Adult Acute Care Bulletin
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American Association for Respiratory Care

Adult Acute Care Specialty Practitioner of the Year: Pat Yorio, RRT

Section Chair John Graybeal, CRTT, says Pat Yorio has the three key qualities that anyone would look for when honoring excellence in the bedside practitioner. Not only does he possess excellent technical knowledge and skills, he also demonstrates professionalism on the job and commitment to his professional organizations.

As ICU coordinator at St. Francis Hospital in Pittsburgh, PA, Yorio regularly goes above and beyond the call of duty when caring for his patients. He demonstrates the same high standards when working with other professionals who staff the unit. "This high level of practice had led Pat to become a respected part of the critical care team," says Graybeal.

"My greatest significant contributions are on the job," says Yorio. In addition to the typical responsibilities of the ICU coordinator, he provides lectures, does research, serves on committees inside and outside of the hospital, and is involved in CQI and QA efforts. He has also helped to produce promotional movies, and he belongs to several journal clubs.

Off the job, Yorio is an active member of numerous organizations, promoting the profession to colleagues both inside and outside of the field. In addition to serving in many capacities within the AARC and the section, Yorio is a member of the Society of Critical Care Medicine and has served as a board member for the Pennsylvania Society of Critical Care Medicine. He believes his membership in the AARC and the Adult Acute Care Section is important because it has allowed him to stay connected to his colleagues across the country. "I cannot imagine any body of people surviving without a central organization looking after their interests. It would be like a ship without a rudder."

Like most bedside practitioners, however, Yorio says his patients are the driving force behind his efforts. A 25-year veteran of respiratory care, Yorio has worked in numerous settings over the years, including home care and pediatrics, and he recalls one incident in the latter arena that he believes sums up his dedication to the field.

"My greatest accomplishment happened about 25 years ago when Bobby Cole, an eight-year-old boy with cystic fibrosis, in his PJs and pushing his own IV pole, followed me back to my department. While I was washing equipment, Bobby handed me a plastic statue of a mouse, his arms held wide-open, saying, "I love you this much." I keep this statue on my dresser at home in memory of Bobby, keeping me focused on what my job is about." ■

Survival Rate Rising for Lung Cancer Patients

Dutch researchers report a significant 41% five-year overall survival rate among 2,263 patients who had surgery for non-small cell lung cancer (NSCLC). Jules M.M. van den Bosch, MD, PhD, FCCP, and colleagues showed that survival in patients with complete resection was significantly better; five-year survival was 44.3% in patients with complete resection versus 16.2% for incomplete surgery.

"For patients with NSCLS," says Dr. van den Bosch, "surgery and complete removal of the primary tumor and its involved lymph nodes remains the most effective mode of treatment." He adds, "Lung cancer staging . . . is an important aid to determine the clinical course of the patient and the success of treatment." Staging is based on the anatomic extent of the disease as defined by the grade of the primary tumor, any regional lymph node involvement, and whether distant disease is present.

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According to the investigators, who used the 1997 staging criteria, there were significant differences in survival between tumor stages 1A (63 five-year survivors) and 1B (46 five-year survivors); IIA (52 five-year survivors) and IIB (33 five-year survivors), and IIIA (19 five-year survivors).

The researchers note that during the last decade more aggressive surgery has led to more liberal inclusion of patients with advanced disease. They also point out that the number of patients with advanced lung cancer in this study was slightly higher than average.

The investigators considered resection to be complete when the surgeon was certain all known disease had been removed, resection margins from removed tissue were free of disease on pathologic examination, and the highest lymph node was free of disease in a pathologic examination utilizing microscopy.

The researchers focused on patient data from 1970 to 1992, studying 2196 men (93%) and 165 women. Deaths within 30 days of the operation were excluded from the study. Tumors were classified as squamous cell carcinoma in 1607 patients (68.1%), adenocarcinoma in 542 (23%), adenosquamous in 88 (3.7%), and undifferentiated large cell carcinoma in 124 (5.2%).

According to the researchers, survival was significantly better in patients who had squamous cell lung carcinoma compared with patients who had non-squamous cell carcinoma (Chest, 2/00) ■

Respiratory Virus Infections Lead to Hospitalization

Respiratory virus infections commonly trigger serious acute respiratory conditions that result in hospitalization of patients with chronic underlying conditions, say investigators from Texas.

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W. Paul Glezen, MD, from Baylor College of Medicine, Houston, and colleagues conducted a study to determine the frequency of specific virus infections associated with acute respiratory tract conditions that lead to hospitalization of chronically ill patients. According to the authors, while hospitalization rates have declined overall, hospitalizations for acute lower respiratory tract infections have increased steadily since 1980.

The study included 1029 patients from four large clinics and related hospitals serving diverse populations representative of Harris County, TX. The patients were hospitalized for pneumonia, tracheobronchitis, croup, exacerbations of asthma or chronic obstructive pulmonary disease, and congestive heart failure.

The authors found that 93% of patients older than 5 years had a chronic underlying condition; a chronic pulmonary condition was most common. The study also noted that low-income patients with chronic pulmonary disease were hospitalized at a rate of nearly 400 per 10,000, almost 8 times higher than the rate for patients from middle-income groups, which was approximately 52 per 10,000. Of the 403 patients who submitted convalescent serum specimens for antibody testing, respiratory tract virus infections were detected in 181 (44.9%). Influenza, parainfluenza, and respiratory syncytial virus (RSV) infections accounted for 75% of all virus infections.

According to background information cited in the study, the number and rate of hospitalizations for persons with acute lower respiratory tract infections has increased steadily during the last 20 years. Almost 1.5 million persons were hospitalized in 1995, an average increase of more than 28,000 per year since 1980.

The authors state that, "efforts to prevent respiratory virus infections should be focused on prevention of the infections that result in hospitalization in high-risk patients. Our studies suggest that vaccines for RSV and parainfluenza viruses should be added to the currently available vaccine for influenza." (JAMA, 1/26/00) ■

Spontaneous Movements Common After Brain-Death

Argentinean researchers have found that spontaneous movements such as the jerking of fingers or bending of toes, which can be disturbing to family members and health care professionals alike, causing them to question the brain-death diagnosis, occur in 39% of brain-dead patients.

The study examined all patients in a hospital who had a diagnosis of brain death during an 18-month period. Of the 38 patients, 15 exhibited these motor movements. In all cases, the movements were seen in the first 24 hours after the brain-death diagnosis, and no movements were seen after 72 hours. Some of the movements occurred spontaneously, but others were triggered by touch.

Examiners used tests designed to elicit motor movements, such as lifting the arms or legs or touching the palm of the hand.

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EEG tests did not show any brain activity in any of the patients with movements.

"If the lack of understanding of these movements leads to a delay in the brain-death diagnosis or questions about the diagnosis afterwards, there can be important practical and legal implications, especially for organ procurement for transplantation," says study author Jose Bueri, MD. "Family members and others need to understand that these movements originate in the spinal cord, not in the brain, and their presence does not mean that there is brain activity." (Neurology, 1/11/00) ■

Consensus Statement on Idiopathic Pulmonary Fibrosis

An international group of experts has issued a consensus statement directed at the diagnosis, evaluation, and management of patients with idiopathic pulmonary fibrosis (IPF). This disease results from the abnormal accumulation of inflammatory cells in lung tissue, causing scarring and fibrosis.

IPF usually occurs after age 50. The average length of survival from the time of diagnosis to death ranges from 3.2 to 5 years. The panelists stress that efforts should be made to identify patients with IPF earlier in the course of their disease when it is more likely their clinical outlook can be altered by treatment.

Treatment options for IPF include corticosteroids, immunosuppressive/cytotoxic agents, and anti-fibrotic agents alone or in combination. Between 10-30% of patients improve when treated with corticosteroids. The experts stress, however, that lung transplantation should be considered for patients under 60 who experience progressive physiologic deterioration despite optimal medical management. (American Journal of Respiratory and Critical Care Medicine, 2/00) ■

Blood Ammonia Levels May Rise After Lung Transplant

A small percentage of patients who receive lung transplantation develop a deadly increase of blood ammonia levels, according to a collaborative study by researchers at the University of Pennsylvania Medical Center and The Children's Hospital of Philadelphia.

The researchers studied 145 consecutive adult patients who received lung transplantation over a five-year period at the University of Pennsylvania Medical Center. Six of the 145 patients, or 4%, developed high levels of blood ammonia, called hyperammonemia. Of those six patients with hyperammonemia, four, or 67%, died within 30 days of the surgery. That compares to 24 deaths (or 17%) in the 139 patients with normal levels of blood ammonia. A fifth patient with hyperammonemia died 34 days after the surgery. In all five cases, death was preceded by coma and increased pressure in the brain.

The only lung transplant patient with hyperammonemia who survived had her condition recognized early and received hemodialysis and medications to lower her blood ammonia level. "This one case does not prove that this therapy will benefit all patients with this post-transplant complication, but it does suggest a useful area for further study," says Gerard T. Berry, MD, an endocrinologist and geneticist at The Children's Hospital of Philadelphia and senior author of the study. (The Annals of Internal Medicine, 2/15/00) ■

Efficiency Ideas Could Pay Off

Medicare is currently offering monetary awards to individuals and others who can supply the Health Care Financing Administration (HCFA) with original suggestions on ways to improve Medicare efficiency. The newly created program is part of a final rule that implements Sec. 203(c) of the Health Insurance Portability and Accountability Act of 1996.

A description of the program, including information requirements and eligibility criteria, lower and upper limits for payments ($1,000 to $25,000), and the process and time limitations HCFA will follow in issuing a reward, is provided in the final rule. The program is open to individuals, groups of individuals, or legal entities, (e.g., corporations, partnerships, or professional associations). Federal employees, contractors, grantees, and their family members are not eligible. To qualify for a reward, the suggestion must be original and result in a net savings of at least $1000.

The guidelines are listed in the November 26, 1999, Federal Register, Volume 64, No. 227, page 66396. You can also learn more at the following web site: www.access.gpo.gov (type "Medicare Efficiency" in the search space for more details). (HCFA) ■

AARC Seeks Open Forum Abstracts

The AARC and its science journal, RESPIRATORY CARE, invite submission of brief abstracts related to any aspect of cardiorespiratory care. The abstracts will be reviewed, and selected authors will be invited to present posters at the OPEN FORUM during the AARC International Respiratory Congress in Cincinnati, OH, October 7-10. Accepted abstracts will be published in the August issue of RESPIRATORY CARE. Membership in the AARC is not required for participation. All accepted abstracts are automatically considered for American Respiratory Care Foundation research grants.

The final deadline for submission of abstracts is April 28. ■

AARC Online Audio Hits the Web

If you haven't visited the AARC web site (www.aarc.org) in awhile, now's the time to sign on and see — or, rather hear — what you've been missing. That's right, folks — the Association has added audio to the mix! Now all you reading-weary therapists can put away your spectacles (at least for a few moments) any time you see the audio symbol on AARC Online. (It looks like a speaker emitting sound waves — you can' t miss it.)

All you have to do is click on the icon and then just sit back and enjoy the message. It's that easy. You will, however, need to be sure you have installed RealPlayer on your computer. You might already have it, but for those of you who don't, you can click on the "RealPlayer" button the first time you decide to tune in online and download it for free.

The AARC plans to use the new audio feature whenever it can on the web site, including for a new series called "Balancing Life and Work" featuring interviews with RTs just like yourself talking about everything from professionalism to financial planning. So sign on today and hear what you've been missing! ■

New IISPs Available from AARC

Several new Individual Independent Study Packages (IISPS) are now available from the AARC:

Substrate Metabolism
Module 1 in the Metabolic Assessment for the Respiratory Therapist series.
Introduces the three classifications of material providing nutrition to the body: proteins, carbohydrates, and lipids. Describes the structure and function of these substrates.
Item CP - 11 $12 ($16 Nonmembers) plus shipping and handling.

Respiratory Parameters of Metabolic Assessment
Module 2 in the Metabolic Assessment for the Respiratory Therapist series.
Defines oxygenation consumption, carbon dioxide production, respiratory quotient and lipogenesis, offering formulas for calculating levels.
Item CP - 12 $12 ($16 Nonmembers) plus shipping and handling.

Indirect Calorimetry
Module 3 in the Metabolic Assessment for Respiratory Therapist series.
Outlines differences between direct and indirect calorimetry as well as closed and open systems. Identifies problematic conditions leading to erroneous results, including leaks for ventilated patients, patients breathing spontaneously, and patients on supplemental oxygen.
Item CP - 13 $12 ($16 Nonmembers) plus shipping and handling.

Energy Expenditure and Supply
Module 4 in the Metabolic Assessment for the Respiratory Therapist series.
Identifies the process of determining an appropriate level of nutritional support for ambulatory patients. Discusses the caloric density of commonly used parenteral solutions and calculates the number of kilocalories provided by various enteral and parenteral fluids.
Item CP - 14 $12 ($16 Nonmembers) plus shipping and handling.

Applying the Concepts of Metabolic Assessment to Patient Care
Module 5 in the Metabolic Assessment for Respiratort Therapist series.
Specific patient scenarios are presented to help understand the process of applying metabolic assessment. All application steps are addressed for each case study. Using this step by step process over and over the learner should become familiar with the processes of assessment, and calculation of a patient's metabolic needs.
Item CP - 15 $12 ($16 Nonmembers) plus shipping and handling.

Toward Culturally Competent Respiratory Care
Offers the respiratory therapist an introduction to cultural differences in patient populations. Provides scenarios of situations involving various ethnic groups, and suggests courses of action for dealing with language and cultural differences.
Item CP - 1 $12 ($16 Nonmembers) plus shipping and handling.

Microbiology for Respiratory Therapy: A Review of Microbial Growth and Cross-Contamination
Revised 2000
Provides an overview of microbiology in respiratory care, including groups and characteristics of microbes, requirements for microbial growth, crosscontamination, and prevention of transmission.
Item CS - 17 $12 ($16 Nonmembers) plus shipping and handling.
Call (972) 243-2272 to place an order by phone, or fax your order to (972) 484-2720 with MasterCard, Visa, or Purchase Order number. ■

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Save These Dates!

AARC Summer Forum
Vail, CO
June 2-4, 2000

46th International Respiratory Congress
Cincinatti, OH
October 7-10, 2000

AARC Asthma Disease Management Courses
Vail, CO
June 4-5, 2000

Atlanta, GA
Nov. 17-18, 2000

Specialty Practitioner of the Year

Don't forget to make your nominations for the 2000 Adult Acute Care Specialty Practitioner of the Year. This honor is given to an outstanding practitioner from this section each year at the AARC's Annual Convention.

The recipient of this award will be determined by the section chair or a selection committee appointed by the chair. Each nominee must be a member of the AARC and a member of the section.

Use the following form to send in your nominations for this important award:

I would like to nominate _____ for Adult Acute Care Specialty Practitioner of the Year because

Nominee

Hospital

Address

City State, Zip

Phone

Your Name

Hospital

Address

City State, Zip

Phone

Mail or FAX your completed form to the section chair at the address/number listed on page 2 of this issue.

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