Gene Tool Predicted Recurrence After Early-Stage NSCLC

‘Metagene’ test revealed high-risk cases.

BY HEIDI SPLUTE
Elsevier Global Medical News

A test using genetic microarray technology was significantly more accurate than were clinical factors at predicting lung cancer recurrence, according to data from a small but promising trial.

“Lung cancer leads to more deaths than breast, prostate, or ovarian cancer in the United States, so if one could find an opportunity to improve patient care in any little way, it would make a huge difference,” Dr. Anil Potti, the study’s lead researcher, said in an interview.


Although the researchers reviewed patients with stage I, II and IIA lung cancer, the current published study focused on stage IA patients. These patients do not normally receive chemotherapy after surgery, despite previous research that shows a 25% cancer recurrence rate within 5 years.

“We could see clearly that about a third of stage IA patients are very high risk based on genetic profiling—high risk meaning that their chance of recurrence within 2 years was about 80%,” said Dr. Potti, of Duke’s Institute for Genome Sciences and Policy.

Clinical staging is a crude measure of a patient’s fitness for chemotherapy, Dr. Potti said. His question: Are there other molecular or biologic phenotypes that would define patients better than clinical stage?

Tumor samples removed from patients during surgery were used for gene expression measurement with microarray technology. The researchers

See Gene Tool • page 2

Review Backs Low-Dose Steroids

BY BRUCE JANCIN
Elsevier Global Medical News

LISBON — After decades of controversy, a consensus has emerged that corticosteroids provide major benefits in patients with severe sepsis or septic shock. Dr. Djillali Annane said at the 12th International Congress on Infectious Diseases. The benefits, as shown in multiple randomized placebo-controlled trials, are improved 28-day mortality, shorter shock duration, improved hemodynamics, reduced organ dysfunction, and less systemic inflammation.

It should be emphasized that these benefits accrue only with low-dose corticosteroids administered for at least 5 days, and only in the sizable patient subsets having adrenal insufficiency or refractory septic shock, said Dr. Annane of the Versailles Saint-Quentin-en-Yvelines University Garches, France.

Much of the lengthy controversy in this field was the result of great heterogeneity in clinical trials, particularly those done before 1992. For example, steroids for septic shock fell into disfavor all through the 1980s and 1990s because multiple trials before 1992 showed no benefit. That’s because these negative studies used short-course, high-dose corticosteroids, Dr. Annane explained. Today, with the benefit of hindsight, it can be emphatically stated that no evidence supports the use of such therapy, he said at the congress, which was sponsored by the International Society for Infectious Diseases. Dr. Annane was first author of

See Low-Dose • page 7

Agents Hold Hope in Advanced Lung Cancer

BY JANE SALODOF
Elsevier Global Medical News

ATLANTA — A year after bevavucimab proved that angiogenesis inhibition can help patients with non-small cell lung cancer live longer, a second generation of antiangiogenesis agents is showing activity.

Two of the drugs—sunitinib (Gleevec) and sorafenib (Nexavar), and an experimental drug called ZD6474 (Zactima)—all reported progression-free survival rates of 11% or more at the annual meeting of the American Society of Clinical Oncology.

Because each drug hits more cellular targets than does bevacucimab (Avastin), investigators voiced hope that the new agents will be more effective.

“Lung cancer leads to more deaths than breast, prostate, or ovarian cancer in the United States, so if one could find an opportunity to improve patient care in any little way, it would make a huge difference,” Dr. Anil Potti, the study’s lead researcher, said in an interview.


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News From the College

CHEST Checklist

Faster TB Scanning

V ersailles Saint-Quentin-en-Yve-
lines University Garches, France.

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CHANGE SERVICE REQUESTED
Lung Metagene Model Tested

**Gene Tool**

from page 1

Developed a risk profile for each patient based on the expression patterns of many genes. The metagene with the strongest predictive values included several that have demonstrated clinical relevance in NSCLC. For example, metagene 19 represented angiotensin, which is a proven target for therapy in cancer patients.

In a training cohort of 89 patients enrolled through the Duke Lung Cancer Prognostic, the lung metagene model was 93% accurate in predicting cancer recurrence. In contrast, a predictive model using only clinical data was 64% accurate.

The researchers validated the genomic test by comparing the microarray data with data from two multicenter studies of lung cancer patients. The comparison involved 23 clinical samples from the American College of Surgeons Oncology Group (ACOSOG) Z0030 trial and 84 samples from the Cancer and Leukemia Group B (CALGB) 9761 trial; the trials represented a full range of clinical outcomes. Overall, the accuracy of genomic tests was 72% in the ACOSOG group and 79% in the CALGB group at predicting the patients’ outcomes.

In addition, a Kaplan-Meier analysis showed that the lung metagene model was significantly better at predicting recurrence than any of several existing factors: disease stage, tumor diameter, nodal status, age, sex, histologic subtype, and smoking history. The promising results have inspired a prospective, multicenter clinical trial to begin early in 2007 that will include 50-60 centers in the United States and Canada. The trial will be cosponsored by the Cancer and Leukemia Group B and the National Cancer Institute, and will include about 1,200 stage IA lung cancer patients.

Although genomic profiling needs to be validated prospectively, the tool is readily available and affordable. It costs about $1,000 to run one test on a single patient, and one test generates the data needed to assess the patient’s cancer recurrence risk.

Unpublished findings from Dr. Potti’s study group suggest that the genomic data will be useful in risk stratifying patients with lung cancer. Clinicians have been frustrated for years at the recurrence rates and subsequent deaths of those with early stage lung cancer who undergo surgery. To date, there have been no tests that reliably predict recurrence. This study suggests that with genetic microarray technology, one can more accurately predict outcomes that will recur. This is an important breakthrough, because currently we do not offer adjuvant chemotherapy for patients with resected stage I disease, as it has not been shown to work in this group.

**Dr. Gerard A. Silvestri, FCCP**

comments: This article has important implications used to predict which type of chemotherapy a patient will respond to. The advantages of genomic profiling are many—it is not just prognosis,” he said. There is definitely an element of trying to predict response to therapy.”

**Old Age Is No Barrier to ‘Switch Therapy’ for CAP**

**BY JANE SALODOF MACNEIL**

Elsiever Global Medical News

**San Diego** — Advanced age by itself should not be a barrier to switching a patient with community-acquired pneumonia from intravenous to oral antibiotics if therapy is considered an early discharge. Of 372 patients aged 85 years or older, 65% were discharged in this early time frame, as were 68% of 1,161 patients aged 65-84 years and 72% of 1,115 patients aged 16-84 years.

No deaths occurred in the youngest group after switch therapy, and mortality was low among the older groups: 9 deaths (1.6%) of the 554 switch therapy patients met in the 65-84 age group and 2 deaths (1.2%) of the 164 patients in the oldest cohort.

The study shows that frail elderly patients with community-acquired pneumonia (CAP) can handle switch therapy, said Dr. Rossi of S. Maria della Misericordia Hospital in Udine, Italy. “Even if they over 90 they can, more or less,” he said in an interview.

He and his coinvestigators reviewed records of CAP patients who were entered into the Community-Acquired Pneumonia Organization database from June 2001 to May 2005. The database includes hospitals in the United States, and the study coordinator was based at the University of Louisville (Ky.).

The study relied on American Thoracic Society guidelines for time to switch therapy. Patients had to meet four criteria to be considered candidates for a switch: meeting the criteria for switch therapy declined with age, going from 71% of the youngest group to 63% of the middle group to 56% of the oldest patients. The proportion of patients who were switched was similar across groups, however: 80% of the under 65 patients, 76% of the middle group, and 78% of those aged 85 and up.

After the therapy was switched, the oldest patients were the least likely to require re-establishment of intravenous antibiotics. Just 2 (1.2%) of the 164 patients in the oldest group had to be switched back, compared with 20 (3.6%) of the 554 patients in the middle group and 46 (7.4%) of the 621 patients in the youngest group.

The international cohort study of very elderly patients indicates that in this population, switch therapy is a clinically effective approach and facilitates an early hospital discharge,” the investigators conclude.

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**CHEST PHYSICIAN**

American College of Chest Physicians

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**CHEST PHYSICIAN**

SEPTEMBER 2006

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**NEWS**

**Sleep Strategies**

The Institute of Medicine’s report on sleep disorders and sleep deprivation has particular relevance for chest physicians. • 14

**CHEST PHYSICIAN Is Online**

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Calfactant Improved Survival in Pediatric Lung Injury Trial

In contrast, 36% of children (27 of 75) in the placebo group did not survive. The odds ratio in favor of calfactant was 2.5.

The mortality advantage was a surprise that was not expected to be seen in this study.

Although the calfactant group had more ventilator-free days (13.2 days vs. 11.4 days) at 28 days, the difference was not statistically significant.

"We did find a very significant difference—honestly, frankly, and unexpectedly—in mortality," said Dr. Willson of the University of Virginia Hospital in Charlottesville. "We did not know it until the data was scrutinized and analyzed." He emphasized that the findings of this randomized, controlled trial would have to be duplicated in a larger trial.

The study enrolled only half of its 300 patient goal and, therefore, was underpowered to prove its primary outcome or a survival advantage.

Whether calfactant decreases mortality "is open to question and needs to be tested again," Dr. Willson said.

The Pediatric Acute Lung Injury and Sepsis Investigators (PALISI), a network of clinical centers from pediatric intensive care units, collaborated on the trial. Calfactant’s manufacturer, ONY Inc. of Amherst, N.Y., provided financial support.

Conducted over 3 years at 21 pediatric ICUs, the trial enrolled acute lung injury patients who had an oxygenation index of 7 or higher within 48 hours of ventilation.

The average age of the children was 7.3 years, and the randomization produced two well-matched groups. Patients received 80 mL/m² of calfactant or placebo in two doses given 12 hours apart.

Among the conclusions offered by Dr. Willson were that calfactant produces acute improvement in the oxygenation index, but the oxygenating effect wanes at 48 hours. In the treatment group, the oxygenation index improved by 11.27% at 28 days, but by only 0.2% in the placebo group.

The mortality advantage in the calfactant patients compared with the placebo group were hypertension (9% vs. 4%), hypoxia (12% vs. 3%), and bradycardia (3% vs. 1%). One child experienced atrial fibrillation that was reported to revert without therapy.

Despite greater incidence of complications, there were no long-term effects, and no child was excluded from the study because of them," Dr. Willson said.

The findings suggest that calfactant may be effective in direct lung injuries such as pneumonia and drowning, he added, but not in indirect lung injuries such as those with sepsis.

For the latter, there was no suggestion of any therapeutic effect with calfactant versus placebo, he added, "so one patient population might benefit from calfactant, and one patient population may not."
How to Recognize CNS Manifestations of Tuberculosis

BY AMY ROTHMAN SCHONFELD
Elsevier Global Medical News

SAN DIEGO — Imaging plays a key role in determining whether tuberculosis is the cause of central nervous system symptoms that suggest cerebral infarction, disk herniation, prevertebral and epidural abscesses, para- or quadriplegia, headache, or photophobia, according to Dr. Richard F. Scafidi, who presented his findings as a scientific exhibit at the annual meeting of the American Society of Neuroradiology.

“Imaging can play a key role in not only aiding the diagnosis but recognizing the extent of the disease and its complications, and all of this will affect management,” Dr. Scafidi said.

In 2004, 14,500 new cases of tuberculosis (TB) were reported in the United States, according to the Centers for Disease Control and Prevention. Although the overall TB case rate of 4.9 per 100,000 persons was an all-time low, TB continues to exact a toll on many communities here.

In the central nervous system, TB initially creates a subependymal or subpial tuberculoma, known as a Rich focus, within the brain, spinal cord, or meninges. This infection focus can rupture into the subarachnoid space, causing tuberculous meningitis and parenchymal tuberculomas. In the later stages of disease, leptomeningeal enhancement is seen; however, such findings may not be apparent early in the disease, said Dr. Scafidi, of the department of radiology at Robert Wood Johnson Medical School in Piscataway, N.J.

Parenchymal tuberculomas, with or without concomitant tuberculous meningitis, may be caused by hematogenous spread or dissemination into the cerebrospinal fluid infection after rupture of an adjacent Rich focus. Tuberculomas are typically found in frontal and parietal lobes, have multiple foci, and are associated with moderate to marked edema. On noncontrast CT, a tuberculoma looks like a noncalcified mass that may be rounded or lobulated with low or high attenuation. On contrast-enhanced CT a tuberculoma appears as a rounded, ring-enhancing lesion with a central area of low attenuation. MR with contrast allows differentiation of noncaseating from caseating (necrotic) granulomas. In this case, postcontrast MR demonstrated a rounded, well-circumscribed left frontal lobe lesion exhibiting both T1 and T2 hypointensity centrally with rim enhancement, indicative of a caseating granuloma.

Imaging techniques can also diagnose complications of tuberculous meningitis, including arteritis, infarction, and hydrocephalus. Arteritis most commonly involves the territory of the middle cerebral artery, basal ganglia, and internal capsule. Arteritis may lead to infarction and subsequent atrophy.

Disk herniation, compression fractures, prevertebral and epidural abscesses, and even para- or quadriplegia may result from spinal involvement of TB, a condition known as tuberculous spondylitis or Pott’s disease. Tubercular lesions may conglomerate around disks, beginning anteriorly in the vertebral body and spreading to subchondral bone, causing disk herniation into the vertebral body, disk destruction, or vertebral collapse with anterior wedging. Lesions can affect multiple levels within the upper lumbar and lower thoracic spine.


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Innovative. Turn to the ACCP for a board review curriculum that evolves with your growing needs. The newly expanded program now includes three specialties related to chest medicine: critical care, pulmonary, and sleep medicine.
NIH: Improve Access to Tobacco Cessation Programs

Numerous barriers block tobacco users from taking advantage of prevention and cessation therapies.

BY ALICIA AULT

ElRARY Global Medical News

Bethesda, MD.—Tobacco cessation programs that employ telephone quit lines and counseling and nicotine replacement therapy are highly effective, and they should be offered to more smokers and users of smokeless tobacco, according to members of a panel of physicians, other health care providers, and community advocates at a conference on the prevention, cessation, and control of tobacco use sponsored by the National Institutes of Health.

The 14-member panel was charged with issuing a consensus statement on the state of the science after sifting through the available evidence and listening to several days of presentations from the public.

The NIH committee found ample evidence that stopping tobacco use is comparable to stopping use of nicotine replacement therapies and other cessation agents, but the issue of whether the new multitargeted tyrosine kinase inhibitors that are approved for use in other tumors and cancer trials testing combinations of bevacizumab and erlotinib (Tarceva) could become a mainstay in cancer therapy is still open.

"There are many successful strategies for preventing use or helping people quit," said Dr. Ronald B. Natale, director of the Center for Minority Health at the University of Pittsburgh.

"For the most part, they hit all the major issues and, in our opinion, got most of it right," said Matthew Barry, director of policy research for the Washington-based Campaign for Tobacco-Free Kids.

Antiangiogenesis Drugs Move Ahead

Agents from page 1

"More than ever, we need pulmonologists to look at the risk of bleeding and to look at cavitation," said Dr. Roy Herbst said in an interview after presenting a review of the new drugs and the state of antiangiogenic therapy against lung cancer.

"We need to find some sort of risk factors to stratify these patients," said Dr. Herbst, of the Department of Thoracic/Head and Neck Medical Oncology at the University of Texas M.D. Anderson Cancer Center in Houston, and the senior investigator of a series of lung cancer trials testing the combination of bevacizumab and erlotinib (Tarceva).

Dr. Herbst cited the survival advantage that patients with non–small cell lung cancer had over those treated with bevacizumab as monotherapy, and he warned of the potential for increased toxicity as one targets more receptors.

"Whether these agents can be used alone or should be combined with chemotherapy or other target agents still has to be worked out in clinical trials," he said, calling for the assessment of biomarkers in future trials.

"I think angiogenesis inhibition has become a mainstay in cancer therapy, and it will be very interesting in the next few years as we figure out how to optimize its use and use it safely," Dr. Herbst said. "It is a perfect therapy to add to our existing methods."

Sunitinib

Dr. Mark A. Socinski, FCCP, reported that sunitinib controlled tumor growth in more than half of 63 patients who had failed previous regimens for advanced non–small cell lung cancer.

Among the potential advantages of multitargeted agents, Dr. Herbst cited convenience, single-agent activity, the ability to act on both tumor and blood vessels, and the potential to lower the cost of treatment.

He cautioned, however, that the inhibition of each target may not be equally effective with just one drug. Optimal combinations of more specific agents might be better, he said, warning also of the "potential for increased toxicity as one targets more receptors."

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PATIENTS AND PROVIDERS SHOULD BE MADE MORE AWARE OF THE BENEFITS OF cessation and the RESOURCES FOR quitting.

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Reduction of the level of harm by switching to smokeless tobacco. But the committee found limited evidence to support this notion and reiterated in their statement, "Use of any tobacco product must be discouraged."

The committee also stated that people with psychiatric conditions—especially schizophrenia and major depressive disorder—are more likely to be smokers and to have a harder time quitting, with more severe withdrawal symptoms.

Going forward, patients and providers should be made more aware of the benefits of cessation and the resources for quitting, and reimbursement policies should be established, said the panel.

Its advice to tobacco users: "If at first you don’t succeed, try, try again and get some help," said panelist Dr. Christine Laine of Jefferson Medical College, Philadelphia.

One tobacco organization, the Campaign for Tobacco-Free Kids, said it was pleased with the panel’s deliberations and statement.

"For the most part, they hit all the major issues and, in our opinion, got most of it right," said Matt Barry, director of policy research for the Washington-based campaign.

Copies of the consensus statement can be found at http://consensus.nih.gov.
a 2006 Cochrane Collaboration systematic review of corticosteroids for treatment of severe sepsis and septic shock (Cochrane Library ISSN 1469-493X).

In 15 randomized trials totaling more than 2,000 children and adults included in the analysis, steroid therapy didn’t change 28-day all-cause mortality. But the results varied depending on the strategy: In nine trials of replacement-dose corticosteroids—the equivalent of hydrocortisone at 200-300 mg/day intravenously for 5 days or longer—there was a highly significant 20% reduction in the relative risk of 28-day mortality compared with placebo, along with a greater proportion of patients experiencing shock reversal by day 7. In contrast, patients on high-dose, short-course corticosteroids didn’t benefit.

Since new trials have been published since completion of the Cochrane review.

An analysis incorporating these studies shows a significant 12% reduction in all-cause mortality with steroid therapy when all trials are considered. Looking only at those involving low-dose therapy for at least 5 days, the relative risk reduction in mortality is now an even more robust 23%, he said. The Cochrane review found no significant increase in rate of superinfection, GI bleeding, or hyperglycemia linked to steroid therapy, but Dr. Annane found those trial results inconsistent with real-world practice.

The adverse events are common with steroids, he cautioned, adding that only patients likely to obtain therapeutic benefit should be exposed to such risks.

That’s why American College of Critical Care Medicine guidelines, which were authored by Dr. Annane, recommend low-dose steroids only in septic shock that is refractory or accompanied by adrenal insufficiency, as defined by an increase in cortisol of 9 mcg/dl or less in response to a corticotropin test (Crit. Care Med. 2004; 32[10]:2348).

The rationale underlying low-dose steroid therapy in septic shock is that systemic inflammation is a hallmark of sepsis. Inflammatory cytokines cross the hypothalamic-adrenal-pituitary axis, resulting in adrenal insufficiency in roughly half of septic shock patients. Steroids induce immune modulation through numerous cellular mechanisms of action. The indications for steroids in septic shock may soon increase. Dr. Annane is a leader of the 47-site European CORTICUS multicenter double-blind randomized trial evaluating the impact of low-dose hydrocortisone in a less severely ill population of septic patients than ever before studied. CORTICUS includes more than 500 patients with nontrauma mild to moderate septic shock. The data are now being tabulated.

Dr. Curtis Sessler, FCCP, comments:

Many clinicians now routinely institute corticosteroid therapy, typically hydrocortisone 200-300 mg per day, for patients who have septic shock that persists after fluid challenge. The Cochrane review lends substantial support that steroids hasten recovery from shock and reduce mortality. The good safety profile of this strategy documented in the Cochrane review is also encouraging but must be corroborated in future clinical trials. However, questions remain regarding the role of serum cortisol and corticotropin testing, duration of therapy and tapering strategies, and the role of hydrocortisone plus fludrocortisone. The findings of this observational study led to the launch earlier this year of an ongoing, multicenter, European randomized trial with a factorial design that is looking at the benefits and risks of combination steroid therapy, compared with hydrocortisone alone, Dr. Annane and his colleagues reported 4 years ago.

In that trial, the researchers randomized 300 adults with septic shock either to hydrocortisone IV at 200 mg/day plus a daily 50-mcg tablet of fludrocortisone, or to matching placebos.

The 28-day mortality was significantly lower in the combination steroid arm (JAMA 2002;288:862-71). Ironically, the only reason fludrocortisone was included in the corticosteroid arm was that the study ethics committee insisted upon it, even though there was little evidence at the time to support that position, he recalled.

Critical Care Outreach Teams Target Hospital Obstacles

At Dandenong, a study showed that even when criteria existed for calling a rapid response team, nurses did not make the calls in 17% of the episodes. This was partly because the nurses did not want to go against the established culture, he said.

At the University of California, San Francisco, Medical Center, the formation of a rapid response system was met with little enthusiasm, said Dr. Sumant Ranji, a professor of medicine. The hospital began a small rapid response program in mid-2005, rolling it out slowly by talking about it at monthly ward nurses’ staff meetings, and through a form for physicians and announcements at house staff conferences.

Most of the coverage was during the day, by a team comprising a hospitalist, a second-year resident, and a clinical nurse-specialist. At night, coverage was by an on-call resident from the intensive care unit. Usage was low—about 1-2 calls per week, which amounted to 2.5 calls per 1,000 patients. This can be compared with 25 calls per 1,000 patients seen with long-established programs at the University of Pittsburgh Medical Center hospitals, for instance, Dr. Ranji said.

Reasons for underutilization of the rapid response team included a misperception about when the teams would arrive. During the education process, nurses and physicians were told to call the primary team first and then the rapid response team if there was no response or an inadequate response within an hour. They understood this to mean the team would not come at all until an hour had elapsed. They also believed if called, the team might not be called the patient would definitely be taken to the ICU, he said.

Nurses were reluctant to break the chain of command, especially on surgical wards, he said. “This is not a culture that can change by one intervention,” Dr. Ranji said. He also discovered that nurses and residents weren’t calling the rapid response team because they made ample use of “curbside consults”—puling ICU nurses or fellows aside in the hallway to get an informal opinion. “This might cut into our call rate for formal consults,” he said.

There has been no change in the number of codes called or the rate of in-hospital cardiac arrest or mortality, even though the response teams are now available 24 hours a day, 7 days a week, Dr. Ranji said.

As a result, the San Francisco university is questioning whether it is using the right model. The hospital is considering using an ICU clinical nurse-specialist or a nurse-practitioner as the point person for the teams in the hope that ward nurses will be more likely to call on these colleagues for help.

It’s been smoother sailing at the 300-bed Allegheny General Hospital, a tertiary care facility in Allegheny, which added MET coverage to its code team in the spring of 2006. The MET has a hospitalist, ICU nurse, bed nurse, respira- tory therapist, and intravenous team. The code team has a senior resident, ICU nurse, respiratory therapist, nurse-anesthetist or anesthesiologist, and senior surgical resident.

To facilitate use of the MET, ward staff are given laminated cards that describe the teams and guidelines for when to call them. Dr. Sharon Kiely, an internist at Allegheny, said at the meeting.

In March, there were 12 calls, 11 of which truly needed a MET. 46% of the nursing units had made calls. By April, there were 30 calls, 28 of which needed a MET. The numbers of calls were the same the following month, but 85% of the nursing units had made calls. The code team has a senior resident, ICU nurse, respiratory therapist, nurse-anesthetist or anesthesiologist, and senior surgical resident.

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Sarcoidosis is a systemic granulomatous disease characterized by immunologic alterations that include depression of cutaneous delayed-type hypersensitivity, imbalance of CD4/CD8 T-cell subsets, an influx of T4 helper cells at the site of granulomatous activity, hyperactivity of B-cells, and the presence of circulating immune complexes. The initial reversible phase of the granulomatous inflammation is mediated by Th1 cytokine, while the fibrotic phase is modulated by Th2 cytokine. Although the genetics of this disease will shed new light on future treatment options, in addition to the newer immunomodulatory treatments, including tumor necrosis factor antagonists that are currently being investigated.

**Editor’s Insight**

Sarcoidosis remains a disease of mystery, despite years of research and clinical experience. Its cause or causes, reasons for remission, reasons for resistance to treatment, and best treatment remain open questions. This Perspective provides clinical insights for exploration of the iceberg of this enigmatic disease.

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**The Search**

The diagnostic search starts with an awareness of the disease, followed by the following steps.

1. **Recognize the clinical picture.** About 20 to 50% of patients complain of dyspnea, cough, chest tightness, or chest pain. Blurred vision, red-eye, photophobia, and loss of visual acuity occur in less than 20%. Lofgren syndrome, a combination of erythema nodosum and bilateral hilar adenopathy, is a manifestation of acute sarcoidosis. The combination of parotid gland enlargement, uveitis, and facial nerve involvement is called Heerfordt syndrome. Lupus pernio, the hallmark of chronic sarcoidosis, is often associated with bone lesions, chronic uveitis, and pulmonary fibrosis. Hypercalcemia is seen in about 10% of patients; whereas hyperparathyroidism is 3 times more common. Fatigue, polyuria, thirst, arthritis, heart block, mono- or polymyositis, small nerve involvement, muscle weakness, or anemia may occur. Sarcoidosis is an iceberg syndrome, for many forms of the disease remain undetected (Fig. 1). The clinician must dig deeper to uncover the latent forms of the disease.

2. **Recognize the chest radiograph abnormality.** More than 90% of the patients have an abnormal chest radiograph. Conventionally, radiographic abnormalities are categorized in four stages: stage 1, bilateral hilar or mediastinal adenopathy (BHL); stage 2, BHL with parenchymal infiltration; stage 3, parenchymal infiltration without BHL; and stage 4, bullous, cystic, and emphysematous changes. In about 5 to 10% of patients, the chest radiograph is normal, but, even in these patients, high-resolution chest computed tomosynthesis (HRCT) may indicate characteristic abnormalities. CT scans can also detect additional mediastinal and thoracic nodes that are not visible on a chest radiograph. HRCT is helpful in assessing parenchymal abnormalities, including nodules along bronchovascular bundles (beading), particularly in the mid- and upper lung fields, pleural or subpleural nodules, septal lines, confluent opacities with air bronchograms, cystic or bronchiectatic luencies, honeycombings, and bulla formation.

Despite the accuracy and availability of CT and HRCT, routine use of these tests in the management of sarcoidosis is neither necessary nor cost-effective. Magnetic resonance imaging (MRI) is helpful in evaluating the extent of damage in neurosarcoidosis and, to a lesser degree, in myocardial involvement (Mediwake et al. Sarcoidosis. Lung biology in health and disease. New York, NY: Taylor and Francis Group, 2006, 365).

3. **Secure histologic evidence of noncaseating granuloma.** When confronted with a suggestive clinical and radiologic picture of sarcoidosis, it is important to obtain histologic confirmation. Fiberoptic bronchoscopy is the most helpful diagnostic procedure. Aspiration liver biopsy, not commonly used, is also a quick and convenient method to obtain histologic confirmation. If serial sections are cut throughout the biopsy, hepatic granulomas are observed in about two thirds of biopsies. Alternative sites depend upon the tissue involved. They include peripheral lymph nodes, skin, nasal mucosa, conjunctiva, larnical and salivary glands, muscle, and spleen. Biopsy specimens should be submitted for microscopic examination, culture, chemical analysis, and nucleic acid amplification (Teirstein et al. Sarcoidosis Vasc Diffuse Lung Dis 2005; 22:139).

The histopathologic hallmark of sarcoidosis is a compact, round, or oval granuloma made up of radially arranged epitheloid cells with pale-staining nuclei. Lymphocytes found in the granuloma are usually seen at the periphery. The giant cell of the sarcoid granuloma may be of Langhan or of the foreign body type. Caseation is absent. Minor degrees of fibroblast necrosis may be seen. Extensive necrosis, however, is rare. Asteroid, Schaumann, and Hamazaki-Wesenberg bodies are frequently found within the epitheloid and giant cells. The structural arrangement of the granuloma is an example of the perimeter defense seen in other infectious and noninfectious diseases; however, no single agent has ever been consistently shown or cultured from sarcoid granulomas.

4. **Provide supporting diagnostic evidence.** New techniques, as they emerge, help to detect new features of the disease. When fluorescence angiography was introduced, it revealed leaking retinal veins. Serum anti-giotensin-converting enzyme levels and gallium scanning are helpful in monitoring the disease. HRCT and MRI scans have brought a new dimension to visualizing neurosarcoidosis. It is hoped that nuclear imaging and MRI studies will uncover latent myocardial sarcoidosis.

**Therapy**

There is no single cure for sarcoidosis. Corticosteroids are effective. The usual dose is 20 to 40 mg of prednisone daily for 6 to 12 months, gradually reduced to maintenance levels of 5 to 10 mg daily. Hydroxychloroquine is useful in chronic skin lesions, hypercalcemia, and neurosarcoidosis. Methotrexate, azathioprine, cyclophosphamide, and chlorambucil have been used. Thalidomide, pentoxifylline, myophenolate mofetil, etanercept, and infliximab have been found effective in patients who do not respond to corticosteroids or who develop severe corticosteroid side effects (Baughman and Lower. European Respiratory Monograph 22. London: Maney, 2005, 301).

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**Dr. Deborah Shure, Master FCCP**
**Editor, Pulmonary Perspectives**

**Dr. Aymarah Robles, FCCP**
**Deputy Editor, Pulmonary Perspectives**

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**Sarcoidosis: A Clinical Review**

Dr. Om P. Sharma, MD, FCCP
Professor of Medicine
Keck School of Medicine
University of Southern California
Los Angeles, CA
I have just returned from the summer Board of Regents meeting and am settling in on the stretch run of my Presidency. I was particularly pleased with this year’s summer meeting. It is traditionally devoted to the budget, and, as currently the one with the ultimate fiduciary responsibility, I am pleased to report that the College is in great shape. I was especially pleased with the budget development process and budgeting philosophy. The document was prepared with input from many sources. In June, the Finance Committee reviewed the final document as synthesized by the executive staff and forwarded it to the full Board for review and approval. The budgeting philosophy employed utilized a conservative revenue projection but outlined an aggressive programmatic agenda, all while predicting a positive bottom line (albeit minuscule). The College is a nonprofit organization and its mission is about education, not about making money, but we certainly can’t lose money. A positive bottom line lets everyone sleep more soundly. On the flip side, the College is a service organization that exists to serve our members and their patients. We have a duty to use the funds to further our mission and vision. The approved budget accomplishes two important goals: providing a service to our members and ensuring that I sleep well at night.

Along the same lines, as a new initiative this year, an Audit Committee will be named, in addition to the Finance Committee. This committee will be charged with receiving and reviewing the yearly audit report. Following best corporate practices, the College has always had their “books” reviewed on an yearly basis by an independent audit firm. This year, however, we have taken the next step and will form a separate Audit Committee. The five-person committee will be composed of the College treasurer, The CHEST Foundation treasurer, two Fellows of the College, and a nonmember with financial expertise. The Chair will be someone other than the Treasurers. Committee members will be named soon and will be charged with reviewing the report, including the Management Letter. Based on this review, the committee will advise the Board of Regents through the Executive Committee on actions to be taken. These are challenging times for medical societies, including the ACCP. Fortunately, the College is on sound financial footing, and, perhaps more importantly, one of the College’s key competencies, developed over the years, has been an ability to adapt and even thrive during challenging times.

We Need Your Physician Assistant!

The ACCP is interested in recognizing the importance of the growing number of physician assistants (PAs) in the clinical workplace. We would like to assist PAs in advancing their knowledge in the medical and surgical subspecialty practices by having them join the ACCP as Allied Health Members. Please help us and your PAs by recommending a PA for ACCP Allied Health Membership. Contact Cristina Vock, Membership Development Representative, at cvock@chestnet.org or (847) 498-8399, with the name and address of the PA you are recommending.
Dr. Mark J. Rosen, FCCP, will be inaugurated as the new ACCP President during Convocation ceremonies on October 22, during CHEST 2006. Dr. Rosen is Chief of the Divisions of Pulmonary, Critical Care, and Sleep Medicine at North Shore University Hospital and Long Island Jewish Medical Center in New York, and Professor of Medicine at Albert Einstein College of Medicine. He received his medical degree from Brown University Medical School in Providence, RI. There, he was inspired to pursue a career in pulmonary medicine by his two faculty mentors: Dr. Richard Irwin, FCCP, and Dr. Sidney Braman, FCCP, both ACCP Past Presidents.

After his residency in internal medicine and fellowship in pulmonary medicine at Mount Sinai Medical Center, New York, NY, he completed a critical care medicine fellowship at St. Vincent’s Medical Center, also in New York. Dr. Rosen is certified by the American Board of Internal Medicine in Internal Medicine, Pulmonary Disease, and Critical Care Medicine. He is a Fellow of the American College of Chest Physicians (ACCP), the American College of Physicians, and the Society of Critical Care Medicine.

Dr. Rosen has been named repeatedly in the “Best Doctors in New York,” “Best Doctors in America,” and “Best Doctors in North America” listings. His research interests include pulmonary disease and critical illness in patients with HIV infection; and respiratory failure and medical ethics.

A nationally recognized educator, Dr. Rosen chaired the Scientific Program Committee for CHEST 1998, the annual international scientific assembly of the ACCP, and he was course director for the ACCP Pulmonary Board Review Course from 1998 through 2001. He has published numerous articles and textbook chapters and co-edited the textbook, HIV and the Lung.

We asked Dr. Rosen for some insight into his upcoming presidential year:

Q: What would you like to accomplish as President of ACCP?
A: A 1-year term as President of the ACCP is not long, and my goals for that year should be lofty but not unrealistic. Like all of our ACCP Presidents, I would like to maintain our outstanding education and advocacy efforts in the face of increasing challenges, while providing all possible support to some outstanding new programs.

Q: What do you consider to be the greatest strengths of the ACCP, and how will you build upon these during your Presidency?
A: The College’s greatest strength and its core mission has always been to improve patient care through education. Our educational efforts continue to expand and improve at a dramatic pace, and this progress must continue. Our journal, CHEST, has seen remarkable changes in the last year; under Dr. Richard Irwin’s leadership as the new Editor in Chief, CHEST has a new look, a reorganized Editorial Board, and new editorial policies that have already resulted in a significant rise in the journal’s impact factor. The annual international scientific assembly continues to deliver the best and most recent information valued by clinicians in the daily care of their patients. Future meetings will be enhanced by new hands-on experience with patient simulators to help clinicians learn new skills in airway management and ultrasound, and the College is embarking on a series of free-standing programs using this exciting technology. Finally, The CHEST Foundation will build on the Critical Care Family Assistance Program, smoking cessation programs, support of research, and philanthropic efforts around the world.

Q: And finally, what is your charge to the members and new Fellows of ACCP?
A: To members and new Fellows alike, in whatever role you play, I urge you to devote yourself passionately to patient-focused care as your first professional priority. Providing this care as part of a team is also more effective than individual people and disciplines working independently and sometimes at cross purposes.

Despite the challenges and frustrations we all face dealing with agencies and institutions that often do not behave in ways that may best serve our patients and professions, I still believe that we do great work, and that our patients expect and deserve nothing less.
The official online job bank of the ACCP is now offering new features. Career Connection recently launched new, user-friendly components, allowing members even easier access and exposure to career advancement opportunities.

New features include an easy-to-use Resume Builder, where members can create and customize resumes by means of a template. Career Connection now allows for the uploading and storing of existing resumes. Also, the new My Site section allows members to build their own password-protected Web site, complete with unique Web address and personalized homepage. As always, members still provided the opportunity to receive e-mail job alerts. All ACCP members are welcome to join. Features are free to job seekers and supply instructions and templates. Need to fill a position? Employers can also take advantage of Career Connection by posting job openings, for a fee. Visit www.chestnet.org and click on the Career Connection icon. Visit Career Connection in ACCP Central at CHEST 2006.
You Can Make a Difference
As an Ambassador

BY DEBRA ALBERTS
Chair, Ambassadors Group

I joined the Ambassadors Group at its inception. It seemed like such a great idea. I was already passionate about the work my husband was doing with the ACCP so why not join the Ambassadors Group of The CHEST Foundation. Like most of you, I was already involved with many volunteer organizations at home, but I thought, “Why not support my spouse and his professional organization?”

Over time, I was inspired about the work and by the wonderful individuals I meet. I became convinced that the work of the Ambassadors Group in support of The CHEST Foundation could make a difference. I invite you to become a member of the Ambassadors Group and become personally passionate about the group and the good works they do.

The Ambassadors Group offers many wonderful resources online to help you explore your interests and find your niche. In doing so, you will learn ways to effectively act as emissaries and health advocates for the ACCP and The Foundation. For example, by going to www.chestfoundation.org, you can browse and even download the Women & Girls, Tobacco, & Lung Cancer Speaker’s Kit. Plus, there are many other choices offered for educating children and for leadership training. These incredible free educational resources can interest individuals in adopting our program or enhancing a lung health program already in place.

A number of additional resources are available in the ACCP catalog, which is also accessible online. The “Love Your Lungs” wristband campaign has been a tremendous success. By selling or gifting these wristbands to pediatricians and pediatric pulmonologists, you are serving as health advocates and helping to fund future lung health programs. The booklet series, Stories at the End of Life, may be ordered from the catalog. By contacting local hospitals, hospice centers, and libraries, the distribution of these powerful stories may assist patients and families at crucial points in life’s journey.

These are just a few of the ways you can become involved. It is not only gratifying to promote The CHEST Foundation and the wonderful work they do, but you are making lifelong friends. Please feel free to contact the Ambassadors Group through our ACCP staff liaison, Sandy Lewis, at slewis@chestnet.org, or for more information, go to www.chestfoundation.org.

You Can Make a Difference

Reaching Out Makes a Lasting Impact on Students

BY SUSAN KVALE
Immediate Past Chair

I would like to express my sincere thanks for your efforts on behalf of our students at Sycamore Canyon Elementary School. I truly think that the information you presented to them had a great impact on them, and I have no doubt this impact will affect their decisions later in life. How can we possibly thank you for that? My class is still talking about your presentation! They loved your visuals (especially the jar of tar), your easily understood way of explaining things, the fact that you engaged them during the presentation, and your friendly manner. In a nutshell, it was terrific.

The quote above is an excerpt from a letter written to me by teacher Lynne Baker, after I presented two sessions (90 students) on the Dangers of Smoking to a recent sixth-grade class in San Diego while we attended the annual meeting of the American Thoracic Society. After I received this letter of thanks, it makes me more determined than ever before to continue my efforts and urge all ACCP members to reach out and get programs started in their communities. Together, we can all make a difference! Just think of the lives we can save if each of us teach the future generations to love their lungs? The kids are listening; we just need to be willing to get the facts out there for them to hear. Here are a few comments from the kids:

“You really made a difference to all who were listening. I know now that I will never smoke and my lungs will not be black.”

“I never knew smoking kills so many people. What you told me is stuck in my brain forever.”

“I never knew there were so many harmful chemicals in cigarettes.”

Sometimes, I can be a little parent because I can teach my child the dangers of smoking.

I could go on and on with comments, but now you know they are listening. Let’s all move forward and expand our efforts to educate children about the dangers of tobacco and not to smoke.

For more information or to learn more about the Ambassadors Group tobacco prevention programs, go to www.chestfoundation.org or contact Sue Ciesadlo, sciesadlo@chestnet.org.

Operation Aftershock: ACCP Member Delivers Earthquake Relief

BY CAPT DENNIS E. AMUNDOSON, MC, USN, FCCP
ACCP Disaster Response Steering Committee Member

At 0600 on May 27, 2006, the people of Yogyakarta City and Bantul and Central Java Provinces, Indonesia, were severely affected by a devastating 6.3 Richter scale earthquake. Within 2 days following the earthquake, the Indonesian Ministry of Health and Department of Defense (DOD) requested for further assistance in the earthquake by deploying a four-person MER CY medical team composed of one critical care physician, one pediatric specialist, a public health physician, and a family practice provider to support the HA/DR response mounted by 3D MEB.

By the third day after the earthquake, the augmented 3D MEB with 22 medical staff composed of physicians, nurses, and corps- ral staff had begun medical, surgical, and public health services to the earthquake victims within its area of responsibility. The badly damaged province of Bantul from May 31 to June 14, 3D MEB provided over 3,500 tetanus and 300 childhood measles immunizations, as well as performed medical and surgical services to almost 4,000 earthquake victims. Several disease outbreak investigations were performed, and a variety of public health education programs were presented for the local and provincial population. Thirty cases of water treatment solution were selectively distributed for control of water-borne outbreaks. Extensive family/civilian training was employed for posttraumatic wound care and for fracture care and self-care for the follow-up period.

This evolution in planning and implementation was deemed a huge success and could serve as the model for further DOD HA/DR.

By Dr. Kay Guntupalli, FCCP, and Dr. Stephanie Levine, FCCP

Dr. Salim Surani, FCCP, a private practice pulmonologist in Corpus Christi, TX, has devoted significant time and effort to bringing The CHEST Foundation’s anti-tobacco campaign to the local schools in his area. His efforts have resulted in generous donations made to The Foundation in support of this project from many hospitals and physician groups in the vicinity, including $15,000 from Christus Spohn, $10,000 from Kindred Corpus Christi, $5,000 from Coastal Cardiology, $1,000 from Torr Sleep Center, $1,000 from Corpus Christi Heart Foundation.

On June 23, the local media and press held a press conference to honor the donors and Dr. Surani. Dr. Kay Guntupalli, FCCP, a former member of the Board of Trustees of The CHEST Foundation and designer of the anti-tobacco DVD and animated cartoon book for children, and Dr. Stephanie M. Levine, FCCP, a member of the Board of Trustees of The CHEST Foundation, were on hand for the event. The medical community spoke about the importance of this medical-community educational initiative. The event was enthusiastically covered by television and print media.

Using the Anti-Tobacco tool kit for children developed by Dr. Guntupalli for The CHEST Foundation (cartoon CD, cartoon book, coloring book), Dr. Surani educated 1,000 grades 2, 3, and 4 children in Corpus Christi. He has assembled volunteers who are passionate about the cause. Data are being collected on the baseline knowledge and the ability to understand and retain the message given by the program. The monies raised will help reach an estimated 25,000 school children in the next school year.

Corpus Christi Member Raises $32,000 for Antitobacco Campaign

By Dr. Kay Guntupalli, FCCP, and Dr. Stephanie Levine, FCCP

Corpus Christi Member Raises $32,000 for Antitobacco Campaign
Before You Go

That’s right. CHEST 2006 is just around the corner. First, check out new Delta Air Lines discounts at www.chestnet.org/CHEST/program/hotel.php.

Next, here are a few tips to help you hit the ground running.

Once you touch down, from the airport, you can catch a cab or hop a bus for just a few dollars. Or, check with your hotel—some offer transportation services of their own. On site, CHEST 2006 provides complimentary shuttle buses to transport guests between the hotels and the convention center.

Upon arriving at the Salt Palace Convention Center, all guests must report to the ACCP registration area for check-in. For faster service, preregistered guests should bring their yellow registration packet to the express check-in counter. You can avoid the lines during peak times by taking advantage of the extended registration hours.

The Salt Palace Convention Center is in the heart of downtown. Awe-inspiring views can be witnessed from all sides, and the inviting terrain is easy to explore thanks to free public buses and the TRAX light rail service. Combine all of this with the educational and networking opportunities offered during the ACCP’s annual meeting—and you just can’t go wrong.

Salt Lake City! It’s the perfect reason to arrive early to CHEST 2006 or to stay late. Visit www.visitsaltlake.com or www.chestnet.org/CHEST for more details.

Average Temperature Range for October: 40° to 66° F

Cool, but moderate, fall temperatures turn the leaves all shades of gold, purple, red, green, and brown. Beautiful.

Salt Lake City

What To Know

What To Know Before You Go

Patient Education Organization

NATT Supports Education on DVT, Pulmonary Embolism

BY LORI PRESTON, MBA
NATT Vice President

The National Alliance for Thrombosis and Thrombophilia (NATT) is a nationwide, community-based, nonprofit, volunteer, health organization that was formed in August 2003. In keeping with our goal to ensure that people suffering from thrombosis and thrombophilia receive early diagnosis, optimal treatment, and quality support, we have many initiatives underway for 2006.

On May 9, 2006, the Surgeon General of the United States, Vice Admiral Dr. Richard H. Carmona, spoke at the conclusion of a 2-day workshop on deep venous thrombosis and pulmonary embolism and committed to issue a call to action to prevent and decrease the tremendous negative impact of deep venous thrombosis and pulmonary embolism on the American public.

We at NATT are committed to working aggressively and tirelessly to build on the momentum of the Surgeon General’s call to action. NATT offers resources that can be used as educational handout materials for inpatients and outpatients. At our Web site, peer-reviewed PDF files and brochures on thrombosis and thrombophilia-related topics, newsletters, and information about our patient education seminars can be downloaded. These can be accessed at www.nattinfo.org/learn-resources.htm.

Contact Lori Preston via e-mail at lpreston@kerlan.com.
In May, the Institute of Medicine (IOM) released its report on sleep disorders and sleep deprivation. IOM reports can have profound impact on the practice of medicine. For example, the IOM publication, To Err Is Human is often credited with jump-starting the modern field of patient safety. Chest physicians have a significant stake in the field of sleep medicine (called somnology in the report; the only place I have heard that term used). A majority of those who are board-certified in sleep medicine are pulmonologists, and a majority of both accredited and nonaccredited sleep laboratories are directed by pulmonologists. We will often be the first point of contact for the patient with suspected sleep-disordered breathing, and many of us have learned about the gamut of sleep disorders along the way. Therefore, the IOM report is relevant to many chest physicians.

The IOM report makes 10 key recommendations:

1. The National Center on Sleep Disorders Research (NCSDR) and its advisory board should play a more proactive role in stimulating and coordinating the field. Since the publication of the report, its new acting director, Dr. Michael Twery, has seemingly been everywhere at once, prodding, encouraging, supporting, and recruiting sleep investigators. It should be noted that the entire staff of the NCSDR is less than two full-time employees. The Advisory Board of the NCSDR has a new chairman, Dr. Phyllis Zee, who is a neurologist and important contributor to the 2006 ACCP Sleep Medicine Board Review course. The American Thoracic Society has a Sleep Institute that has 400 members. The National Institute of Health and private foundations must increase investment in interdisciplinary somnology and sleep medicine research training and mentoring activities. The ACCP, which probably includes one of the largest collections of sleep medicine practitioners and scientists, has a role to play here.

2. The National Center on Sleep Disorders Research and the Centers for Disease Control and Prevention (CDC) should establish a multimedia public education campaign. Indeed, such a campaign is being developed, and the ACCP is part of it. Based on the highly successful Colorectal Cancer Screening Roundtable, the CDC and the National Sleep Foundation (NSF) have developed the National Sleep Awareness Resourceable (NSAR). The ACCP Sleep Institute is a founding member of NSART.

3. Centers for Disease Control and Prevention and the National Center on Sleep Disorders Research should support additional surveillance and monitoring of sleep patterns and sleep disorders. The NSART working agenda includes surveillance research. Through NSART, ACCP will be able to contribute to framing the questions and methodology to be employed by the group at large.

4. Academic health centers should integrate the teaching of somnology and sleep medicine into baccalaureate and doctoral health science programs, as well as residency and fellowship training and continuing professional development programs. The ACCP has been a leader in professional development programs for sleep clinicians. First is its longstanding sleep medicine course (now directed by Dr. Jim Parish, FCCP). By the time you read this, the ACCP will have completed the presentation of its first Sleep Medicine Board Review course. Further, the ACCP Sleep Institute is developing a curriculum for a regional sleep seminar series to be offered in ACCP members’ sleep laboratories for the primary care physician.

5. Develop and validate new and existing diagnostic and therapeutic technologies. This recommendation gets to the heart of the portable monitoring debate, which is a long and disturbing story. The report revisits the prevalence and consequences of untreated sleep disorders and notes the “cumbersome nature and cost of the diagnosis and treatment” of these problems. Since the most prevalent and dangerous of sleep disorders is sleep apnea, which is the bailiwick of pulmonologists, we need to consider taking a leadership role in advocating for more cost-effective methods of diagnosis and treatment.

6. Expand accreditation criteria to emphasize treatment, long-term patient care, and chronic disease management strategies. The IOM report takes the current American Academy of Sleep Medicine (AASM)-administered sleep laboratory accreditation process to task in this regard, noting “…the primary focus of most existing sleep centers appears to be on the diagnosis, rather than on comprehensive care of sleep loss and sleep disorders as chronic conditions. This narrow focus may largely be the unintended result of compliance with criteria for accreditation of sleep laboratories, which emphasize diagnostic standards and reimbursement for diagnostic testing. To address this, it is recommended that accreditation criteria for sleep centers, in which are imbedded sleep laboratories, be expanded to emphasize treatment, long-term patient care, and management strategies.” The ACCP has already taken steps to develop processes for patient-centered care. In early September, the ACCP Sleep Institute will host an Obstructive Sleep Apnea Continuity of Care Conference, bringing together stakeholders to begin the process of developing guidelines for the long-term care of patients with sleep apnea.

7. It is recommended that the National Institutes of Health establish a National Somnology and Sleep Medicine Research Network. It will be up to the membership and leadership of the ACCP to decide whether to include such an initiative in our advocacy agenda.

8. It is recommended that the National Institutes of Health should ascertain the need for a trans-disciplinary sleep laboratory that would serve as a core resource for the extramural clinical research program. Again, the membership and leadership of the ACCP will need to decide whether to include such an initiative in our advocacy agenda. A natural partner in this and related endeavors would be the American Thoracic Society.

9. New and existing sleep programs in academic health centers should conform to meet the criteria of a Type I, II, or III interdisciplinary sleep program. According to the criteria in the IOM report, a Type I program offers educational programs for medical students and residents in primary care. A Type II program also provides education, training, and research in sleep medicine and includes an accredited sleep fellowship program. A Type III program does all that Types I and II do but also acts as a regional coordinator for a proposed research network. The IOM report tasks the AASM with developing accreditation criteria for sleep programs specific to academic health centers. On its Web site, the AASM responds in part: “Currently, research and financial policy for most sleep centers and academic units are not controlled by those units but rather by other agencies and departments… For academic sleep centers, this would require establishing sleep medicine divisions or departments.” Setting up fiscally independent academic units of sleep medicine is a laudable but probably unrealistic goal. In this regard, it is worth noting that a majority of academic sleep programs are housed in divisions of pulmonary medicine and that there are concerns about the current AASM-directed accreditation process for sleep centers (see #7 above).

The IOM report scrutinizes the current state of clinical practice and research in sleep medicine and finds many significant problems that need to be addressed. Since sleep medicine is now part of the practice of pulmonary medicine, the IOM report is quite relevant for chest physicians and the ACCP.

References

Affiliate CHEST 2006 will feature a variety of sessions and programs of particular interest to ACCP physicians-in-training. The case report sessions will highlight 144 abstract presentations. The presenters are all affiliate members of the College. They will each discuss a unique case, followed by an expert who will provide further comments. In addition, trainee teams have been selected to participate in the CHEST Challenge. This annual jeopardy-style competition provides a unique learning experience for all participants and attendees. All affiliate members and training program directors are encouraged to attend the Affiliate NetWork Luncheon and Open Meeting on Monday, October 23, at 11:30 AM. E-mail your ideas any time to the NetWork Chair, Dr. Brian Carlin, FCCP at bcarlin@wphas.org.

Airways Disorders
At CHEST 2006, the Airways Disorders NetWork Open Meeting on Monday, October 23, at 8:15 AM, will feature a presentation by Dr. Paul L. Enright. Using Spirometry To Screen for COPD: Is It Effective? What Are the Risks and Benefits? The asthma, COPD, and cystic fibrosis subcommittees of the NetWork are re-questing your ideas for new project ideas. On-going projects include the following:
- Disseminating information to assist ACCP members in the transition to non-CFC inhalers.
- Further developing the joint NetWork project on inhaled aerosol devices to include handouts for the use of non-CFC inhalers. The existing patient education handouts will be available on CD-ROM, as part of the ACCP Asthma Toolkit.
- Involvement in the ACCP Sleep Institute, asthma guidelines, and the triennial World Asthma Meeting.
Contact the NetWork at networks@chestnet.org.

Allied Health
With health-care dollars becoming scarce, diversification of revenue streams allows a strategic edge. The Practice Management Department has produced a yearly guide for physicians-in-training. The presenters are all affiliate members of the College. They will each discuss a unique case, followed by an expert who will provide further comments. In addition, trainee teams have been selected to participate in the CHEST Challenge. This annual jeopardy-style competition provides a unique learning experience for all participants and attendees. All affiliate members and training program directors are encouraged to attend the Affiliate NetWork Luncheon and Open Meeting on Monday, October 23, at 8:15 AM.

Chest Infections
Safety Concerns for Two Antibiotics
By Dr. Kelly A. Wood, MHS, FCCP
The association of telithromycin with hepatotoxicity and gatifloxacin with dysglycemia raises concerns among chest physicians prescribing these antibiotics for respiratory infections. Telithromycin is the first ketolide antibacterial agent approved by the U.S. Food and Drug Administration (FDA). Three previously healthy patients who developed severe hepatotoxicity within a few days of taking telithromycin have been described (Ann Intern Med 2006; 144:415). One patient required orthotopic liver transplantation, and one patient died. Histologic examination in these two cases showed massive hepatic necrosis, consistent with drug-induced injury. Additionally, the FDA’s Adverse Event Reporting System describes 10 cases of hepatic adverse events associated with telithromycin, ranging from serious to fatal.

The postmarketing period also disclosed reports of serious disturbances of glucose homeostasis with gatifloxacin. A population-based, nested, case-control study of patients 66 years and older showed that gatifloxacin was associated with an increased risk of hypoglycemia (adjusted odds ratio, 4.3; CI, 2.9 to 6.3) and an increased risk of hyperglycemia (adjusted odds ratio, 6.7; CI, 10.4 to 26.8), as compared with macrolide antibiotics (N Engl J Med 2006; 354:1352). Some reported dysglycemic events have resulted in fatal outcomes. Recently, Brian Myers Squibb announced that it would cease production of its formulation of gatifloxacin. However, other formulations remain in areas of the world.

Clinical Pulmonary Medicine
Mesothelioma: A Brief Update
Malignant pleural mesothelioma (MPM) remains a major therapeutic challenge. A controlled study of surgery vs best supportive care is underway in the United Kingdom, but uncontrolled data continues to make treatment choices largely subjective. Survival averages 6 to 12 months, but untreated patients have lived up to 14 years, with an 8% 5-year survival. Medical thorascopic talc poudrage (TTP) resulted in a 19-month median survival (mean 24) for MPM presenting with pleural effusion (Aelony et al. Respir Med 2005; 10:649). Surgical resections produced a 34-month survival with early-stage disease (Rusch et al. Thorac Cardiovasc Surg 2001; 122:788). The best centers report 4 to 11% 30-day mortality after surgery with major morbidity in 30 to 50% of patients and no cures. Chemotherapy with platin and antifolates improved survival by over 2 months, compared with platin alone, but quality of life declined during therapy (Bottomley et al. J Clin Oncol 2006; 24:361). Radiation therapy provides good control of local outgrowths, but fails to stop disease progression. In-dwelling catheters may relieve fluid pressure and dyspnea but deplete body protein and lymphocytes; reported sur-

CHEST Influenza in Medicine
Each year, the Cultural Diversity in Medicine NetWork provides a number of excellent programs at the annual CHEST meeting. The NetWork would like to draw your attention to two first-time events scheduled at CHEST 2006. Culturally competent health professionals are the key to eliminating racial and ethnic disparities in health care. A postgraduate course, Culturally Competent Health Care: An Education Program for Chest Physicians, will take place on Sunday, October 22. CHEST 2006 coincides with Eid-ul-Fitr, a celebration by Muslims on the first day of the month, following the end of the month of Ramadan (fasting). The ACCP through the Cultural Diversity in Medicine NetWork, will host the Eid-ul-Fitr prayer for Muslims attending CHEST 2006.

Members in Industry
Ever wondered if you are an entrepreneur? The Members in Industry NetWork Highlights session, I have an Idea: A New Medication, Technology, or Company: What Do I Do? will be presented at CHEST 2006 on Monday, October 23, at 2:30 PM. The Members in Industry NetWork is also presenting a postgraduate course and two additional NetWork Highlights at CHEST 2006.

Women’s Health
By Dr. Janet Myers, FCCP
The Women’s Health NetWork is pleased to announce a new CD-ROM “Speaker’s Kit” for tobacco prevention and cessation, “Make the Choice: Tobacco or Health?” The kit will include more than 200 PowerPoint slides full of new information. Other special features include new sections on gender influences on COPD and on lung cancer, information on the effects of passive smoke, recent data on nicotine and smokeless tobacco products, a section just for girls, and updates on tobacco cessation medica-

Sleep Medicine
The Sleep Medicine NetWork continues to move forward, promoting sleep medicine as a specialty, providing educational and research opportunities, and raising awareness of issues pertinent to the practice of sleep medicine. An educational slide kit for sleep disorders is currently being developed as a resource that pulmonary physicians can use when giving lectures on sleep medicine topics to the general medical community. The NetWork is also involved in a variety of joint activities with the ACCP Sleep Institute, such as the Regional Sleep Training Programs for primary care physicians. Those who would like to learn more about the NetWork are encouraged to attend the open meeting at CHEST 2006, scheduled for Tuesday, October 24, 2006, at 8:15 AM. Dr. Bhardwaj Gali, FCCP, will present the topic Preoperative Screening for Obstructive Sleep Apnea.

CHEST P HYSICIAN 15
NEWS FROM THE COLLEGE
CHEST 2006
www.chestnet.org/networks/
**Practice Management Update: Medicare Changes**

Medicare Program Plans Holding Payments End of September 2006

The Centers for Medicare and Medicaid Services (CMS) announced plans to hold Medicare payments for 9 days on ALL claims (initial claims, adjusted claims, and Medicare Secondary Payer claims) that would be scheduled for payment September 22 through September 30, the end of its fiscal year. Payments that would have been paid during that period will be made on October 2, 2006, the first business day of the CMS new fiscal year. CMS currently has a mandatory 14-day hold on payments for electronic claims (29 days for paper claims), so in actual practice, you should expect to not see any Medicare checks from September 8 until October 2 for electronic claims. No interest will be paid on these delayed payments. The Deficit Reduction Act provided for this delay.

Fiscal Year 2007 Medicare Payment Changes

The Medicare Fee Schedule includes physician work relative value units (RVUs) and practice expense methodology changes for the Medicare Physician Fee Schedule (MPFS). This methodology change formalizes the approach for calculating direct costs. This methodology change formalizes the approach for calculating direct costs. The practice expense changes propose a change in calculating the practice expense methodology to the “bottom-up” approach for calculating direct costs. This methodology change formalizes the work ACCP has been doing through the AMA RUC’s Practice Expense Review Committee (PERC).

**Impacts:** This proposed rule represents a shift of $4 billion dollars for procedure and service specific payments within the Medicare physician fee schedule. The cognitive or nonsurgical specialties, including pulmonary medicine, would see increases of 5 to 7%. Critical care has a projected increase of 4%. Thoracic surgery has proposed increases of 1 to 2%. These increases relate to the specialty in aggregate. For the individual physician, payment would depend on the mix of services provided. Some surgical specialties would see cuts of 4 to 6%.

**Great Success on Critical Care Codes:** We had a phenomenal success about 4% of overall MPFS payments. The practice expense changes propose a change in calculating the practice expense methodology to the “bottom-up” approach for calculating direct costs. This methodology change formalizes the work ACCP has been doing through the AMA RUC’s Practice Expense Review Committee (PERC).

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Practice Management CHEST 2006 Lineup

Two half-day postgraduate courses entitled:
- Physician Reimbursement Essentials
- Physician Reimbursement Topics

24 additional educational sessions, such as:
- Practice Growth and Governance
- Electronic Medical Records (EMRs)
- Medicare Audits and Insurance
- Claims Denial
- Practice Management Roundtables:
  Back by popular demand, these will take place on Tuesday, October 24, in the exhibit hall from 11:35 am until 12:50 pm.

Pick up your free box lunch, look for the red tablecloth.

One-on-One Practice Management Consultations: New this year, physicians and/or their practice administrators will have the opportunity to meet individually with our reimbursement specialist. This is not to sell any services but rather to discuss problematic practice management issues with our expert consultant. Consultations will be 15 minutes, by appointment only. Please call Marla Brichita at (847) 498-8364.

Northwest Suburbs of Chicago

St. Alexius Medical Center, a member of the Alexian Brothers Health System, is seeking BC/Critical Care Intensivist to serve as Medical Director for a new 24/7 in-house intensivist program. This Medical Director will develop all policies and procedures as well as be involved in the hiring of additional intensivists to staff this program. Experience as a Medical Director or Assistant Medical Director of an intensivist program required.

St. Alexius Medical Center has been the leader in healthcare services in the Northwest Suburbs of Chicago for the last twenty-seven years. Due to rapid growth, St. Alexius will be adding a $60 million addition to its campus, which will include a three-story children’s pavilion and a four-story women’s pavilion. This new expansion would also accommodate a growing adult intensive care program, which currently has 19 beds. This is an exciting opportunity for an individual who would like to work for a hospital that has outstanding programs as part of the Alexian Brothers Hospital Network. Tremendous growth potential, shared call, paid relocation, past malpractice, competitive compensation and benefits. Excellent schools in a family-oriented, affordable community with many amenities; fourth five minute drive to downtown Chicago.

To inquire, please contact:
Tim Gilpin
847-981-6502
E-mail: gilpint@alexian.net
Or Fax CV to 847-956-5483

Marietta Pulmonary Medicine

Well-established, busy 11-physician single-specialty Pulmonary practice in suburban Atlanta, Georgia, looking for one or more BC/BE Pulmonary-Critical Care physicians. Sleep certification is a plus. Practice includes all aspects of pulmonary medicine, including critical care, sleep medicine, out-patient clinic, pulmonary rehab and clinical research. Practice located at one large acute-care hospital, with the busiest ER in Georgia, and also rounds at a near-by long term acute care hospital. Integration of an electronic ICU monitoring system planned for the near future. Competitive salary with bonus potential and generous benefits package. Fax CV to: 770-792-1738.

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CPAP Lowered Blood Pressure in Sleep Apnea

Based on these reductions, ‘You would expect to see improvement in morbidity and mortality.’

By Jane Saloof MacNeil
Elsevier Global Medical News

San Diego — Two weeks of continuous positive airway pressure significantly reduced the blood pressure of hypertensive obstructive sleep apnea patients in a small randomized controlled trial presented in a poster at the International Conference of the American Thoracic Society.

The patients in the trial ranged from 25 to 65 years of age with a mean body mass index of 29.5 kg/m²-31.5 kg/m². The only statistically significant difference in baseline characteristics was that average systolic blood pressure was lower in placebo patients: 122.5 mm Hg vs. 135.1 mm Hg in the CPAP group and 132.5 mm Hg in the oxygen cohort.

Mean arterial pressure at baseline was 91.2 mm Hg in the placebo group, 94.9 mm Hg in patients treated with oxygen, and 98.1 mm Hg in the CPAP group. Average diastolic blood pressure was 75.6 mm Hg, 76 mm Hg, and 79.6 mm Hg, respectively.

Dr. Daniel Norman reported that nighttime systolic, mean arterial, and diastolic blood pressure decreased by 6 mm Hg, 5 mm Hg, and 4 mm Hg, respectively, in 18 patients on continuous positive airway pressure (CPAP).

Daytime mean arterial pressure (MAP) and diastolic blood pressure each declined by 3 mm Hg as well.

Although the difference was not statistically significant, daytime systolic blood pressure also dropped by about 2 mm Hg.

“This kind of improvement in blood pressure is similar to what you would see with many hypertensive medications,” Dr. Norman, a fellow in pulmonary and critical care at the University of California, San Diego Medical Center, said at a press briefing.

Based on these reductions, he added, “you would expect to see improvement in morbidity and mortality.”

In contrast, 24-hour ambulatory blood pressure monitoring revealed no significant improvements in the blood pressure of the 13 patients who were treated with supplemental oxygen or of 15 patients on placebo.

The investigators adapted the equipment taken home by patients, so that the assigned apparatus looked the same regardless of which therapeutic option was delivered.

Though patients given supplemental oxygen did have better oxygenation saturation, this did not appear to have an impact on blood pressure, according to Dr. Norman and his coinvestigators in the departments of medicine and psychiatry at the university.

They speculated that CPAP’s ability to improve blood pressure may involve “mechanisms other than improvement of nocturnal oxyhemoglobin saturation.”

After 2 weeks of therapy, both the CPAP and supplemental oxygen groups registered improvements in average nocturnal saturation of oxyhemoglobin (SpO2) and average SpO2 nadir. These values had been similar in all three groups at baseline, the investigators said, but the final SpO2 values for both CPAP and supplemental oxygen patients were higher than those recorded in patients on placebo.

The apnea/hypopnea index and the oxygen desaturation index scores fell in the groups treated with CPAP or supplemental oxygen, but the investigators reported that “the magnitude of change was smaller in the oxygen group and not enough to differentiate it from placebo.”

Dr. Norman noted that obstructive sleep apnea is known to increase the risk of hypertension. He also acknowledged that half of the sleep apnea patients offered CPAP find they cannot tolerate it. Instead, they seek other therapies, such as supplemental oxygen.

The trial doesn’t rule out supplemental oxygen, he said, “but it reaffirms that CPAP remains the gold standard of therapy.”

Auto-CPAP Appeared to Improve Adherence In Obstructive Sleep Apnea Patients

By Sharon Worcester
Elsevier Global Medical News

Salt Lake City — Automatically titrated continuous positive airway pressure appears to be an effective option for the management of obstructive sleep apnea in patients who fail to adhere to the standard of manually titrated CPAP.

Of 57 patients who were poorly compliant (defined in this study as using CPAP for 2-4 hours during a study night) or noncompliant (defined as using CPAP for less than 2 hours during a study night), 72% were compliant with auto-CPAP Vincenza E. Castronovo, Ph.D., reported at the annual meeting of the Associated Professional Sleep Societies.

The patients were a subgroup of 569 consecutive patients with severe obstructive sleep apnea who underwent one full night of polysomnography with manual CPAP titration, and who were noncompliant during that night. These patients received the auto-CPAP treatment one night after receiving the manual titration CPAP, and used it for a mean of 6.7 hours with an average pressure of 8.4 cm H2O and a 90th centile pressure of 10.2 cm H2O, said Dr. Castronovo of the University Vita-Salute San Raffaele, Milan.

Compliance was defined in this study as CPAP use of more than 4 hours per night.

The findings suggest that auto-CPAP could be a valid therapeutic alternative in those patients who have poor compliance or who are deemed untreatable by CPAP.

Auto-CPAP should be considered before other treatment options, such as surgery, in these patients, Dr. Castronovo said.

Dr. Susan H. Harding, FCCP, comments: Because oral appliance therapy and uvulopalatopharyngoplasty have low success rates in patients with severe OSA, a concerted effort must be made to encourage the acceptance of positive airway pressure therapy by these patients. Desensitization therapy for claustrophobia, auto-CPAP, and even bilevel positive pressure should be considered for these patients.

Anticiplon Pharmaceuticals US, Inc. 6a-8b
Baxter Healthcare Corporation 9
Beutlering Ingelheim Pharmaceuticals, Inc. SPIRIVA 10a-10b
ELAN Pharmaceuticals, Inc. BECLOMETHASONE 19-20
Pfizer Inc. CHANTIX 3-4
The stapler has a microprocessor that measures tissue thickness and adjusts the pressure.

**DR. VIGNESWARAN**

The stapler’s digital loading unit can be used to treat bacterial infections. It does not treat viral infections (e.g., the common cold). When MONAPRIN® is prescribed to treat bacterial infections, patients should be told that it is common to feel better early in the course of therapy, the medication should be taken exactly as directed. Skipping doses can diminish the effectiveness of the antibiotic and lead to the development of drug-resistant bacteria. As with other antimicrobials, prolonged use of MAXIPIME may increase the risk of superinfection development. Should superinfection occur during therapy, appropriate measures should be taken. Many cephalosporins, including cefepime, have been shown to be mutagenic in some mammalian cell genotoxicity tests. This does not necessarily include patients with renal or hepatic impairment, or poor nutritional status, as well as patients receiving a dosage adjustment. In addition, patients who are taking drugs that are active metabolites and the concurrent use of anticonvulsant therapy. Patients should be instructed to report any sign or symptom associated with cefepime. (See ADVERSE REACTIONS, Laboratory Tests, and Anticonvulsant Therapy. Anticonvulsant therapy can be given if clinically indicated. Precautions should be taken to avoid or correct anticonvulsant therapy if the drug should be discontinued. (See PRECAUTIONS, ADVERSE REACTIONS, and Anticonvulsant Therapy. Anticonvulsant therapy can be given if clinically indicated. Precautions should be taken to avoid or correct anticonvulsant therapy if the drug should be discontinued. (See PRECAUTIONS, ADVERSE REACTIONS, and Anticonvulsant Therapy.) If seizures associated with drug therapy occur, the drug should be discontinued.

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**References**

1. Pseudomembranous colitis has been reported with nearly all antibacterial agents, including MAXIPIME. In patients treated with MAXIPIME, the following adverse experiences have been reported: nausea (1.7%), vomiting (1.3%), diarrhea (1.7%), and headache (1.7%). In patients treated with MAXIPIME, the following adverse experiences have been reported: nausea (1.7%), vomiting (1.3%), diarrhea (1.7%), and headache (1.7%).

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