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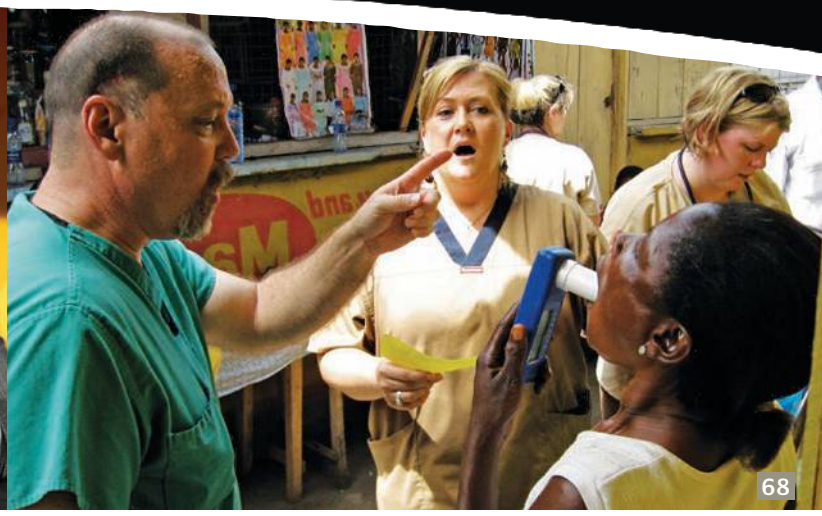

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AARC Strategic Plan

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AARC Strategic Objectives

• Validate the science of respiratory care and the value of the respiratory therapist (RT) in providing respiratory care by supporting, conducting, and publishing research information.

• Promote respiratory therapists as the best providers of respiratory care by assuring that the science that clarifies the value and role of the RT is provided to those stakeholders whose decisions and actions need to be guided by that information.

• Promote respiratory therapists and the American Association for Respiratory Care by developing and implementing promotion and marketing campaigns targeted to unique audiences.

• Assure the Association has the resources to meet the needs of its members and that the AARC has the needed financial, volunteer, and staff resources needed to accomplish the implementation of the strategic plan of the Association.

The complete version of the Association's Strategic Plan is available to Association members online at www.aarc.org/members_area/resources/strategic.asp.

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FOCUS ON

Allergies & Asthma

Asthma: A Worldwide Perspective

by Thomas J. Kallstrom, MBA, RRT, FAARC

Unfortunately, asthma is not just an Americanized disease. It is a chronic lung disease that reaches throughout the globe. According to the World Health Organization (WHO), there are 300 million people who currently suffer from asthma.[1] It is estimated that internationally the prevalence of asthma has increased 50% over the past 10–15 years. The highest prevalence rates have been found in the United Kingdom, New Zealand, Australia, and Ireland — with the lowest rates found in Indonesia, Albania, Romania, and Georgia.

Death rates, sadly, have increased in nations that lack adequate medical care and access to treatments; however, the death rates have decreased in countries where anti-inflammatory medications are available and used effectively.[2] Closer to home, in the United States, asthma is the most common chronic disease among children. Also in the United States, African-Americans, Puerto Ricans and others who live in poverty have higher rates of asthma; and African-Americans have a higher rate of hospitalization and death compared to whites.[3]

The growing recognition of the signs and symptoms and ongoing study of this disease may account for the rising numbers. Despite this, the treatment of asthma can vary from nation to nation. The determining factors that influence this are primarily socioeconomic, cultural beliefs, and environmental issues.

In India, for instance, the environment primarily affects children who are exposed to truck traffic near their homes, maternal smoking, exposure to cats, and paracetamol (acetaminophen) intake of more than once a month.[4] For adults in India there are other contributing factors, such as exposure to use of biomass in cooking, low education, obesity, and exposure to alcohol.[5] In Russia the effects of temperature changes (sub normal hot and cold days) and air pollution exacerbates asthma.[6] In the United States triggers are commonly seen in urban environments where patients are exposed to cockroaches, mold, secondhand smoke, and air pollution.

While each country or region has identified triggers, there seems to be a commonality of these triggers throughout the world. The question needs to be asked: Why in 2010 is asthma incidence on the rise worldwide? There are many possible reasons for this. According to Global Initiative for Asthma (GINA), this could be due to an increased urbanization of societies (in fact, they predict an increase from 45–59% in prevalence of those who live in urban areas), poor access to adequate medical care, and an increase in atopic sensitization with similar increases in other allergic disorders associated with asthma (eczema and rhinitis).[7]

about the author...

Thomas J. Kallstrom, MBA, RRT, FAARC, is associate executive director and chief operating officer of the AARC.

Changing the outlook

Certainly, the National Heart, Lung, and Blood Institute's (NHLBI) National Asthma Education and Prevention Program (NAEPP) has sought to work with WHO and GINA in an attempt to positively impact the prevalence of asthma and mortality throughout the world. In fact, just as the NAEPP has done with asthma management guidelines ("Expert Panel Report 3"), so too has GINA.[8]

The National Institutes of Health has just this year launched two initiatives that are focused on asthma. They are the Translational Program Project Grant and Centers for Advanced Diagnostic and Therapeutics. Their intention is to expedite the development of new treatments and therapies. Translational research can be thought of as a method of quickly bringing the results of research directly into the care of the patient. The NHLBI is committed to this on a

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worldwide basis (see the interview with its acting director, Susan Shurin, MD, in August 2010 *AARC Times*). By providing the necessary tools (as a result of published research), it is hoped that a positive impact will be felt throughout the world.

A large component of asthma management continues to be in the education of our patients, which must be focused on making patients better self-managers of their disease. To do this, they will need to receive the best education that is pertinent to their situation. A recent review of available education on the World Wide Web, undoubtedly one of the most used vehicles for getting asthma education, found that there is a wide variability in the accessibility and quality of asthma education on the Web. The majority of it is written in English and is at a high reading level.[9] This is concerning because it limits those who can use the information and because the availability of information on the Web is unlimited; in addition, this information may also be unreliable. It is really up to us as caregivers to be the clinical or bedside educator and advocate for our patients. As we treat and educate our patients, we need to be sure that we provide advice that comes from a credible source. This generally can be found from governmental and professional organizational sources, as well as that published in peer-reviewed medical journals.

> Internationally, asthma prevalence has increased 50% over the past 10–15 years, currently affecting 300 million people.

Patients deserve our best

Patients throughout the world — in particular, people with asthma — are subject to barriers that may impair their ability to manage their disease. Whether this is environmental, based on economic disparities, or due to issues with patient education, we owe our patients the best we can provide no matter where in the world they may reside. ■

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- **Minimizing VAP in 2011– How Respiratory Therapists Can Contribute**
  Marcos I. Restrepo, MD
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Mechanical Ventilation in Developing Nations

ICU personnel working here in the United States and throughout the rest of the developed world take modern mechanical ventilation technology for granted. In most places, upgrading to the latest and greatest every few years is par for the course; and if a breakthrough technology appears on the scene, many facilities jump on the bandwagon as soon as it is available.

But in the rest of the world, health professionals often consider themselves lucky if they have outdated equipment handed down from their more affluent peers; and in the most remote areas, "mechanical ventilation" may mean little more than applying bag and mask. While these nations have a long way to go to catch up with the typical American or European ICU, however, that doesn't mean they aren't using mechanical ventilation for their patients or trying to better understand how to make the most of the technology in their unique environment.

These studies published over the past few years provide an overview of mechanical ventilation in the developing world and the special challenges faced by health professionals working in these limited resource settings:

VAP rates are high: Argentinean researchers publishing in the *Annals of Internal Medicine* conducted a prospective cohort surveillance study of device-associated infections in 55 ICUs in 46 hospitals in Argentina, Brazil, Colombia, India, Mexico, Morocco, Peru, and Turkey.[1] Using definitions provided by the U.S. Centers for Disease Control and Prevention, the investigators found an overall infection rate of 14.7%. Ventilator-associated pneumonia (VAP) accounted for the most infections, with 24.1 cases per 1,000 ventilator days. The investigators note this compares to a U.S. infection rate of 5.4 cases per 1,000 mechanical ventilator days.

It depends on the patient: French investigators who looked at mortality in ICU patients requiring more than six hours of mechanical ventilation in one 10-bed ICU in a hospital in the Comoros Islands found a 59% in-hospital mortality rate but a 100% survival rate at one year among patients who left the hospital alive.[2] They attribute these findings to the fact that patients in this cohort tended to be younger and suffering from acute conditions, such as severe malaria, meningitis, eclampsia, and poisoning, that were reversible. The authors conclude that while mechanical ventilation is feasible and effective in a developing nation, the initial diagnosis and associated risk factors should be considered when deciding to initiate or discontinue the technology in this setting. The report appeared in *Médecine Tropicale: Revue du Corps de Santé Colonial*.

Finding lower-cost alternatives: Bubble CPAP could be a good alternative to invasive mechanical ventilation in developing countries, report researchers from Fiji and Australia who compared outcomes for infants treated in one NICU 18 months before and 18 months after nurses were trained to use bubble CPAP.[3] The need for mechanical ventilation dropped by 50%, with no change in the mortality rate. At just 15% of the cost of the least expensive mechanical ventilator on the market, the authors note bubble CPAP could be ideal for resource-limited countries. The study was published in the *Journal of Tropical Pediatrics*.

Getting organized: A 2009 report in the *Bosnian Journal of Basic Medical Sciences* suggests the founding of a medical society devoted to ICU medicine can help developing countries move forward with more modern technology.[4] That's what happened in Bosnia and Herzegovina after the Society of Intensive Care Medicine was established in 2006. Noninvasive ventilation was introduced in 2007, and multidisciplinary ICUs were also opened in Banja Luka and Sarajevo. This is all a good start, but the authors believe more strides will have to be made to bring ICU care in their nations up to the standards enjoyed by the rest of Europe. Specifically, the countries need to recognize ICU care as a specialty, implement a specific training program, and establish additional multidisciplinary ICUs.

When bag-valve-mask will suffice: Kenyan researchers who reviewed the medical literature on newborn resuscitation practices in low income settings find bag-valve-mask ventilation can help improve outcomes without the need for more sophisticated and expensive technologies.[5] Their analysis found adequate ventilation is possible with this basic equipment, and room air is just as effective as oxy-

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gen for initial resuscitation. The study appeared in *Transactions of the Royal Society of Tropical Medicine and Hygiene*.

If you build it... What happens when a developing nation improves reimbursement for medical technology? Taiwanese researchers publishing in a 2008 issue of *Health Policy* give the unsurprising answer in a study of mechanical ventilation use in their country after the Bureau of National Health Insurance launched a new payment program for the technology in the year 2000.[6] Although total hospital inpatient days only increased by 49.41% between 1997 and 2004, mechanical ventilation usage skyrocketed, going up by 181.75%.

Home care is possible: Home care for pediatric patients on mechanical ventilation is tricky even in the most developed nations. But researchers from Turkey show it can be safely accomplished in a developing country as well in a report that appeared in a 2008 issue of *Respiration*.[7] They followed 34 children with a median age of about five who were discharged home on mechanical ventilation between 2001 and 2006, 11 on invasive ventilation via tracheostomy and 23 on noninvasive ventilation. Three patients were successfully weaned during the study period, and 11 died during follow up. Despite the fact that none of the children received home nursing, no life-threatening complications were linked to home mechanical ventilation in this patient population.

Evidence-based medicine does apply: Developed nations around the world are embracing the concept of evidence-based medicine. Developing nations can implement these strategies as well, and Malaysian investigators proved it by reporting outcomes from one NICU over a 10-year period.[8] In a *Journal of Tropical Pediatrics* study, they noted infants treated in one six-month period in 2003 were more likely to receive antenatal corticosteroids, to be intubated at birth, to receive surfactant, to be ventilated, and to have double prong nasal continuous positive pressure either as a mode of ventilation or for weaning, than those treated in a six-month period in 1993. Survival increased dramatically over the study period, going from 62.3% to 81.6%.

Making every device count

As these studies show, developing nations are not only using mechanical ventilation technology, in some cases they are having great success with it, despite the challenges that come from working in a low resource environment. While they may be far removed from the state-of-the-art devices Western health professionals see on a daily basis, they are making the most of the equipment available to them and applying it toward the best possible outcomes for their patients. ■

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Obstructive Sleep Apnea Around the World

In 2008, researchers from Sao Paulo, Brazil, published an interesting paper in *Arquivos de Neuro-Psiquiatria* suggesting a novel cause for the well-documented daytime sleepiness exhibited by their 19th century emperor, Dom Pedro II.[1] "The excessive daytime sleepiness of D. Pedro II (1825-1891) was a well known and bitterly criticized behavior by oppositionist magazines; it was also recognized by his peers," the authors wrote. "He would fall asleep in public places such as the theater and while attending lectures."

The researchers, who combed through historical documents to come up with their theory, concluded that the emperor's tendency to nod off was not (as claimed by his detractors) the result of a disinterest in the affairs of state but rather due to obstructive sleep apnea (OSA), most likely related to the considerable weight gain experienced by D. Pedro II as he aged. "The possibility of this diagnosis is particularly relevant in this case because it points to an organic cause for D. Pedro II['s] daytime naps and excessive daytime sleepiness," noted the investigators.

In Europe

The case of D. Pedro II points to the fact that despite its relatively recent identification in the medical literature, OSA is not a new condition nor is it confined to specific parts of the globe. Indeed, research from around the world shows the sleep disorder is common just about everywhere, and health officials are on the case.

A Norwegian study published just this year in the *Journal of Sleep Research* is a good example.[2] Researchers administered the Berlin Questionnaire, a widely used OSA screening tool, to nearly 30,000 people by mail, with a response rate of about 56%. Based on the survey results, about a quarter of the respondents were at high risk for OSA.

A similar European prevalence was seen in a 2003 study published in CHEST by investigators from Case Western Reserve University in Cleveland, OH, who compared OSA prevalence and symptoms between the United States, Germany, and Spain.[3] The risk for OSA was higher in America than in Europe — 35.8% of 3,915 participants versus 26.3% of 2,308 participants — and important differences in symptoms were noted as well. While snoring and breathing pauses were similar in the two groups, affecting 44%, sleepiness was noted in 32.4% of U.S. participants but only in 11.8% of European participants. Obesity and/or hypertension were seen in 44.8% and 37.1%, respectively.

Another study out of Belgium shows the disorder extends to younger people and may be worse in certain ethnic groups. Researchers there reported test results for 121 patients age 40 or younger who were referred for an overnight sleep study, 42% of whom were of African origin.[4] The median apnea-hypopnea index (AHI) was 39 in men and 23 in women, but Caucasians had an AHI of just 30 while the AHI was 39 in Africans. Tobacco use and neck circumference were also linked to a higher risk. This research appeared in a 2010 issue of *Sleep & Breathing*.

These findings and others are leading to a greater scrutiny of the link between OSA and motor vehicle accidents in the European Union. In 2008, 31 collaborators published a report in the *Journal of Sleep Research* outlining the problem and calling for OSA to be better incorporated into national "Physical Fitness to Drive" legislation within the 27 member countries.[5] Among the recommendations: Police accident report forms should explicitly consider sleepiness as a potential cause of accidents; sleep-wake education should be incorporated into the mandatory program of continuous education for professional drivers; and driver screening methods should contain questions on sleepiness at the wheel, habitual snoring, and witnessed apneas during sleep, in addition to the Epworth Sleepiness Score and body mass index.

In Africa, Asia, and Australia

As the Belgium study suggests, people of African heritage may be at higher risk for OSA, and the condition is

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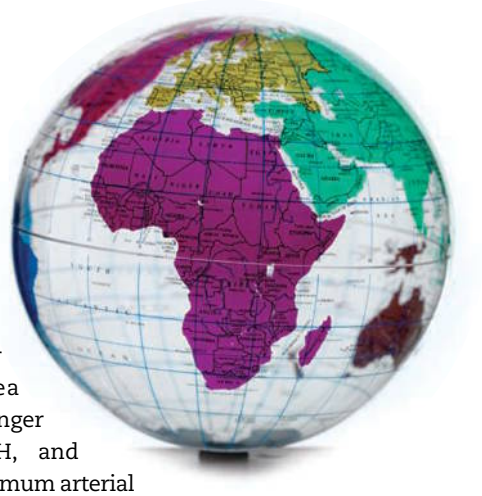
Obstructive sleep apnea is a condition that's prevalent around the world.



getting its fair share of attention in African nations. Nigerian investigators publishing in a 2009 edition of the *Journal of the National Medical Association* conducted a cross-sectional survey in 370 younger and older adults, again using the Berlin Questionnaire.[6] The overall snoring prevalence was 31%, and 19% met the criteria for a high risk of OSA, with the highest risk noted in the 50–59-year-old age group. High-risk individuals were also more likely to be obese, have a higher score on the Epworth Sleepiness Scale, and have a chronic medical condition.

As far back as 1995, South African investigators published a study in the *American Journal of Hypertension* involving 20 hypertensive black patients who were compared to a control group matched for age, gender, body mass index, neck circumference, and scores on a sleep questionnaire.[7] The hypertensive group had a significantly higher apnea/hypopnea index (AHI), longer duration of AH, and lower mean minimum arterial oxygen saturation levels.

Indonesian investigators publishing in a 2010 edition of *Acta Medica Indonesiana* found OSA is common in young adolescents as well.[8] Their study involved obese children between the ages of 10 and 12 who were being seen for snoring. All underwent a clinical examination, lung function test, paranasal sinus x-ray, and polysomnography. The prevalence of OSA was 38.2%, with tonsillar hypertrophy, adenoid hypertrophy, and neck circumference the main risk factors.

A 2007 study on OSA in Asia noted sleep laboratories were being set up in many Asian nations, but the availability of the testing was still limited in most areas.[9] While CPAP was available in most countries, financial constraints were limiting its use. The authors cited obesity as the major risk factor for Asians with OSA, although they noted craniofacial structural factors probably make a greater contribution to the condition in this patient population than in Caucasians. As a result, oral appliances may play a bigger role in OSA treatment among Asians. The researchers estimated the prevalence of OSA to be 4.1–7.5% in middle-aged men and 2.1–3.2% in middle-aged women. The report appeared in a 2007 issue of the *International Journal of Tuberculosis and Lung Disease*.

Australian investigators publishing in a 2007 issue of the *Journal of Clinical Sleep Medicine* shed some light on both prevalence and diagnosis and treatment of OSA in their country.[10] In a postal survey of 10,000 randomly selected people in New South Wales, they identified 159 respondents who reported seeking medical help for snoring or sleep apnea. However, just 86 had an overnight sleep study, and only 51 reported subsequent treatment with one or more modalities. Seventeen patients received CPAP and nine received mandibular advancement splints. Most surprisingly, 22 out of the 31 patients who underwent upper airway or nasal surgery were not assessed with a sleep study.

In South America

Researchers publishing in a 2008 issue of the *Journal of Clinical Sleep Medicine* found a high rate of OSA in four Latin American cities.[11] The prevalence of OSA among the 4,533 subjects — 1,062 in Mexico City; 941 in Montevideo, Uruguay; 1,173 in Santiago, Chile; and 1,357 in Caracas, Venezuela — ranged from a low of 2.9% in those without snoring, excessive daytime sleepiness, and observed apneas to a high of 23.5% in those who reported all three of these symptoms.

In Mexico, investigators recently developed and validated a Spanish language questionnaire to identify people with OSA.[12] Their study in a 2010 issue of *Sleep & Breathing* tested the tool in 100 patients, effectively reducing the original 21 items on the questionnaire down to 18. Results showed the question on snoring to have the greatest sensitivity for detecting OSA, while the greatest specificity was noted for the item on obesity.

Like their colleagues in Europe, Peruvian researchers have been examining the association between road accidents and OSA.[13] In a 2004 study in *Revista Panamericana de Salud Pública* [*Pan American Journal of Public Health*], they surveyed 238 bus drivers, finding 45% reported having had an accident or near accident while driving. Also, 55% reported sleeping less than six hours a day, 56% said they were tired at least some of the time while driving, 32% said their eyes had fallen shut while driving, and 55% cited tiredness as the leading cause of road accidents.

And back in Brazil, investigators publishing just this year in *Sleep Medicine* found that Emperor Dom Pedro II's likely experience with OSA back in the 1800s is shared by many people living in Brazil today. Their population-based survey of Sao Paulo residents between the ages of 20 and 80 involved 1,042 people, 55% of whom were women and 60% of whom had a body mass index of 25 or greater.[14] OSA was found in 32.8% of the participants, with obese people and men having the highest risk. ■

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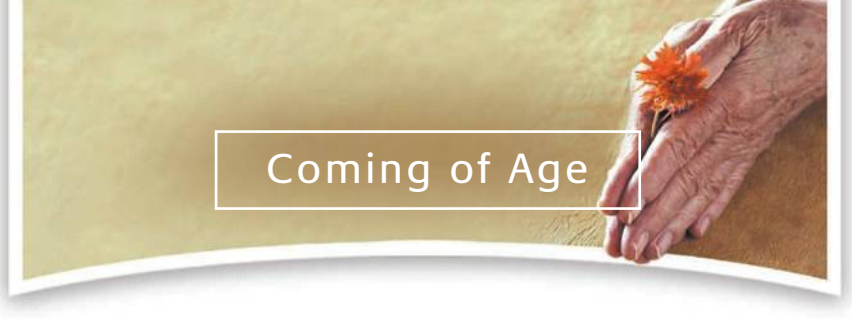

Incorporating Geriatrics into the Respiratory Care Curriculum

by Paul Lowe, BS, RRT, AE-C, and Dennis R. Wissing, PhD, RRT, AE-C, FAARC

The number of U.S. adults over the age of 65 will more than double between 2000 and 2020 to over 70 million people. This cohort of older Americans will become the "core business" of health care.[1] As older adults increase in number and technology allows for better diagnosis and treatment, these patients will demand more comprehensive health care from all health care providers. About 70% of adults over 65 have one or more chronic disease. As this population grows, so will the incidence of chronic and acute diseases and utilization of health care in all settings. In the United States, 60% of patients receiving health care are over the age of 65.[2] This statistic alone should drive health care curricula to include training in caring for older patients.

Schools of medicine and nursing have begun to address the need to educate students in gerontology. Currently 30% of U.S. medical schools have a geriatric training program to prepare physicians to care for older Americans.[3] However, most medical schools have limited geriatric curriculum, and graduates are often not trained to address health issues in this age group.[3] Likewise with nursing education, most associate's degree nursing programs offer limited geriatric-related topics integrated into the curriculum while a number of baccalaureate degree programs offer dedicated courses in gerontology.[1]

In respiratory care education, the inclusion of formal training in geriatrics has increased over the past several years. Sorenson and colleagues reported on the number of respiratory care programs offering gerontology courses or geriatric-specific components.[2] Of the 120 programs that participated in their study, over 70% of the respondents stated geriatric issues were important to include in their curriculum. Over 50% of the programs had plans to expand their curriculum to include geriatric training. Given the current trends in the age demographics of our population, RTs providing care to adult patients will care for geriatric patients in a variety of settings. Therefore, it seems prudent that programs place a stronger emphasis on gerontology.

about the authors...

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Dennis R. Wissing, PhD, RRT, AE-C, FAARC, is professor of medicine and cardiopulmonary science, and assistant dean for academic affairs at LSU Health Sciences Center in Shreveport, LA.

The need for geriatrics in a respiratory care curriculum

One approach to incorporating geriatrics into the curriculum is to add a specific course that is dedicated to the topic. This may require encouraging faculty to accept the need for a comprehensive course, providing faculty development in geriatrics, implementing age-focused clinical experiences beyond the hospital setting, and addressing the need for a standardized curriculum related to geriatrics/gerontology. Most programs offer a course in neonatology and pediatrics. While this is crucial for training students, most therapists will provide care to adults. Thus with the growing number of adult and geriatric patients and an increasing number of chronic illnesses, a geriatrics course should be considered for

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an RC curriculum. This would be an "across the life span course" covering the health care needs of neonates through geriatrics.

Table 1 lists content that we believe should be included in a geriatric course for respiratory therapists. There are a number of factors that the RT should be aware of regarding the care of the older patient. For example, non-specific complaints such as generalized aches or loss of appetite can often mask underlying disease, cognitive and physical impairment may limit the patient's access to health care, older patients may not be able to take proper care of themselves, and age-related physiologic changes can alter response to medications. Being aware of these issues and knowing how to address them requires special training.

An example of a common disconnect between therapist and patient can be illustrated by a story told by the director of a local assisted-living facility. A respiratory therapist was assisting an elderly patient with ambulation. The patient suffered from severe memory loss and required frequent reinforcement regarding the location of his apartment whenever he self-ambulated. The therapist directed the patient to walk down a staircase from the second to the first floor of the facility. When questioned by staff, the therapist responded, "Don't worry, I will tell him not to use the stairs unless I am with him." The therapist failed to appreciate the cognitive status of the patient while focusing on physical function. This story illustrates the need for therapists to be trained to recognize mental as well as physical and other impairments of elderly patients.

Steps to implement a geriatrics course

A method of implementing gerontology into the respiratory care curriculum is discussed below. This approach is modeled, in part, after an approach used by the University of Rochester School of Medicine and Dentistry to implement geriatrics into their curriculum.[4]

- **Step 1:** Develop a high commitment from school officials, program director, and faculty for the importance of geriatrics.
- **Step 2:** Select a faculty member to champion the implementation of a geriatrics course.
- **Step 3:** Develop faculty-driven learning objectives and course curriculum plan.
- **Step 4:** Create a team spirit among faculty and other resource persons such as nurses and physicians trained in gerontology who could assist with the course.
- **Step 5:** Provide faculty development in gerontology to strengthen program resources for the course.
- **Step 6:** Create teaching strategies that are effective in teaching geriatrics. These could include "geriatricizing" problem-based learning cases, seminar strategies such as student-presented geriatric-related papers, interviews with older adults in a variety of settings, and using simulation lab exercises.

Table 1. Suggested Content in a Geriatrics Course

Demographics of aging
Age-associated physiologic changes
Atypical disease presentation
Geriatric patient general assessment
Cognitive and psychosocial assessment of the older adult
Surgical issues with older adults
Obstructive and restrictive lung disease in patients older than 65
Geriatric pharmacotherapy
Health aging strategies
Communicating with older adults
Health care economics of older adults
Ethics issues in geriatrics care

- **Step 7:** Integrate course content and student knowledge into meaningful clinical experiences — moving beyond the traditional hospital setting and exposing students to older adults in nursing homes, assisted living and long-term-care facilities, and hospice.
- **Step 8:** Conduct an on-going evaluation of the geriatric initiative to obtain feedback on course success and outcomes. Identify any challenges and barriers that impede course success.

RTs must understand unique needs of the elderly

With the rapid growth of the older population, we will experience a continuing demand for health care services. It is paramount that respiratory therapists understand the unique needs of older people. Adapting the respiratory care curriculum to focus on the unique needs of the growing geriatric population is one major step in meeting the future health care needs of the aging American. ■

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Whistleblowing 101

by Anthony L. DeWitt, JD, RRT, FAARC

One of the questions I am frequently asked by therapists at state society meetings is about Medicare fraud. This is a topic of concern for scores of therapists around the country. Usually the question is put to me something like this:

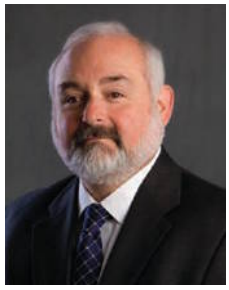
"Suppose that our office routinely bills all treatments to a patient in advance in the computer, and from time to time we miss treatments, but we don't go back and issue a credit. Is this Medicare fraud?"

The answer may surprise you. Under the current Medicare rules, the above situation does not rise to fraud for one simple reason: The prospective payment system makes missed treatments for Medicare patients a "non-material variance" rather than a false claim. That's the way the government talks; I am not making that up. But here's the explanation.

When a patient comes in for a hernia operation, Medicare is charged a flat rate for the Diagnosis Related Group (DRG) and any comorbid conditions. A complex patient with multiple other diseases (cardiac, renal, pulmonary) might score the hospital a higher payment, while an uncomplicated hernia repair likely won't. In essence, the hospital is banking on being able to treat the patient efficiently and get them out of the hospital quickly. So whether the patient gets one treatment or 10 treatments, the cost to Medicare is the same because it's calculated on the basis of the diagnoses. Internally, the hospital can bill for 40 treatments never done, and it won't have any effect on the final bill to Medicare.

In a recent case involving an implanted hernia repair patch, a Georgia federal court dismissed a false claims case for this very reason. The whistleblowers had challenged the use of the hernia repair patch because it was being improperly marketed. The maker of the device responded by saying it couldn't have caused any false claims because the hospital got paid the same amount from Medicare irrespective of whether their patch or some other patch was used. The court sided with the device maker.

about the author...



Anthony L. DeWitt, JD, RRT, FAARC, is an attorney and a partner in the firm Bartimus, Frickleton, Robertson & Gorny, PC, and resides in Jefferson City, MO. He has also authored two books and numerous legal journal articles. This article is not a substitute for legal advice.

Never events

There are and will be situations where therapists may see false claims under the DRG system, but they will probably relate to the so-called "never events" for which the Centers for Medicare and Medicaid Services has said it will no longer pay. These include nosocomial pneumonias and ventilator-acquired pneumonias. If a therapist learned that a hospital was falsely stating in the patient records that a pneumonia was, for example, congestive heart failure and was doing so to prevent the loss of revenue for that patient, that would rise to the level of a false Medicare claim and could result in prosecution for civil or criminal violations of the Patient Protection and Affordable Care Act enacted this year.

That new health care statute also provides better protections for therapists and others who blow the whistle on Medicare fraud. Employees who blow the whistle and are later terminated by their employer can sue for back pay and a full "make whole" remedy.

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Under no circumstances should you ever allow a supervisor or corporate officer to direct you to commit an unlawful or illegal act, such as falsifying a record or changing or omitting data from a patient chart. Not only is this a violation of state law in most cases, it can also make you personally liable (and sometimes criminally liable) for fraud. It can have negative implications for your license as well.

In most cases, Medicare fraud is not the goal that a person has in mind when they code a patient bill or submit a claim for Medicare payment. Innocent mistakes are not Medicare fraud, and the statutes that provide for repayment of fraudulent payments recognize this. They require that a hospital's actions be "knowing." That means either actual knowledge or "reckless indifference." This means if the facility is receiving more reimbursement for something than it should, it can't turn a blind eye: It must investigate.

> Never allow a supervisor or corporate officer to direct you to commit an unlawful or illegal act, such as falsifying a record or changing or omitting data from a patient chart.

Most facilities want to do the right thing. No one wants to pick a fight with the government in the area of Medicare fraud. For this reason, most facilities have set up corporate compliance programs to deal with situations where one or more rogue employees break the law to increase their department's profit or to ensure a better bonus for themselves.

Corporate compliance

If therapists discover that a facility is making an error or might be doing something that constitutes fraud, they should contact the corporate compliance officer (CCO) who is usually set up to receive anonymous calls on an 800 number. Unlike most other employees, CCOs have a dual reporting relationship. They report not only to the CEO, but also to the Board of Directors so that no hospital executive can bully the CCO into ignoring fraud. An employee can blow the whistle internally with the CCO and point out the mistakes made. The institution can correct the mistake, make repayment to Medicare, and prevent the kinds of serious damages that occur when hospitals are caught red-handed committing fraud.

Recently several large hospitals and hospital chains have been hit with significant settlements under the False Claims Act for false billing. If one does not have a compliance officer or that officer is not effective in stopping the problem, an employee always has a remedy through the False Claims Act. The False Claims Act not only provides protection against discharge, but also provides a reward to persons reporting any kind of fraud on the United States government. Since 1987 the United States has recovered more than $24 billion under the False Claims Act and has paid relators more than $1.7 billion for reporting that fraud. The False Claims Act also pays your attorney to bring the case, making it an even better deal for whistleblowers.

In 2007, federal law made it a requirement that hospitals train their staff on this statute. Many have already done so. If you have questions, your compliance or risk management officer is a good person to ask. ■

PAC Versus PACT: What Exactly Is a Political Action Committee (PAC)?

by Gail Varcelotti, BS, RRT, FAARC

Perhaps you have noticed the use of two acronyms — PAC and PACT — in the AARC publications and activities. Many people might assume they mean the same thing, but they do not. A PAC is a political action committee. It is a committee formed by business, labor, or other like-minded groups that share the same goals and issues, raise money, and as an entity (the PAC), makes contributions to the campaigns of political candidates whom they support.

On the other hand, the PACT is the AARC Political Advocacy Contact Team. PACT representatives are the "political workers and coordinators" from the respiratory care profession appointed by each state society who lead the efforts back in their states to advocate for issues important to the respiratory profession and pulmonary patients. For the past 10 years, state PACT representatives have converged on Washington, DC, for the AARC's "Capitol Hill Lobby Day" where they meet face to face with members of Congress or staff to advance our legislative agenda. PACT representatives are the contact team who rally RTs and patients when action must take place. The PACT is not a PAC, but the AARC PAC is important to the AARC PACT.

about the author...

Gail Varcelotti, BS, RRT, FAARC, is vice president of Ganésco Inc. in Venetia, PA. She also serves the Association as chair of the AARC Political Action Committee.

Activities

Now with that cleared up, let's get to the nitty-gritty of a PAC. The funds raised through a PAC are authorized by the U.S. Federal Election Campaign Act of 1971; and all PACS, including the AARC Political Action Committee (AARCPAC), must meet federal election rules on reporting as well as strict fundraising and contribution guidelines. For example, all PACs can contribute up to $5,000 to a candidate for each campaign (primary, runoff, and general election).

PACs allow organizations to contribute money to candidates for federal congressional office, control the disbursement of funds, solicit contributions from an organization's shareholders and employees, and accept contributions from any lawful source. PACs have been extremely important in helping to finance elections. AARCPAC and the funds it raises and contributes to candidates does not operate using any AARC funds, including monies from membership dues. AARCPAC is a separate and segregated entity/fund established by your Association for making political contributions to assist candidates who support legislation that supports the profession. AARCPAC raises funds through individual contributions and through two sources:

- a volunteer checkoff on the AARC membership application/renewal form, and
- the only fundraiser we have, which is our jewelry raffle held yearly at the AARC's annual International Respiratory Congress (this year in Las Vegas Dec. 6–9).

Background

The AARCPAC and the committee of respiratory therapists who oversee its operation were created in the mid 1980s to provide a mechanism for RTs to have a voice in Washington, DC. The fact is, nearly every interest group — whether they are bankers, teachers, snack food producers, etc. — has a PAC. Political campaigns cost money, a lot of money. PAC contributions help with those campaign costs. PAC contributions to candidates do not buy votes but can help a

The more we can help those Congress members who are willing to listen to our profession's needs, the more progress we will make.

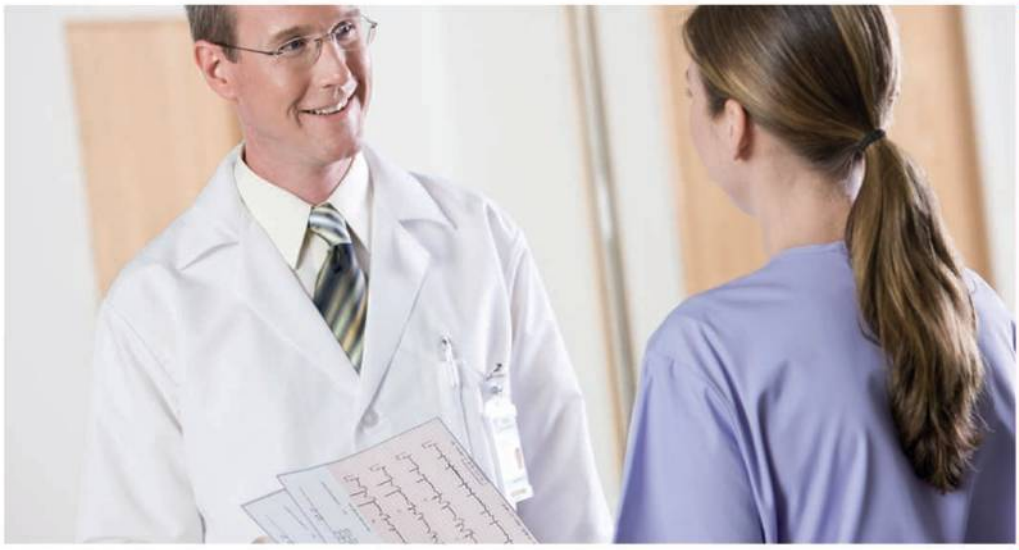
group gain better access to staff or members of Congress in order to make their case about their advocacy issues.

You hear about "political fundraisers," and those are generally where the PAC campaign contributions go. A member of Congress will have a fundraising event, most often either early in the morning or at the end of a work day, where supporters gather in a local hotel conference room to meet and briefly chat with the representative or senator and their staff members and dine on soggy eggs or cheese cubes, depending on the hour… not as glamorous as the media makes it out to be. However, making these contributions and going to these fundraisers is important. And it's important that the respiratory care profession be on the same footing as other health care organizations — from the nurses, to the hospitals, to the physical and occupational therapists, etc. — all of which have PACs and, indeed, do send their staff to these fundraisers. The simple truth is that the profession of respiratory care needs to have a PAC to help ensure that our voices are heard by the elected officials who support us.

What you can do

Honestly, PACs have a "sketchy" reputation and, indeed, some PACs have earned it — but certainly not all. Most PACs, like AARCPAC, are small and disburse their funds sparingly and only to those elected members of Congress who have clearly supported the respiratory profession. As respiratory therapists, we need to continue to ensure the issues that are important to the profession and the patients do not get lost in the sea of other voices. The more we can help those Congress members who are willing to listen to our profession's needs, the more progress we will make.

So if you're coming to the AARC Congress in Las Vegas in a few weeks, stop by the AARCPAC Booth and buy a raffle ticket. Even better, won't you consider making a contribution every year when you renew your membership? If we collected just $5 from each and every AARC member, what a PAC we would have. ■



"We're using right chest and posterior leads and see true patient benefits by diagnosing a hidden MI that we may not have picked up with a 12-lead ECG."

Debbie Heinecke, RN
Manager of Non-Invasive Cardiology
Blessing Hospital, Quincy, IL

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Easy as 1-2-3
The PageWriter TC70 is extremely easy to use, with convenient touchscreen operation and 1-2-3 buttons that light in sequence to guide the user. Its 3-in-1 Trident lead wires minimize tangling, while a unique anatomic patient interface module mirrors the body to support correct lead placement. The PageWriter TC70 tests for 19 different lead placement reversals at bedside, helping you take a quality ECG first time, every time.

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A high-resolution 15-inch touchscreen clearly displays up to 10 seconds and 16 leads, color-coded for signal quality. The simple guided process for taking an ECG minimizes training time for new users and helps support other users, such as busy ED staff, who are not called upon to take an ECG every day, but need to be ready at a moment's notice.

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Philips ECG algorithms, which build on more than 45 years of research and experience, offer the clinical excellence to enhance patient care. Philips DXL 12- and 16-lead ECG Algorithms provide industry-leading ECG interpretations and a suite of advanced STEMI diagnostic aids. The Critical Values function, for example, helps identify patients who need urgent attention from a clinician to optimize time to treatment.

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PageWriter cardiographs work seamlessly with the Philips family of ECG management systems as well as those from other vendors.

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Check for loose leads.

Enter ID
Enter demographics via keyboard or barcode to match with worklist

Take ECG
Print, save, transfer and retrieve previous ECG.

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Winding Down 2010
More Challenges — More Opportunities

by Sam P. Giordano, MBA, RRT, FAARC

It amazes me how fast a year goes by these days. Do you recall when we were children that the minutes, hours, days, weeks, and months would seem to last forever? Now that we're older, we simply can't find enough minutes in the day to get everything done that we desire. Since we're winding down this year and looking forward to next year, this might be a good time to tie up some loose ends.

CFC phase-out set for Dec. 31, 2010

As you may recall, the U.S. Food and Drug Administration has established a schedule to phase out metered-dose inhalers that contain chlorofluorocarbons (CFCs). Some were phased out last year and even earlier this year. Two more will be phased out and not available for sale after Dec. 31, 2010: the Intal Inhaler (chromlyn) made by King Pharmaceuticals, and Azmacort Inhalation Aerosol (triamcinolone) made by Abbott Laboratories. If you have patients taking either of these medications, please make sure they are aware that these medicines will not be available after Dec. 31 this year and assist them — and their attending physician — in transitioning to alternate medications.

This year we've talked a lot about preparing our patients, especially those with chronic pulmonary diseases, to use aerosol delivery devices that are appropriate for each individual patient. Even though patients can receive excellent care after admission to an emergency department or the hospital, they must also be reminded and encouraged to continue use of their medication, especially "controller" medicines for asthma or COPD.

about the author…

Sam P. Giordano, MBA, RRT, FAARC, serves as AARC executive director. He can be reached at (972) 243-2272 or giordano@aarc.org.

Health reform legislation passed

This year we witnessed history as the Patient Protection and Affordable Care Act was passed by Congress and signed into law by President Barack Obama. All hands, including health care providers, insurance companies, and government, are now sorting through its numerous facets. Expect many of our patients to be confused. I encourage you to develop even more expertise relating to the never-ending variety of medications and aerosol delivery devices that are now available to our patients. Even though there is a vast array of devices to choose from, you know better than I how many of your patients do not receive the optimum dose of their medications, especially when they are stable and their lung condition is under control.

There's a new booklet out that builds on the "Guide to Aerosol Delivery Devices for Respiratory Therapists, 2nd Edition." This newest offering is not aimed at informing respiratory therapists or other health care professionals. It's aimed at educating the *patients*. We know we need to invest in more education of our patients to improve their compliance. This latest book is designed to help you help your patients. The resource booklet is entitled "A Patient's Guide to Aerosol Drug Delivery," and it has been reviewed by respiratory patients to assure that it will be friendly to our target audience, the patients, and their families. I hope you'll take full advantage of this resource. To find out more about this new patient education book, visit our website at www.aarc.org. The patient education book is also available for patients to read at www.YourLungHealth.org.

Patients will now have a resource to refer to and perhaps develop a better understanding of how aerosol de-

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livery devices work and how they, as patient users, can optimize drug delivery to maintain a higher respiratory quality of life.

Using protocols can help

The costs of health care are still as challenging to us now as they were at the beginning of this year. We all know we've got much farther to go if we are to constrain costs. This will include the use of protocols. Yes, you know about protocols. You may even use some. But only about 50% of respiratory care departments in the United States use protocols through and through. That brings us 50% short of our goal. There's still that reluctance to embrace protocols wholeheartedly; but if we don't finish the transition and provide respiratory care services using protocols, we won't be able to capitalize on the added value we bring to our employers by acting as utilization gatekeepers for respiratory care services, thus avoiding unnecessary clinical services.

Only about 50% of respiratory care departments in the United States use protocols through and through. That brings us 50% short of our goal.

Awareness is key

This year is definitely one for the books. Now, with all the attention on health care, we can have more influence than ever over the processes and regulations that will be generated by the Patient Protection and Affordable Care Act. This past year many, many patients acknowledged your value. They still want to have greater access to you, and we want to make that happen with our Medicare Respiratory Therapy Initiative (S. 343 and H.R. 1077), which will make it easier for respiratory therapists to gain employment in physician practices. Health care legislation is not a thing of the past. There's still much that has to be done going forward, and we anticipate a very busy year in 2011.

Even though respiratory therapists enjoy a much higher degree of public awareness than we've ever had in the past, we still have far to travel. Many of you have answered the call by getting involved in community activities. This is a winning formula. Participating in the DRIVE4COPD program by providing free simple COPD screenings at health fairs, state fairs, and other public events has done wonders to make the general public more aware that we exist.

Now with so many people having difficulties accessing health care resources, I want to ask you to think about volunteering to help them. Some of our colleagues volunteer their time at free health clinics. But we need more volunteers. Wouldn't it be neat if all of our state societies, in partnership with the AARC, were to join forces to help coordinate volunteers like you in donating your time at a free health clinic? This activity, while it competes for the time you spend with your family and others, also helps patients who may have never before seen a respiratory therapist.

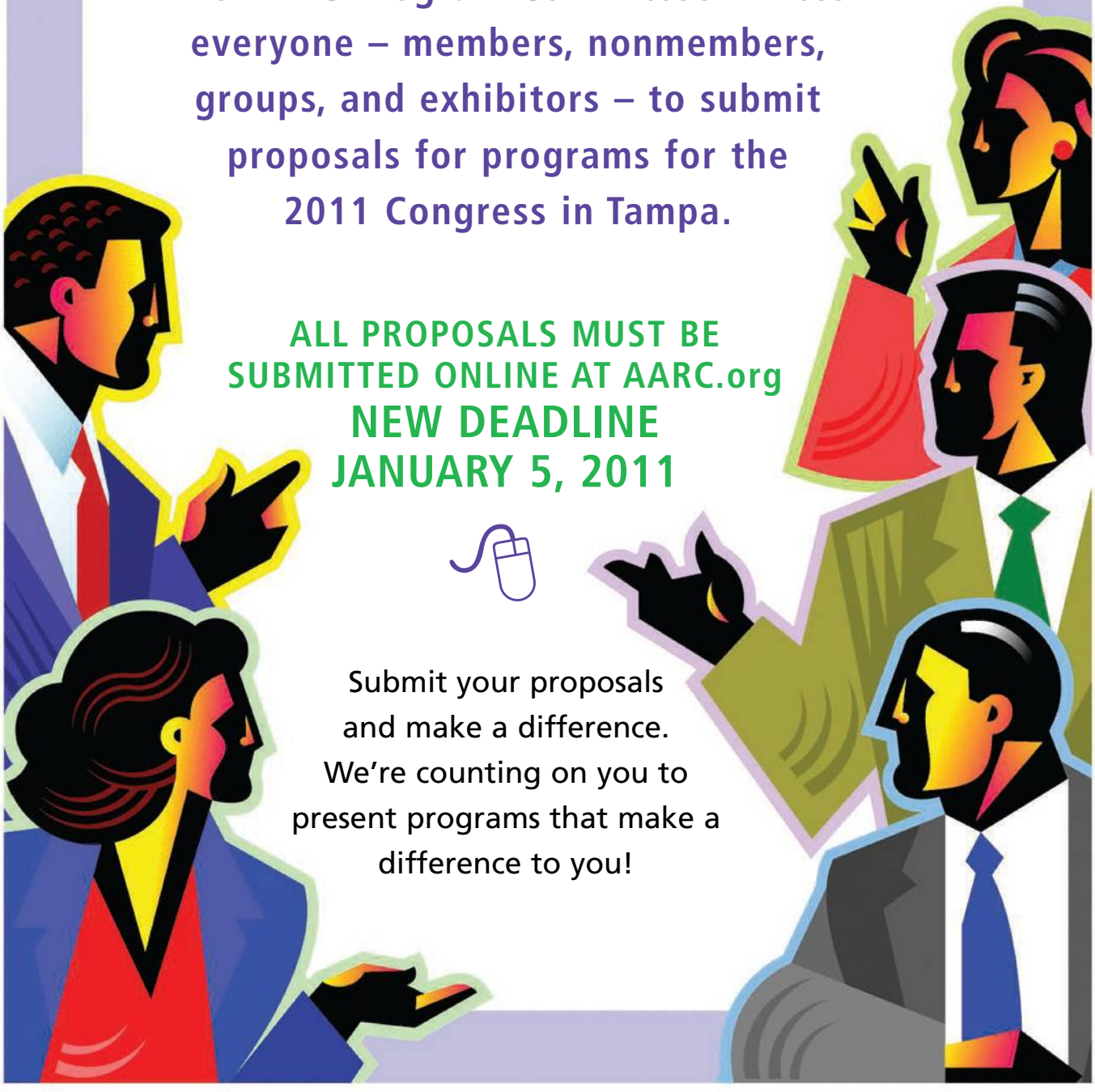
Providing care and staff support to other members of the health care team at the clinic are valued services. They do help patients and others, but they also help our profession, because you are our profession's ambassadors. When you interface with your patients and the public, you not only make them aware of the existence of our profession, which makes it easier to recruit students into our schools, but you also demonstrate the value that we deliver. Did I mention that many of you will get that warm, fuzzy feeling we get every now and then when we know we truly made a difference? Most of all, I want to thank all of you who give of yourselves to help our patients and our profession. ■

Call For
Program Proposals

The AARC Program Committee invites everyone – members, nonmembers, groups, and exhibitors – to submit proposals for programs for the 2011 Congress in Tampa.

ALL PROPOSALS MUST BE SUBMITTED ONLINE AT AARC.org

NEW DEADLINE
JANUARY 5, 2011



Submit your proposals and make a difference. We're counting on you to present programs that make a difference to you!

For more details, visit AARC.org.

Congress Preview:
SESSIONS NOT TO BE MISSED

In just a matter of days now, respiratory therapists, physicians, nurses, and other health professionals will descend upon Las Vegas, NV, for the 56th AARC International Respiratory Congress. This month we wind up our "Sessions Not To Be Missed" series of articles with five more presentations you'll want to attend. So take a look, go to the Congress website (www.aarc.org) to get all the updated information, and then plan on meeting your respiratory care colleagues in exciting Las Vegas Monday, Dec. 6, through Thursday, Dec. 9!

26th Phil Kittredge Memorial Lecture

COPD Heterogeneity: What This Will Mean in Practice

As a respiratory therapist, you know COPD affects different people in different ways. Assessing your patients and understanding the issues they have with the condition is vital to providing them with optimal care. In this year's Phil Kittredge Memorial Lecture, Stephen I. Rennard, MD, professor of medicine at the University of Nebraska Medical Center, will delve into COPD heterogeneity, looking specifically at COPD phenotypes and the role they will play in classifying patients into distinct prognostic and therapeutic subgroups for both clinical and research purposes in the future.

Dr. Rennard has published numerous studies on COPD in journals ranging from *Respiratory Medicine* and CHEST to the *European Respiratory Journal* and the *American Journal of Respiratory and Critical Care Medicine*. He was a member of the expert panel that prepared the GOLD guidelines for the World Health Organization/National Heart, Lung, and Blood Institute, and he also served on the American Thoracic Society/European Respiratory Society task force that developed the societies' joint COPD standards. As a member of the board of directors for both the COPD Foundation and the Alpha-1 Foundation, he works to support COPD patients nationwide.

Congress attendees may also recall Dr. Rennard's study in a 2000 edition of CHEST on the medicinal qualities of chicken soup. The research, which found chicken soup significantly inhibits neutrophil migration, was

25+ CRCEs

With more than 250 sessions featuring over 170 speakers, plus the biggest respiratory care exhibit hall in the industry, the AARC International Respiratory Congress is clearly the best place all year long to learn about the latest developments in the profession. However, attendees come away with more than just knowledge — you can also earn 25+ CRCE® credits toward your state license. In many cases, that's enough to cover your licensure requirements for the whole year. ■

spurred by a recipe handed down in his wife's family and has since earned the physician citations by thousands of media outlets around the world. (For an inside look at the chicken soup study, including a fun video and the recipe itself, go to: www.unmc.edu/chickensoup.) ■

This display in the History of Diving Museum in Islamorada, FL, pays tribute to Johnston's underwater accomplishments.

Living the Dream:
A Tale of Two Matts

Hearing about respiratory care from clinicians is one thing. Hearing about it from patients is something else entirely, and attendees will get the chance to do just that when ventilator-dependent patients Matt Eddy and Matt Johnston take the podium to explain what it's like living with Duchenne muscular dystrophy. Attendees can hear about the amazing things they've done in their young lives in spite of the disease.

Matt Johnston was recently inducted into the Hall of Fame for Divers with Disabilities and has also published a diving manual to assist people with disabilities who want to dive.

Matt Eddy's dream unfolded this past summer as he trekked across the United States for the second time in two years to show people how those with disabilities can live independent lives. Traveling the nation's highways and byways in his wheelchair, he also raised money for a non-profit organization called Matt's Place, founded to build accessible housing for those with disabilities.

Matt Johnston's dream of breathing underwater took shape when at the age of six he spotted some scuba diving equipment in his grandmother's house. As you may remember from our previous articles on Matt and his scuba diving adventures, he reached that goal in June of 2006, becoming the first ventilator-dependent quadriplegic person to scuba dive in open water.

"I never gave up on my dreams even though there were many roadblocks and others voicing that I would never be able to achieve them," says Johnston. "Duchenne muscular dystrophy and being ventilator dependent were not going to stand in my way. I believe it is important for health care professionals to hear my story, as it gives hope, optimism, and anticipation to their patients. It also assists caregivers to motivate their patients to follow their dreams."

You can learn more about Matt Eddy's trip across the country here: http://officialmattsplace.org/. Keep up with Matt Johnston's diving adventures here: www.divingadream.org. ■

Clinical Controversies
in Pediatric Respiratory Care: The Debate Continues

The audience will be able to get in on the act during this interactive presentation using the AARC's automated response system technology. With remote controls in hand, you'll be able to answer questions and vote on various issues raised during the discussion between Ira M. Cheifetz, MD, FCCM, FAARC, division chief, pediatric critical care medicine, at Duke University Medical Center in Durham, NC; and Michael R. Anderson, MD, vice president and associate chief medical officer at University Hospitals, associate professor of pediatrics at Case Western Reserve School of Medicine, and pediatric critical care specialist at Rainbow Babies & Children's Hospital, all in Cleveland, OH. Topics on the table include:

- How should PEEP be optimized?
- Is noninvasive ventilation indicated for all etiologies of acute respiratory failure?
- Should recruitment maneuvers be routinely used?

Attendees are expected to walk away from this session with a better understanding of some of the trickiest questions remaining in pediatric respiratory care today. ■

Richard Ford (seated far left) gathers with some of the authors and co-authors who submitted abstracts to this year's Open Forum in Las Vegas. Their head "cheerleader," Jan Phillips Clar, missed the "photo op," but she's there in spirit (top row, sixth from the left, in "cutout" form!).

UCSD To Present Several Open Forum Abstracts

Late last year, Richard Ford, BS, RRT, FAARC, and his management team at the University of California, San Diego Medical Center decided to embark on a department-wide initiative to improve the engagement of their RTs in every aspect of the department's success. The plan was to get frontline staff involved in everything from conducting research studies to implementing new programs that could benefit the department and hospital as a whole.

After they returned from the 2009 AARC International Respiratory Congress in San Antonio, TX, they realized all the work that would be done by staff members over the coming year might be good for something else as well: presentation at the 2010 Open Forum at the AARC Congress in Las Vegas, NV. With newly named technical director Jan Phillips Clar, BS, RRT, as the head cheerleader, the project officially got underway. "We got started just after the December 2009 AARC Congress in San Antonio by establishing a department objective to contribute at least eight abstract proposals for the 2010 Congress," says Ford, department director. "The initial reaction from our new authors was they were not sure if they could do it," says Ford. But with some well-placed mentoring from seasoned abstract presenters and members of the medical staff, not only did they accept the challenge, they far outpaced it.

"A total of 20 abstracts were collaboratively prepared by 27 authors, of which half had never attempted to write an abstract before," says Ford. "Topics were picked based on the key initiatives and programs that staff became engaged in."

Fourteen of those abstracts were ultimately accepted for presentation by 10 authors. The hospital awarded each presenter with a $500 scholarship to help cover the costs of attending the meeting, and some of the presenters qualified for additional funds as well. The department is getting good press in hospital publications for its accomplishment as well.

"Staff are proud and excited about attending the Congress," says Ford. The project shows what can be accomplished when leaders are not afraid to set the bar high. "The bottom line is creating an environment in which staff feel they have something to contribute and feel they can make a difference through programs and clinical research," he notes. "The willingness to support staff, including the hours spent in performing their study/program, writing the abstract, and funding their trip, resulted in a high level of participation." ■

STOPPING
the Revolving Door of COPD

Readmissions for COPD are a common and costly problem for all hospitals. In this symposium, you'll learn more about the clinical and economic impact of these readmissions on your facility's bottom line, plus hear about a unique program utilizing respiratory therapists as case managers that significantly reduced readmissions in Veterans Administration (VA) hospitals taking part in a recent study.

In the first presentation, Douglas Laher, MBA, RRT, associate executive director of the AARC, will tackle the business side of the equation. "As hospitals realize that cost shifting has reached the law of diminishing returns, they must move their focus away from revenue generation and charge capture to a strategy that emphasizes cost elimination and health prevention," he explains. "'Low hanging fruit' for many hospitals is in the dollars they can save on uncompensated care they provide to patients who are readmitted within 30 days of discharge. Respiratory therapists will play a huge role for hospitals looking to manage these avoidable costs."

In the second lecture, Naresh A. Dewan, MD, professor of medicine at Creighton University and chief of the pulmonary section at the VA Medical Center, both in Omaha, NE, will describe the VA study. "This is one of the largest randomized, multi-center, controlled trials conducted at five Veterans Affairs medical centers of 743 veterans with severe COPD," explains the physician. Patients were randomized to either a multicomponent COPD disease management strategy that included an initial 1–1.5 hour patient educational session, an action plan for self-treatment of acute exacerbations, and case management provided by respiratory care case managers or usual care. "Over a 12-month follow-up period, as compared to the control group, this simple disease management strategy showed a significant reduction — 41% — in hospital admissions and emergency department visits."

Dr. Dewan believes disease management strategies similar to the program studied at the VA centers have the potential for improved quality of care and overall reduction in costs of health care. ■

CONGRESS UPDATES

Congress updates are posted frequently to the online AARC Congress Advance Program at www.aarc.org/education/meetings/congress/advance_program/

26TH NEW HORIZONS
in Respiratory Care Symposium: ARDS Update

RTs who work in intensive care know full well the challenges presented by acute respiratory distress syndrome (ARDS). In this symposium, you'll learn the latest information on this often deadly condition and how medical science is working to turn the tables on the high morbidity and mortality rates seen today. Speakers and topics include:

- What Is ARDS?: Jesus Villar, MD, PhD, Canary Islands, Spain
- Is ARDS Preventable?: Ognjen Gajic, MD, Rochester, MN
- Conventional Ventilator Management of ARDS: Dean R. Hess, PhD, RRT, FAARC, Boston, MA
- Approaches to Hypoxemia in Patients with ARDS: Randal S. Blank, MD, PhD, Charlottesville, VA
- NIV for ARDS: Stefano Nava, MD, Pavia, Italy
- Pediatric ARDS: Ira M. Cheifetz, MD, FCCM, FAARC, Durham, NC ■


Taiwan
Saudi Arabia
India
Vietnam

We Are on a *Mission!*

by John D. Hiser, MEd, RRT, CPFT, FAARC

The mission statement of the American Association for Respiratory Care regarding our international activities states that we are to "promote communication and fellowship among respiratory care professionals in the United States and their counterparts worldwide" …through "cooperation, dialogue, and educational exchanges."

In keeping with this mission, 21 years ago the AARC gave birth to the International Fellowship Program. This important project is sponsored by the American Respiratory Care Foundation (ARCF), supported by the International Council for Respiratory Care™ (ICRC), and administered by the AARC.

Many of us consider it a rite of passage when someone reaches the age of 21. It's a time when a young man or woman is considered to have come of age, a time when they are considered an adult. It's also a time when parents look at the prior accomplishments of their children and dream about where they will be and what they will accomplish in the future.

But, should we be proud parents? Have we accomplished enough in the last 21 years? What do we need to do to accomplish more in the future?

Are we fulfilling our mission?

Since 1947 our profession has grown from a handful of registered nurses, licensed vocational nurses, former military corpsmen and medics, orderlies, and other on-the-job trained individuals into an organized profession of over 150,000 credentialed therapists who graduate from nationally accredited programs with credentials that result from successfully completing job-related validated exams and who work in states that require legal recognition to practice. It took years of hard work by thousands of dedicated volunteers to get to where we are today. We had our successes and our failures along the way, but we never stopped our efforts to make it better.

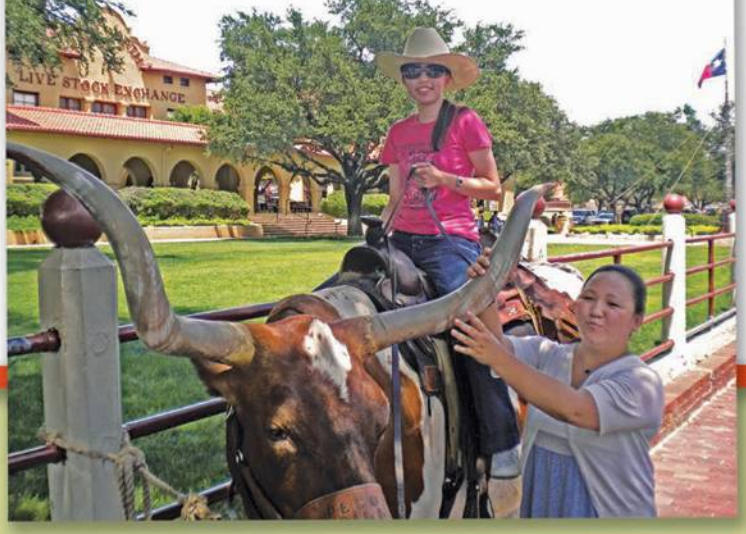
Thanks at least in part to the international efforts of the AARC, the respiratory therapy profession outside the United States is now on its way to achieving some of the same successes that we achieved here at home. Respiratory therapy is now known in over 50 countries where it was unknown in the past. There are now 70 formal respiratory therapy programs in nine countries outside the United States:

- Canada (21)
- China (1)
- Germany (1)
- India (5)
- Mexico (5)
- Panama (1)
- Philippines (24)
- Saudi Arabia (5)
- Taiwan (7)

(Continued on page 41)

The editors thank *AARC Times* Guest Editor John D. Hiser, MEd, RRT, CPFT, FAARC, for his special contributions to our December international issue.

About the Author
John D. Hiser, MEd, RRT, CPFT, FAARC, chairs the AARC International Committee. He served as president of the AARC in 2005 and currently is the Association's parliamentarian. He is program director of respiratory care at Tarrant County College in Hurst, TX.



Sister Schools Student Exchange Program Benefits Texas and Taiwan

Chia-Chen Chu, MS, SRRT, FAARC, the instructor of the respiratory therapy program at China Medical University (CMU) in Taichung, Taiwan, and John Hiser, MEd, RRT, CPFT, FAARC, the director of the program at Tarrant County College (TCC) in Hurst, TX, have shared a friendship and passion for globalizing respiratory care for several years that led to the two schools becoming sister schools earlier this year. It also resulted in a student exchange program that brought two students, Jen-Hsuan Lai (Claire) and Hsiao-Chao Lin (Eva), to Texas for a three-week visit last July.

Claire and Eva, who stayed with TCC student Debra Scully, were able to sit in on lecture and lab classes, attend clinic at local hospitals, and rotate through pulmonary rehabilitation, a sleep lab, a pulmonary function lab, a hyperbaric oxygen facility, and the nearby AARC Executive Office. The finale to their visit was a trip to San Antonio for the Texas Society for Respiratory Care annual meeting.

Along the way, they had time to ride on the vintage Tarantula Train from Grapevine, TX, to the historical Fort Worth Stockyards. They also went to a local rodeo, the Texas State Capitol in Austin, and of course the Alamo in San Antonio. They were thrilled — and a little concerned — to sit on a live bull and take a horseback ride. Their visit was a wonderful experience for everyone involved and led to unique educational experiences for both the CMU students and the TCC students, as well as to some long-lasting friendships.

Chu and Hiser are already making plans for another student exchange next year. ■

Figure 1. Professional Associations

Argentine Society in Respiratory Care
Asociacion Mexicana De Terapia Respiratoria A.C.
Association for Respiratory Care of Respiratory Insufficiencies (Italy)
Association of Respiratory Care Practitioners in the Philippines
Canadian Society of Respiratory Therapists
Emirates Association of Respiratory Care Practitioners
European Respiratory Care Association
Indian Association for Respiratory Therapy
Japanese Respiratory Care Network
Korean Association for Respiratory Care
Panamanian Association for Respiratory Care
Saudi Society for Respiratory Care
Taiwan Society for Respiratory Therapy

Figure 2. AARC International Fellows by Continent

- Africa: 4
- Europe: 43
- Asia: 65
- South America: 17
- Australia: 2
- North America: 4

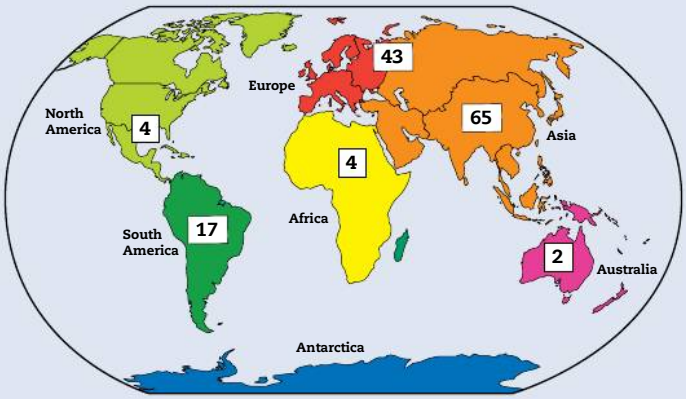


Figure 3. ICRC Member Countries

Argentina	Guatemala*	Singapore
Brazil	India	South Korea
Canada	Italy	Spain
China*	Japan	Taiwan
Chile	Mexico	Turkey
Colombia	Philippines	UAE
Costa Rica	Russia	United Kingdom
Finland	Saudi Arabia	USA
France		

**Candidate status*

(Continued from page 39)

Plus, respiratory-related master's degree programs designed for nurses and physiotherapists are being developed in Asia, Europe, and South America.

Voluntary credentialing through the Latin-American Board for Professional Certification in Respiratory Therapy (LABPCRT) — using reliable criterion-referenced, job-related examinations — is being utilized in 11 countries: Argentina, Chile, Columbia, Costa Rica, Ecuador, Guatemala, Mexico, Panama, Peru, Spain, and Venezuela.

Mandatory credentialing (along with legal recognition by the government) exists in Canada, Panama, Philippines, and Taiwan. Organized efforts to legalize the profession are ongoing in places like China, India, Peru, and the United Arab Emirates.

At least 10 countries now have professional associations whose members are practicing respiratory therapists. Similar associations for physio-respiratory therapists exist throughout Europe and South America. We now have AARC international affiliates in Italy, Mexico, and United Arab Emirates (see Figure 1).

Educational programs approved by the ICRC International Education Recognition System℠ are being offered. The AARC international fellows listserve allows fellows to share information on a daily basis. Past fellows are working to translate educational materials into their respective languages. The AARC Clinical Practice Guidelines have been translated into Chinese, Japanese, and Spanish. "A Guide to Aerosol Delivery Devices for Respiratory Therapists" has been translated into Arabic, Chinese, and Spanish and is in the process of being translated into French, Italian, and Turkish. "The Clinician's Guide to PAP Adherence" is being translated into Arabic. *AARC Times* and Respiratory Care articles appear regularly in Italian and Japanese publications. Respiratory Care podcasts and international news are provided on a monthly basis in both Chinese and Spanish by past fellows and current ICRC members Chia-Chen Chu, MS, SRRT, FAARC, and Gustavo Olguín, MHA, RRT, CPFT.

Since beginning the International Fellowship Program, we've brought 135 respiratory care professionals from 54 countries to the United States. They have included 68 physicians, 29 physiotherapists, 21 respiratory therapists, 11 nurses, and six others with various medical backgrounds. They have come to us from every continent except Antarctica (see Figure 2). The popularity of the program is evidenced by the fact that we've had more than 1,250 applicants from 130 countries.

International membership in the AARC has grown from one member in 1961 to 500 in 2010. Our first international member was Dr. Abundio León, father of Héc-

tor León Garza, MD, FAARC — a pioneer in our initial international efforts and charter member of the ICRC who continued his father's dream of introducing our profession to Mexico and other parts of Latin America.

The ICRC, which first proposed the formation of the International Fellowship Program to the AARC, now has 22 governors from 25 countries (see Figure 3). Over 50% of the governors are past international fellows. Several ICRC members are the same leaders who first encouraged the AARC to globalize respiratory care: people like Jerome Sullivan, PhD, RRT, FAARC; Patrick Dunne, MEd, RRT, FAARC; Dr. Hector León Garza; and Sensei Toshihiko Koga, MD, FAARC (honorary member in memoriam of the ICRC and past fellow who worked to introduce our profession to Asia).

All of these successes and many more are outlined in 100+ articles published in *AARC Times* over the last two decades. Videotaped testimonials from 26 of the most recent international fellows can be found on the ICRC website at www.irccouncil.org/newsite/fellowship/index.cfm.

So should we be proud? Are we fulfilling our mission? The logical answer is a definite yes. But are we doing enough? Can we do it better?

Should we change our strategies?

Last July the International Committee recommended to the AARC Board of Directors that an ad hoc committee composed of representatives from the AARC, the ARCF, and the ICRC (the proud parents of the International Fellowship Program) prepare a detailed review of the effectiveness of the program to be completed before the Board meets again this December. This request was made so that we could study our past accomplishments and consider what we need to do in the future to achieve our mission.

Where do we go from here? I'm not clairvoyant and I don't have a crystal ball, but there is no doubt in my mind the AARC will continue its international efforts, and I have no doubt that we will continue to succeed. Should we change our strategies? Maybe. Can we improve? Of course we can. We are on a mission! ■

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Circle 22 in Advertiser Index

Dr. Kazunao Watanabe Sees a BRIGHT FUTURE for Respiratory Care IN JAPAN

Respiratory care is still a uniquely North American profession in many respects, but thanks to the international efforts of the AARC and the American Respiratory Care Foundation, that's changing. One nation on the path to a profession of its own is Japan, and a key player in the process is Kazunao Watanabe, MD. Last year the Association honored Dr. Watanabe with the Héctor León Garza MD Achievement Award for Excellence in International Respiratory Care.

In this interview, Dr. Watanabe shares his background and explains what he and his colleagues have been doing to move his nation closer to the establishment of a government-recognized RC profession.

Q ***AARC Times:*** Tell us a little about your work at Shonan Kamakura General Hospital and Day Surgery Center, particularly as it relates to respiratory care.

A **Dr. Watanabe:** I am the director of the department of surgeries. I do surgeries and am responsible for post-surgeries, as well. Respiratory care is very critical for better surgical outcomes in our patients.

Q ***AARC Times:*** How does Japanese respiratory care compare to American respiratory care? What are your most pressing needs in respiratory care?

A **Dr. Watanabe:** The respiratory care provided in Japan is not as good as that available in the United States, if the two countries were to be compared. In other words, the care we provide is still good, but there is room for improvement. Improving respiratory care in Japan could be accomplished by addressing the need for specialists, like respiratory therapists in the United States. We need therapists specifically trained for respiratory care.

Q ***AARC Times:*** You're currently serving on the Executive Committee of the International Council for Respiratory Care (ICRC™) and are also the ICRC governor for Japan. How did you first become involved in the AARC and the ICRC, and why did you feel it was important to get involved?

A **Dr. Watanabe:** Toshihiko Koga, MD, FAARC, now a governor emeritus of the ICRC, was a friend of mine. I knew his mission; therefore, I just wanted to continue what he had been doing, which is to promote the importance of respiratory care and the education to make the care better. To accomplish such goals, I strongly believed, as did Dr. Koga, that I would need to be exposed to and get involved in the AARC and ICRC for their abundant knowledge and networks.

Q ***AARC Times:*** As you noted earlier, Japan could benefit from trained respiratory therapists. What efforts have you and your colleagues taken to make this a reality, and where are you in the process?

A **Dr. Watanabe:** I have been active in organizing seminars for the past 10 years. In fact, the 10th Shonan Kamakura Seminar has just been successfully completed. This is an opportunity for health care professionals here in Japan to be educated in the most up-to-date knowledge and to share information about respiratory care. At each seminar, as many as 100 attendees who are physicians, nurses, and physical therapists get together and receive information about respiratory care from physicians, RRTs, and educators from the United States. The texts are translated from English to Japanese, and the slides are presented and interpreted by simultaneous translations. The seminar also features a wet-lab and hands-on workshops.

AARC *Times:* Your seminar has been recognized by the ICRC's International Education Recognition System (IERS). Why did you decide to apply for that recognition, and how is it helping to support the conference?

Dr. Watanabe: We wanted to obtain recognition from the IERS because we wanted to make sure our curriculum was up to IERS standards. This way, our attendees can learn about many issues, knowing that the information provided is based on the IERS standards.

AARC *Times:* How do you believe IERS could help to improve respiratory care education around the world?

Dr. Watanabe: IERS can help improve respiratory care globally. Each and every country experiences different issues. Unless there is a standard, there is no common ground; therefore, the presence of IERS is very important.

AARC *Times:* Like your colleague, Dr. Koga, you are known for working with the Japanese government to promote respiratory care. Tell us what you are doing with the government and how these efforts are advancing the respiratory care profession in your country.

Dr. Watanabe: Although the government still does not recognize respiratory care as a profession, it has decided to reimburse some of the costs of respiratory care services if a hospital has a team of trained and educated specialists who are nurses and physical therapists. At least for now, therefore, hospitals that hire these skilled personnel are paid. This is great progress.

AARC *Times:* Last year you received the Héctor León Garza Award at the AARC International Respiratory Congress in San Antonio, TX. What did it mean to you to receive this prestigious international award?

Dr. Watanabe: Receiving the Héctor León Garza Award means a lot to me. I am honored, so I stay humble and do the best I can to improve respiratory care in Japan, share our experiences with other countries that might need help, and consider how we can provide better patient care and enhance the patient's quality of life. ■

Circle 29 in Advertiser Index

Expanding the RT Group *in Mainland China*

by Jie Li, RT

Jie Li (left) offers instruction while monitoring a patient undergoing weaning and rehabilitation.

ABOUT THE AUTHOR
Jie Li is a respiratory therapist in Beijing, China. She was an AARC International Fellow in 2005 and is the associate editor of "The Textbook of Respiratory Care." For more information about the RT training program in China, contact her at lijie8497@hotmail.com.

China

On June 22, 2009, the first six students graduated from a six-month training program in respiratory care at the Beijing Institute of Respiratory Medicine-Beijing Chaoyang Hospital, affiliated with Capital University. Since then, 22 students have graduated from the program. This is the first on-the-job training program in respiratory care in which the entire education is provided by Chinese respiratory therapists.

A tremendous need

The West China Medical Centre of Sichuan University currently offers the only bachelor's degree program for respiratory care students in our country. In all, there are less than 80 graduates. However, there is a great need for

Mechanical ventilation is a big part of the instruction.

Students practice their chest physiotherapy skills.

Faculty members (front and far left and far right) pose with two physician consultants in the program.

Program graduates, standing behind respiratory therapy instructors, including Jie Li (right) and an ICU physician, display their certificates.

professional RTs, and the bachelor's degree program cannot satisfy that need. Under these circumstances, short-term, on-the-job training becomes useful and practical. If the successful training program at the Beijing Institute of Respiratory Medicine-Beijing Chaoyang Hospital could be applied by other hospitals, the respiratory therapy group would be quickly expanded in the mainland of China.

In this program, we recruit students from among nurses with an associate's bachelor or bachelor's degree in nursing and more than three years of ICU experience. The students are from different parts of China. While they already have a base of medical knowledge and ICU experience, they know little about respiratory care before training. After training they can clearly understand the ventilator and patient interaction, set and adjust ventilator parameters, read waveforms and uncover problems, provide professional airway care for patients, and handle other aspects of the respiratory therapist's role in patient care. Most of our graduates take on the role of an RT when they go back to their own ICUs and their supervisors and colleagues have been satisfied with their performance.

First RC textbook in China written entirely by Chinese RTs.

First textbook by Chinese RTs

We have also written a respiratory care textbook to use in the training — the first textbook written by Chinese RTs. The textbook was recently published by Chinese People's Medical Publishing House. Using this textbook, we have designed a teaching plan that includes:

- A one-day theory study every week for the first four weeks and a half-day theory study every two weeks for the next 22 weeks.
- An internship plan, including a two-week clinical probation and 24 weeks working as an RT. During the internship, two students are assigned to one teacher.
- An assessment plan including two writing exams, two operation exams, one case report, one lecture, and one exam per month.

Students who graduate with scores of 86 or above receive a certificate as an "excellent student." Those with scores between 60 and 85 graduate as "qualified students." Students who score less than 60 do not receive a program certificate.

More work ahead

This program is helping to increase the number of RTs in mainland China; but respiratory care is still a newborn profession here, without an official job title or certificate from the health bureau. Clearly, we need to work together to prove the value of respiratory therapists in mainland China. Expanding the respiratory therapy group is the first basic step. ■

Building the Profession in Saudi Arabia

The RC department at King Fahad Medical City has come a long way in just six years

by Mohammed A. Al Hejji, MSRC, RRT-NPS

Sam Giordano (left), joins Dr. Jerome Sullivan in a meeting with Dr. Abdullah Al Amro (CEO) and Dr. Saleh Al Tamimi (associate executive director of medical administration) during their visit to King Fahad Medical City in Riyadh, Saudi Arabia.

ABOUT THE AUTHOR
Mohammed A. Al Hejji is head of respiratory general care at King Fahad Medical City in Riyadh, Saudi Arabia.

Saudi Arabia

King Fahad Medical City (KFMC) in Riyadh, Saudi Arabia, is the largest medical facility in the Middle East specializing in rare and specialty diseases. The complex is located in the central part of Riyadh and incorporates four hospitals (Main, Children, Women Specialist, and Rehabilitation). We have approximately 1,200 beds, including 74 adult ICU beds, 43 pediatric ICU beds, and 47 neonatal ICU beds. Our surgical patients are served by 30 operating rooms. KFMC treats more than 50,000 in-house patients and more than 600,000 outpatients annually.

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The link between the respiratory profession and manufacturers is clear. If respiratory practice expands, so too does the economy for our industry partners.

As health care budgets shrink and patient care becomes increasingly complex, our mutual challenges become greater. The synergy of the corporate partner concept is an effective way to address those needs utilizing our combined skills and resources.

Sam Giordano and Dr. Sullivan look over a facility model with administration staff at KFMC, including (from left) Hassan Al Orani, Mohannad A. Al Afandi, Abdullah M. Al Sweed, and Mohammed A. Al Hejji.

Our mission is "to provide the best diagnostic, therapeutic, and rehabilitation services with emphasis on national human resources through a loyal, honest, and faithful team." Our vision statement reads as follows: "We aim to be the leading and best health care establishment by providing therapeutic and training services using the best means."

A national leader

The respiratory care department (RCD) at KFMC is a national leader in the field of respiratory care. Since its inception over six years ago, the department has continually set the standard of excellence in the profession. Today, pursuit of the department mission is maintained as we continue to provide the highest quality health care while supporting and participating in research and education.

The department contains three sections — Critical Care, General Care, and Outpatient Clinics — and maintains 24/7 service. The Critical Care Section covers the ICUs with 17 staff members per shift (70 full-time jobs). The General Care Section staffs 11 therapists (45 full-time jobs), and the Outpatient Clinics Section staffs six RTs. The ultimate goal is to staff 36 RTs per shift (148 full-time jobs) in Critical Care, 21 per shift (86 full-time jobs) in General Care, and nine RTs in the Outpatient Clinics as our expansion continues.

The RCD served more than 2,500 patients in the ICUs and more than 4,900 in the wards in 2009. In the first quarter of 2010 we served more than 2,200 patients in the ICUs and 2,700 in the wards. In addition to providing care, our respiratory therapists serve as a reference for physicians, nurses, and other members of the health care team. Through research-based practice and a commitment to continuing education, the department has remained in the forefront of the profession in the country.

Our plan is to engage all staff members in AARC membership to give them the privilege of continuing education and to encourage them to play an active role in updating and improving the respiratory profession.

Services run the gamut

Our services include adult, pediatric, and neonatal ventilation. The department also provides nitric oxide administration to both intubated and non-intubated patients. Heliox therapy is used for patients with various types of airway obstruction, and high-frequency ventilation is provided for adults, children, and neonates. We are also using new modalities, such as the airway pressure release ventilation mode.

Other services include asthma education, home health care education, aerosolized antibiotic administration, and education of community and other health care workers, including medical students. Our therapists are part of the high-risk transport team, and they also provide assistance in surfactant delivery in both the neonatal and pediatric ICUs as well as assistance in percutaneous tracheostomy in all the ICUs. We administer more than 86,000 aerosol procedures per year, and our average number of airway clearance procedures tops 148,000. We participated in three research projects last year and performed more than 2,100 competency exams. Our average for ventilator days hovers around 5.3.

Services in the Outpatient Clinics Section include pulmonary function testing, cardiopulmonary exercise, methacholine challenge testing, sleep lab testing, pulmonary rehabilitation, and bronchoscopy assistance. These services are provided for children as well as adults. The Outpatient Clinics Section is also participating in a national study to determine the normal ranges of PFT values in the Saudi population.

Continuous improvement is job one

Several initiatives have been undertaken to promote a culture of continuous improvement of the respiratory care profession and its practitioners. A good example is our weekly education activity; we formed two major committees, one is called the Respiratory Care Quality Committee and the other one is the Education Committee, to help in promoting a knowledgeable staff and better quality of respiratory care services. We have

also received the AARC's Quality Respiratory Care Recognition (QRCR), which gives us the incentive to maintain a high standard of respiratory care performance. We were the first hospital outside of the United States to receive the QRCR in 2010.

We have been using AARC Benchmarking since June of 2009 and have found that it gives us a clear understanding where the RCD at KFMC stands in comparison with other hospitals internationally and helps us find opportunities for improvement. Patient-driven protocols (PDPs) are also used widely in our daily practice. These PDPs include, but are not limited to, medication delivery devices, ventilator weaning, tracheostomy weaning and decannulation, and pulmonary hygiene therapy. We believe protocols help our therapists utilize their time appropriately.

Additionally, all staff must meet more than 25 core competencies every two years, which assures that our RTs are competent to deal with sophisticated diseases and raises the bar for qualified respiratory care practitioners.

New RTs and the next generation

Newly hired therapists who are not eligible for the board exams complete a 12-week orientation consisting of a combination of theoretical and clinical education. RTs who are eligible for the board exams complete a six-week orientation. The orientation program includes a class schedule, specific reading material, lecture, study guides, and competency exams. During the clinical portion of orientation, new RTs are scheduled to rotate through all the ICUs and general care areas of the hospital. Preceptors, who have gone through a Preceptor Course, act as resources for the new therapists.

The goal of this part of the orientation is to help the new RT gain an understanding of the practical applications of department-wide policies and procedures, such as ventilator management strategies and bronchoscopy assistance. The new therapist also receives a check-off list that is designed to track staff progress throughout the clinical orientation for each ICU or floor. Unit-specific issues are listed on these check-off sheets. This is a valuable tool that allows the new therapist to continuously monitor his/her progress and develop a full understanding of the orientation process. Not only that, but a daily evaluation is filled in and signed by both the preceptor as well as the trainee.

Given the shortage of RTs in our country, we are planning for the future by starting a respiratory care program that will help to fill positions at KFMC, as well as serve other institutions. Currently our program is affiliated with Loma Linda University in Loma Linda, CA. The goal is to graduate students who are eligible for the board exams. The plan is to have all staff working in the ICUs hold the registry credential from the National Board for Respiratory Care. Of course, with the vast shortage, we still recruit from the West to cope with additional expansion. ■

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Campaign Ambassador

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*Danica Patrick is a paid spokesperson for Boehringer Ingelheim Pharmaceuticals, Inc.

Respiratory Therapy in India, *Yesterday and Today*

by Vijai Kumar Ratnavelu, MD

Dr. Vijai Kumar Ratnavelu (right), with a respiratory therapist, explains the use of bi-level PAP to a sleep apnea patient.

ABOUT THE AUTHOR
Vijai Kumar Ratnavelu, MD, is a pulmonologist and director of pulmonary and critical care at Yashoda Super Specialty Hospitals in Hyderabad, India. He was an AARC International Fellow in 1992.

India

In India, medical education in general, and the practice of medicine in particular, was under the strong influence of the British through the 1960s. Thousands of physicians and surgeons traveled to the United Kingdom (UK) for training and returned with impressive fellowships and memberships from leading British universities.

These innumerable British-qualified doctors had an influence on the way ICUs were managed in India. Historically, intensive care units and ventilators were managed by anesthesiologists, while respiratory physicians predominantly managed lung disease patients in their offices as outpatients or when admitted to their wards for a non-critical illness.

An RT assists the pulmonologist during a bronchoscopy on a ventilator patient.

An RT explains the use of a dry-powder inhaler for asthma to a tribal woman.

An RT demonstrates suctioning of the endotracheal tube in a workshop for RTs.

Timothy Op't Holt, EdD, RRT, AE-C, FAARC, lectures about "problem-based learning for RTs" at the 2010 IARC convention at Hyderabad.

Things changed in the 1970s, when young doctors began going to the United States for training. These physicians became board-certified pulmonologists and often lectured at Indian conferences. Some of them eventually returned to India to practice ICU medicine in many of the private and corporate hospitals that were steadily increasing in number in many of the metropolitan cities. As a result, pulmonologists with U.S. backgrounds took control of intensive care and mechanical ventilation in many of these hospitals.

It is interesting to note that regardless of who controlled the ICUs and ventilators, be it pulmonologists or anesthesiologists, a need for respiratory therapists was acknowledged. As a result, several centers in India started respiratory therapy schools between 1993 and 1995, including Manipal Institute of Medical Sciences in Manipal, Nizam's Institute of Medical Sciences and MediCiti Hospital in Hyderabad, and Sri Ramachandra Medical College in Chennai. Now more schools have sprung up in Kochi, Bangalore, Hyderabad, Pune, etc. Not surprisingly, the leaders who started these schools were either anesthetists or pulmonologists. Although the syllabi of all these courses are uncannily similar, the nomenclature, duration, and entry-level qualifications of the courses are, unfortunately, different.

AARC International Fellowship fires the passion

It is gratifying to note that the American Association for Respiratory Care has been playing a silent yet significant role in shaping the respiratory therapy scene in India. As an ambitious pulmonologist, I had the opportunity of being an international fellow of the AARC in 1992. The fellowship was recommended by Dr. Kalpalatha Guntupalli, a native of India who is now chief of pulmonary/critical care and sleep medicine at Baylor College of Medicine in Houston, TX, and current president of the American College of Chest Physicians. The fellowship was facilitated by Vijay Deshpande, MS, RRT, FAARC, assistant professor of cardiopulmonary

AARC International Fellows from India

Mohan Thekkinkattil, MD
Coimbatore, India
Year of fellowship: 2007

Vijay Thansaekaraan, MD
Chennai-Tamil Nadu, India
Year of fellowship: 2006

Devasahayam Christopher, MD
Vellore, India
Year of fellowship: 2005

Vikram Sarbhai, MD
New Delhi, India
Year of fellowship: 2003

Arvind Bhome, MD
Pune, India
Year of fellowship: 2002

Kedar Toraskar, MD
Mumbai, India
Year of fellowship: 2002

Rajesh Mane, MD
Belgaum, India
Year of fellowship: 2000

Sandhya Talekar, MD
Pune, India
Year of fellowship: 1999

Suninder Singh Arora, MD
New Delhi, India
Year of fellowship: 1996

Brijendra Kumar Rao, MD
New Delhi, India
Year of fellowship: 1993

Vijai Kumar Ratnavelu, MD
Hyderabad, India
Year of fellowship: 1992

Radhika Dhanpal, MD
Bangalore, India
Year of fellowship: 1990

care sciences at the Medical College of Georgia in Atlanta.

My international fellowship took me to Ann Arbor, MI, and San Jose, CA, and culminated at the AARC International Respiratory Congress in San Antonio, TX. In addition, I had the opportunity to spend another two weeks in the pulmonary and critical care unit at Ben Taub General Hospital in Houston. For a qualified pulmonologist like me with 12 years of experience at that time, this six-week experience was just the type of initiation I needed to fire the passion and to start a respiratory therapy program in India.

Soon after returning from the international fellowship, I began working to establish the school of respiratory therapy at MediCiti Hospital at Hyderabad. The program officially began in 1995. Around the same time Dr. Ram Kumar Venkateswaran, an anesthesiologist, started a bachelor's course in respiratory therapy at Manipal University after returning from a training program at Loma Linda University in Loma Linda, CA.

Dr. Guntupalli can be credited with conceiving the U.S. model of a respiratory ICU in India as early as 1992. Years later, by quirk of fate, she was frantically called by a well-to-do businessman in India who was on a ventilator and experiencing difficulty in weaning. Dr. Guntupalli flew from Houston to Delhi and asked for respiratory therapists. The administrators of the premium corporate hospital told her that there were none in Delhi. By that time the respiratory therapists from the Hyderabad school of respiratory therapy were ready for the challenge and were rushed to the rescue of the businessman. It was only a matter of a week before the patient was extubated and sent home. The seed she had sown bore fruit!

Some interesting experiments

Around 1998, an interesting experiment took place at the respiratory therapy school in Hyderabad. John Saul, RRT, a senior and experienced respiratory therapist from Ben Taub, traveled to India and spent a month teaching and training in the respiratory ICU at MediCiti Hospital, where I was heading the department of pulmonary and critical care. With his tall demeanor and flowing white beard (he has been mistaken for Santa Claus), he was treated like royalty by all the hospital staff. During those four weeks an impressive exchange of knowledge and experience took place, including hands-on training for all the respiratory therapy students. The students, who would never have dreamed of traveling to the United States for training in respiratory therapy, could not ask for more.

Very soon another senior respiratory therapist from Houston, Arunakanth Duvvury, arrived at MediCiti Hospital to teach the respiratory therapists for another month. The students were ecstatic. This was a valuable lesson for the academic policymakers; specifically, at a fraction of the expenditure needed to send students abroad for training, respiratory therapy students could benefit enormously from world-class guidance by experienced faculty from the best hospitals in the United States.

Another equally interesting experiment two years earlier, however, had failed. A qualified nurse was recruited and sent to the United States for a year of training in respiratory therapy. When she returned, she was unable to pursue respiratory therapy as a specialty profession. One reason could be that she was the sole RT in the hospital and the doctors did not accept her. Initially, acceptance of, and support for, respiratory therapists from anesthetists, cardiologists, and intensivists in the major teaching and corporate hospitals left much to be desired. The freshly graduated RTs received much-needed patronage from the anesthetists and pulmonologists who were actively involved in their training. However, these institutes were less than half a dozen in the country and by far too small in numbers to create a revolution.

Today, things are somewhat better, but challenges remain. Dr. Manimala Rao, a senior anesthetist trained in the UK, was largely responsible for starting an RC course in Hy-

derabad in 1993 and is now working in one of the bigger hospitals of the city. She says this about respiratory therapists: "They have become [an] indispensable part of our large team in [the] ICU. They are going for home visits for private patients who are on home ventilation. Whichever ICU I work [in], I have respiratory therapists. We depend on them more than the newly trained junior doctors."

The respiratory therapists who qualified during the 1990s are all well employed and settled down in good positions. Jayaprakash Reddy, who qualified in 1997, worked in the hospital where he trained for a few years and then migrated to Bahrain for a job as a senior RT and is very satisfied with the responsibilities. The salary he earns there is equal to that of a pulmonologist in India. Venkat Reddy, who qualified a year later, followed Jayaprakash to Bahrain and is enjoying similar benefits.

Anita Patil, an excited, optimistic young RT, grew anxious when she could not get a job soon after her graduation. Finally, when she did land a job, she did not like the work atmosphere as her skills were not utilized and it soon became obvious to her that her capabilities were not trusted. She shifted to another hospital in India where an active respiratory therapy program was in full swing and the respiratory ICU was being run by a pulmonologist. Now married with a child in school, she reports that after beginning work at the second hospital, there was no turning back — her abilities and skills are respected by the doctors. She says, "In fact, now I teach my juniors, nurses, and even junior doctors."

Salaries, however, remain a big disappointment for RTs in India. Barring the few thought leaders who are running the RT training courses, recognition from other hospitals and specialist doctors is still lacking. As a result, major private and corporate hospitals are wary of employing RTs, chiefly because the hospital administrators are unaware of their capabilities; and when they are hired, they are underpaid. Srinivasu Rao, who qualified as an RT in 1997 and is working in one of the major private hospitals of south India, laments that "the salary structure is not commensurate with the qualification and skills for a respiratory therapist" and adds "the fresh RT may be happy with the salary, but the seniors are disappointed because of lack of increase in their salaries and lack of promotions." Male RTs are more unhappy compared to female RTs, because unlike female RTs, most male RTs are the sole breadwinners in the family.

Enter the IARC

In 2006, with the intention of bringing all the centers involved in RT training in India together, I contacted all the opinion leaders in the specialty and officially formed the Indian Association of Respiratory Care (IARC) along the lines of the AARC. Our mission was simple, with just three goals. One, to bring all RTs onto a single platform; two, to create an awareness among pulmonologists, cardiologists, intensivists, and hospital administrators about respiratory therapists and their vital role in the ICUs; and three, to bring about certain uniformity of syllabus and nomenclature among the various centers involved in the training of respiratory therapists.

In the last four years, the IARC has been able to successfully organize four national conventions in Vellore, Chennai, Manipal, and Hyderabad. The last convention, which took place earlier this year, was, in fact, part of the national convention of the Indian Society of Critical Care Medicine, the apex body for the intensivists of India.

Currently, different centers are still running their courses with different nomenclatures and durations. Some are known as "respiratory technologist" courses, spanning four years. Others are known as "respiratory technician" courses and are two-year courses. Manipal University runs the best course, which is called "BSc (RT)" and has a 3+1 format. In fact, for the past five years, the university has added a two-year MSc course in respiratory therapy, for which I had the privilege of being an examiner for the first-ever MSc candidate, Saumy Johnson. The department has an excellent faculty, with Dr. Ram Kumar Venkateswaran and Dr. Anitha Shenoy at the top of the list. Saumy Johnson, who has joined as an assistant professor, is the course co-coordinator and virtually heads the RT department at Manipal. He says, "Respiratory therapy is a growing career in India, and young RTs have lots of opportunities to display their skills and improve the health care in India."

Christopher Devasahayam, MD (Vellore), Vijayalakshmi Thanasekaraan, MD (Chennai), Arvind Bhome, MD (Pune), and Mohan Thekkinkattil, MD (Coimbatore), all former AARC international fellows, are very keen supporters of the growth of respiratory therapy in India. Samiullah Khan, MD, who runs a very large RT course at a hospital in Hyderabad, along with many other paramedical courses, says, "The demand for RTs in the Middle East countries is huge, and every newly trained RT from India is assured of a job."

Vijay Deshpande, the senior and experienced respiratory therapist from Atlanta, GA, has been frantically touring the length and breadth of India over the last two years to understand the current situation and unite the thought leaders. It is just a matter of time before all these well-meaning leaders bring home the glory that respiratory therapy in India deserves.

As Swami Vivekananda said, "All good things have to pass through three stages; stage of ridicule, stage of opposition, and finally, stage of acceptance." ■

AARC Members Bring Quality *Spirometry Training to Vietnam*

WHO-sponsored course is ensuring more Vietnamese have access to respiratory diagnostics

by Debbie Bunch

Carl Mottram (standing in back), shares a humorous moment with his Vietnamese colleagues.

Working with a leading Vietnamese pulmonologist and former AARC international fellow, Carl Mottram and Susan Blonshine put together a two-day program in 2009 that's since reached health professionals throughout Vietnam.

Vietnam

When Le Thi Tuyet Lan, MD, PhD, traveled to the United States in 2000 to take part in the AARC's International Fellowship Program, one of her primary goals was to learn more about pulmonary function testing in this country. The objective couldn't have been more important to the health and welfare of her fellow Vietnamese citizens. Statistics show more than 50% of the adult male population in Vietnam smokes, and asthma affects upwards of 4 million people, particularly in the bigger cities. Spirometry testing, however, is unavailable in most

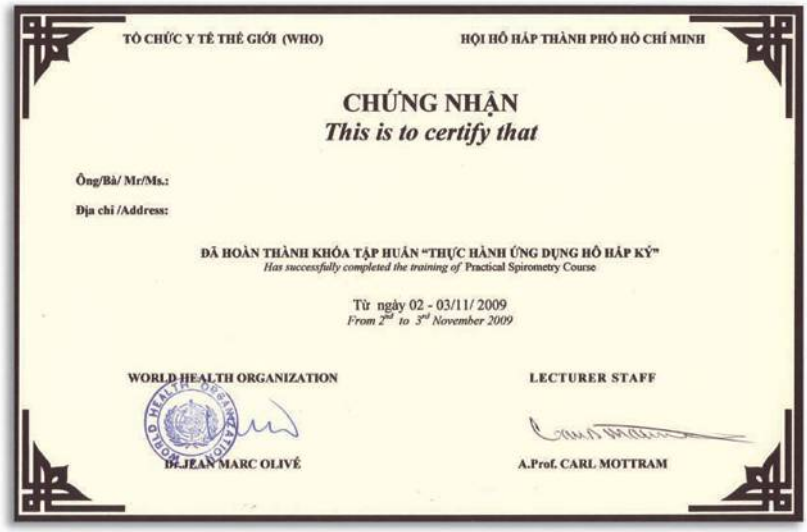
facilities, especially in remote rural locations.

Luckily for Dr. Lan, her international fellowship provided an introduction to AARC members Carl Mottram, BA, RRT, RPFT, FAARC, director of the pulmonary function labs and rehabilitation at the Mayo Clinic and associate professor of medicine at the Mayo Clinic College of Medicine, both in Rochester, MN; and Susan Blonshine, BS, RRT, RPFT, AE-C, FAARC, president and CEO of TechEd Consultants Inc. in Mason, MI, technical director of the Michigan State University pulmonary function laboratory, and leading expert in pulmonary diagnostics and asthma education. The three began an ongoing correspondence, and six years later, Dr. Lan was able to arrange for Mottram to travel to Vietnam.

"Dr. Lan invited me to be a visiting professor at her medical college and give a pulmonary diagnostic symposium to her fellows and residents in 2006," says Mottram. That initial visit was such a success that she asked Mottram to return for another conference in 2008, and this time he took Blonshine along with him.

Under normal circumstances, the trip would have likely ended with just another successful conference at the Ho Chi Minh City Medical Center, where Dr. Lan serves as director of the Respiratory Care Center. However, a little serendipity intervened, opening the door to what has now become a major initiative to bring quality spirometry training to health professionals in every province in Vietnam.

All three graduating classes commemorated their accomplishment with a class photo.



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WHO sponsorship

"Representatives from the World Health Organization were visiting the Ho Chi Minh City Medical Center during the 2008 conference, and Dr. Lan asked us to visit with them," says Mottram. "During this meeting she talked about her vision of making basic lung function testing available throughout the country to facilitate implementation and compliance with GOLD and GINA guidelines for the diagnosis and treatment of COPD and asthma." That vision fit nicely with one of the key points on WHO's Six-Point Strategic Agenda, which calls for the organization to work toward "strengthening health systems," and it also addressed one of its core health indicators, "tobacco smoking and its related illness."

When Dr. Lan made plans for a traveling spirometry course staffed by herself, Mottram, and Blonshine, WHO agreed to sponsor the course. "This was the first time to our knowledge that the WHO has sponsored a training course co-directed by a respiratory therapist — Carl — and a physician — Dr. Lan," says Blonshine.

Plans were made for Mottram and Blonshine to return to the country in the fall of 2009 to deliver the first three courses in Ho Chi Minh City, DaNang, and Hanoi. "The template for the course was based on my experiences as the director of the Mayo Clinic's National Institute for Occupational Safety and Health spirometry training courses and Susan's experience as director of a previous AARC spirometry course," says Mottram. Those courses incorporated academic and experiential workshops as key components of the learning process, and Mottram and Blonshine adapted the lectures to ensure they would meet the outcome objectives established for the course participants.

The two-day sessions included lectures on clinical indications, definitions and physiology, testing techniques, American Thoracic Society-European Respiratory Society standards, reference equations, and test interpretation. Case studies followed the didactic presentations.

An overwhelming response

In order to establish a sound basis for the course, Dr. Lan and her American colleagues decided to apply for recognition through the American Association for Respiratory Care's International Education Recognition System (IERS). Blonshine took the lead, preparing the materials for the application and working with the AARC to expedite the process. "Dr. Lan was very interested in getting the IERS designation for the course," says Blonshine. "I think this was also borne from her AARC international fellowship experience."

The course attracted 204 health professionals at the three sites — most of them physicians. Together these professionals represented 31 of the country's 61 provinces, meaning that about half of Vietnam would now have at least one professional who had

gone through high-quality spirometry training. Some came from as far away as the northern provinces of Vietnam, requiring a trip of eight hours or more.

"Initially, each course was limited to 30 participants; but due to the overwhelming response, arrangements were made while onsite to expand the facilities and support to ensure availability to everyone with a desire to attend the course," explains Mottram. "The attendees were very excited about the learning opportunity, and the positive feedback from the participants was incredible."

WHO provided some funding for participant travel to the sessions, and it is also purchasing a spirometer for each province, with the ultimate goal of placing a spirometer at each district level. The program was deemed so successful that WHO decided to bring Mottram back to Vietnam this past fall to provide a follow-up course to train physicians in the remaining 30 provinces. The courses took place at the end of October in Ho Chi Minh City and Hue.

A most gratifying experience

Traveling to Vietnam to provide this essential education to health care professionals is something neither of these AARC members will ever forget. "Each trip has brought me tremendous professional and personal gratification," says Mottram. "Each time I have found the professionals of Vietnam eager to learn, engaged in the learning process, and excited about the opportunity."

Blonshine says the experience has taught her how lucky we are in the United States to have spirometry equipment and training so readily available, and it's brought her a newfound respect for health professionals such as those in Vietnam who work so hard to ensure their patients have access to state-of-the-art technology. "The health care professionals in Vietnam share our desire to complete diagnostic testing to evaluate individuals with potential pulmonary diseases according to best practices," she explains. "They are passionate and excited about the learning opportunities that can improve care. It is the most gratifying experience to teach in this type of environment." ■

Carl Mottram (second from right) and Susan Blonshine (right) join Vietnamese colleagues Dr. Hanh (left) and Dr. Lan under the sign announcing the course.

Graduates show off their certificates for Blonshine (left), Mottram (right), and Dr. Lan (third from right).

AARC Members Are Making a Difference

Connect with Your Peers on the Roundtable

AARC members can join the International Medical Missions Roundtable on AARConnect (http://connect.aarc.org) by following these links: Directory > Communities > All Communities. Click on the name International Medical Missions Roundtable and then click on Members, where you can select Join Community. ■

Around the World

Lisa Trujillo and Paul Eberle coach a Ghanaian through PFTs to test for decreased lung function related to cooking over an indoor coal pot.

by Lisa Trujillo, MS, RRT

Imagine a world where the average income is less than a few dollars a day, a world where many work from sun up to sun down just to make enough for one basic meal. Imagine a world where children spend their days scavenging toxic waste sites rather than attending school, a world where medical care is a commodity that most can't afford — resulting in unnecessary pain, suffering, and lifelong ailment and disfigurement. Now imagine you are in a position to make a difference in the lives of these people. That is exactly what many AARC members are doing around the world.

The AARC recently established the International Medical Missions Roundtable, a forum where members can collaborate about issues concerning respiratory care throughout the world. This roundtable also provides a conduit for AARC members to network, collaborate, share experiences, and develop new ideas with others who share similar interests in providing respiratory care, medical education, and humanitarian aid to countries in need. Additionally, the connections made through the International Medical Missions Roundtable will foster the development of research possibilities not yet investigated that stretch beyond American borders.

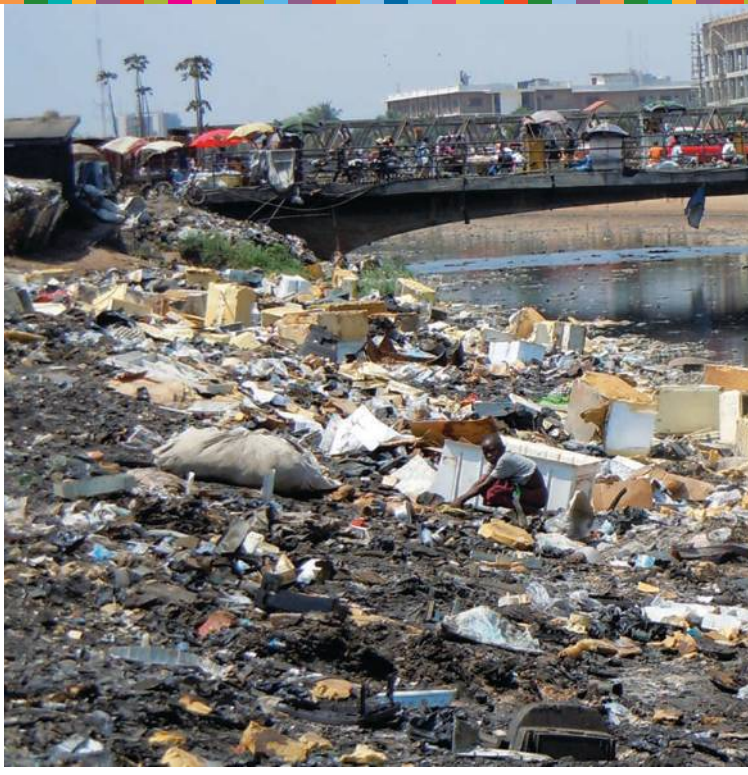
Coal pots are used for indoor cooking throughout Ghana.

Since its inception, membership in this roundtable has rapidly grown. Through this forum we have learned more about the outstanding efforts of AARC members in providing care to underserved populations and developing the respiratory care profession beyond our borders. Such examples include:

- Randy De Kler, MS, RRT, from Miami, FL, has made several trips to Paraguay with his wife to provide care and contribute to the economic, health, educational, and social development of the people, with much of their focus being on caring for post-surgical patients.

- Stan Holland, MS, RRT, from Harrisonburg, VA, has traveled to Bolivia for the past four years to work in a recovery room where he assists in providing airway management, pain management, and oxygen delivery. There is a wide range of surgeries and after care provided at this clinic, which is free for all patients. He says the education he received has provided him with vital skills that make him an asset to the team in Bolivia.

- Daniel Rowley, BS, RRT-NPS, RPFT, FAARC, from Charlottesville, VA, recently returned from Port-au-Prince, Haiti, where he worked to provide medical care following the recent earthquake that devastated the country. He established communication with medical department chiefs who could see the benefit of his respiratory care training to their patients. They are now interested in establishing a respiratory therapy training program and have identified a group of physicians and community members who are committed to developing this type of training in Haiti (see Rowley's companion article in this issue).



- Mohammed A. Al Hejji, MS, RRT-NPS, from Riyadh, Saudi Arabia, who recently served as the chairman of the Saudi Society for Respiratory Care (SSRC), has been an influential force in the development and continued growth of respiratory care in his country. With such a great need for RTs in Saudi Arabia, he (along with the SSRC) has developed activities to help educate and disseminate awareness of the respiratory care profession.

Lisa Trujillo measures vital signs prior to PFTs being administered in Ghana.

E-waste site in Ghana where burning is done to remove plastic from copper computer wiring, which creates a toxic respiratory environment.

- I have traveled as program director to Ghana, West Africa, for the past five years to provide humanitarian and medical care, and education. Each year approximately 14–16 RC students and clinicians join the effort and travel to Ghana to lend their expertise. With my colleagues, Janelle Gardiner, MS, RRT; Paul Eberle, PhD, RRT; and Amber Galer, RRT; we have been able to establish a research project examining pulmonary function test results. We are examining Ghanaians who are exposed to high levels of particulate matter through daily activities such as cooking over coal pots indoors or burning computer wiring in an effort to collect the copper for recycling. Upon completion, the data will be provided to the Ghana Ministry of Heath with suggestions to reduce the health risks to their communities.

The rewards for participating in humanitarian efforts are far-reaching. Many AARC members have been involved in life-altering experiences that have not only changed them as clinicians but have changed them as people.

If you are currently involved in medical mission activities, or if you have always wanted to get involved but have never known how to get started or where to turn, please join the AARC's International Medical Missions Roundtable. Not only does it assist communication among respiratory care professionals across our borders, but it also helps connect those of us who are interested in medical missions and educational/service travel opportunities. Through our increasing involvement on an international level, we will help our profession grow in creativity and diversity. ■

ABOUT THE AUTHOR
Lisa Trujillo, MS, RRT, is the AARC's International Medical Missions Roundtable chair. She is also an assistant professor and director of clinical education in the respiratory therapy department at Weber State University in Ogden, UT.

Daniel Rowley provided medical assistance to Haitian patients following its devastating earthquake.

Reflections and Visions for Respiratory Therapy in Haiti

by Daniel D. Rowley, BS, RRT-NPS, RPFT, FAARC

Thousands of lives were lost and thousands more forever changed by the 7.0 magnitude earthquake that devastated the already fragile country of Haiti in January 2010. Last summer, I traveled to Haiti with a team of six registered nurses for a nine-day medical relief deployment to Port-au-Prince's University Hospital of Haiti (HUEH).

Our team from the University of Virginia Medical Center had various clinical backgrounds, ranging from medical-surgical and oncology to pediatric acute care and trauma nursing, along with my competencies as a Registered Respiratory Therapist with extensive emergency and critical care skills. We set out with aspirations of helping a country in need and returned home with a far greater appreciation of how lending a hand can improve the quality of life for people who have suffered such a devastating loss.

Upon arrival at the HUEH medical complex in Haiti, I began to introduce myself to the medical and nursing staff. I was the only respiratory therapist on campus. The physician and nursing staff embraced me immediately and were willing to utilize all of my skills. Unfortunately, the medical system at HUEH lacked human and technological resources, so I found myself in situations where I could not offer necessary interventions to patients who presented with acute respiratory distress. For instance, I was summoned by a physician to assess and treat a 24-year-old patient who was transferred from the emergency room to a tuberculosis tent. The patient's chest x-ray was significant for complete left lung consolidation, and I found him in marked respiratory distress with pronounced accessory muscle flexion and intercostal retractions.

His chest wall had limited anterior excursion, and he had absent breath sounds throughout the left lung and diffuse wheezing in the right. His SpO_2 was 84%, his RR was 44, and his HR was in the 130s. I did not have supplemental oxygen, a nebulizer, manual resuscitation bag/mask, or ventilator readily available for use. I told the physician that the patient needed oxygen immediately and that if I had access to the proper equipment I would intubate or place him on full-face mask noninvasive positive pressure ventilation (NIPPV) and initiate Xopenex® nebulization.

The young man died of acute respiratory distress that may have been preventable had rapid access to appropriate medical equipment been available. This was the first of a few deaths that I witnessed that I believe could have resulted in a different outcome. These experiences were profound, and they prompted me to seek ways in which I could advocate for improved respiratory care in Haiti.

One of the highlights of my Haiti relief efforts came when I established a nebulizer clinic adjacent to the tuberculosis tents. I placed an electric nebulizer on a street corner and began assessing and treating patients based upon clinical presentation. I termed my new set-up the "Nebulizer Corner," and it was a hit among the physician staff, ambulating patients, and curious bystanders.

Many of my patients were hypoxic, tachycardic, and wheezing. A line of patients began to form on the street corner as I was delivering nebulized medication. However, some of the patients appeared to want attention more than anything else, and placebo nebulization made those patients feel just as "cared for" after I provided an assessment. Oxygen saturation measurement with a pulse oximeter was another assessment tool that the patients loved to observe during their treatment time.

While in the emergency room, I provided airway management on a patient with a 35% total body surface area burn. Prior to my team's consultation, the surgical physicians had no intention of administering a sedative during an escharotomy and debridement procedure. My team and I convinced them that conscious sedation would be necessary for the procedure they had planned. The procedure went well, and I had appropriate airway adjuncts, ranging from nasopharyngeal airways and laryngeal mask airways to endotracheal tubes. However, I am glad I did not have to escalate beyond inserting an oropharyngeal airway because I had only one functional ventilator available, the Pulmonetic Systems LTV® 1200. The ventilator circuit supply was limited to two pediatric circuits. Luckily, the adult patient was small enough that the circuit would have sufficed. Aside from limitations related to invasive ventilation equipment, I had five patients whom I would have placed on full-face mask NIPPV had an appropriate face mask been available for use with the LTV 1200.

Prior to my return to Charlottesville, I met with the chairperson of the pediatric medicine division at HUEH to share my insights and observations during my clinical exposures. I told of the number of respiratory-related problems I encountered during my clinical time in pediatric and adult areas. Specifically, I said that the existing health care provider structure did not appear to have staff designated to provide respiratory therapy services, inclusive of rapid respiratory assessments, oxygen administration, airway management, and an ability to assess and treat patients with respiratory distress.

I asked the chairperson if she would support the development of a respiratory therapy training program, and she said yes. Revisions in the medical and nursing didactic curriculum are currently underway. I also identified a young man who speaks English well. He wishes to be a respiratory therapist, and I hope to be able to help this young man enroll in a BSRT program. Upon completion of the program, he could return to Haiti and begin developing a respiratory therapy education program with guidance from the AARC and the International Council for Respiratory Care™.

In the meantime, physician and nursing staff need to be trained on basic respiratory care interventions. I have encouraged the chair of pediatrics to encourage the medical faculty to apply to the American Respiratory Care Foundation's International Fellowship Program. The residents are very bright, energetic, and dedicated to medicine. My hope is that we can take this opportunity to expand respiratory therapy into a country of need. ■

ABOUT THE AUTHOR
Daniel D. Rowley, BS, RRT-NPS, RPFT, FAARC, is a respiratory therapy supervisor at the University of Virginia Medical Center in Charlottesville, VA.

DISCLOSURE
Daniel D. Rowley is not affiliated with any of the products or companies mentioned in this article.

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Industry Watch

Indian pharmaceutical business growing by leaps and bounds

According to an article in the *New York Times*, India's drug industry will grow by about 13% this year to a little more than $24 billion. Part of the growth is being fueled by companies like Sun Pharmaceutical Industries, which currently has a team of 650 scientists working at a laboratory in Gujarat, looking for new drugs to treat diseases ranging from cancer to epilepsy. Other companies setting up business in India or partnering with Indian companies include Abbott Laboratories, GlaxoSmithKline, Pfizer, Sanofi-Aventis, and Bristol-Myers Squibb.

GREENGUARD website tackles indoor air pollution at school

The GREENGUARD Environmental Institute has launched an animated online school tour (http://greenguard.org) that allows users to take a virtual "walk through" of a school building and learn about common sources of indoor air pollution and its effects on student and teacher health. The tool also provides simple solutions for minimizing pollutants and creating healthier, more productive educational environments. "Studies have shown that more than half of all schools in the U.S. suffer from poor indoor air quality, which is a major contributor to health problems like asthma," Dr. Marilyn Black, founder of the GREENGUARD Environmental Institute, was quoted as saying. "By giving parents, teachers, facility managers, and administrators a visual tool to help evaluate their school's indoor air quality, we can help them create healthier school buildings that promote learning, comfort, and well-being."

NIAID to fund human immune phenotyping research

Six U.S.-based Human Immune Phenotyping Centers will receive a total of $100 million from the National Institute of Allergy and Infectious Diseases (NIAID) over the next five years. They will conduct research aimed at defining changes in the human immune system in response to infection or vaccination. The research will be based on human rather than animal studies. "Recognizing the differences in immune system activity before, during, and after exposure to an infectious agent or vaccine will help in the development of safer, more effective therapeutics and vaccines," says NIAID Director Anthony S. Fauci, MD. The studies will focus on immune responses to vaccines against specific viruses and bacteria, such as influenza and pneumococcus, as well as to infection with West Nile virus.

GE Healthcare teams up with clinical, university partners to build pediatric MRI devices

GE Healthcare, a unit of General Electric Company, in collaboration with Cincinnati Children's Medical Center and the Davis Heart and Lung Institute of Ohio State University, has been awarded $1 million to develop pediatric magnetic resonance imaging and devices for the "Pediatrics Population" project. GEHC Coils Inc., a wholly owned, Ohio-based subsidiary of the General Electric Company, will work with clinicians and researchers to design, build, and validate new pediatric coils for use in the head, heart, and other anatomies, as well as new solutions for surgical magnetic resonance pediatric fixation. The Pediatrics Population project is funded by Ohio's Third Frontier program.

Naturs Design reports HCPCS codes for CPAP mask liners

According to Naturs Design Inc., HCPCS codes have been assigned to its RemZzzs CPAP mask liners. The new codes are A7031 and A7032. "Patients who use RemZzzs mask liners with their CPAP masks have become much more compliant, contributing to an anticipated rise in compliance rates across the sleep industry," CEO Robert Rutan was quoted as saying. "Now that RemZzzs have been awarded HCPCS codes for Medicare billing, a broader range of sleep apnea patients will be able to obtain the mask liners."

N30 Pharmaceuticals moves forward with new asthma, COPD drug

N30 Pharmaceuticals LLC has received FDA approval of its investigational new drug application for N6022, a first-in-class inhibitor of s-nitrosoglutathione reductase, or GSNOR, with the potential to be an important new treatment for acute exacerbations of asthma, COPD, and inflammatory bowel disease. The company is now planning a Phase 1 dose escalation trial in healthy subjects to assess the safety profile, tolerability, and pharmacokinetics of single intravenous doses of N6022.

Oridion presents study on its Integrated Pulmonary Index

Oridion presented the results of a new study involving its Smart Capnography™ technology, Integrated Pulmonary Index™ (IPI), at the recent Advanced Technology Applications for Combat Causality Care Conference. IPI integrates four complex parameters (end-tidal CO_2, respiration rate, pulse rate, and oxygen saturation) into a single index value, enabling clinicians to quickly and easily assess a patient's ventilatory status. The study was based on joint research carried out by Oridion and the U.S. Army Institute of Surgical Research to analyze the use of IPI in a trauma database of 110 airlifted prehospital trauma patients.

New website has info on sleep

SleepQuest Inc. has introduced a comprehensive new website dedicated to people who suffer from obstructive sleep apnea. MySleepQuest.com offers news, videos, educational content, therapy selection, and an opportunity to discuss sleep apnea with a sleep care specialist. It also allows visitors to find out if they are at risk for sleep apnea by submitting an online questionnaire that will be reviewed by sleep specialists and sleep physicians. The website is supported by Dr. William Dement, chief of the Stanford University Division of Sleep, who is often referred to as the father of sleep medicine.

Kimberly-Clark hosts HAI Watchdog

Kimberly-Clark recently announced it has established the HAI Watchdog* Community, a new online forum expressly for sharing infection prevention best practices. Health care professionals may visit www.HAIwatchdog.com to participate in discussions, build customized HAI commitment posters, or view entries to the HAI Watchdog Awards, a program awarding education grants for infection prevention initiatives.

Brief submissions and photos for this column may be sent to Marsha Cathcart, *AARC Times* editor, at cathcart@aarc.org. ■

Marketplace

Featuring information on products and equipment from manufacturers

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RC Currents

IN THE NEWS

AARC Members Mark World Spirometry Day October 14, 2010

One of the key events in this year's International Year of the Lung campaign took place on Oct. 14 as health professionals around the globe marked World Spirometry Day. AARC members participated, and here's a brief look at what they did.

The **Colorado Society for Respiratory Care's Student Chapter** converged on the state capitol building in Denver to screen visitors with the DRIVE4COPD screener and PFTs conducted under the watchful eye of Martin Carlos, RRT. Student Chapter Advisor Greg Ginnane, RRT, says they interacted with about 60–75 people during the day-long event. Visitors to the booth, which featured pig lungs and homemade cookies that were a big hit with the schoolchildren touring the capitol that day, asked lots of great questions about lung health.

"One of the people who came through told about when her mom died from COPD," Ginnane says. "She was concerned about her own lung health, as she used to smoke."

Another family approached the pig lung station, where the mom promptly pushed her teenaged daughter forward and announced, "She thinks it's cool to smoke." Ginnane says the RC students handled the situation just right. They did a great job of not trying to shame her, but instead showed her what lungs look like with the changes seen in emphysema and how they affect breathing and quality of life. "We also gave her some smoking-cessation information and giveaways. Maybe a seed was planted," he added.

The RC students also took to the streets around the capitol building during the lunch hour to ask members of the public to take the DRIVE4COPD screener, coming back with more than 100 completed questionnaires.

The state capitol building was also the destination for RTs from **St. Alexius Medical Center** in Bismarck, ND, who set up two tables in the Grand Hall next to the governor's office. Fifty-six PFTs were performed during the half-day session, and 55 people completed the DRIVE4COPD screener. Although Gov. John Hoeven was unable to attend, many state employees came by the booth, and the therapists even visited with North Dakota Adjutant General, Maj. Gen. David A. Sprynczynatyk.

"We decided to have it at the state capitol building to raise awareness of DRIVE4COPD, World Spirometry Day, and the role of the respiratory therapist to policy and lawmakers," says Jody Bauer, BS, RRT, AE-C. "Smoking cessation was encouraged, as well as follow-ups with primary care physicians for those with abnormal tests who were symptomatic."

In one case, the RTs offered some much-needed education on medication delivery devices. "One person who was screened told us that she had asthma," recalls Bauer. "She performed the spirometry test

and then took her inhaler out of her pocket and used it. The education took place when we realized she was using her inhaled corticosteroid instead of a rescue inhaler!"

The **New York State Society for Respiratory Care** teamed up with **University Hospital** and **Crouse Hospital** in Syracuse to screen members of the public with the DRIVE4COPD screener and PFTs at a local Healthlinks/Oasis site. With programs for the older crowd, plus free parking, it was the perfect place to educate people about lung disease.

"I was surprised by how grateful some of the people were for the education and testing," says Joe McDonald, MS, RRT. "We had positive feedback, and several people thanked us for holding the event."

RC students from the **University of Texas Health Science Center** in San Antonio, TX, and their instructors Helen Sorenson, MA, RRT, FAARC, and Donna D. Gardner, MHIS, RRT, participated in a joint Lambda Beta/World Spirometry Day/DRIVE4COPD event entitled "Spirometry for Seniors" at the Bob Ross Senior Center, where they screened 30 individuals.

"Spirometry for Seniors" is a new program sponsored by the student members of the Lambda Beta Society at the Health Science Center. Carisia Garcia, a senior student and Lambda Beta member, wrote for and received a $3,000 Community Service Learning Grant to support the "Spirometry for Seniors" project, which will establish an ongoing relationship between current and future Lambda Beta members and older adults at the Bob Ross Senior Center. As a result of this grant, they will be able to provide regular screenings, COPD education, healthy lungs information, and tobacco-dependence treatment information, plus encourage the participants to maintain mobility (see photo on previous page).

Students in the respiratory care program at **Armstrong Atlantic State University** in Savannah, GA, performed more than 200 PFTs during an event held in conjunction with a local health fair.

"Patients who attended had a host of diagnoses, including job-related lung diseases, COPD with significant air-trapping in young adults, cystic fibrosis in kids and adults, BPD adult survivors, lots of asthma, and a host of other lung diseases," says Department Chair Doug Masini, EdD, RRT-NPS, RPFT, FAARC. "Our students did a great job of explaining the hazards of smoking, secondhand smoke, air quality, and housekeeping and asthma and are on their way to being compelling and effective patient educators." ■

Submit Symposia Requests for Congress 2011

What RC topic is the most important to you right now? What issue do you personally need more information on than any other? The AARC would like to know.

Next year the AARC will move our annual International Respiratory Congress forward a month to Nov. 5–8 in Tampa, FL, so we are beginning now to plan the Congress 2011 program. As you know, you can earn all the CRCE® credit hours you need to maintain your state license at the Congress, so be proactive and let us know what you personally need to learn through your continuing education program.

If you, your group, your organization, or your company are interested in making a presentation at Congress 2011, submit your requests online at http://aarc2011.abstractcentral.com. Easy instructions will guide you through properly submitting your proposals. The deadline for submitting your requests is **Jan. 5**. ■

Journal Issues Call for Open Forum Abstracts

A simple and convenient way for you to submit abstracts online for the Respiratory Care Open Forum for the AARC International Respiratory Congress is at http://aarc2011.abstractcentral.com. Easy online instructions will guide you through properly submitting abstracts for Respiratory Care 2011 in Tampa, FL, Nov. 5–8. The deadline for submitting Open Forum abstracts is June 1.

The Open Forum is your opportunity to gain national and international recognition for your work in cardiorespiratory care. Plus, accepted abstracts will be published in the October 2011 issue of Respiratory Care and will automatically be considered for research fellowships from the American Respiratory Care Foundation. ■

End of Year Tax Tips: What You Can Do Now to Save on April 15th

Most of us have our minds wrapped solidly around the AARC Congress and the upcoming holidays at this point, but experts tell us now is also the time to start thinking about our 2010 tax returns. Here are a few things you can do by the end of December to minimize that tax bill come April 15, according to Tony Lovio, AARC controller. Keep in mind that Congress is considering extending/changing certain current tax law provisions impacting tax rates and other areas in the next few months. What follows here is based on what we know today.

Homebuyer Credit: If you purchased a home by April 30, 2010, and settled by Sept. 30, 2010, you may be eligible for a credit — $8,000 for first time homebuyers and $6,500 for current homeowners.

Education Tax Breaks: As it was last year, the Hope Credit has been opened up to a broader range of taxpayers, including many with higher incomes and those who owe no tax. Required course materials have also been added to the list of qualifying expenses and the credit may be claimed for four post-secondary education years instead of two. There are other educational tax breaks also. Check IRS Publication 970 for more information.

Energy Efficient Products: Energy tax credits can save you 30% of the cost of all qualifying improvements, up to a maximum credit limit of $1,500 for improvements placed in service in 2010. The credit applies to improvements such as adding insulation, energy-efficient exterior windows, and energy-efficient heating and air conditioning systems. Credits are also available on some hybrid and electric cars. This credit is scheduled to end in 2010.

Long-Term Capital Gains: There is no long-term capital gains tax for those in the 10% and 15% tax brackets through the end of 2010, and capital gains tops out at 15% for everyone else. So if you are thinking about selling some investments that have increased in value, doing it before the end of this year could pay off if the capital gains tax goes up next year.

Medical Expenses: Several provisions apply here:

ing 7.5% of your adjusted gross income, so if you are close to that threshold, you may want to make certain purchases, such as getting new eyeglasses or scheduling elective surgery or other procedures, before the end of the year.

spend it before Dec. 31, 2010, on necessary health items, such as prescription glasses, contact lenses, medicines, hearing aids, etc., so you won't lose the unspent amount.

- Effective Jan. 1, 2011, the cost of an over-the-counter medicine or drug cannot be reimbursed from flexible

spending arrangements, or health reimbursement arrangements, unless a prescription is obtained. The change does not affect insulin, even if purchased without a prescription, or other health care expenses such as medical devices, eyeglasses, contact lenses, co-pays, and deductibles. Since the new standard applies only to purchases made on or after Jan. 1, 2011, claims for medicines or drugs purchased without a prescription in 2010 can still be reimbursed in 2011, if allowed by the employer's plan. A similar rule goes into effect on Jan. 1, 2011, for health savings accounts and Archer Medical Savings Accounts.

Retirement Accounts: If you're looking to reduce your taxable income, put some additional money into your 401K or traditional IRA. You can contribute to your IRA by April 15, 2011, and it will still count toward your 2010 income. If you don't have a retirement account, consider setting one up. Note: contributions to most health savings accounts are tax deductible also. Be sure to check the rules as there are limits on these contributions as well.

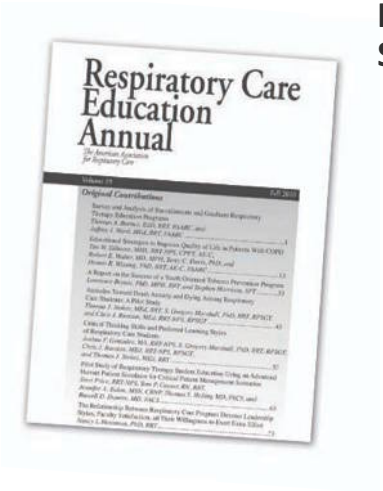
Charitable Contributions: Charitable donations made by the end of the year can be deducted from your 2010 return. But be sure to get a receipt; you can no longer take a deduction if you can't present a receipt.

Accelerate Expenses into 2010: Depending on what happens with 2011 tax rates, it may be to your advantage to pay certain expenses in 2010 that might not be due until 2011. This could include property taxes or your January mortgage payment.

Remember that all the tips listed here are for general information purposes only. Be sure to consult with a local tax professional before using these tips to file your 2010 income tax return. ■

Respiratory Care Education Annual Call for Papers

The AARC will publish Volume 20 of the *Respiratory Care Education Annual* in the spring of 2011, and the Education Section invites educators to submit papers for consideration. Deadline for submission is Feb. 15, 2011. Papers should be approximately 6 to 10 pages in length with abstracts less than 120 words. For more information on style and format, contact Dennis Wissing at dwissi@lsuhsc.edu or visit www.rcjournal.com/guidelines_for_authors/ to follow author guidelines used for Respiratory Care Journal. ■



Read the Rest of the Story at AARC.org

Study published in peer-reviewed journal — www.aarc.org/headlines/10/10/national_vent_study.cfm

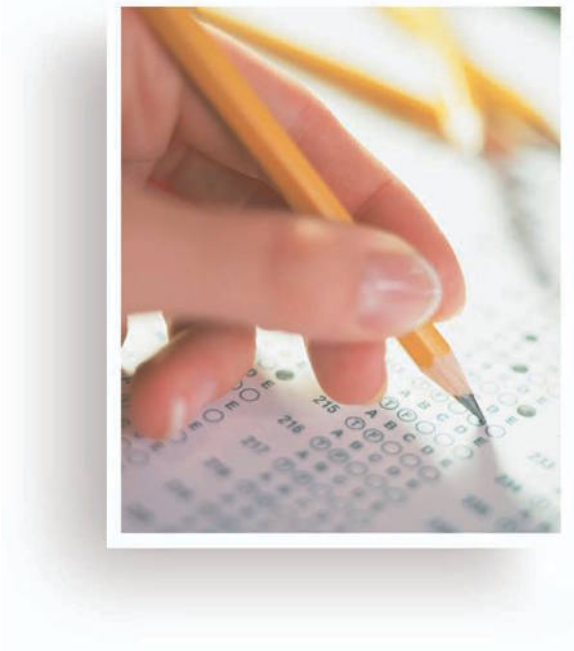
rehab programs — www.aarc.org/headlines/10/10/hr6376.cfm

Request for Proposals — www.aarc.org/headlines/10/11/leadership_institute/

Lower COPD Stages Don't Always Equal Less Severe Disease

A new study in the Sept. 16 issue of the *New England Journal of Medicine* finds some COPD patients suffer from more frequent exacerbations regardless of the stage of their disease. The British researchers followed more than 2,100 patients over a three-year period. While frequent exacerbations (defined as two or more a year) became more common in the later stages, many people in earlier stages also suffered exacerbations at this rate.

Most of the patients who were having frequent exacerbations at the beginning of the study continued to have them throughout the three-year period. They believe people who have frequent exacerbations, despite the stage of disease, may be suffering from a more severe form of COPD and could benefit from more aggressive treatment. ■



RPSGT Recertification Approaching

Beginning in January 2011, sleep professionals who hold the registered polysomnographic technologist (RPSGT) credential will be required to recertify every five years. According to the Board of Registered Polysomnographic Technologists (BRPT), recertification may be earned by either accumulating 50 hours of continuing education or by retaking and passing the RPSGT exam.

For RPSGTs who earned the credential after Jan. 1, 2006, the recertification period began on the date of certification. For those who earned the credential prior to Jan. 1, 2006, and chose to switch to a 10-year recertification period (the 10-year option is no longer available), the period began on the date of the request to switch. For everyone else, including those who were previously "grandfathered," the period began on Jan. 1, 2007.

The BRPT has published a RPSGT Recertification Handbook with all the details, which can be downloaded from its website, www.brpt.org. ■

Industry Profile: Invacare, Inc.

Joe Lewarski, BS, RRT, FAARC

In the following interview, vice president and general manager of Invacare's respiratory group, Joe Lewarski, BS, RRT, FAARC, fills us in on his company and its plans for the future.

***AARC Times*:** How long has your company been in business, and what kinds of devices do you manufacture?

Lewarski: Invacare is very proud to be celebrating its 30th year as a leading global medical technology development and manufacturing company. Our core businesses include: complex rehabilitation and mobility systems, such as custom manual, power, and specialty wheelchairs that are used by persons with spinal injury, neuromuscular disorders, or other conditions that limit mobility; personal care and aids to daily living, such as hospital beds, wheelchairs, walkers, bath safety, etc., which are used by millions of people to support home-based care and promote independence; and home respiratory technologies, which include our line of stationary and portable oxygen concentrators, the HomeFill® oxygen system, and aerosol therapy devices, all of which are used to treat persons with both acute and chronic pulmonary disorders, such as COPD, asthma, cystic fibrosis, and other disorders affecting the cardiopulmonary system.

***AARC Times*:** What projects or new features are you working on for the future?

Lewarski: Our research and development teams are always working on the next generation of technologies. This ranges from sustaining projects that focus on continued improvement of current products to the development of disruptive concepts and products that will help change the care paradigm. As the home and alternate care sites become the primary points of care, the technologies must support both the changing environments of care and the actual caregivers. Many medical devices will need to be smaller, more efficient, and less costly while staying clinically relevant and efficacious. Devices used by medical professionals today may need to be modified or changed dramatically so that patients and/or lay caregivers can safely and effectively employ them in the home.

***AARC Times*:** How do your products improve patient care, and how does this impact the respiratory therapist?

Lewarski: Our products enable patients to safely transition from institutional settings to their homes, where their care and treatment can continue with minimal disruption. For the respiratory therapist, this means patients who might normally have required prolonged institutional stays can now be discharged home without compromising the quality of care. Every day, stable but medically complex respiratory patients with oxygen, aerosol therapy, suction, and other medical needs transition into their own homes, a patient-preferred setting that offers a much lower cost of care. This allows respiratory therapists working in institutional settings to turn their skills and sometimes limited resources to the more acute and critically ill patients while simultaneously providing the home respiratory therapist with new care and business opportunities.

***AARC Times*:** Do respiratory therapists work for your company, and if so, in what capacities?

Lewarski: Yes, we employ a number of respiratory therapists in a variety of capacities. These include senior management, prod-

uct development, clinical education, clinical research, and sales.

AARC Times: How has having respiratory therapists on board impacted your product line?

Lewarski: When developing respiratory products, it is critical to ensure that the devices are clinically relevant, meet patient needs, and operate within the current standards of care. Our respiratory therapists have input into the technical and clinical performance specifications, and they are often directly involved in the product development process through all of the stages. This includes beta-testing and any clinical trials. We believe our respiratory product development process and products are better as a result of the input from our clinicians.

AARC Times: How do you expect the economy and health care reform to affect how you develop new respiratory care technology over the next two years?

Lewarski: There is one constant when discussing our economy and health care reform — it will change. Knowing that, you sometimes have to focus on the things you know and can control and extrapolate from that. In our case, we know the health care market will continue to grow in the United States and worldwide. Chronic diseases are on the rise, and more patients need care and technology. We know that lower cost care models are essential and that the home and alternate site health care settings are going to grow in importance and volume. With these things in mind, we make certain key assumptions and (as noted earlier) focus on developing and delivering technology to enable higher levels of care in these settings that is clinically efficacious and economically sound.

AARC Times: Where do you see the respiratory device industry heading?

Lewarski: Respiratory disorders continue to grow in volume, and therefore the demand for cost and clinically effective treatment solutions grows with it. This is not only a domestic issue but a truly global phenomenon, which expands and exacerbates the situation. Therefore, we believe there will be continued strong demand for improved respiratory diagnostic and treatment technologies that can be employed in nontraditional care settings, such as small clinics and patient homes. ■

▶ Strange But True

The Nose Knows: Researchers have trained mice to sniff out the avian flu virus in duck and geese excrement. In studies, the specially trained mice correctly identified infected excrement 90% of the time. Now they're working to train dogs to do the same thing. (from a recent American Chemical Society meeting)

Nothing Off Limits for Twitter: Would you tweet during a heart attack? For most folks, the answer would be a resounding NO, but not for Tommy Christopher, a White House correspondent for mediaite.com. As paramedics worked to save his life, the 42-year-old tweeted away, stopping only when his hands started shaking too much to continue.

Talk Them Down: A new study from Utah and Ohio investigators finds suicides are about one-third more common among people living at higher altitudes. The investigators believe the higher rate may be due to the effects of metabolic stress associated with mild hypoxia in people with mood disorders. (*American Journal of Psychiatry*)

Snack Cake Diet: A Kansas State University professor recently decided to go on a diet consisting solely of snack cakes and fatty foods to prove a point: It isn't what you eat that leads to weight gain, it's how much. Despite consuming 1,800 calories a day of food like peanut butter-chocolate bars, breakfast pizza, donuts, and sugared cereal, Mark Haub ended up losing 10 pounds in just two weeks. His "bad" cholesterol went down as well, while his "good" cholesterol went up.

Eyes Wide Open: We all know a big meal induces sleepiness, but could the opposite be true as well? Maybe, report Washington University in St. Louis scientists who looked at the effect of starvation on fruit flies. When deprived of nourishment, the flies nearly tripled the length of time they could survive without sleep. ■

Nominate an AARC Member for "Success Stories" or "Interesting People"

Do you know an AARC member who would be a good choice for one of our "people" features in "RC Currents"? If so, provide this information to the editor at the address below: the member's name, job title, place of work, city, and state; why you think they should be featured; and their contact information. Send to: Editor Marsha Cathcart, cathcart@aarc.org with "Success Stories" in the subject line.■

Respiratory Care Education, 21st Century Style

Photo by CSN respiratory therapy student Lee Zaichick

In many colleges and universities around the United States, allied health programs like respiratory care are relegated to older buildings with little in the way of modern educational technology.

That was the case at the College of Southern Nevada (CSN) in Las Vegas for many years too, but thanks to an $8 million donation from the family of a gentleman who passed away from lung cancer, students in the cardiorespiratory sciences (CRS) program moved into new, state-of-the-art facilities this past fall.

The Ralph & Betty Engelstad School of Health Sciences includes an $8 million facility for cardiorespiratory sciences.

"Although we did not know Ralph Engelstad prior to his death, he has greatly contributed to Las Vegas RC excellence through the Engelstad Foundation's generous contribution," says Program Director Tracy Sherman, MEd, RRT-NPS. "In addition to the building and equipment, the gift has provided greatly needed funds — $1 million — for scholarships."

The CRS facilities in the brand new Ralph & Betty Engelstad School of Health Sciences building include two glassed-in simulation rooms for competency testing. Here, cutting-edge simulation manikins can be controlled from attached booths, while two adjacent debriefing rooms allow students and faculty to review the learning that has just taken place.

"All areas were thoughtfully designed for optimal teaching experiences," says Director of Clinical Education Karen Shaw, MA, RRT-NPS, RPFT. "We created areas with nesting tables and chairs so that the labs may be opened up as wards for multidisciplinary training, such as for a disaster,

CSN students Matt Mentzer (far left) and Rachel Rawlings (far right) join faculty members Karen Shaw (second from left) and Tracy Sherman (second from right) in showing off one of their new learning spaces.

and the external doors allow the emergency medical technicians to triage patients out-of-doors, then transport them in so they can be seen in varying stages of care."

Separate laboratory and teaching areas are also available for first- and second-year students. "The first-year lab contains five curtained hospital 'rooms' so that specific topics may be directly visualized during lectures," says Sherman. "The second-year lab has breakaway glass walls separating it from the x-ray reading area, ABG/PFT-plethysmography/stress-testing labs, and the cardiology/hemodynamics/ABG practice rooms." A one-bed polysomnography unit is down the hall. When faculty make presentations during instruction, the slides are projected onto a wall that doubles as a writing surface so instructors can embellish the images as they address the students.

Students in the CRS program are excited about their new learning environment. "This new facility will allow us to be a part of a realistic experience that will give us the chance to become more efficient and competent in this field," says Cardiorespiratory Students' Club President Rachel Rawlings. "We are all highly motivated, but this building has increased our desire to succeed and prepare ourselves for the future."

"Every student I talk to about the new building tells me that their learning experience will be enhanced by the fact that we are in a facility that is better able to replicate real-life hospital situations," says Matt Mentzer, club vice president. "There is more of a professional feel to this building that makes the respiratory program at CSN seem more official and worthy of respect from the community."

CSN faculty and students — all of them AARC members — are inviting attendees at this year's AARC International Respiratory Congress in Las Vegas to come out and see the new building in person on Dec. 7. For more information, contact Sherman at tracy.sherman@csn.edu. ■

▶ Transitions


1

Bill Scicolone, RRT, is the new clinical director at G.C. Medical Equipment Co., in Peninsula, OH. The company distributes wholesale medical gases, runs a medical equipment repair center, and provides respiratory equipment rental, among other services. (Photo 1)

Ronald Rohlfing, RRT, has been appointed to the West Chester-Liberty Chamber Alliance board of directors. Rohlfing, who has been active with Alliance reading and leadership programs, is currently vice president of operations at the West Chester Medical Center in Erlanger, KY.


2

Brenda K. Barger-Saunders has received the Pearson Prize For Higher Education. A respiratory therapy major at Missouri Southern State University in Joplin, she is one of 70 students selected for the award from over 10,000 applicants. The scholarship includes an initial grant of $5,000 and an additional grant of $5,000 in January if all program requirements are met. (Photo 2)

David Henson, BS, RRT, RPFT, has joined the faculty of Angelina College in Lufkin, TX, where he is serving as a respiratory care instructor.

Timothy King, RRT, was honored for his long service on the Roanoke Rapids Graded School District Board of Education in a special ceremony last fall. King, who served eight years on the board, received kudos for focusing on the well being of students. He is currently a respiratory care instructor at Edgecombe Community College in Rocky Mount, NC.


3

Eric Kiltz, BSRT, CRT, is a new staff therapist at W.W. Hastings Cherokee Nation Hospital in Tahlequah, OK. Kiltz previously served as a therapist at a community hospital in suburban Salt Lake City, UT. (Photo 3)

Christopher A. Lennox, Sr., passed away in September. He was a respiratory therapist at St. Luke's Hospital in Newburgh, NY, for 20 years and also worked for 20 years at St. Joseph's Hospital in Yonkers, NY.

We welcome news about AARC members. Submit job changes, awards, and death notices online at www.AARC.org/transitions. ■

Contribute to Writer's Corner

AARC Times is currently considering poems, essays, and short stories for publication in the Writer's Corner section of "RC Currents." AARC members' submissions should be under 500 words and contain a cover letter with contact information such as phone and fax numbers and e-mail address. Send submissions to cathcart@aarc.org with "Writer's Corner" in the subject line. ■

Fifth Time May Be the Charm for Military Member Dr. William Bernhard

Col. William Bernhard, MD

AARC member Col. William Bernhard, MD, has finally done something for good that he tried to do four previous times — retire from the U.S. military. Last September, he returned from his final tour of duty as the soldier readiness physician at the Hohenfels Health Clinic in Germany, where he worked to ensure soldiers are better prepared to handle the emotional as well as the physical tolls of combat. It's a mission he took on in part because he saw his own wife, a Navy nurse in Vietnam, struggle with post-traumatic stress disorder herself.

The mission is indicative of Dr. Bernhard's 60+ years of service to our country. Despite a long and fruitful civilian career that encompassed private practices in Vermont and Maryland, a professorship at New York University Medical Center, and a stint as chief of anesthesia at the Shock Trauma Center at the University of Maryland — not to mention years of service to the AARC on the Board of Medical Advisors (BOMA) — he regularly took time out of his busy schedule to deploy to locations around the world whenever the Army, Navy, Marines, Air Force, or National Guard called. Along the way, he wrote lesson plans for the U.S. Army Mountain Warfare School, headed up anesthesia at military hospitals, served as a member of Afghan President Hamid Karzai's protection detail and as a combat team surgeon in Iraq, and earned his master flight surgeon wings.

His last tour of duty may have earned him another distinction as well. "I may have been the oldest soldier on active duty this year, as I turned 80 in November," says the physician.

You can read more about Dr. Bernhard's long record of service with BOMA in the January 2010 issue of *AARC Times*. ■

Honoring Military RTs

If you are a respiratory therapist currently serving your country in the military, *AARC Times* would like to publish a story and photo about your service or deployment.

Please go online at www.AARC.org/go/mm where you will find an online form you can fill out to provide information about your deployment. You can also download your photo there.

Once we receive your information, we may use it to prepare an "RC Currents" story about your service in the military. The AARC honors those who serve, and we would like to share your story with your respiratory care colleagues here and abroad. ■

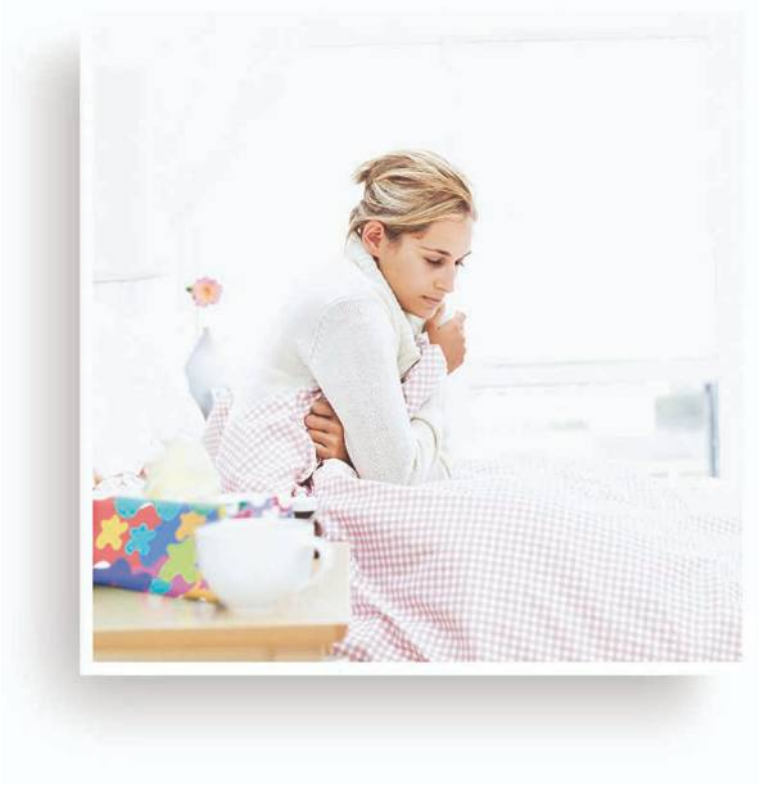
Study Finds Little Difference in Outcomes Between 2009 H1N1 and Other Flu Strains

Wisconsin researchers who compared the characteristics of pandemic and seasonal influenza A infections in children and adults living in a 14-zip-code area in their state find the clinical manifestations and risk of hospital admission were similar for 2009 H1N1 and other seasonal influenza A strains. The study involved 545 patients with confirmed 2009 H1N1, 221 with confirmed seasonal H1N1, and 632 with confirmed H3N2 infection. The median ages of infected participants were 10, 11, and 25 years, respectively.

In children, 2009 H1N1 infection was not associated with either hospital admission or pneumonia compared with seasonal H1N1 or H3N2. Hospital admission occurred within 30 days for six of 395 children with 2009 H1N1 (1.5%), five of 135 with seasonal H1N1 (3.7%), and eight of 255 with H3N2 (3.1%). Among adults, hospital admission occurred in six of 150 with 2009 H1N1 (4.0%), two of 86 with seasonal H1N1 (2.3%), and 17 of 377 with H3N2 (4.5%).

Among adults, pneumonia occurred in 4% of those with 2009 H1N1 infection, 2.3% of patients with seasonal H1N1, and 1.1% of those with H3N2 infection. Pneumonia occurred in 2.5% of children with 2009 H1N1, 1.5% of children with seasonal H1N1, and 2% with H3N2. There were no significant differences by strain in the proportion of children or adults with any serious outcome (pneumonia or hospital admission) during the 30 days after onset.

The study appeared in the Sept. 8 issue of JAMA. ■



AARC Times Seeks Volunteers To Review Articles

The *AARC Times* staff is always grateful to respiratory care professionals willing to volunteer their time and expertise to providing critical reviews of clinical articles submitted for publication in our magazine. The *AARC Times* reader who shows dedication to the respiratory care profession in this way serves as an important extension to our publications staff and helps us prepare quality clinical articles.

If you are interested in providing this kind of service to your professional organization, please e-mail your resume and a brief letter explaining your areas of interest and expertise to *AARC Times* Editor Marsha Cathcart at cathcart@aarc.org.

We know there's a lot of untapped talent out there, so we hope to be hearing from you soon! ■

AHRQ Reports HAI Numbers

A recent *News and Numbers* publication from the Agency for Healthcare Research and Quality quantifies the impact health care associated infections (HAIs) are having on the nation's hospitals:

surgical care while in the hospital in 2007 had to stay an average of 19 days longer than adults who didn't develop an infection (24 days vs. five days).

the hospital was, on average, six times higher than the rate for patients without an HAI (9% vs. 1.5%).

adult patient who developed an HAI was about $43,000 more than the stay of a patient without an HAI ($52,096 vs. $9,377).

65 or older, 33% were 45 to 64, and 22% were 18 to 44. However, the 45- to 64-year-old group had the highest rate of HAIs.

patients who developed HAIs were septicemia (12%), adult respiratory failure (6%), and complications from surgical procedures or medical treatment (4%).

gical discharges peaked in 2004 and 2005 at 2.3 per 1,000 stays, then declined to 2.03, a rate similar to that seen in the year 2000. ■

Remembering Bob Councilman

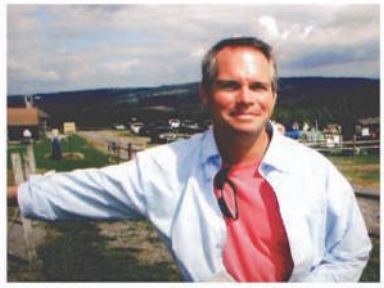
When AARC member Bob Councilman, RRT, died suddenly of a heart attack in the spring of 2009, he left behind many, many friends in respiratory care who remember him as a leader in the field who always put his patients first, not only during his years as a hospital department director but also as co-owner and clinical operations manager of Oxypros, a home care company in Stuart, FL.

This past summer, his long-time friend and colleague, Ed Coombs, MA, RRT-NPS, CPFT, decided to honor that memory by setting up a scholarship in his name at the SUNY Upstate Medical University in Syracuse, NY, where the two were college roommates back in the early 1980s.

"It's not too often that you can find a lifelong friend," says Coombs. "Given Bob's honesty, integrity, and all-around great personality, he was simply one of those people you appreciate. As an RT, he was always steadfast in his belief to be an advocate for every patient." Coombs says he wanted to establish the memorial scholarship so that his friend would leave a lasting mark on the university that got them both started in their careers. "The SUNY Upstate RT program community is very close. Bob's early passing reminds us that life is all too short and precious."

Joseph Sorbello, MSEd, RRT, associate professor and chair of the department of respiratory therapy education at the university, remembers Councilman as a student and a friend and says the new scholarship is a fitting tribute to a man who loved his profession. "This scholarship endowment is a permanent reminder of the type of therapist and person he was. Bob personified the outstanding respiratory therapist, was kind and compassionate to all he met, and always enjoyed a positive and fun outlook on life."

What would Bob Councilman think of this honor being established in his name? Coombs says he'd probably wonder what all the fuss is about. "Bob was a humble man and very down to earth. If he were alive to see a scholarship in his name, he would certainly wonder why all the attention, as he lived his entire life without any expectation of accolades or recognition for doing and living as he believed."



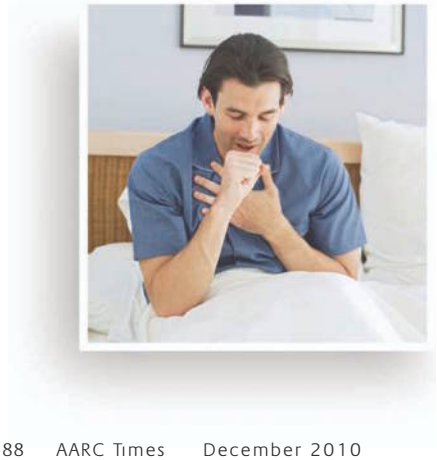
Bob Councilman's legacy will live on through a SUNY Upstate scholarship in his name.

Sorbello says contributions to the scholarship fund are continuing, and the first scholarship may be awarded as early as the fall of 2011. For more information, contact him at: sorbellj@upstate.edu. ■

This Year's Whooping Cough Outbreak Is One for the Record Books

The outbreak of whooping cough that struck California earlier this year may go down in history as officials track its progress toward breaking a 55-year-old record for the number of infections in an epidemic.

As of early fall, about 4,000 cases had been reported in the state, with more than 11,400 reported nationwide. MSNBC reported on the statistics in mid-September. ■



RT Student Members: Send Us Your Stories and Editorials

AARC Times is always looking for good stories from AARC student members that relate special experiences and give the RT student perspective on the respiratory care profession they have chosen as a career. We have published the stories of several student members in *AARC Times* this year, and we continue to encourage you to share your experiences.

Have you volunteered at a summer asthma camp or helped organize the DRIVE4COPD program in your state? Have you advocated for respiratory therapy in your state capitol or on Capitol Hill? Maybe you and your RC student friends have collaborated to build a house with Habitat for Humanity. Perhaps you witnessed a lifesaving event outside the hospital setting or experienced something that took your breath away. Whatever the story, we would like to review it.

If you have a story to tell, please contact *AARC Times* Editor Marsha Cathcart at cathcart@aarc.org and include in the subject line, "Student Member Story." Be sure to give us your full name, AARC member number, a brief description of the story subject, and why you would like to have it published. Then attach a Word document of the story. We hope to hear from you soon! ■

Thank You, 2010 *AARC Times* Article Reviewers

The *AARC Times* staff offers our heartfelt thanks to the people who reviewed the clinical articles in our publication throughout this year. We couldn't have done it without you. Your special expertise and dedication to the respiratory care profession were critical to our ability to publish informative clinical articles for the respiratory care professional. Thank you, reviewers!

Russell Acevedo, MD, FCCP, FACP, FCCM
Shahid Ahsan, MD, FACP, FCCP, FAASM
Lorraine Bertuola, BA, RRT
Susan Blonshine, BS, RRT, RPFT, AE-C, FAARC
Suzanne Bollig, BHS, RRT, RPSGT
Lee Brooks, MD
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Kitty Collins, RRT
Dan Conyers, MS, RRT, RCP
Jeffrey Davis, RRT
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Ashley Dulle, BS, RRT, AE-C
Katherine Fedor, RRT-NPS
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Richard Ford, BS, RRT, FAARC
Catherine Foss, BS, RRT, RPFT, CCRC
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Michael Hewitt, RRT-NPS, FAARC, FCCM
John D. Hiser, MEd, RRT, CPFT, FAARC
Cheryl Hoerr, MBA, RRT, FAARC
Thomas J. Kallstrom, MBA, RRT, FAARC
Felix Khusid, BS, RRT-NPS, RPFT
Joan Kohorst, MA, RRT-NPS
Joe Lewarski, BS, RRT, FAARC
Floyd Livingston, MD, DABSM
Curt Merriman, RRT, CPFT
Pat Munzer, DHSc, RRT
Timothy R. Myers, BS, RRT-NPS
Steven B. Nelson, MS, RRT, CPFT, FAARC
Timothy B. Op't Holt, EdD, RRT, AE-C, FAARC
Michael Runge, BS, RRT
Gregg L. Ruppel, MEd, RRT, RPFT, FAARC
Frank Sandusky, HCMBA, RRT
Steven A. Schroeder, MD
Paul A. Selecky, MD, FACP, FCCP, FAARC
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David C. Shelledy, PhD, RRT, FAARC
Debra Skees, BS, RRT, CPFT
Thomas Smalling, PhD, RRT, RPFT, RPSGT, FAARC
Bob Sobkowiak, RRT, AE-C
Helen M. Sorenson, MA, RRT, FAARC
Tony Stigall, MBA, RRT, RPSGT
Sheri Tooley, RRT-NPS, CPFT, AE-C
Teresa A. Volsko, MHHS, BS, RRT, FAARC
Rhonda Vosmus, RRT-NPS, AE-C
Allen Wentworth, MEd, RRT
Dennis Wissing, PhD, RRT, AE-C
Kari Woodruff, BSRC, RRT-NPS

New Members

Welcome to the AARC

U.S. Members

A

Ferguson, Scott, Kodiak, Ak*

Allen, Doris, Killen, Al*
Thompson, Lisa, Roanoke, Al*

Akbar, Shellie, Benton, Ar*
Allen, Robert, Siloam Springs, Ar
Allen, Terica, Piggott, Ar*
Burton, Betty, Cabot, Ar*
Carter, Richard, Crossett, Ar
Parr, Marco, Mountain Home, Ar*
Thomas, Mariah, Bella Vista, Ar
Welch, Todd, Bella Vista, Ar

Adkins-Weger, Micaela, Tucson, Az*
Aguilar, Juan, San Tan Valley, Az*
Bradshaw, James, Phoenix, Az*
Chee, Valencia, Window Rock, Az*
Gallant, David, Kingman, Az*
Graham, Dan, Tucson, Az*
Jarvis, Jori, Mesa, Az
Kleinheinz, Linda, Sun City, Az*
McCarthy, Thomas, Tucson, Az*
Melchert, Barbara, Scottsdale, Az*
Overturf, Hazel, Phoenix, Az
Ramos, Daniel, Phoenix, Az*
Smith Jr, Eddie, Oracle, Az*
Wollschlager, Imelda, Surprise, Az*

C

Alday, Wilson, Daly City, Ca
Alghamdi, Mansour, Redlands, Ca
Angeles, Rhia, Pacifica, Ca
Azar, Diana, Tehachapi, Ca*
Baltero, Jon, South San Francisco, Ca
Bigley, Lauren, Bradbury, Ca
Bojorquez, Mario, Pacoima, Ca*
Burke, Ramona, Daly City, Ca*
Carroll, Diana, San Francisco, Ca*
Chapman, Grace, Pacifica, Ca
Cheng, Haoyan, Fremont, Ca
Chow, Joanna, San Francisco, Ca
Chui, Eric, South San Francisco, Ca
Costello, Colette, San Francisco, Ca
Cruz, Heidy, Rancho Cucamonga, Ca
Dang, Jackie, Modesto, Ca
Dao, Vivian, Daly City, Ca
Darden, Erica, Murrieta, Ca
Davis, David, Santa Barbara, Ca*
De Vera, Divine, Palm Desert, Ca*
Dedick, Tari, Yorba Linda, Ca*
Del Bando, Dennise, South San Francisco, Ca
Dela Cruz, Tristan, Torrance, Ca*
Diaz, Crystal, San Francisco, Ca
Dinh, Bao-Luan Q, Ontario, Ca
Dominguez, Andrew, Alameda, Ca
Druesedow, Diane, Patterson, Ca
Ferrer, Vincent, Daly City, Ca
Florentine, Victoria, Rancho Cordova, Ca*
Flores, Alida, Escalon, Ca
Golchehreh, Sheila, Danville, Ca
Golovach, Viktoriya, San Francisco, Ca
Gonzalez, Stephanie, Downey, Ca
Griffiths, Nicholas, Galt, Ca*
Hahn, Nathan, Mountain View, Ca
Hammoudeh, Hanaa, Daly City, Ca
Hernandez, Jose, San Francisco, Ca
Ibay, Kristle, San Francisco, Ca
Jackson, Timothy, Inglewood, Ca*
Jaworski, Blake, Escondido, Ca*
Kelly, Patrick, Simi Valley, Ca*
Krot, Megan, Winchester, Ca*
Lam, Marianne, Oakland, Ca
Lau, Philip, Daly City, Ca
Lee, Jeff, San Francisco, Ca
Liang, Mark, Daly City, Ca
Litovchenko, Ivan, Pomona, Ca
Liu, Ming Zhu, San Francisco, Ca
Llarenas, Frenny, Bakersfield, Ca
Lopez, Ronnie, Camarillo, Ca
Lopez-Suarez, Jennifer, Culver City, Ca
Luong, James, Simi Valley, Ca
Macaraeg, Marvin, San Diego, Ca*
Makadia, Meghna, Chino Hills, Ca
Malone-Glass, Carrie, San Diego, Ca*
Marinacci, Melissa, Yorba Linda, Ca
McCain, Joseph, San Diego, Ca
McGowan, Karen, Imperial Beach, Ca*
Medhat, Babak, Lawndale, Ca
Miller, Robert, Hayward, Ca
Millhollin, Christine, Stockton, Ca*
Milly, Christine, San Jose, Ca*
Neilson, Geoff, San Diego, Ca
Nguyen, Dung T, Corona, Ca
Novak, Matthew, Twentynine Palms, Ca*
Pawl, Michelle, Canoga Park, Ca
Pellegrino, Mary, Beaumont, Ca*
Peraino, Benjamin, Riverside, Ca
Phillips, Clark, Aptos, Ca*
Phung, Jimmy, San Francisco, Ca
Quintana, Henry, San Diego, Ca
Ricafort, Emir, Daly City, Ca
Rice, David, San Diego, Ca*
Robinson, Yamile M, San Pedro, Ca
Robledo, Joaquin, Fairfield, Ca*
Rodriguez, Laura, Orange, Ca
Santiago, Nina Marie, San Diego, Ca
Sargis, Ramin, San Carlos, Ca
Schlinkert, Timothy, Loma Linda, Ca
Schlumpberger, Amanda, Napa, Ca*
Seigal, Kevin, Fremont, Ca*
Simmons, Genevieve, San Bernardino, Ca*
Smith, Jennifer, Los Molinos, Ca*
Sunico, Ivan, Carson, Ca*
Todd, Lisa, Highland, Ca
Townson, Richard, Redlands, Ca*
Varoz, Jennifer, Vacaville, Ca*
Villavert, Joven, San Jose, Ca
Vito, Nahwal, South San Francisco, Ca
Waworoendeng, Jeremiah, Loma Linda, Ca
West, Julie, Loma Linda, Ca
Woodard, John, Lancaster, Ca*
Wright, Malika, Menifee, Ca
Xayasouk, Phayvanh, Chula Vista, Ca
Zuniga, Antonio, Alta Loma, Ca*

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Brady, Jodie, Colorado Springs, Co*
Brown, James, Larkspur, Co*
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Ferguson, Madison, Denver, Co*
Lorenson, Claudia, Cotopaxi, Co*
McFall, Kristin, Denver, Co
McNeal, Tresea, Thornton, Co
Parker, Donna, Aurora, Co*
Rude, Leslie, Colorado Springs, Co*
Smith, Lakeisha, Loveland, Co*
Thomas, Juliana, Grand Junction, Co*
Tsuyama, Jill, Pueblo West, Co*
Walden, Alaine, Arvada, Co
Yu, Fung Lin, Colorado Springs, Co*
Zaikina, Anastasia, Aurora, Co*

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Centurelli, Sandy, Bristol, Ct
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Dwyer, John Ryan, Southbury, Ct
Gizzi, Nicole, Waterbury, Ct
Heuser, Katherine, Seymour, Ct
Kica, Klodjana, Middlebury, Ct
Knox, Natashua, Waterbury, Ct
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Noviasky, Matt, Winsted, Ct*
Parziale, Sharon, Wolcott, Ct
Randolph, Christopher, Waterbury, Ct
Robinson, Christine, Wolcott, Ct
Rudolph, Andrew, Newtown, Ct
Sao, Helene, Southington, Ct
Sherman, Erica, New Haven, Ct*
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Velez, Arlene, Waterbury, Ct
Yankson, Francis, Waterbury, Ct

D

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Dennis, Carnell, Smyrna, De*
Harding, Julia, Newark, De*
Picconi, Melissa, Greenwood, De*

F

Alberto, Daniela, Orlando, Fl
Arsht, Alona, Tampa, Fl
Barnes, Lisa, Sebring, Fl

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Brown, Beverly, Clermont, Fl
Burke, Georgia, Powdersprings, Fl*
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Cid, Veronica, Tampa, Fl
Conover, Falecia, Ocoee, Fl
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Watson, Elaine, Orlando, Fl*
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Williams, Bernadette, Tampa, Fl
Wong, Oneka, Plant City, Fl

G

Alexander, Anthony, Gainesville, Ga*
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Suker, Mohammed, Lawrenceville, Ga*
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Lao, Kenny, Waipahu, Hi
Monje, Sarah, Waipahu, Hi*
Quidilla, Cecille, Waipahu, Hi
Ranyard, Tobi, Mililani, Hi*
Sparacio, Jamie, Honolulu, Hi
Wong, Alan, Honolulu, Hi
Yoshida, Mariesa, Kapolei, Hi*

I

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Cerveny, Mel, Cedar Rapids, Ia*
Fischer, Ellie, Guttenberg, Ia
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Hansel, Karen, Colesburg, Ia
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Sterk, Leah, Clinton, Ia
Swailes, Rachel, Cedar Rapids, Ia
Thompson, Jennifer, Monticello, Ia
Thompson, Megan, Guttenberg, Ia
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Wink, Cleste, Oxford Junction, Ia
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Monteith, Colleen, Meridian, Id*
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Seatz, D Owen H, Boise, Id*

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Groth, Stephanie, Champaign, Il*
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Jamison, Shandra, St Joseph, Il*
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Klein, Evan, Peoria, Il*
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Vercellono, Joni, Herscher, Il*

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Cooper, Robin, Leo, In*
Cox, Thomas, Bedford, In
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Fariss, Danette, Indianapolis, In*
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Hacker, Meredith, Plainfield, In
Han, Nathan, Bloomington, In
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Kirk, Kelsey, Bedford, In
Larimore, Teri, Flora, In*
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Mann, Patrick, Paragon, In
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Mink, Chrstina, Elliotsville, In
Mitchell, Melissa, Bargersville, In
Mitchner, Sarah, Bloomington, In
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Pham, Katherine, Bloomington, In
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Piwoszkin, Jenna, Bloomington, In
Ratzburg, Jerald, Fort Wayne, In*
Riddle, Christine, Bloomington, In
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Roundtree, Theresa, McCordsville, In*
Rund, Elizabeth, Morgantown, In
Rush, Lisa, South Bend, In
Schieber, Marilyn, Elkhart, In
Shah, Ashish, Bloomington, In
Shah, Deepa, Bloomington, In
Stinson, Jimmy, Fort Wayne, In*
Stolarz, Ann Marie, La Porte, In*
Thurlow, Lance, Covington, In
Walchle, Lindsey, Fort Wayne, In
Warner, Brian, Plainfield, In
Wathen, James, Martinsville, In
Wigand, Krista, Jasper, In*

K

Berthelsen, Roshel, Eudora, Ks*
Dverson, Andrea, Liberal, Ks*
Hailey, Megan, Overland Park, Ks
Harter, Gary, Wichita, Ks*
Morgan, Kerri, McCracken, Ks*

Mutispaugh, Douglas, Manhattan, Ks*
Ohmart, Barbara, Mulvane, Ks*
Pounds, Jessica, Lenexa, Ks*
Stouffer, Perry, Derby, Ks

Barrett, Michele Marie, Corbin, Ky
Batsche, Daniel, London, Ky
Catron, Tyler, Monticello, Ky
Chism, William, Shepherdsville, Ky*
Delker, George, Henderson, Ky*
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Skeens, Jay, Prestonsburg, Ky*
Stacy, Jill, Ashland, Ky*
Terry, Veronica, Berea, Ky*
Williams, Michael, Kuttawa, Ky*

L

Alewine, Dan, New Orleans, La
Davis, Damarcus, Shreveport, La
Doherty, Nora, Covington, La
Dugan, Ashley, Keithville, La*
Geiman, Bridget, Shreveport, La*
Grisham, Hollis, Benton, La
Hoplins, William, Louisville, La*
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Simms, Elizabeth Christian, Stonewall, La*
Thompson, Erika, Shreveport, La
Treadway, Ruth Ann, Greenwood, La
Vogt, Michael, West Monroe, La*

M

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Shaw, Brittany, Brockton, Ma
St Cyr, Mari, Brockton, Ma*
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Worrede, Messeret, Jamaica Plain, Ma*

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Anderson, Sarah, Chance, Md
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Beck, Tabatha, Salisbury, Md
Bender, Daniel, Salisbury, Md
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Bertram, Linda, Baltimore, Md*
Borneo, Amy, Millersville, Md*
Chepurko, Bonnie, Odenton, Md*
Colley, Courtney, Baltimore, Md*
Dalton, Shawn, Hollywood, Md*
Danielraj, Catherine, Salisbury, Md
Davis, Nicole, Upper Marlboro, Md*
Debele, Mesayet, Adelphi, Md
Denmark, Daniel, Salisbury, Md
Dougherty, Kelly, Salisbury, Md
Dufena, Hana, Silver Spring, Md
Frampton, Hannah, Salisbury, Md
Gemon, Ryan, Salisbury, Md
Houston, Jonathan, Upper Marlboro, Md*
Ibik, Gertrude, Laurel, Md*
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Kim, Peter, Salisbury, Md
Klos, Peter, Columbia, Md*
Kumelachw, Abel, Silver Spring, Md
Lavallee, Michele, Salisbury, Md
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Sanders, Ken, Catonsville, Md
Seagasser, Cindy, Ellicott City, Md*
Seitz, Patricia, Odenton, Md*
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Stack, Mari, Salisbury, Md
Strickland, Lori, Glen Burnie, Md*
Tamre, Harmela, Salisbury, Md
Tartal, Paula, Pasadena, Md*
Tasker, Melanie, Oakland, Md*
Tudor, Ashley, Baltimore, Md*
Wingert, Dana, Woodbine, Md*
Wojcik, Alexis, Salisbury, Md

Crowley, Kevin, South Portland, Me*
Damon, John, Brunswick, Me*
Fischer, John, Scarborough, Me*

Agyarko Nti, Emmanuel, Clarkston, Mi
Armstrong, Jodi, Royal Oak, Mi*
Bahny, Melissa, Carleton, Mi
Bellinger, Suzann, Galesburg, Mi*
Billmyer, Melissa, Temperance, Mi
Coleman, Brandon, Millington, Mi*
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Fisher, Elena, Monroe, Mi*
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Ketz, Christine, Pinckney, Mi*
Loforte, Amy, Ludington, Mi*
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Monroe, James, Southfield, Mi*
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Pink, Tammy, Goodells, Mi
Rice, Damion, Macomb, Mi
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Rousell, Kathy, Ann Arbor, Mi*
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Smigels, Cleotilde, Saint Clair Shores, Mi*
Sobczak, Dawn, Warren, Mi*
Tomasi, Richard, Lapeer, Mi
Valko, Donna, Macomb, Mi
Willim, Christopher, Allen Park, Mi
Woods, Monique, Canton, Mi*

Arguello, Robert, Rochester, Mn*
Burton, Lisa, Rochester, Mn*
Busse, Anthony, Mahnomen, Mn
Carpenter, Melissa, Roseville, Mn*
Cleve, Daniel, Chaska, Mn*
Haddad, Cassandra, Rochester, Mn*
Johnson, Eric, Waconia, Mn*
Korfe-Race, Robin, Rochester, Mn*
Lang, Trace, Albert Lea, Mn*
Laughlin, Michelle, Rochester, Mn*
Lundeen, Meg, Saint Paul, Mn*
Mahler, Sherry, Hibbing, Mn*
Muesing, Chad, Woodbury, Mn*
Saunders, Kathleen, Albert Lea, Mn*
Schultz, Tammy, Austin, Mn*
Witt, Mary, Rochester, Mn*

Avery, Alison, Newburg, Mo
Balsano, Ryan, Cape Girardeau, Mo
Beeding, Nicole, Edgar Springs, Mo
Berman, Jeffrey, Rolla, Mo
Bess, Hannah, Cuba, Mo
Border, Ashley, Liberty, Mo
Brelsford, Cynthia, Ozark, Mo
Brewer, Lucy, Gladstone, Mo
Brown, Jamila, Kansas City, Mo
Brown, Jennifer, Cape Girardeau, Mo
Busby, Heather, Kansas City, Mo
Carter, Angela, Pacific, Mo*
Corey, Tabatha, Ewing, Mo
Courtaway, Amanda, Chaffee, Mo
Crider, Nakea, Sikeston, Mo
Dickens, Rebecca, Cuba, Mo
Ford, John, Saint Peters, Mo*
Foster, Ashley, Poplar Bluff, Mo
Friskel, Madonna, Kirkwood, Mo*
Geary, Brittany, Eolia, Mo
Goggins, Larry, Florissant, Mo*
Guffey, Donica, Owensville, Mo
Hampson, Stacie, Perryville, Mo
Henderson, Hillary, Emden, Mo
Hente, Kathryn, Cape Girardeau, Mo
Holder, Rebecca, Scott City, Mo
Holloway, Donna, Jackson, Mo
Hopkins, Alicia, Kearney, Mo
Hottel, Debbie, Sikeston, Mo*
Hyler, Precious, Kansas City, Mo
Janes, Deana, Poplar Bluff, Mo
Johnson, Heather, Kansas City, Mo
Kimes, Melissa, Oak Ridge, Mo
Kincade, Renee, Jackson, Mo
Lannom, Dawna, Jackson, Mo
Lawson, Kendall, Independence, Mo
Lewis, Linda, Ste Genevieve, Mo
Lewis, Sarah, Freeman, Mo
Linthicum, Jack, Saint Robert, Mo
Lovejoy, Melvin, Waynesville, Mo
Magruder, Kristin, Lentner, Mo
McClain, Jamie, Potosi, Mo*
McCormack, Carrie, Fair Grove, Mo*
McKee, Megan, Rolla, Mo
McLaughlin, Nicaria, Waynesville, Mo
McNew, Jenny, Union, Mo
Monsees, Nicole, Kansas City, Mo
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With the **AARC COPD Educator Course**, you will learn more about diagnosis, assessment, treatment, oxygen therapy, medication, and disease management. Plus, you will learn how to teach your patients better self-management skills.

Course includes a panel discussion with COPD patients that'll help you:

- Understand why patient education is important to the COPD patient.
- Learn how to better communicate with the patient.
- Understand the value you bring from the patients' perspective.

This course covers:

- Age and cultural-appropriate education techniques.
- Smoking cessation intervention.
- Key components of pulmonary rehabilitation.
- Managing patient care from admission to discharge to the home environment.
- Resources available to the educator and patient.
- Proper medication use and dosing, including long-term oxygen therapy.

WHY IS COPD DISEASE MANAGEMENT IMPORTANT?

- COPD is the fourth leading cause of death in the U.S.
- Reducing rates of rehospitalization has attracted attention from policymakers as a way to improve quality of care and reduce costs.[1]
- COPD is the third most frequent reason for hospital readmissions.[1]
- Research shows that supportive palliative care can reduce rehospitalization and increase patient satisfaction.[2]
- There is a quality deficit in routine care of COPD patients, suggesting that increased focus on routine management of COPD care is warranted.[3]
- By teaching patients self management, the clinician can help to decrease the number of readmissions and emergency department visits.[4]

1. Jencks SF, Williams MV, Coleman EA. Rehospitalizations among patients in the Medicare fee-for-service program. N Engl J Med 2009;360:1418-28.
2. Brumley R, Enguidanos S, Jamison P, et al. Increased satisfaction with care and lower costs: results of a randomized trial of in-home palliative care. J Am Geriatri Soc 2007;55:993-1000.
3. Mularski RA, Asch SM, Shrank WH, Kerr EA, et al. The quality of obstructive lung disease care for adults in the United States as measured by adherence to recommended processes. Chest 2006; 130;1844-1850.
4. Rice KL, Dewan N, Bloomfield HE, Grill J, et al. Disease management program for chronic obstructive pulmonary disease: a randomized controlled trial. Am J Respir Crit Care Med. 2010 Jan 21.

"The speakers were excellent and very engaging. The introduction by actual patients was great. This will be a course that will be offered to my staff." – Kimberly S. Wiles, BS RRT

"The course was a great in-depth overview of the current concept in COPD and management." – Tim Buckley, RRT FAARC

"Really covers all the essentials for being a very good COPD Educator.The Panel Discussion provided great insights on the patient-provider relationship and how strong this influences and impacts real psycho-social needs." – Kevin Ryan BS RRT

"The inclusion of a dietician, nurse, respiratory therapist, physician, and patients provides both depth and breadth for this program." – Garry W. Kauffman, MPA FACHE RRT FAARC

This online course is facilitated by leading clinicians in respiratory/pulmonary care:

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Visit http://www.aarc.org/education/copd_course/ for more information.

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This course earns CRCE credit from the American Association for Respiratory Care. Participants must view all modules. No partial credit given.

This continuing nursing education activity was approved by the Illinois Nurses Association, an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation.

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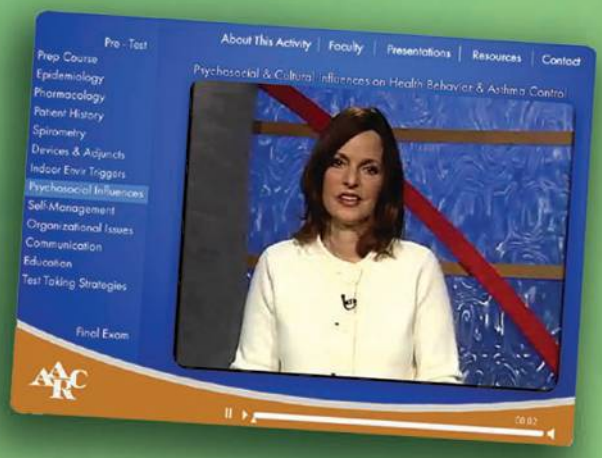

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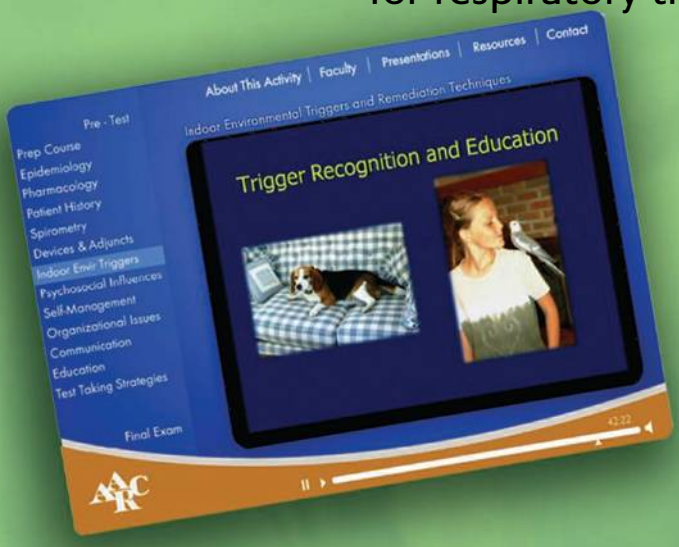

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Etta, Gilbert, Fort Worth, Tx
Favela, Gracie, Tulia, Tx*
Gamboa, Jessica, San Antonio, Tx
Garcia, Amanda, Richland Hills, Tx
Garcia, David, Edinburg, Tx
Garza, Ricardo, Weslaco, Tx
George, Jini, Garland, Tx
Golden, Sarah, Saginaw, Tx
Gonzales, Cassandra, Abilene, Tx
Guynes, Katie, Friendswood, Tx
Hardwick, Larry, Abilene, Tx
Harvey, George, Woodway, Tx*
Haygood, Kristi, San Antonio, Tx
Heredia, Monica, Grapevine, Tx*
Hill, Francesca, Leander, Tx*
Hoang, Danny, Haltom City, Tx
Hood, Everett, Houston, Tx*
Howell, Blake, Aledo, Tx
Hubbard, Melissa, Abilene, Tx
Ivie, Ronda, Abilene, Tx
Javier, Deleon, El Paso, Tx*
Jones, Aaron, Shelbyville, Tx*
Jones, Jena, Aransas Pass, Tx*
Jones, Stacey, Abilene, Tx
Joyner, Elizabeth, Hurst, Tx
Justice, Amy, Hurst, Tx
Kaur, Sukhdip, Fort Worth, Tx
Kelley, William, Tyler, Tx*
Kita, Naim, Arlington, Tx
Kuenstler, Kelsie, Abilene, Tx
Lambert, Laura, Arlington, Tx
Larmore, Jason, Katy, Tx*
Lasater, Tabitha, Burleson, Tx
Le, Duyen, Arlington, Tx
Le, Hijen, Arlington, Tx
Leal, Felicia, Arlington, Tx
Lindberg, Mindy, Weatherford, Tx
Lopez, Lidia, Arlington, Tx
Lozano, Jose, Edinburg, Tx
McGowan, Megan, Fort Worth, Tx
Mims, Christine, Fort Worth, Tx
Montelongo, Ernesto, McAllen, Tx
Moore, Crystal, Abilene, Tx
Moore, Maxie, Fort Worth, Tx*
Morrison, Megan, Azle, Tx
Muresan, Ioan, San Antonio, Tx*
Mylchreest, Sarah, Abilene, Tx
Ngo, Dang M, Houston, Tx
Okeke, Nchekwube, Hurst, Tx
Pham, Lisa, Fort Worth, Tx
Phan, Kacy, Arlington, Tx
Poore, Laquanna, Lancaster, Tx*
Prince, Juan, Midland, Tx*
Quach, Duyen, Arlington, Tx
Ramirez, Elva, San Juan, Tx
Ramirez, Gabino, Mission, Tx
Reames, Brock, Joshua, Tx
Reed, Carmen, Sweetwater, Tx*

Richmond, Tom, Rockwall, Tx*
Rodriguez, Tyler, Lueders, Tx
Rogers, Amanda, Sour Lake, Tx
Smitherman, Jeremy, Liberty Hill, Tx*
Solis, Araceli, Dallas, Tx*
St Clair, Tina, Euless, Tx
Stafford, Britni, Abilene, Tx
Taylor, Stacy, Silsbee, Tx*
Taylor-Newton, Crystal, Waco, Tx*
Teel, Dora, Watauga, Tx
Telles, Gwendolyn, Fort Worth, Tx
Thompson, Kandy, Anson, Tx
Tran, Trang, Arlington, Tx
Tubbs, Jerry, Fort Worth, Tx
Tudor Copley, Gina, Coppell, Tx*
Turner, Marilyn, Desoto, Tx*
Turner, Meagon, Weatherford, Tx
Urbina, Abigail, Alton, Tx
Valmores, Christopher, Killeen, Tx*
Walker, Erica, Yorktown, Tx
Weskamp, Paul, Tyler, Tx*
Wey, Harold, Dallas, Tx*
White, Walter, Weatherford, Tx
Williams, James, Crowley, Tx
Williams, Lynda, Dickinson, Tx*
Williamson, Marcos, McAllen, Tx*
Wilson, Jennifer, Weatherford, Tx
Wood, Sharon, League City, Tx*

U

Allen, Cami, Layton, Ut*
Arnold, Paige, Ogden, Ut
Black, Cory, Bountiful, Ut
Blomquist, Jacob, Morgan, Ut
Brodzinski, Rita, Ogden, Ut*
Chavez, Stephanie, Orem, Ut
Donat, Doris, Centerville, Ut
Flink, Christopher, West Valley City, Ut*
Gregory, Brandon, Pleasant Grove, Ut
Hadley, Todd, Ogden, Ut
Hodgkinson, Matthew, Salt Lake City, Ut
Holcomb, Melinda, Layton, Ut*
Lamb, Bret, Saint George, Ut*
McQuirk, Eriel, Salt Lake City, Ut
Pirlet, Jessica, West Haven, Ut*
Rose, Jeffrey, South Jordan, Ut*
Sparrow, Shawn, Ogden, Ut*

V

Alley, Meagan, Hillsville, Va
Beshada, Kirsten, Mechanicsville, Va*
Black, Terrell, Chesapeake, Va
Bond, Heather, Honaker, Va
Bostic, Lakin, Honaker, Va
Bottomly, Steven, Galax, Va
Brewster, Stacy, Max Meadows, Va
Claude, Cynthia, Richmond, Va*
Crutchfield, Melissa, Dublin, Va
Fogleman, Charles, Bluefield, Va
Grazette, Victor, Falls Church, Va*
Harrington, William, Bedford, Va
Himes, Hazel, Tazewell, Va
Johnson, Cassandra, Alexandria, Va*
Johnson, Patricia, Norfolk, Va*
Keith, Stern, Willis, Va
Kennedy, Terry, Bluefield, Va*
Lacks, Audrey, Cartersville, Va*
Lineberry, Heather, Hillsville, Va
Lloyd, Connie, Gordonsville, Va*
McMillen, Danielle, Cedar Bluff, Va
Peace, Anjelica, Oakwood, Va
Pugh, Amanda, Pulaski, Va
Ratliff, Sara, Rosedale, Va

Robinson, Dana, Rural Retreat, Va
Rominger, Crystal, Dry Fork, Va
Seemueller, Justin, Portsmouth, Va*
Stevens, Bobbi, Hampton, Va*
Waller, Laura, Lynchburg, Va*
Weir, Carolyn, Glen Allen, Va*
Yates, Angie, Haysi, Va

W

Adem, Bishar, Seattle, Wa
Ali, Naema, Seattle, Wa
Amanda, King, Spokane, Wa
Andreasen, Mark, Spokane Valley, Wa
Aronson, Emily, Spokane, Wa
Ashinay, Dawit, Shoreline, Wa
Ballard, Tenisha, Tacoma, Wa
Berrey, J C, Seattle, Wa
Bing, Margaret, South Hill, Wa*
Byrd, Karen, Springdale, Wa*
Casipi, May - Katherine, Mount Vernon, Wa
Combs, Melissa, Spokane, Wa
Dahir, Jama, Tukwila, Wa
Daniels, Joyce, Spokane, Wa*
Degroot, Kenneth, Spokane, Wa
Devoir, Jennifer, Seattle, Wa
Devries, Douglas, Everett, Wa
Fraser, Bradley, Otis Orchards, Wa
Fregon, Myra, Renton, Wa
Fu, Yu, Spokane, Wa
Getachew, Mahlet, Seattle, Wa
Gibbs, Mark, Seattle, Wa
Gingerich, Joseph, Tacoma, Wa
Gowan, Pete, Seattle, Wa
Hadley, David, Spokane, Wa
Hassan, Maryann, Seattle, Wa
Hawkinson, Debbie, Bothell, Wa*
Hooks, Becky, Nine Mile Falls, Wa
Idris, Raha, Seattle, Wa
Kurtz, Megan, Liberty Lake, Wa
Kyle, Toni, Spokane, Wa
Lin, Chia - Ying, Seattle, Wa
Locke, Sandra, Spokane Valley, Wa
Lugalia, Stella, Seattle, Wa
Mahnke, Timothy, Spokane, Wa
Maksimenko, Julia, Spokane Valley, Wa
Martinez, Jessica, Mesa, Wa*
McPherson, Tara, Edgewood, Wa
Miller, Inga, Newport, Wa
Muilenburg, Brandi, Dupont, Wa
Myers, Rebecca, Des Moines, Wa
Nelson, Terri, Chattaroy, Wa
Nguyen, My Dzung, Seattle, Wa
Osterman, Kimberly, Puyallup, Wa*
Park, David, Seattle, Wa*
Peska, Gennie, Shoreline, Wa
Rajah, Metilda, Lynnwood, Wa
Richardson, Tami, Kent, Wa
Robinson, D'aun, Spokane, Wa*
Smith, Jessica, Puyallup, Wa*
Smith, Sheryl, Seattle, Wa
Sprenger, Amy, Spokane, Wa
Stephen, Lisa, Shoreline, Wa
Stumm, Sara, Mead, Wa
Susens, Allisyn, Spokane, Wa
Teferi, Hiowot, Seattle, Wa
Tendean, Grace, Everett, Wa
Tesfay, Samrawit, Lynnwood, Wa
Thigpen, John, Tacoma, Wa
Thompson, Andrea, Spokane, Wa
Thomson, Jessica, Spokane, Wa
Varughese, Santhosh, Kent, Wa*
Walsh, Matthew, Bothell, Wa*
Weldeghebriel, Mehret, Seattle, Wa

Babinchak, Josie, Cottage Grove, Wi*
Clark, Shauna, Platteville, Wi
Deboer, Ginger, Delavan, Wi*
Gulich, Karen, Holcombe, Wi*
Hill, Angela, Barron, Wi*
Kelly, Erin, Madison, Wi
Lara, Lourdes, Franklin, Wi*
Scharp, Pamela, Cudahy, Wi*
Spear, Carolyn, Barron, Wi*
Young, Dawn, Oregon, Wi*

Berardinelli Estel, Stephanie, Morgantown, WV*
Cooper, Rachel, Charleston, WV*
Ford, Cathy, Romney, WV*
Hamilton, Kristy, Princeton, WV
Mullins, Gregory, Weirton, WV*
Nunn, Whitney, Oak Hill, WV*
Proctor, Kristie, Lavalette, WV*
Reynolds, Amanda, Wheeling, WV*
Ritchie, Tiffany, Wheeling, WV*
Soly, Phillip, Colliers, WV*
Vaughan, Lana S, Bluefield, WV*

Bell, Brea, Casper, Wy
Bradshaw, Robert, Lander, Wy*
Curtis, Robert, Casper, Wy
Dice, Nathan, Casper, Wy
Eason, Jennifer, Casper, Wy
Evans, Latosha, Casper, Wy
Goode, Brenda, Casper, Wy
Hoffman, Shana, Casper, Wy
Knight, Kelsey, Casper, Wy
McFarland, Amanda, Casper, Wy
Nelson, Katie, Casper, Wy
Ranson, Maria, Casper, Wy

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Hirota, Chika, Kawasaki, Japan
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Vargas Prado, Yorleny, La Unión, Cartago, Costa Rica
White, Steve, Pierrefonds, Qc, Canada

BE A PART OF THE AARC NOW!

Your Membership Makes A Difference

ACTIVE MEMBER

An individual is eligible if he/she lives in the U.S. or its territories or was an Active Member prior to moving outside its borders or territories, and meets ONE of the following criteria: (1) is legally credentialed as a respiratory care professional if employed in a state that mandates such, OR (2) is a graduate of an accredited educational program in respiratory care, OR (3) holds a credential issued by the NBRC.

ASSOCIATE OR SPECIAL MEMBER

Individuals who hold a position related to respiratory care but do not meet the requirements of Active Member shall be Associate Members. They have all the rights and benefits of the Association except to hold office, vote, or serve as chair of a standing committee. The following subclasses of Associate Membership are available: Foreign, Physician, and Industrial (individuals whose primary occupation is directly or indirectly devoted to the manufacture, sale, or distribution of respiratory care equipment or supplies). Special Members are those not working in a respiratory care-related field.

STUDENT MEMBER

Individuals will be classified as Student Members if they meet all the requirements for Associate Membership and are enrolled in an educational program in respiratory care accredited by, or in the process of seeking accreditation from, an AARC-recognized agency.

SPECIAL NOTICE — Student Members do not receive Continuing Respiratory Care Education (CRCE) transcripts. Upon completion of your respiratory care education, continuing education credits may be pursued upon your reclassification to Active or Associate Member.

Membership Application

Please read the eligibility requirements for each of the classifications to the left, then complete the form. All information requested must be provided, except where indicated as optional. See **side 2** for more information and fee schedule. Please sign and date application on **side 2** and type or print clearly. Processing of application takes approximately 15 days.

You may apply or renew instantly on-line by going to https://secure.aarc.org/membership/

☐ Active ☐ Associate (Foreign) ☐ Associate (Physician) ☐ Associate (Industrial) ☐ Special ☐ Student

Last Name _____ First Name _____

Social Security No. (last four digits only) _____ Home Address _____

City _____ State _____ Zip _____

Phone No. (_____) _____ Email Address _____

You are automatically assigned to a state society based on your **home address**. If you wish to be assigned to a different state society, please indicate which state that is here: _____

Work Information: Place of Employment _____

Address _____ City _____

State _____ Zip _____ Phone No. (_____) _____

Preferred Fax No.(_____) _____ Preferred Email Address _____

Preferred Mailing Address: ☐ Home ☐ Business

Have you ever been or are you currently in the military? ☐ Yes ☐ No

For Student Member (Required)

School/RC Program _____ Address _____

City _____ State _____ Zip _____

Phone No. (_____) _____ Program Director _____

Expected Date of Graduation Month _____ Year _____

Please answer these questions to help us design services and programs that meet your needs.

Primary Job Responsibility (check one only)

☐ Clinical Specialist ☐ Director of Clinical Education ☐ Director ☐ Disease Manager
☐ Diagnostic Technologist ☐ Instructor/Faculty/Professor ☐ Medical Director ☐ Manager
☐ Marketing ☐ Nurse ☐ Owner ☐ Other
☐ Program Director ☐ Patient Educator ☐ Pulmonary Function Technologist ☐ Product Management
☐ Sales ☐ Supervisor/Coordinator ☐ Sleep Technologist/Polysomnographer ☐ Sleep Technologist/Specialist
☐ Staff Therapist ☐ Student

Type of Business

☐ DME/HME ☐ Educational Institution ☐ Home Health Agency ☐ Long Term Acute Care/Rehab
☐ Manufacturer/Distributor/Pharma ☐ Military ☐ Hospital ☐ Other
☐ Physician's Office ☐ Skilled Nursing Facility ☐ Sleep Lab Free Standing ☐ Sleep Lab Hospital Based
☐ Student ☐ Temp ☐ Outpatient Facility

Check the Highest Degree Earned

☐ PhD ☐ EdD ☐ MEd ☐ MBA ☐ MS ☐ MHA ☐ MHS ☐ MPA ☐ MPH ☐ MSEd ☐ MSN
☐ MA ☐ BSRT ☐ BSRC ☐ BS ☐ BHS ☐ BSEd ☐ BSN ☐ BA ☐ AAS ☐ AS ☐ AA

Job Status ☐ Full Time ☐ Part Time ☐ Years in Respiratory Care _____

Credentials ☐ MD ☐ DO ☐ RRT-NPS ☐ RRT-SDS ☐ RRT ☐ RPFT ☐ CRT-NPS ☐ CRT-SDS ☐ CRT
☐ CPFT ☐ RN ☐ RPSGT ☐ AE-C ☐ CTTS ☐ EMT-P ☐ LPN ☐ LVN

Honorary Credentials ☐ FAARC ☐ FACHE ☐ FAACVPR ☐ FCCM ☐ FCCP

Date of Birth _____ **Sex** _____

AMERICAN ASSOCIATION FOR RESPIRATORY CARE

AARC An Excellent Investment

Membership has many personal and professional benefits. The potential savings from these benefits go well beyond the cost of AARC membership, only a quarter a day!

PLEASE SIGN

I hereby apply for membership in the American Association for Respiratory Care. If approved for membership in the AARC, I will abide by its bylaws and professional code of ethics. I authorize investigation of all statements contained herein and understand that misrepresentations or omissions of facts called for is cause for rejection or expulsion.

A yearly subscription to Respiratory Care journal and *AARC Times* magazine includes an allocation of $11.50 from my dues for each of these publications, if applicable.

NOTE: Contributions or gifts to the AARC are not tax deductible as charitable contributions for income tax purposes. However, they may be tax deductible as ordinary and necessary business expenses subject to restrictions imposed as a result of Association lobbying activities. The AARC estimates that the nondeductible portion of your dues — the portion which is allocable to lobbying — is 19%.

Signature _____ **Date** _____

You may apply or renew instantly on-line by going to https://secure.aarc.org/membership/

Membership Fees (U.S. dollars only)

Payment must accompany your application to the AARC. Fees are for 12 months. These fees contain the $12.50 new members processing fee. **Renewing members (except students) can deduct $12.50.**

Choose One Level of Membership

AARC REGULAR MEMBERSHIP (Receive both *AARC Times* magazine and Respiratory Care journal)

☐ Active $102.50 ☐ Associate (Industrial or Physician) $102.50 ☐ Associate (Foreign) $117.50 ☐ Special $102.50 ☐ Student $50.00

→ **NEW! AARC REGULAR MULTI-YEAR MEMBERSHIP** ☐ Active **or** ☐ Associate (U.S. only) **or** ☐ Special **for:** ☐ 2 years $170 **or** ☐ 3 years $240

Or

AARC CHOICE MEMBERSHIP (Choose one publication) I want ☐ *AARC Times* magazine **or** ☐ Respiratory Care journal

☐ Active $91.00 ☐ Associate (Industrial or Physician) $91.00 ☐ Associate (Foreign) $106.00 ☐ Special $91.00

Or

AARC PLUS MEMBERSHIP (All publications and other special benefits)

☐ Active $137.50 ☐ Associate (Industrial or Physician) $137.50 ☐ Associate (Foreign) $177.50 ☐ Special $137.50

(Includes one **free** specialty section – please mark your choice below.)

Or

Web-only MEMBERSHIP (Open only to international members) ☐ Foreign $92.50

***Voluntary PAC Contribution** $_____ ****Voluntary ARCF Contribution** $_____

* AARCPAC is a separate aggregated fund. Voluntary political contributions by individuals should be written on personal checks. Contributions from corporations are illegal and cannot be accepted. The AARC will not favor or disadvantage anyone based upon the amounts of or refusal to make AARCPAC contributions. Contributions to a political action committee are not deductible for federal income tax purposes.
** American Respiratory Care Foundation (ARCF) is a not-for-profit organization formed for the purpose of supporting research, education, and charitable activities in respiratory care. Contributions to the ARCF are tax deductible.

Specialty Sections (Open to all members) E-mail address is required.

Membership in AARC Specialty Sections connects you to others who practice in your area of respiratory care through an electronic mailing list, monthly E-Newsletters, quarterly Section E-Bulletins, and an information-rich Specialty Section website. Programs created by specialty section members are integral to the AARC Summer Forum and AARC International Respiratory Congress.

☐ Adult Acute Care Section $15.00 ☐ Education Section $20.00 ☐ Neonatal-Pediatric Section $15.00 ☐ Diagnostics Section $15.00
☐ Management Section $20.00 ☐ Transport Section $15.00 ☐ Long-Term Care Section $15.00 ☐ Home Care Section $15.00
☐ Continuing Care Rehabilitation Section $15.00 ☐ Sleep Section $15.00

Payment Information

Enclosed is a check for the membership fee I selected ***plus*** any specialty section fees ***plus*** any contributions to AARCPAC or ARCF for the total amount of $_____. Please make checks payable to the AARC.

Please charge my dues to: ☐ MasterCard ☐ Visa ☐ American Express

Card Number _____ Card Expires _____ /_____ Signature _____

Send this application and fees to:
American Association for Respiratory Care
9425 N. MacArthur Blvd., Suite 100, Irving, TX 75063-4706 (if using a credit card)
or P.O. Box 650097, Dallas, TX 75265-0097 (if sending a check)
Fax: 972-484-2720 • Phone: 972-243-2272

Did you remember to give us your email address on page 1?

Thanks for Being Part of the Team

Revised May 2010

Classifieds

ADVERTISING SECTION

For Sale/For Rent

Ventilators, Pulse Oximeters, and More
Respiratory care and cardiopulmonary equipment for sale. Featuring Puritan Bennett, Siemens, Bird, Bear, Lifecare, Sechrist, Infrasonics, Dräger, Newport, and other brand names. Adult, pediatric, infant/neonatal, transport, and home care ventilators. All equipment are fully remanufactured and warrantied. Lowest prices and best quality. Nationwide-worldwide shipping. We buy used equipment. Call for trade-in prices. General Biomedical Service, Inc., New Orleans, LA, (800) 558-9449.

AARC Times Classified Advertising Information & Requirements:

Classified Word Advertisements
AARC Members: $50 for 50 words or less; each additional word, $1. Free Internet placement. Nonmembers: $60 for 50 words or less; each additional word, $1.20. Listings are categorized by state. Following the state listings are United States/International, For Sale/For Rent, Miscellaneous, and Situations Wanted. All copy should be typed double-spaced. All ads will be set in 8-point type. To calculate the cost per advertisement, a "word" is considered to be one or more letters, numbers, or special characters with a space before and after.

Ads are featured on the AARC web site for one month after publication. Ad may only be placed on the web site with an insertion order for placement in an AARC publication. Ad is noncancelable after placement on the web site. NOTE: *AARC Times* reserves the right to refuse any advertisement not directly relevant to respiratory care. *AARC Times* does not endorse any advertiser, its positions, practices, services, or products.

We reserve the right to make editorial changes for reasons of clarity and consistency. Every effort is taken to avoid mistakes, but *AARC Times* cannot be responsible for clerical or printing errors. **Deadline for Ad Placement/Cancellation** Deadline for ad placement and written cancellations for the next available issue is December 24. Blind ads available. **For Recruitment Advertising Information, Contact Classified Advertisement** Anna Blydenstein • Alhambra Plaza • 725 N. Highway A1A, Suite C-106 • Jupiter, FL 33477 • (561) 745-6793 • Fax (561) 745-6795 • AARCAD@aol.com

Recruitment Display Advertisements
For Recruitment Display Ad Rates, go to http://www.aarc.org/marketplace/media_kit/recruitment.pdf, or contact Tim Goldsbury and Associates, Alhambra Plaza, 725 N. Highway A1A, Suite C-106, Jupiter, FL 33477, (561) 745-6793, Fax (561) 745-6795

Circle 8 in Advertiser Index

UNC CHARLOTTE
Department of Kinesiology

Program Coordinator and Lecturer in Respiratory Therapy – Department of Kinesiology

The Department of Kinesiology (http://kinesiology.uncc.edu) at The University of North Carolina at Charlotte invites applications for Program Coordinator and Lecturer faculty position in Respiratory Therapy. Responsibilities: The successful candidate will principally teach specialized online undergraduate courses in Respiratory Therapy, and serve as Coordinator for the Respiratory Therapy program. A doctorate (preferred) or masters (required) in Respiratory Therapy, Respiratory Care or related discipline from an accredited university; RRT credential with North Carolina licensure or eligible for licensure; experience teaching in at the University level (required); experience coordinating or directing a Respiratory Therapy program (preferred). Only electronic submissions will be accepted. Screening will begin October 30, 2010 and will continue until the position is filled. Please apply online at https://jobs.uncc.edu and attach: 1) your application letter indicating your interest in the position as well as how you plan to contribute to the diversity plan of the University,2) your vita / resume with full contact information for 5 references, 3) and teaching philosophy statement. For additional information, contact: Dr. Joe Coyle, Chair – Faculty Search Committee at (704) 687-2881 or jcoyle7@uncc.edu. The College of Health and Human Services (CHHS) and the Department of Kinesiology strongly support diversity among students and colleagues; therefore, we are actively seeking applicants who can contribute to the University's Diversity Plan (http://diversity.uncc.edu). AA/EEOC.

Circle 20 in Advertiser Index

Assistant Professor Faculty Position

The Department of Respiratory Care at Texas State University-San Marcos invites applications for a faculty position at the assistant professor level with responsibilities in didactic and clinical instruction. This is a full time tenure-track, nine-month contract position with benefits. Teaching, scholarly and service are required for this position. Competitive research support is also offered. Salary will be commensurate with experience and qualifications. Required qualifications: Minimum of three years experience in respiratory care, eligible for RCP licensure in Texas, Registered Respiratory Therapist (RRT) credential, master's degree in a related field. Documentation of recent clinical competency is required.

For full job description and application submission, please refer to Job Posting 2011-19, at: http://facultyrecords.provost.txstate.edu/faculty-employment/faculty-employment/2011-19.html
Review date: 02/01/2011. Position closed when filled. Texas State University-San Marcos is an EEO institution.

Circle 3 in Advertiser Index

Calendar of Events

AARC & State Society Programs

December 5
Las Vegas, NV
Alpha-1 Antitrypsin Deficiency for the Respiratory Therapist (Pre-Congress Course)
Contact AARC, (972) 243-2272, www.aarc.org/education/meetings

December 5
Las Vegas, NV
Current Issues in Mechanical Ventilation (Pre-Congress Course)
Contact AARC, (972) 243-2272, www.aarc.org/education/meetings

December 6–9 (Monday–Thursday)
Las Vegas, NV
AARC International Respiratory Congress
Contact AARC, (972) 243-2272, www.aarc.org/education/meetings

July 18–20, 2011 (Monday–Wednesday)
Vail, CO
AARC Summer Forum
Contact AARC, (972) 243-2272, www.aarc.org/education/meetings

November 5–8, 2011
Tampa, FL
AARC International Respiratory Congress
Contact AARC, (972) 243-2272, www.aarc.org/education/meetings

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Submissions for the next available issue are due Dec. 24.

For information on submitting calendar events, contact: Beth Binkley, AARC Times 9425 N. MacArthur Blvd, Suite 100, Irving, TX 75063-4706 (972) 243-2272 Fax (972) 484-2720 E-mail binkley@aarc.org

Advertiser Index

To advertise, contact: Tim Goldsbury, Advertising Sales, Alhambra Plaza, 725 N. Highway A1A, Suite C -106, Jupiter, FL 33477, (561) 745-6793, Fax (561) 745-6795, goldsbury@aarc.org. Or contact Beth Binkley, Advertising Assistant, Daedalus Enterprises, Inc., 9425 N. MacArthur Blvd., Suite 100, Irving, TX 75063-4706, (972) 243-2272, Fax (972) 484-2720, binkley@aarc.org.

Company Name	Cir #	Pg #
AirGuard (800) 967-9727 www.airguardmedical.com	15	21
AirGuard (800) 967-9727 www.airguardmedical.com	80	74
Airon (888) 448-1238 www.AironUSA.com	5	12
Airon (888) 448-1238 www.AironUSA.com	82	74
Airtraq (877) 6-Airway Airtraq.com	23	5
Airtraq (877) 6-Airway Airtraq.com	83	75
Alere (877) 441-7440 www.alere.com	97	76
B & B Medical Technologies, Inc. (800) 242-8778 www.bandb-medical.com	6	53
B & B Medical Technologies, Inc. (800) 242-8778 www.BandB-medical.com	76	74
CareFusion carefusion.com	17	C2
Children's Medical Center (888) 848-2990 www.childrens.com	8	102
Children's Mercy childrensmercy.org/careers	40	101
Compumedics (877) 717-3975 www.compumedics.com	84	75
Covidien Resp & Monitoring Solutions (800) NELLCOR www.nellcor.com	85	75
Dräger Medical (800) 437-2437 www.draeger.com/respiratorycare	24	C4
Drive4COPD drive4copd.com/aarc	27	55
Electromed, Inc. (800) 462-1045 www.SmartVest.com	79	74
Geico (800) 368-2734	29	47
General Biomedical (800) 558-9449 www.GeneralBiomedical.com	13	8
Hans Rudolph, inc. www.rudolphkc.com	12	17
Hans Rudolph, inc. www.rudolphkc.com	86	75
Hartford Hospital (860) 545-2140 www.hartfordhospital.org/Careers/Search	4	103
Impact Instrumentation Inc www.impactii.com	87	75
IngMar Medical (800) 583-9910 www.ingmarmed.com	91	76
Instrumentation Industries, Inc. (800) 633-8577 www.iiimedical.com	88	75
Invacare (800) 333-6900 www.invacare.com	16	19
Invacare (800) 333-6900 www.invacare.com	89	75
Kimberly-Clark www.VAP.Kchealthcare.com/CSS	11	11
Maquet (888) 627-8383 www.maquetusa.com	77	74
Maquet (888) 627-8383 www.maquetusa.com	19	C3
Marsh Affinity Group (800) 503-9230 www.proliability.com/47502	18	23
Masimo www.masimo.com	7	3
Masimo www.masimo.com	81	74
Masimo www.masimo.com	28	101
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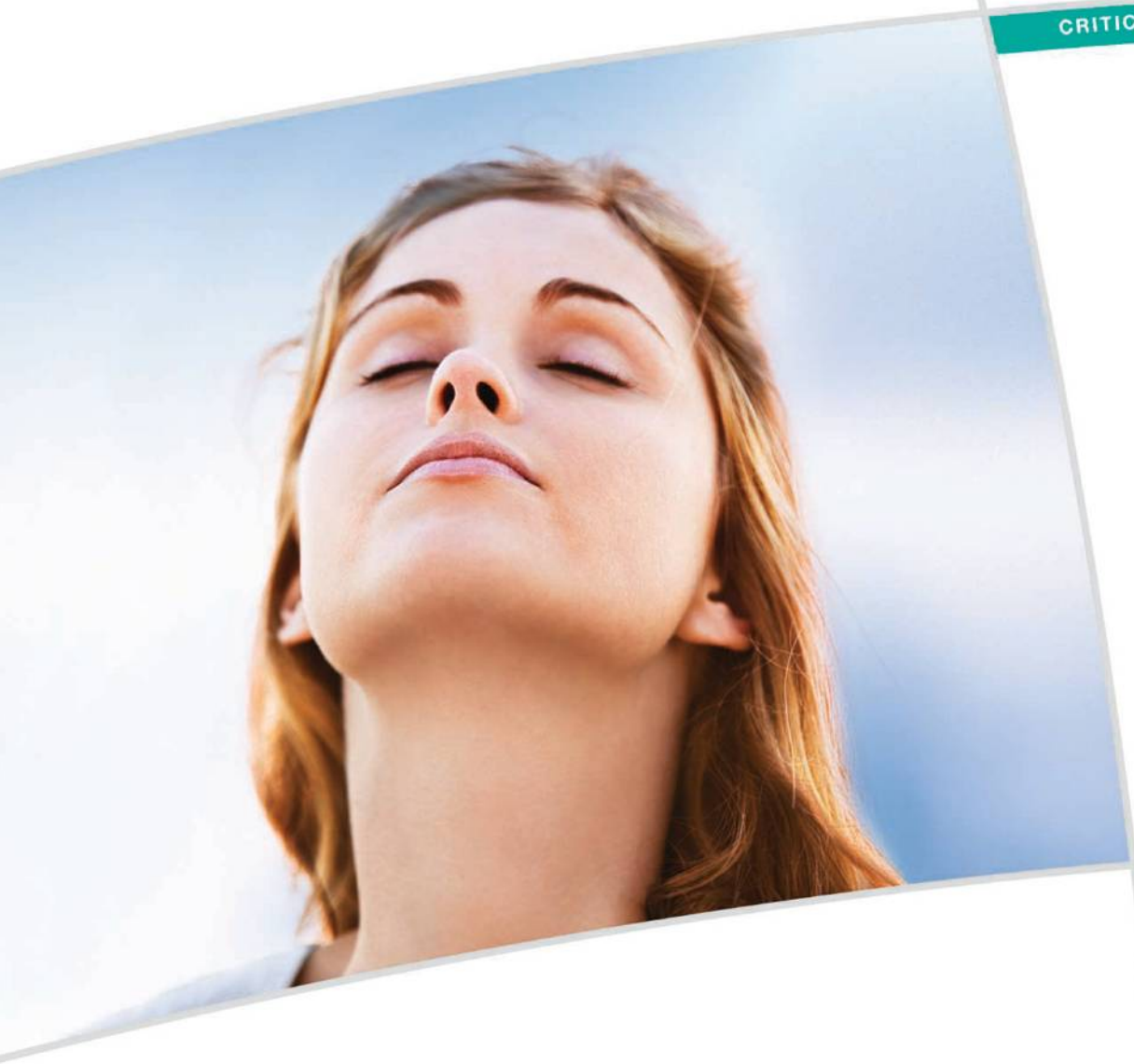

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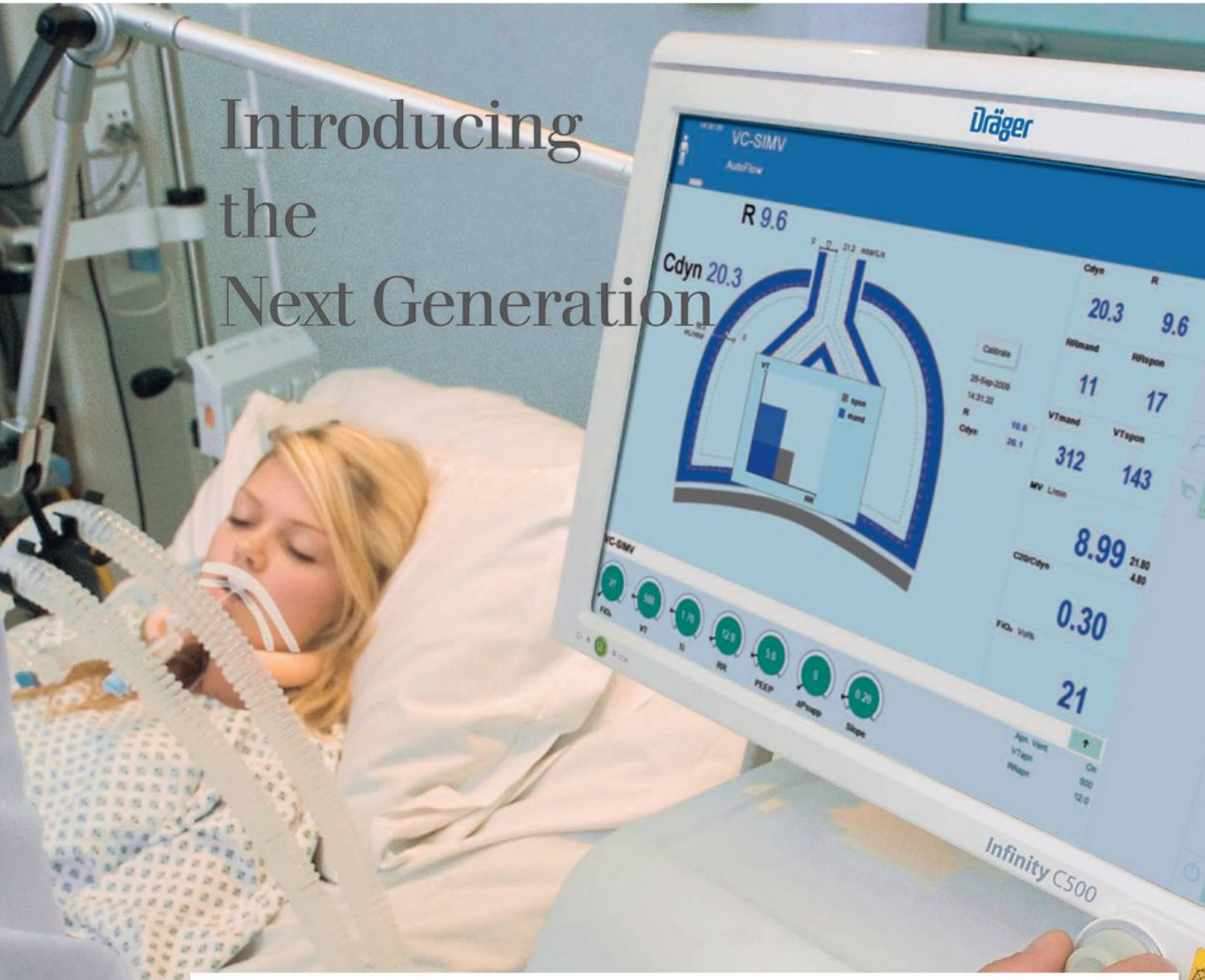

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