in patient care
   - Interpersonal and communication skills
   - Professionalism, including carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse population
   - Systems-based practice, including the ability to effectively call on system resources to provide care
3. Emphasize the importance of self-assessment.
4. Provide information that will close the gap between optimal and actual patient care.
5. Offer a variety of educational formats, especially activities that provide active involvement.
6. Integrate new methodologies and technologies in activities of assessment and education.
7. Foster identification and application of methods to demonstrate and document the linkage between CME and changes in knowledge, behavior, and outcomes.

Table 1—ACCP CME Learning and Teaching Portfolio Objectives Over 36 Months

Learning Level	Cognitive Domain	Percentage of Learning Goal			
		12-Month	24-Month	36-Month	Total
I – Expert Interpretation	Recall	5%	5%	5%	15%
II – Self-Knowledge	Recall	5%	5%	5%	15%
III – CPG-Based	Interpretation	5%	5%	10%	20%
IV – Case-Based	Interpretation	5%	10%	10%	25%
V – Problem-Based	Problem Solving	5%	5%	10%	20%
VI – QI Improvement	Problem Solving	0%	0%	5%	5%
	Total:	**25%**	**30%**	**45%**	**100%**

Issues in CME Today

Over the past 5 years, there has been an increasing number of questions about the true effectiveness of continuing medical education in improving health-care delivery. Changes occurring in the current health-care environment have been, in part, the reason for focusing upon this issue and can best be summarized into five domains:

1. Patient safety and related concerns as outlined by the Institutes of Medicine (IOM)
2. Use of evidenced-based medicine in CME
3. Identification of new educational paradigms
4. Changing practice environment with use of quality improvement
5. Physician recertification

If one was to reflect upon the ACCP's CME, we can honestly say that our members have been provided quality CME that is reflected in the traditional sense of what has defined CME. But if we are truly wanting to change how physicians take the knowledge we offer and apply it to clinical practice, then the ACCP will no longer be able to define success just in terms of participant satisfaction or attendance numbers but rather in terms of clinical performance improvement, improved patient satisfaction, and other desirable outcomes.

The ACCP CME Strategy for Tomorrow

The ACCP Continuing Education Committee (CEC) began assessing the impact of its educational initiatives on chest physicians and their medical teams in 2004. Many of the initial discussions have used the seven recommendations outlined by the Council of Medical Specialty Societies as a benchmark for what ACCP's educational future should look like.

These initial efforts of the CEC comprise the foundation for its next recommendation of developing a more structured ACCP "Learning and Teaching Portfolio." This portfolio will identify the types of CME activities ACCP members should strive to participate in and achieve each year.

Level I – Expert Interpretation: based primarily upon traditional lecture-based learning. It has been suggested that this type of learning is least effective in changing physician practice; however, there still is a place for its use by initiating the experiential learning process by obtaining information from clinical experts.

Level II – Self-Knowledge: builds upon expert interpretation by obtaining additional information from journal articles (CME and non-CME); articles such as those in PCCU, with clinical questions on the topic; monographs; and Web-based downloadable information that serves as reminders on specific clinical topics.

Level III – CPG: builds upon levels I and II by identifying if any clinical practice evidence-based guidelines exist on a given topic. It serves as reinforcement of expert interpretation.

Level IV – Case-Based: builds upon levels I, II, and III by going through case-based exercises to determine an optimal understanding of a given clinical topic area.

Level V – Problem-Based: builds upon all previous four levels of experiential learning by going through problem-based exercises and using clinical simulation scenarios.

Level VI – Quality Improvement-Based: builds upon all previous five levels of experiential learning by going through problem-based exercises but now benchmarks specific performance areas in actual practice with peer reports available online at ACCP. Going through all six levels will accelerate physician practice performance from initial learning of clinical information to benchmarking.

The ACCP CEC recommends that the ACCP constituency strive to achieve an experiential learning portfolio over a 36-month period that uses each of these levels of learning by incorporating an individual educational plan focused specifically upon CME that entails specific objectives (Table 1).

The ACCP experiential learning portfolio is considered the optimal educational sequence to promote individual clinical change.

Discussion

Accredited CME providers will need to start anticipating what their educational philosophy and culture will need to incorporate over a period of time.

ACCP's curriculum will include not only traditional forms of lecture-based teaching but a more structured delivery of clinical information in multiple learning environments that physicians can utilize in reaching their educational goals.

Accreditation status will most likely favor those programs providing CME that is evidence based, with a major emphasis on the degree to which providers can document changes in physician behavior or patient outcomes.

However, documentation of desired outcomes by CME providers will be difficult and expensive (both in time and actual cost) to initiate.

The key to this effort is to begin and sustain the momentum as expectations of health-care professionals are ever increasing and to sustain a mechanism of long-term viability of ACCP's education curriculum. ■

ACCP Members: Take a Bite Out of Apple's Prices

Apple Computer, Inc. and the ACCP have teamed up to offer discounts and special deals to all members and their families. Recognizing the ACCP as an educational institution, Apple is now offering members 8%-40% off on various items purchased online only at this special site: www.apple.com/edu/accp.

Prices shown on the special site include the ACCP member discount. Members purchasing items through the regular online Apple Store will be unable to access the special savings. Purchases can only be shipped to destinations within the United States. Take advantage of the member discount and shop Apple today. ■

AMERICAN COLLEGE OF CHEST PHYSICIANS

NEWS FROM THE COLLEGE

Relay for Life: Getting Out the Smoke-Free Message

BY DR. DIANE E. STOVER, FCCP
Chair, The CHEST Foundation

Sponsored by the American Cancer Society (ACS), **Relay for Life** is an overnight community celebration held at schools, fairgrounds, and parks, where people camp out, barbecue, dance, and take turns walking, running, or otherwise moving around a track "relay style" to raise funds to fight cancer.

At nightfall, participants light hundreds of luminaria bags around the track in a moving ceremony to honor cancer survivors, as well as friends, family members, and celebrities who lost loved ones to the disease.

Since 1985, the **Relay for Life** has spread to over 4,700 communities in the United States and has become a major event, taking place in 20 countries around the world.

What a great opportunity for members and friends of The CHEST Foundation and the ACCP to join this worldwide movement at the grassroots level and do his or her part in the fight against the most common cause of cancer death and the most common cause of preventable death in the world – the use of tobacco.

ACCP

The 4th Annual NYU Relay for Life was held on April 8, 2006, to support cancer research, education, advocacy, and patient and family services in the community.

The **4th Annual NYU Relay for Life** was held on April 8, 2006, to support cancer research, education, advocacy, and patient and family services in the community.

CHEST Foundation Love Your Lungs™ wristbands and educational material was available at the ACS table promoting wellness for students.

The ACS, dedicated to eliminating cancer as a major health problem, and The CHEST Foundation, dedicated to eliminating one of the major causes of cancer in the world—TOBACCO USE, share many similar goals, and it seems natural to participate in this event.

As members and friends of the ACCP, and as parents, grandparents, sisters, brothers, and friends of college students, we can take this opportunity in the many communities throughout the world to participate in **Relay for Life** to help others make the decision not to smoke or to stop smoking.

Call the American Cancer Society at (800) ACS-2345 or visit their Web site, www.cancer.org/relayonline to find out more about **Relay for Life** and how you can get involved.

Or call Regina T. Limchayseng, ACS Director of Special Events, at (212) 237-3908. ■

ACCP

The Relay for Life has spread to over 4,700 communities in the United States and has become a major event.

We're in the News!

BY JENNIFER STAWARZ
Manager, ACCP Public Relations

In early spring, the American College of Chest Physicians gained national and local news coverage with stories related to the recently released cough guidelines, studies published in the journal *CHEST*, and the untimely death of Dana Reeve.

The ACCP cough guidelines, published early this year as a supplement to *CHEST*, have been featured in over 1,600 print, broadcast, and Internet stories worldwide.

Coverage continues, and, recently, cough stories have appeared in *USA Today* (National), *Houston Chronicle* (Houston, TX), *SELF* magazine, *National Enquirer*, and *Consumer Reports on Health*.

In March, the ACCP distributed a press release highlighting a study from *CHEST* on the use of antibiotics in infants.

The study showed that children exposed to at least one course of antibiotics in their first year of life may have an increased risk of developing childhood asthma.

Stories related to the study appeared in the *Honolulu Star-Bulletin* (Honolulu, HI), *Seattle Post* (Seattle, WA), and *The Times-Picayune* (New Orleans, LA), among others.

Stories also appeared on television stations in Charlotte, Chicago, New York, and Salt Lake City.

The April press release featured a *CHEST* study on the hereditary nature of snoring.

Specifically, Cincinnati researchers found that infants who are born to parents who habitually snore are three times as likely as other infants to snore.

The study appeared in several newspapers across the country, including the *Arizona Daily Star* (Tucson, AZ), *New York Times* (New York, NY), and *Washington Times* (Washington, DC).

Stories also appeared on BBC National News and 45 television broadcasts across the United States.

With the announcement of the death of Dana Reeve, the ACCP reached out to national reporters to remind them of the ACCP's expertise in the diagnosis and management of lung cancer.

As a result, the *New York Times* interviewed Dr. W. Michael Alberts, FCCP, President of the ACCP, for a story related to lung cancer in nonsmokers.

The story appeared in the March 21 issue of the *New York Times*.

In addition, syndicated stories have appeared in the *Ann Arbor News* (Ann Arbor, MI), *Fosters Daily Democrat* (Dover, NH), *The Ledger* (Lakeland, FL), *Richmond Times* (Richmond, VA), and the *Star-Banner* (Ocala, FL).

Access ACCP press releases at www.chestnet.org/about/press/releases/. ■

Salt Lake City: The Possibilities Are Endless

Though widely known for its majestic view of the Rocky Mountains, Salt Lake City offers much more than only a breath-taking backdrop for site seeing.

With endless excitement around every turn, Salt Lake City is the perfect destination for anyone who takes pleasure in the outdoors.

Make your escape to Salt Lake's local canyons, which are dotted with crystal clear lakes and streams.

Thanks to the cool, but moderate temperatures of autumn, you can enjoy the vibrant shades of gold, purple, and red splashed across the scenery.

While you're there, keep your eyes open for wildlife as you hike, bird watch, or mountain bike through the terrain.

Explore a lush forest on horseback, or try your hand at fly-fishing or rafting down a mighty river.

If golf is your game, the nearest course is only a swing away.

Utah parks and monuments envelop Salt Lake City on all sides, with some as close as a 20-minute drive. Five national parks, belonging to Utah's neighboring states, are only a road trip away.

A 5-hour drive transports you to the sites and sounds of Yellowstone National Park.

For visitors who prefer to ride by rail, the TRAX light-rail service is an easy-to-use option. And with Salt Lake International Airport servicing over 700 daily flights, travel is made easy for domestic and international guests.

The natural beauty and nonstop adventure that surrounds Salt Lake City provide the perfect excuse to arrive early to CHEST 2006 or to stay late.

For more information about Salt Lake City, visit www.visitsaltlake.com.

Questions about CHEST 2006? Visit www.chestnet.org/CHEST. ■

NEWS FROM THE COLLEGE

AMERICAN COLLEGE OF CHEST PHYSICIANS

EDUCATION INSIGHTS

ACCP Quality Improvement Committee Is Off to a Fast Start

BY SANDRA ZELMAN LEWIS, PHD
ACCP Research Specialist
ED DELLERT, RN, MBA, ACCP
Vice President, Educational Resources

The ACCP Quality Improvement Committee (QIC) held their inaugural meeting in March 2006 and "hit the ground running." In addition to developing a manual of policies and procedures, the new committee members had to immediately leap into their main mission of reviewing performance measures. These measure sets had been proposed by the National Quality Forum (NQF), a national coalition charged with validating and endorsing such measures, of which the ACCP is a member organization [http://www.qualityforum.org/].

The committee's preliminary work included a first draft of criteria for assessing performance measures, as well as the adoption of a mission and vision statement. The QIC continued to develop its process for reviewing measure sets and collaborating with organizations that develop and validate performance measures, *eg*, the AMA Physician Consortium for Performance Improvement (AMA-PCPI) and NQF. The QIC will be working within the context of the ACCP's global structure, providing for regular interactions with the Executive Committee of the Board of Regents; Health and Science Policy, Continuing Education, Government Relations, and Practice Management Committees; and NetWorks.

These processes and policies of the QIC will be documented on the ACCP Web site in the near future. The NQF performance measures sent to the QIC for review include three sets on the Prevention and Care of Venous Thromboembolism, Ambulatory Care, and Palliative and Hospice Care. The committee members completed online assessments of the three sets and reached a consensus on the final voting. Although some modifications will be made, the process worked, and the QIC is well prepared for the evaluation of future performance measures. ■

This Month in *CHEST*: Editor's Picks

BY DR. RICHARD S. IRWIN, FCCP
Editor in Chief, CHEST

▶ **Effects of Argatroban Therapy, Demographic Variables, and Platelet Count on Thrombotic Risks in Heparin-Induced Thrombocytopenia.** Dr. Bruce E. Lewis, et al

▶ **The Role of the Abrams Percutaneous Pleural Biopsy in the Investigation of Exudative Malignant Pleural Effusions.** Dr. Biswajit Chakrabarti, et al

▶ **Prospective Study of the Diagnostic Accuracy of the Simplify D-dimer Assay for Pulmonary Embolism in Emergency Department Patients.** Dr. Jeffrey A. Kline, et al

▶ **Influence of Two Different Interfaces for Noninvasive Ventilation Compared to Invasive Ventilation on the Mechanical Properties and Performance of a Respiratory System: A Lung Model Study.** Dr. Onnen Moerer, et al

▶ **Effect of Continuous Positive Airway Pressure on Ambulatory BP in Patients With Sleep Apnea and Hypertension: A Placebo-Controlled Trial.** Dr. Francisco Campos-Rodriguez, et al

www.chestjournal.org

Lung Resection Poses Risk of Aspiration Pneumonia

More than one-fourth of head and neck cancer patients with documented aspiration can develop AP.

BY BRUCE K. DIXON
Elsevier Global Medical News

CHICAGO — Head and neck cancer patients who have undergone pulmonary resection are at significantly increased risk of aspiration pneumonia after undergoing pulmonary resection, said Dr. Luis J. Herrera. Among the risk factors are postoperative recurrent laryngeal nerve paralysis and smoking history, according to data presented to the annual meeting of The Society of Thoracic Surgeons.

"Patients with head and neck cancer should undergo preoperative evaluation for swallowing disorders before undergoing pulmonary resection," said Dr. Herrera. Oropharyngeal dysphagia and aspiration can occur in over half of patients following therapy for head and neck cancer (HNC), and over one-fourth of HNC patients with documented aspiration can develop aspiration pneumonia (AP), he said.

"Patients with aspiration pneumonia had significantly longer hospital lengths of stay, with a median of 30 days compared with 6 days for patients without this complication. This translated into significantly higher postoperative mean hospital charges, which averaged $335,000 compared with $40,000 for those without aspiration pneumonia," said Dr. Herrera, who is with the University of Texas M.D. Anderson Cancer Center, Houston.

The scientists conducted a retrospective review of prospectively collected data on 1,633 patients who had undergone pulmonary resections for primary lung cancer at a single thoracic surgery department during 1997-2004.

A subgroup of 76 patients with prior HNC was compared with a control group of the remaining 1,557 patients. The HNC group was 68% men.

Aspiration was defined as tracheobronchial penetration of oropharyngeal or gastric secretions based on bedside clinical exam by a speech pathologist, or otherwise witnessed; bronchoscopy of food particles; barium video and esophagography; or fiberoptic endoscopic evaluation of swallowing (FEES). Aspiration pneumonia was defined as the diagnosis of pneumonia in a patient with documented contemporaneous aspiration.

Aspiration pneumonia occurred in more than 9% of the HNC group compared with only 0.5% of the control group. "Interestingly, the HNC group also had a significantly higher incidence of pneumonia and bronchopleural fistula," Dr. Herrera said.

Of the entire population of 1,663 patients who had pulmonary resections for primary lung cancer, 17 developed AP. "Despite no difference in perioperative mortality or 5-year survival … there was a significantly lower probability of survival in those patients who had developed AP within the first postoperative year," Dr. Herrera explained.

On univariate analysis, the only statistically significant risk factor for AP was prior HNC, new recurrent laryngeal nerve paralysis, and tobacco history.

In response to a question from the floor, Dr. Herrera said that 10 patients who had end tracheostomies were excluded from the study because of the possibility that other factors could explain pneumonia in that setting.

Of these 10, 1 patient developed pneumonia postoperatively. ■

PHT Need Not Preclude Surgical Ventricular Restoration

BY BRUCE K. DIXON
Elsevier Global Medical News

CHICAGO — Surgical ventricular restoration may be performed safely in appropriately selected patients with pulmonary hypertension, according to a study presented at the annual meeting of The Society of Thoracic Surgeons.

"Patients with pulmonary hypertension who underwent surgical ventricular restoration demonstrated significant improvements in cardiac function, as evidenced by a variety of hemodynamic factors," said Dr. Jason A. Williams. "We also noted significant reductions in cardiac size and New York Heart Association functional class postoperatively," said Dr. Williams of the Johns Hopkins Medical Institutions in Baltimore.

Surgical ventricular restoration (SVR) is an established therapy for heart failure due to ischemic cardiomyopathy. The purpose of SVR is to counteract the effects of postinfarction ventricular remodeling by reducing ventricle size, restoring elliptical shape, correcting mitral regurgitation, and performing complete revascularization when necessary, Dr. Williams said. However, pulmonary hypertension (PHT) has been considered a contraindication for surgical ventricular restoration because of increased operative risks.

Two previous studies evaluated the effect of PHT on patients undergoing SVR. Investigators in one study reported improved cardiac function in those who underwent SVR (J. Thorac. Cardiovasc. Surg. 1995;110:1291-1301).

Investigators in the second study found that patients who did not survive SVR had higher preoperative mean pulmonary artery pressures than patients who did survive (J. Am. Coll. Cardiol. 1997;29:1569-75).

In their retrospective study, the Hopkins team identified 69 SVR patients in a 3-year period. The cohort was divided into a control group without PHT (44) and a group with pulmonary hypertension, based on the American College of Chest Physicians guidelines of a mean preoperative pulmonary artery pressure of at least 25 mm Hg, as measured on cardiac catheterization.

The objective was to evaluate cardiac function, clinical outcomes, and risk factors for mortality following SVR in heart failure patients.

Preoperative evaluation included procedures such as echocardiography, catheterization, and cardiac MRI. Postoperative management included standard perioperative inotropes, β-blockers, diuretics, and afterload reducers. Postoperative pulmonary artery pressures were obtained from the last Swan-Ganz catheter measurement taken in the surgical ICU.

AMONG PATIENTS WITH PULMONARY HYPERTENSION, THE MEAN LEFT VENTRICULAR END-SYSTOLIC VOLUME INDEX WAS REDUCED BY 42%, WHILE ITS DIASTOLIC COUNTERPART WAS LOWERED BY 29%.

All patients were followed by heart failure cardiologists and were recommended for MRI and echocardiographic evaluation at 6 months and 1 year.

In the PHT group, there was a trend toward a higher incidence of New York Heart Association (NYHA) class IV heart failure and a statistically significant higher incidence of three-vessel coronary artery disease, compared with the control group, Dr. Williams noted.

"However, there were no significant differences with regard to the incidence of preoperative renal insufficiency or moderate to severe mitral regurgitation between the two groups. It's also important to note that in our series, 100% of patients with PHT and 95% of patients in the comparison group were NYHA class III or IV prior to SVR."

Operative data were also well matched. "Of note, there were 7 mitral valve procedures performed concomitantly with SVR in the PHT group, compared with 12 in the comparison cohort.

The only statistically significant difference was in the postoperative use of an intraaortic balloon pump, which was placed in 28% of PHT patients and in 7% of the control group.

"It's important to note that nine patients in our series did not undergo coronary artery bypass grafting concomitantly with SVR; six of those nine received stents prior to SVR surgery, while three patients were not revascularizable due to poor distal targets," said Dr. Williams.

Postoperative MRI revealed that both groups had significant improvements in mean left ventricular end-systolic and diastolic volume indexes and ejection fractions. Among patients with PHT, the mean left ventricular end-systolic volume index was reduced by 42%, while its diastolic counterpart was lowered by 29%. The PHT group also showed a significant reduction in the pulmonary vascular resistance index, cardiac index, and right ventricular stroke work index following SVR.

Changes in NYHA class were impressive, Dr. Williams said: The number of PHT patients in class III went from 10 preoperatively to 1 postoperatively, and the class IV number dropped from 15 to 6. Among the controls, the number of class III patients dropped from 25 to 5 and class IV went from 17 to 8.

Three-quarters of PHT patients improved to New York Heart Association class I or II.

Complication and mortality differences were not significant. The 36-month actuarial survival for the entire SVR cohort was 78%. The PHT group showed a trend toward reduced survival, compared with the controls. On Cox regression analysis, the only mortality predictor in the SVR cohort was preoperative renal insufficiency, which the investigators defined as a creatinine level greater than 1.5 mg/dL.

"Pulmonary hypertension was not shown to be a predictor of mortality in our entire cohort, and furthermore, the severity of pulmonary hypertension was not shown to predict mortality in the PHT group," Dr. Williams said. "In conclusion, we believe that surgical ventricular restoration can be performed safely in appropriately selected patients with PHT. Longer follow-up with more patients should help to validate these early and midterm results."

The ideal SVR candidate has experienced an anteroseptal infarction leading to an enlarged left ventricle, has a large area of akinesia or dyskinesia with preserved or acceptable function of the basal portion of the heart and lateral wall, and is a candidate for revascularization and mitral valve reconstruction if indicated, Dr. Williams said.

"We have not excluded any patient on the basis of pulmonary artery pressure. What we use as an exclusion [criterion] is the evaluation of global cardiac function; patients have to have at least one area of heart that's alive and contracting fairly normally without global hypokinesia," he said in an interview. ■

INDEX OF ADVERTISERS

Strategies Can Improve Kids' Acceptance of CPAP

Children don't like it, but there are things parents can do to help make it more palatable.

BY FRAN LOWRY
Elsevier Global Medical News

SAN JUAN, P.R. — Continuous positive airway pressure can be effective for obstructive sleep apnea in children, but parents must be persistent to ensure children's acceptance of the treatment, Dr. Ann C. Halbower said at a meeting sponsored by the American College of Chest Physicians.

Obstructive sleep apnea (OSA) is present in 2%-3% of children, and peaks at 3-6 years of age—which is also the peak age for adenotonsillar hypertrophy. The presentation depends on the age of the child. Toddlers with OSA may present with hyperactivity, school-age children will have poor school performance, and adolescents may present with excessive daytime sleepiness and poor school performance.

Adenotonsillectomy is the first-line therapy for children with OSA. When that is not successful, continuous positive airway pressure (CPAP) can treat OSA.

CPAP can be problematic in children, however. "It's very hard to take. Little kids don't like it, but there are things parents and physicians can do to help make CPAP more palatable," said Dr. Halbower, medical director of the pediatric sleep disorders program at Johns Hopkins University, Baltimore.

Dr. Halbower recommended introducing the device slowly to minimize the fear factor. Put on the mask while the child is awake and doing an activity that is fun and pleasurable, she said.

The worst thing you can do is put the mask on while the child is asleep. "If they wake up and find themselves wearing the mask, they'll panic," Dr. Halbower said. Another trick is to make CPAP part of the child's normal bedtime routine, along with brushing the teeth and a bedtime story. Other children who use CPAP are wonderful ambassadors for the device and can help relieve anxiety with a show-and-tell. Videos are good for this as well.

Despite these efforts, some children will do everything to resist attempts to put on the mask. Many parents will remove the mask in response to their child's distress.

That is a big mistake, Dr. Halbower said, because it just strengthens the child's escape and avoidance behavior. Eventually, the parent gives up.

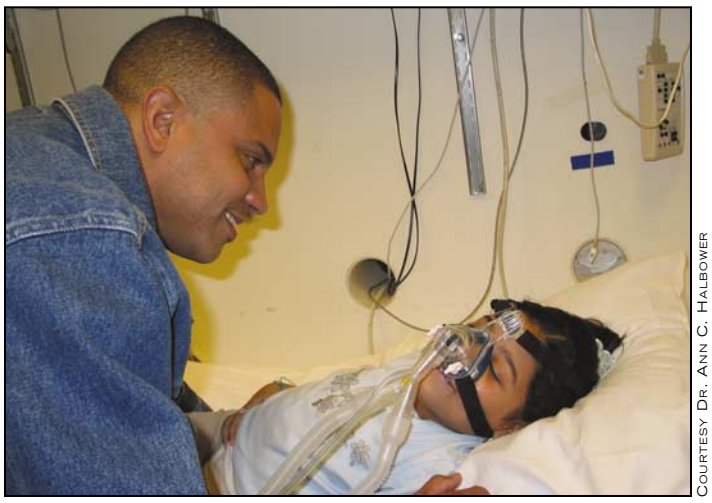
Behavioral training can help parents block or prevent their child's avoidance behavior by using brief verbal prompting, redirection to a specific task, and if necessary, physically blocking escape while gently guiding the child to remain in the situation. The child's attempt to remove the mask must be physically interrupted and the mask replaced immediately every time the child removes it.

"These behavioral techniques are used in our clinic under the guidance of Dr. Keith Slifer, a behavioral psychologist, and they have proved very successful," Dr. Halbower said.

Parents should also plan for safety in children who cannot remove the mask during emergencies, Dr. Halbower cautioned. Use a nasal mask instead of a full-face mask, or have an emergency pull string that can disengage the mask to prevent aspiration or asphyxiation if the child vomits.

It is important for parents to establish a consistent bedtime routine that lasts about 30 minutes, she explained. Such a routine includes soothing activities, and it always ends with the child putting on the CPAP mask, lying down, and going to sleep.

"Persistence and patience are key," Dr. Halbower said. ■



COURTESY DR. ANN C. HALBOWER

A consistent, soothing bedtime routine that includes CPAP can improve children's acceptance of the device.