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# Times

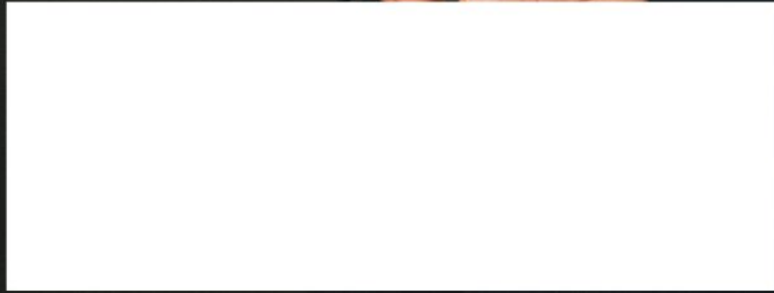
## AARC Honors Dean Hess

with the Hector  
Leon Garza  
International  
Award



**International  
Activities Update**

**Considering a  
Medical Mission?**



RESPIRATORY CARE Editor in Chief Dean Hess, PhD, RRT, FAARC, says international authors have brought a new perspective to the Journal.

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## AARC Strategic Plan

The American Association for Respiratory Care has a Strategic Plan that includes its Mission and Vision Statements for 2015-2020.

Bookmark this page:  
[http://www.aarc.org/member\\_services/mission/](http://www.aarc.org/member_services/mission/).



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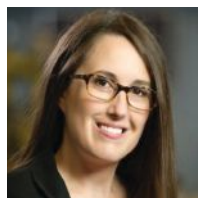
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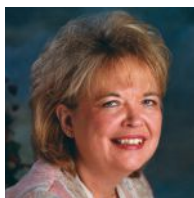
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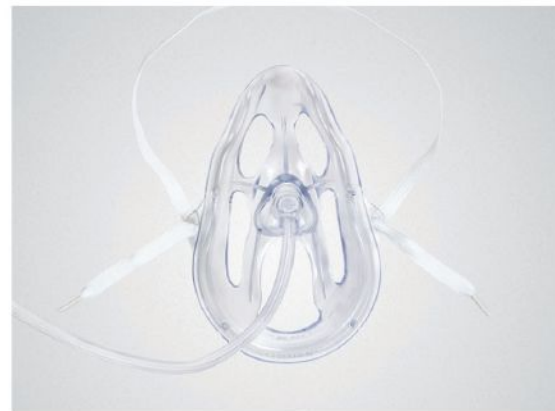
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# Executive Office Update

## Reflections on Lost Leaders in 2015

by Thomas J. Kallstrom, MBA, RRT, FAARC

**T**he year 2015 has certainly been a year of transition for the profession as we near our 75th year in 2017. There has been a lot of positive action with 2015 and Beyond as well as other monumental movements that will better position the profession. As you know, we cannot do these things alone; but rather we need strong leaders and volunteers. This year we lost several of these respected and pioneering leaders of our profession. Each of them contributed differently and significantly during their association with the AARC, and it only seems fitting that we take some time to reflect on each, one last time.

**William F. Miller, MD, FAARC,** was heavily involved with the AARC and the profession in its early days. Dr. Miller was responsible for founding one of the first schools of respiratory therapy in 1963. His influence was seen in his participation, and his lead role with the Board of Medical Advisors (BOMA) was significant. In fact, there was a point in time many years ago that BOMA was considering disbanding; but it was through Dr. Miller's urging not to do so that this was prevented — thus allowing for a strong backing from our physician friends and other physician organizations that continues to this day. He was also a founding member and trustee of the American Respiratory Care Foundation (ARCF) and has an award that is given out annually in his honor: the William F. Miller Post-Graduate Education Recognition Award.

**Debbie Fox, RRT, FAARC,** held nearly every office there was to hold in the Kansas Respiratory Care Society and served our national organization

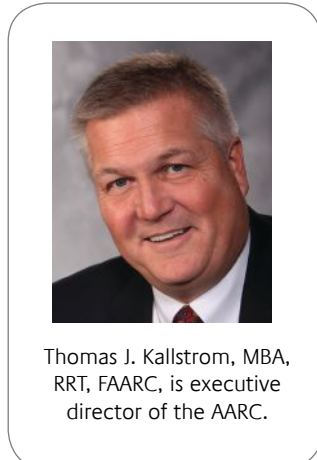
well through her role in the House of Delegates and Board of Directors. An active member of our Political Advocacy Contact Team (PACT), she was an enthusiastic representative who made sure that the elected officials that she met with on Hill visits in Washington understood and, hopefully, supported the issues of the day. She mentored many who followed her — as can be seen today by the many professional volunteering leaders in the state of Kansas.

**James Whitacre, MA, RRT,** served as the first editor of *RESPIRATORY CARE*, setting a solid foundation for the *Journal* and for those who would follow him. He served in this capacity from 1956–1967. He understood that a professional medical society must have a science journal. Whitacre was among the first RTs to recognize the need for a higher level of education for respiratory therapists as well and founded one of the nation's first bachelor degree RT programs at the University of Missouri in Columbia in the 1960s.

**Cliff Bryan** served for many years as vice president of Applied Measurement Professionals, Inc., bringing his experience as a respiratory therapist to bear on decisions affecting credentialing in the profession. Cliff was the first person and first respiratory therapist to hold the position of what is now the NBRC's Chief Executive Officer. He is credited with spearheading the move from paper and pencil NBRC examinations to computer-based testing.

At the age of 94, **Dr. Forrest M. Bird** was our oldest living member (a member since 1956) when he passed

### about the author...



Thomas J. Kallstrom, MBA, RRT, FAARC, is executive director of the AARC.

away in August, and was one of the biggest supporters of our profession. As an inventor of the modern ventilator, he knew early on that respiratory therapists would play a vital role in providing a high level of care as it related to mechanical ventilation. Thus, throughout his career and long after retirement (if indeed he ever did retire), he continued to be a trusted advocate and advisor for the profession. Dr. Bird was a longtime ARCF Trustee. Today there is a Scientific Achievement Award established to recognize outstanding individual scientific contributions to the profession in his name.

Sadly, less than two months after his passing, his wife **Dr. Pamela Bird** was tragically killed when her plane crashed near the Bird Compound in Idaho. She, too, was a strong supporter of the profession and both will be sorely missed.

**Dr. Vlady Rozenbaum** was a patient activist who just so happened to have COPD. He started the COPD-

ALERT, which is an international support and patient advocacy organization for patients with chronic lung disease. He worked closely with the AARC in a number of patient-focused initiatives and often was up on the Hill in Washington, DC, promoting the issues of importance for the profession with elected officials. Dr. Rozenbaum was relentless in making sure that there was a linkage between patients, physicians, and respiratory therapists. He worked hard to bring together the COPD community so that in larger numbers they would have more influence.

This year we lost notable giants who all in their own realm were pioneers. We are eternally grateful for their contributions. They all left big footprints. Who of us are willing to take up their cause? ■

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## Sleep Waves

# Sleep Disorders in Third World Countries

by Amber Galer, BS, RRT

Are sleep disorders becoming one of the largest neglected health issues around the world? Researchers are discovering sleep disturbances can affect men, women, and children globally regardless of age, gender, or race. This article will depict the growing problem of sleep disorders in developing nations by identifying the common comorbidities associated with each one. It will also cover the multitude of opportunities available for respiratory therapists to reach out and get involved through mission work in order to improve the lack of care for these populations.

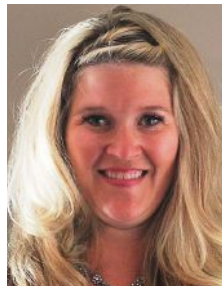
Approximately 150 million people worldwide are affected by a classified sleep disorder that can potentially cause mortality rates to increase rapidly. Symptoms consist of the inability to fall asleep comfortably, stay asleep, cycle through sleep stages without interference, and accomplish a well-rested night's sleep to maintain proper mental and physical functions during the day. Sleep disorders include (but are not limited to) insomnia and secondary insomnia, hypersomnia, sleep-disordered breathing, obstructive sleep apnea, central sleep apnea, mixed breathing patterns, and circadian rhythm disturbances. Determinants of sleep disorders are multi-factorial, and it can be difficult to identify the root cause for each one. Sleep disorders have been linked to several disabilities including anxiety, depression, and stress. Patients with symptoms of sleep disorders such as snoring, weight gain, and daytime sleepiness are not always aware of a symptom and may not take it seriously. Contributing factors such as pregnancy, smoking, alcohol, and sedative use can worsen the effects of most sleep disorders. If left undiagnosed and untreated, sleep disorders can cause potential life-threatening health risks including increased chances of cardiovascular problems, stroke, diabetes, respiratory distress related to obstructive and re-

strictive disorders, and death due to accidents caused by sleep deprivation.<sup>1</sup>

### Statistics

A World Health Organization (WHO) study — Global Ageing and Adult Health (SAGE) — compared participants from several countries across Africa and Asia to determine the prevalence of sleep problems. Included were rural populations in Ghana, Tanzania, South Africa, India, Bangladesh, Vietnam, and Indonesia, plus an urban area in Kenya. Out of the 24,434 women and 19,501 men, 19.8% of the women and 12.8% of the men self reported through a survey questionnaire they had severe/extreme sleep problems. A large variation was observed between the eight populations, showing 3.9% (Purworejo, Indonesia, and Nairobi, Kenya) to more than 43.9% (Matlab, Bangladesh) as shown in Figure 1. Socio-demographic variables, quality of life, and comorbidities were measured. A comparison of bivariate and multivariate analyses showed findings were consistent with participants dealing with a lower education, not living in partnership, and experiencing poorer self-rated quality of life that limited physical functionality or greater disability and feelings of depression or anxiety. Women and older age groups showed a higher prevalence.<sup>2</sup>

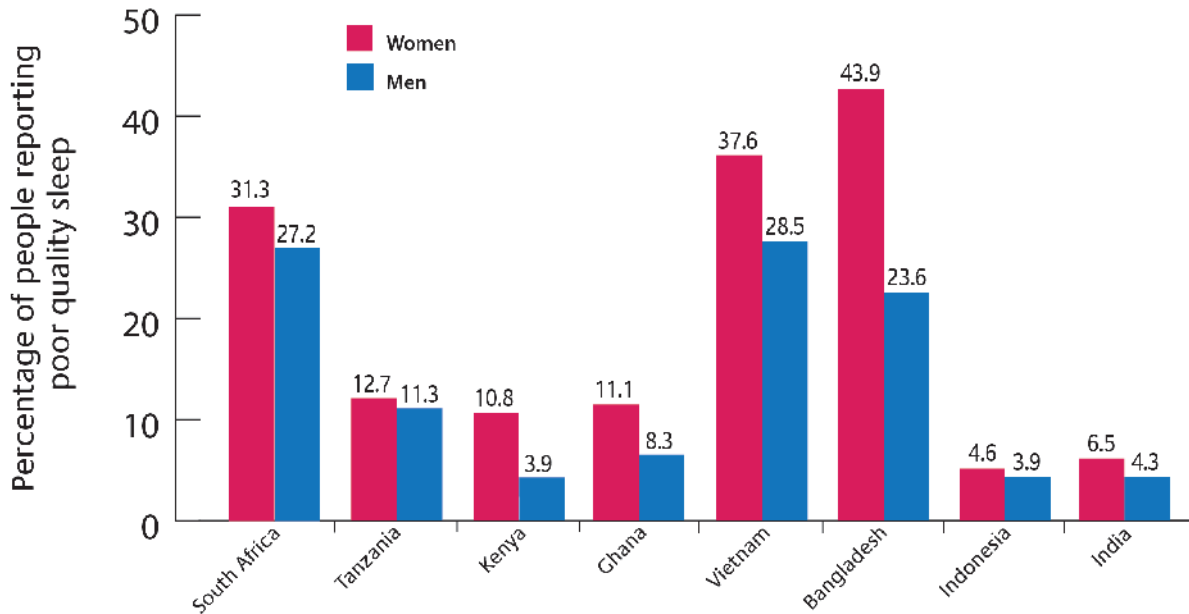
### about the author...



Amber Galer, BS, RRT, is a staff therapist at Primary Children's Hospital in Salt Lake City, UT.

### Access to care

Diagnosis of sleep disorders requires a diagnostic test in a sleep lab or at home. Several components are required for the completion of a successful study, including EKG leads, pulse oximetry, sleep EEG waves, and a pressure inducer. Technical equipment to video and record the running sleep montage is also required with the use of gener-

**Figure 1. Health and Demographic Surveillance System Sites**

Sleep 2012 Aug 1; 35(8):1173–1181. Published online 2012 Aug 1. doi: 10.5665/sleep.2012. Unrestricted right to use  
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ated power. These compiled components may be difficult to run in areas where power may be an issue.

Depending on rural or urban residents' accessibility to sleep centers for a polysomnography test, treatment may vary in each country and location. Research on sleep medicine in developing nations is limited, and future studies will need to be evaluated for updated data. There are several barriers that decrease the chance of proper care for these patients. A study from *Health Policy and Planning* breaks down the barriers into four categories relating to:

- geographic accessibility (transportation to and from appointment),
- availability (sleep medicine clinics and skilled professionals in that area),
- affordability (expanding costs for sleep therapy and equipment),
- and acceptability (cultural beliefs on accepting and trusting studies and treatment).<sup>3</sup>

Each one of these barriers constitutes whether the treatment can be available for a certain area depending on supply and demand. Populations in higher numbers get the most priority for medical care. Lower-populated areas have decreased priority, and the people sometimes travel long distances to obtain treatment. Restrictions of household finances and government funding limit whether

sleep centers and medical clinics can be offered to a selected population.<sup>4</sup>

#### Comorbid conditions associated with sleep disorders

A study on comorbidities with sleep problems reported from *Collaborative Research on Ageing in Europe* (Finland, Poland, and Spain) and the World Health Organization's *Study on Global Ageing and Adult Health* (China, Ghana, India, Mexico, Russia, and South Africa) compares nine chronic conditions: angina, arthritis, asthma, chronic lung disease, depression, diabetes, hypertension, obesity, and stroke.<sup>5,6</sup> "Out of 42,116 participants self reported through a survey questionnaire, operational research (OR) best use of resources showed angina (OR 1.75–2.78), arthritis (OR 1.39–2.46), and depression (OR 1.75–5.12) were significantly associated with sleep problems in the majority or all of the countries... Sleep problems were significantly associated with: asthma in Finland, Spain, and India; chronic lung disease in Poland, Spain, Ghana, and South Africa; diabetes in India; and stroke in China, Ghana, and India."<sup>7</sup>

Compared to no chronic conditions, the OR and confidence interval (CI) represents accuracy and precision of research (95% CI) regarding reported symptoms of asthma in Finland, Spain, and India; chronic lung disease in Poland, Spain, Ghana, and South Africa; diabetes in India;

and stroke in China, Ghana, and India. Data on caffeine intake or other related conditions (e.g., anxiety disorder, sleep apnea, fibromyalgia, migraine, restless leg syndrome, and neurological disorders known to be associated with sleep problems) were limited and not included in this particular study).<sup>5</sup>

In comparison to other related studies, the mortality rate was reported to be more prevalent in women with independent risk factors versus men at higher risk for related cardiovascular disease.<sup>7</sup>

### Opportunities for RTs to assist

Whether sleep medicine is available in the studied countries, there is always a need for respiratory therapists to donate time and services, educate by using their clinical and knowledge-based skills, collect equipment and related supplies, and donate money to support medical mission groups. Local students, educators, clinical staff, and respiratory/sleep companies can all be involved. An abundant amount of humanitarian groups/sites are available to facilitate a project for RTs interested in travel to provide sleep studies. A few of these include: Unhistoric Acts ([www.unhistoricacts.org](http://www.unhistoricacts.org)); AARConnect's (<http://connect.aarc.org>) AARC International Medical

Mission Roundtable (with connections to further assist through humanity services); and Charity Beyond Borders ([www.charitybeyondborders.org](http://www.charitybeyondborders.org)), which is Weber State University's respiratory program and treatment. ■

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Michelle Young, RRT, RTIV





# The Year in Review

by John D. Hiser, MEd, RRT, FAARC



In 1990, in an effort to promote communication and fellowship among respiratory care professionals in the United States and their counterparts worldwide, the AARC established the International Fellowship Program in cooperation with the American Respiratory Care Foundation (ARCF). Over the last 26 years, the program has given 160 non-U.S. health care

professionals from 65 different countries the opportunity to observe respiratory care as it is practiced in the United States.

As has always been the case over the last 26 years, we welcomed a very accomplished group of respiratory care professionals in 2014. This year we will welcome health care professionals from Bahrain, China, Cyprus, and India and will honor them as international fellows at the 2015 Congress in Tampa, FL.



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

**About the Author:** John D. Hiser, MEd, RRT, FAARC, chairs the AARC International Committee and served as the AARC president in 2005. He is the director of the respiratory care program at Tarrant County College Trinity River East Campus Center for Health Care Professions in Fort Worth, TX.



2014 International Fellows Rania El-Farrash, MD (Egypt); Chulee Jones, PhD, PT (Thailand); Yang Liu, MD (China); and Nicolas Roux, PT (Argentina).

### 2014 Koga Medal awarded in Las Vegas

Patrick J Dunne, MEd RRT FAARC, ICRC Governor (USA)

ICRC President Jerome Sullivan, PhD, RRT, FAARC, awarded the eighth Toshihiko Koga Medal to Louis Sinopoli, EdD, FAARC, at the international reception held last December in Las Vegas at AARC Congress 2014.

Dr. Sinopoli was recognized for his innovative, tireless efforts to develop the ICRC's most prestigious (and popular) International Education Recognition System (IERS). Dr. Joan Taylor-Sinopoli graciously accepted the award on behalf of her husband, who passed away unexpectedly earlier in the year.

The Koga Medal is the ICRC's highest honor and was established in 2007 to honor the memory and contributions of the late Dr. Toshihiko Koga for the globalization of respiratory care.



Joan Taylor-Sinopoli accepted the Koga Medal for her husband, Louis Sinopoli.

The AARC continues to receive reports from around the world that demonstrate the achievement of the international goals of the AARC, the ARCF, and the International Council for Respiratory Care (ICRC).



Past Koga Medal recipients include Derek Glinsman, Michael Amato, Dr. Hector Leon Garza, Patrick Dunne, Chia-Chen Chu, and Bill Kashiwazaki.





### **Nigeria experts organized professional group to improve respiratory care**

*Rufus A. Adedoyin, PhD, BMR, PT, AARC International Fellow*

Respiratory care is still at its infancy stage in Nigeria. Consequently, Nigerian physiotherapists are not yet fully involved in critical care. However, a new interest group is growing with the inauguration of the Cardiopulmonary Physiotherapy Specialty Group (NICAPSG), which was inaugurated in November 2014 at Asaba in Delta, Nigeria. The group is coordinated by Dr. Adedoyin, an international fellow of the AARC. The aim of this group (among others) is to improve critical care practice in Nigeria both in the clinic and academia through sharing of information and resources, uniting practice, and developing guidelines, training, and networking. The first conference and general meeting was held at Ile-Ife, Osun, Nigeria, May 20–23, 2015. The theme was “Advances in Critical Care and Pulmonary Rehabilitation,” and the sub-theme was “Cardiovascular Prevention and Rehabilitation.”



Practitioners are improving critical care practice in Nigeria by sharing resources, developing guidelines, and networking.

### **Japanese respiratory care seminars part of International Exchange Program**

*Professor Lonny Ashworth, MEd, RRT, FAARC*

In January 2015, Professor Lonny Ashworth, Boise State University, Boise, ID, presented a series of mechanical ventilation seminars in Japan as part of the International Exchange Visit Program for Respiratory Care Professionals (IEVPRCP). The prestigious IEVPRCP was initiated in 1998 by Dr. Toshihiko Koga prior to his untimely passing in 2004. Through the leadership of Dr. Kazunao Watanabe and Dr. Norihiro Kaneko, the workshops continue in their tradition of excellence to provide contemporary respiratory care instruction to health care providers throughout Japan.

The seminar format included lecture/demonstrations and hands-on workshops emphasizing instruction in mechanical ventilation of the adult patient. Programs were offered in multiple locations throughout Japan to differing audiences of physicians, nurses, clinical engineers, physical therapists, and other co-medical personnel. Venues included St. Luke’s International Hospital, Tokyo; Kameda Medical Center, Kamogawa; Sakaide City Hospital, Sakaide; Kobe City Medical Center, Kobe City; Shonan General Hospital, Ofuna; and Tokyo Bay Urayasu Ichikawa Medical Center, Urayasu.



Professor Lonnie Ashworth presented a mechanical ventilation workshop at St. Luke’s International Hospital, Tokyo, Japan.

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### **Istanbul Memorial Hospital sponsors mechanical ventilation seminar**

*Arzu Ari, PhD, RRT, FAARC, ICRC Governor (Turkey)*

2012 International Fellow Seniha Ugurlu organized a two-day education program that was held at Istanbul Memorial Hospital in Turkey in December 2014. The IERS approved the program.

The goal of the program was to increase the knowledge of Turkish PTs on the clinical applications of mechanical ventilation and to improve the quality of services provided to ventilator-dependent patients.

Dr. Arzu Ari, ICRC governor for Turkey and associate professor in the department of respiratory therapy at Georgia State University in Atlanta, GA, taught all the lectures.



Arzu Ari, ICRC governor for Turkey (center front row), visited with Turkish PTs following successful completion of the mechanical ventilation course.



### **Cyprus Association for Physical Therapists presents “Patient Assessment and Clinical Applications”**

*Arzu Ari, PhD, RRT, FAARC, ICRC Governor (Turkey)*

Dr. Arzu Ari, Musa Muhtaroglu (Cyprus Association for Physical Therapists president), and Seniha Ugurlu prepared a two-day education program on patient assessment and clinical applications in respiratory care. IERS approved the program attended by 38 physical therapists at the European University of Lefke in Cyprus in June 2015.



### **Philippine respiratory care professionals center established in Marikina City, Philippines**

*Noel S. Tiburcio, PhD, RTRP, RRT-NPS, ICRC Governor (Philippines)*

A teaching and learning center for respiratory therapy has been established in the Philippines to enhance the clinical exposure of respiratory therapy students and interns in a controlled simulation environment. Philippine Respiratory Care Professionals, Inc. (PRCPI) is located in Marikina City and is designed to provide training, continuing professional education, and life-support services to the respiratory community.

The goal of PRCPI is to develop the first clinical simulation training center in the Philippines exclusively for respiratory therapy. Dr. Tiburcio, ICRC governor for the Philippines, is founder and president and hopes that “the center will provide a central, comprehensive focal point for collaboration with respiratory therapy professionals and related government health officials in the Philippines.”



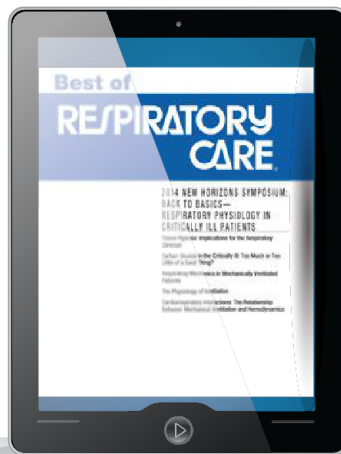
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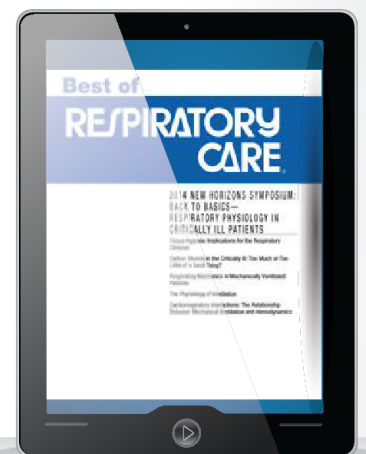
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### News from Morocco

Mohammed Herrag, MD, AARC International Fellow

In March of this year, respiratory care professionals in Morocco held a workshop titled, “Tuberculosis, Between Prevention and Integration” in conjunction with “World Day Against Tuberculosis.” AARC International Fellow Dr. Mohammed Herrag, who heads the respiratory diseases department at the University Hospital of Oujda, Morocco, presented the workshop. Dr. Herrag is a member of a research group in America that includes many professors and professionals from all over the globe and was named one of the best four professors in his field in the world.



TCC RT students welcomed students from Taichung, Taiwan last summer.

### News from Taiwan

Chia-Chen Chu, MS, SRRT, FAARC, ICRC Governor (Taiwan, ROC)

The Respiratory Therapists Society of Republic of China (RTSROC) invited John D. Hiser to talk about “Global RT Activity This Year and in the Future” last December in Chiayi Chang-Gung Memorial Hospital in Taiwan for the members of RTSROC.

In April 2014, Robert M. McCoy, RRT, lectured on “Both Practice and Policy Development of the USA in Long-term Respiratory Care” at the Taiwan Society for Respiratory Therapy Congress held at Linko Chang-Gung Memorial Hospital in Taiwan.



The Taiwan students visited the AARC.



### Texas hosts international students from Taiwan

John D. Hiser, MD, RRT, FAARC, Chair, AARC International Committee

For the sixth year in a row, Tarrant County College (TCC) in Fort Worth, TX, hosted respiratory therapy students from China Medical University in Taichung, Taiwan. The students attended lectures, labs, and clinics with TCC students in John D. Hiser’s program and also visited a hyperbaric oxygen center, pulmonary rehabilitation center, sleep labs, and the AARC Executive Office in Irving.

### **Chinese ICRC members publish study on postoperative pulmonary complications**

*Patrick J Dunne, MEd, RRT, FAARC, ICRC Governor, USA*

In January of this year, a study investigating the effect of oscillating positive expiratory pressure (OPEP) in the treatment and management of postoperative pulmonary complications appeared in the *Australian Journal of Physiotherapy*. The primary authors were Dr. Xianh-yu Zhang, ICRC governor for China, and respiratory therapist and past AARC International Fellow, Qixing Wang (Carol). In this important and timely multi-center study, the researchers concluded that OPEP therapy, provided over a five-minute period, three times per day, for the first five postoperative days, resulted in fewer cases of fever and shorter hospital stays for patients undergoing thoracic or upper abdominal surgery.

### **Intercoastal Respiratory Therapy Assembly meets in Changsha, China**

*Chia-Chen Chu, MS, SRRT, FAARC, ICRC Governor (Taiwan, ROC)*

The 9th Intercoastal Respiratory Therapy Assembly (ICRTA) took place last June in Changsha, Hunan, China. The goal of ICRTA is to connect the respiratory therapy professional personnel between Taiwan and Mainland China.

The first assembly began in 2006 and was vigorously promoted by Mei-Lien Du, technical director of the respiratory therapy department of Kaoshiung Chang-gung Hospital. More than 200 participants, including 30 from Taiwan, attended the assembly.



### **Italian Association for the Rehabilitation of Respiratory Care marks 26 years of improving patient care**

*Simone Gambazza, PT, and Sergio Zuffo, PT, ICRC Governors (Italy)*

This year ARIR, Associazione Italiana Riabilitatori dell'Insufficienza Respiratoria (the Italian Association for the Rehabilitation of Respiratory Care) marks 26 years of improving patient care. It was born in 1989 from an idea of a few physiotherapists (PTs), who felt the need to extend the practice of physiotherapy beyond the treatment of orthopedic and neurologic disorders. This desire paved the way for some Italian physiotherapists to broaden their practice to include respiratory care and pulmonary rehabilitation. A number of chest physiotherapists followed a model imported in the 1970s from the Brompton Hospital and began to differentiate their professional practice to include the treatment of subjects suffering from cystic fibrosis and from complications of thoracic surgery.

Due to the lack of a formal educational program in pulmonary rehabilitation and the inadequate role attributed to the physiotherapist by the National Health Care System, ARIR faced a tremendous challenge to gain recognition for the establishment of the respiratory physiotherapist professional. In 1994, after a five-year effort by the association, the Italian Ministry of Health ratified the professional role and profile of physiotherapists, giving them the chance to access post-graduate respiratory care courses following their three-year PT degree. Thirteen years later, ARIR sealed an alliance with the University of Milan, officially recognizing the role of professional physiotherapists in the respiratory field, which provided post-graduate academic training in respiratory physiotherapy and pulmonary rehabilitation.

In the same year (2007), the program at the University of Milan became the first post-graduate respiratory care program recognized by IERS and continues to maintain its Level III approval status. Many Italian physiotherapists have decided to specialize in respiratory physiotherapy and rehabilitation, contributing to the cultural growth and development of respiratory physiotherapists in the Italian health care system. Today, ARIR is one of the partners of the European Respiratory Society in developing a core syllabus for post-graduate training in respiratory physiotherapy.

ARIR is a founding member of the 29-country ICRC representing Italy since 1989. From the onset of its creation, ARIR has been dedicated to covering scientific updates, publishing, and disseminating information about respiratory physiotherapy all over the country.

### **Prince Sultan Military College of Health Science celebrates 27 years of respiratory care education**

*Mohammed Al Ahmari, PhD, RRT, ICRC Governor (Saudi Arabia)*

Celebrations were held in April 2015 commemorating the 27th anniversary of the respiratory care program at Prince Sultan Military College of Health Sciences in Al Khobar, Saudi Arabia. Formal celebration events concluded with the second annual Respiratory Care Student Symposium. The respiratory care program began in 1988, and through 2007 only granted diplomas to its graduates. Since that time, the program has been upgraded to a baccalaureate program and is one of only three RC BS programs outside of the United States that holds IERS Level III approval.

Taking a step forward to advance the level of respiratory education and patient care, the Prince Sultan respiratory care program offered the first bridging program in Saudi Arabia for former graduates to complete the bachelor program. The college opened its doors for former students to return and seek their bachelor's degree in its newly initiated bridging program.

In February 2015, the college was able to proudly celebrate the graduation of the first cohort of bridging students who successfully completed the program. ■

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On the Cover


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to RESPIRATORY CARE.


# Much To Share, Much To Learn




Anyone who reads *RESPIRATORY CARE* on a regular basis has noticed a steady increase in international authors over the past decade. Dean Hess, PhD, RRT, FAARC, has been at the helm of the *Journal* for many of those years, and in this interview the winner of last year's Héctor León Garza MD International Achievement Award clears up a few misconceptions about how the internationalization of the *Journal* took place — and why he believes it has been a good thing for respiratory care both here and abroad.


 **AARC Times:** You have been widely credited with helping to increase the number of high-quality papers submitted to the *Journal* by international authors during your tenure as editor. Why did you believe it was important to internationalize the *Journal*?


 **Dr. Dean Hess:** That is an interesting question. The increasing numbers of international submissions are entirely coincidental and not at all due to any direct actions from me. I know that some believe that I have been traveling the globe soliciting manuscripts for the *Journal*. I have even heard it suggested that I have done this at the expense of domestic submissions from respiratory therapists. But such is not the case.

 **AARC Times:** OK, so how did the *Journal* go from a largely America-only publication to the global publication it is today?


 **Dr. Hess:** To understand this, one needs to understand how papers come to be published in the *Journal*. Original research papers are completely unsolicited. That means that authors choose to submit their work to the *Journal* for consideration. The editor does not invite these papers.


About the time that I became editor-in-chief of *RESPIRATORY CARE*, we changed the submission process by using an online service called Manuscript Central. Prior to that, papers were submitted as hard copy. Having submitted many papers in this manner, I can tell you that the process was onerous. The complexity of submitting the paper through the mail did not encourage international submissions. With the use of Manuscript Central today, the entire process — from submission to peer review to editorial decision to review of proof to publication — is done entirely online. So anyone anywhere in the world with Internet access can easily participate in the process. This literally opened the floodgates for international submissions.

 **AARC Times:** So making that logistical change really made a difference. Can you point to any other reasons for the increase in international submissions?

 **Dr. Hess:** Other factors related to increased international contributions include our listing in PubMed and that we have an Impact Factor. Before our papers were included in PubMed, the *Journal* was virtually unknown outside of AARC members. After PubMed inclusion, clinicians and investigators doing a PubMed search would be introduced to papers published in *RESPIRATORY CARE*. So, the *Journal* received widespread domestic and international recognition.

Then about eight years ago, around the time that I became editor, the *Journal* got its first Impact Factor — a measure reflecting the number of citations to papers published in the *Journal*. That we now have a respectable Impact Factor encourages submissions from investigators who previously would not have considered sending a paper to *RESPIRATORY CARE*. Publishing in journals with a respectable Impact Factor is particularly important for academic promotion outside of North America, again contributing to increased international submissions.

 **AARC Times:** It sounds like everything just came together to promote the international submissions. But more of those papers are actually getting published as well...

 **Dr. Hess:** The increased number of international papers published in the *Journal* reflects the fact that international submissions have increased while domestic submissions have remained flat. Papers submitted to the *Journal* are subjected to peer review. Those that pass the rigors of peer review are published. This year we will receive more than 500 original research submissions. We will publish about 150 of them, meaning that fewer than 30% of original research papers are ultimately accepted for publication. The peer-review process for international submissions is exactly the same as that for papers that come from North America. There is no preference given to international submissions.

By the way, the increased number of international papers published in *RESPIRATORY CARE* is not unique. One only needs to look at the table of contents for *The New England Journal of Medicine*, *Critical Care Medicine*, *CHEST*, and the *American Journal of Respiratory and Critical*

Care Medicine to see that all journals are publishing more and more papers from outside North America.



**AARC Times:** What do you believe are two or three of the most important papers from international researchers published in the *Journal* since you became editor, and why do you think these stand out from the crowd?



**Dr. Hess:** That is a very difficult question to answer. There have been many, and I would not want to single out a few at the exclusion of others. Perhaps not surprising, some of the most cited and most viewed papers from international authors relate to high-flow nasal cannula, invasive mechanical ventilation, noninvasive ventilation, and pulmonary rehabilitation. These are topics of interest not only internationally, but also for our readers in North America.



**AARC Times:** How do you believe having a more international focus in the *Journal* raises the overall stature of the respiratory care profession?



**Dr. Hess:** In some parts of the world, physical therapists, nurses, or physicians practice respiratory care. In many parts of the world, respiratory care as a distinct profession does not exist. The AARC as a professional organization and respiratory therapists as health care providers are not well known outside of North America. I am absolutely convinced that, outside of North America, many clinicians and investigators are

first introduced to respiratory therapists and the AARC through the *Journal*. On the masthead of the *Journal* and on our website we publish “The official *Journal* of the American Association for Respiratory Care.” I hope that this encourages some persons to become members and to attend the AARC Congress — persons who might not have known otherwise that the AARC exists.





**AARC Times:** So in many ways, the increased international focus of the *Journal* may be raising awareness of the profession both here and abroad. What do you think U.S. RTs need to do to keep the momentum going?



**Dr. Hess:** Perhaps this is the place to make a plea to my fellow respiratory therapists in the United States. Sometimes I am asked, “Why don’t you publish more papers by respiratory therapists?” The answer is simple — we don’t get many papers from respiratory therapists. This reality saddens me. We must find a way for the profession to value respiratory therapist investigators. Like other professions, medicine for example, we need to find a way to train therapist investigators; and then we need to provide the infrastructure, such as release time from clinical duties, for them to conduct high-level research. When that happens, we will begin publishing more papers from respiratory therapists. Although it is satisfying that the *Journal* has gained an international reputation, there is nothing that would please me more than for the *Journal* to be flooded with high-quality papers submitted by respiratory therapists. I hope it happens in my lifetime.



 **AARC Times:** In addition to your work on the *Journal*, you have published papers with international colleagues over the years. How did you get involved in working with these colleagues and what are some of the major results of your work?


 **Dr. Hess:** My day job is at the Massachusetts General Hospital. This institution attracts some of the brightest clinicians and investigators from around the world. The academic community in Boston is very diverse. Over the years, I have had the good fortune to work with many of these individuals. A few of these relationships have resulted in collaborations. I should point out that this was work done in Boston. It was not the result of me traveling overseas to conduct research.


It is difficult to choose papers that stand out above the others. Paradigm-shifting research findings are unusual. Rather, each published paper contributes small, incremental findings to the accumulated knowledge; and it is




Dr. Hess tried on the “helmet” during a workshop in Argentina and later studied its application in Boston with the help of Italian research fellows.


that accumulated knowledge that provides the evidence base to guide practice. I can only hope that some of my work, with international colleagues and others, has contributed at least a small incremental increase in knowledge and quality of care.

 **AARC Times:** You have also traveled to countries like Mexico and Japan to deliver lectures and participate in symposia on respiratory care. Why do you believe it is important to engage in the international exchange of information and ideas through these efforts?

 **Dr. Hess:** Yes, I have traveled to Mexico and Japan; but I would not want to leave out the many friendships I have developed in South America, Europe, the Middle East, northern Africa, and Asia. I have been extremely fortunate to visit many countries around the world. When I look at the stamps on my current and expired passports, I cannot help but think how much my life has been enriched by those travels.

A few years ago I read the book, “The World Is Flat,” by Thomas L. Friedman. I often think about that book in the context of the *Journal*, the respiratory care profession, and health care in general. Friedman defines 10 “flatteners,” one of which is “informing,” which relates directly to the *Journal*. He writes, “Never before in the history of the planet have so many people — on their own — had the ability to find so much information about so many things and about so many other people.”<sup>1</sup> There is much that we can share with and learn from our international colleagues.

 **AARC Times:** What have these international exchanges of information taught you about the practice of respiratory care?

 **Dr. Hess:** As I said earlier, in some parts of the world, physical therapists, nurses, or physicians practice respiratory care. In many parts of the world, respiratory care as a distinct profession does not exist. And the equipment might be different than what we use in the United States. Noninvasive ventilation (NIV) is a good example. I think of workshops I have done on NIV around the world. The questions that I have been asked in Spanish, Arabic, Vietnamese, and other languages through the help of an interpreter, have proven to me that the challenges I face in my practice are not that different from the challenges faced by others all over the world.

Much of my understanding and practice of NIV has been informed through international experiences. Many years ago I was doing a workshop in Argentina and was asked if I used “the helmet.” Prior to this question, I was not familiar with the helmet as an interface for NIV. Someone then went to a local hospital, brought back a helmet, and the group insisted that I put it on myself while they took pictures (see photo on previous page). I was intrigued by this interface and studied its application back in Boston with the help of research fellows from Italy. The resulting paper was published in *Critical Care Medicine*.<sup>2</sup>

I recall other interesting international anecdotes related to NIV. About 15 years ago I was lecturing at a conference in Cairo, and one of my presentations was on NIV. The following day several of the attendees invited me to visit their hospital. In the ICU, they showed me a patient with a resuscitation mask strapped to his face using twill tape that was then attached to a critical care ventilator. They were successfully applying NIV based on what they heard from me just a day earlier! This led to a line that I commonly use in my lectures, “Although there have been improvements in equipment for NIV over the years, one can take the mask off of a bag-valve resuscitator, strap it to the face, and apply NIV using any available ventilator.”



**AARC Times:** Returning to the *Journal*, how do you believe the increase in international papers is enhancing direct patient care for people with pulmonary disorders, both here in the United States and abroad?



**Dr. Hess:** I can only hope that, in some small way, the *Journal* can bring together clinicians and investigators from anywhere in the world who share common problems and a vision for the best care that we can provide for our patients with respiratory disease. NIV is one example, but others include lung protective ventilation, ventilator liberation, aerosol delivery, and pulmonary rehabilitation, to name a few. We in North America can learn much from the experiences of others who are addressing similar challenges in different cultures and with different resources.

As respiratory therapists we have always prided ourselves on being resourceful. How better to expand our resourcefulness than to learn from the experiences of other cultures? Ignoring what is happening elsewhere around the world leads to a myopic view and excludes possibilities that might inform important clinical problems. If we want to fully address the needs of our patients, we should embrace what we can learn from our international colleagues. The *Journal* provides the plat-

form to do this through the publication of papers not only from North America but also from everywhere around the world. The world is flat.




**AARC Times:** What did it feel like to receive last year’s Héctor León Garza Award, and what would you like your fellow therapists to know about the importance of international research and collaboration?



**Dr. Hess:** It was a surprise, and it was rewarding to receive the Garza award. It is always gratifying to be recognized by your peers. The time has come for all respiratory therapists to recognize that we not only have a lot to share but also a lot to learn through international research and collaboration. ■

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PANAMA



# Building the RC Profession in Panama

by Briseida Delgado, MsEd, CRT

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Located on a narrow isthmus between two continents, this developing nation is working hard to improve its medical services.

## Panama has been described as a tropical paradise. Respiratory therapists are dedicated to making sure health care services in the country are just as spectacular.

When people think of Panama, they usually think of the Panama Canal. Built by the U.S. Army Corps of Engineers in the early 20th century and transferred to Panama on Dec. 31, 1999, as a part of an agreement struck with the United States in 1977, the canal has had a major impact on the world economy through the easier passage it created between the Pacific and Atlantic Oceans.

While revenue from this iconic waterway still comprises a large portion of Panama's gross domestic product, my nation is also a center for commerce, banking, and tourism. Our tropical rain forests are home to a biodiversity that is unrivaled anywhere else in the world. With 936 species of birds — more than the United States and Canada combined — and 125 animal species found nowhere else on earth, it is no surprise people are flocking here for nature travel and ecotourism.

### About the Author

Briseida Delgado, MsEd, CRT, serves as department director of health and clinical science, staff educator, and coordinator of the respiratory care program at UDELAS. She is also a respiratory therapist in the ICU at the Social Security Hospital–Metropolis. She was an AARC international fellow in 1998.

Panama's growing economy has naturally created a growing demand for modern health care services, and the respiratory care profession has been among the developments.

### A relatively new enterprise

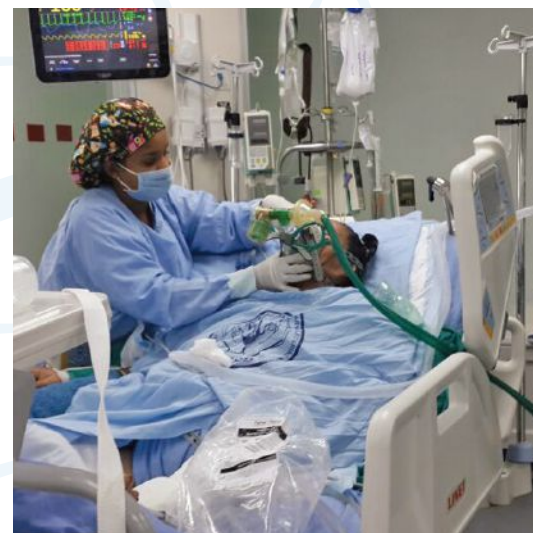
Respiratory care came into being in Panama in March of 2002 with the introduction of a bachelor's degree in the field. Before that first class graduated, there were only four practicing RTs in the country, myself being one of them. I attended respiratory therapy school in the United States and earned my CRT credential in 1992. Then in 1998, I was

accepted as an AARC international fellow, which allowed me to bring more knowledge about the U.S. system of respiratory care back to my country and put it to work helping to develop the profession here.

Today, we have more than 200 respiratory therapists who serve our population of 3 million in both state and



The Panamanian government is now offering scholarships to students in the master's degree program, as well as to students studying for the bachelor's degree and those enrolled in the pediatric post-graduate program.



private hospitals. You will also find respiratory therapists working in home care and pharmaceutical companies. Many of the responsibilities we have taken on, particularly in the hospital setting, are those that were previously carried out by nurses and physicians. Those responsibilities run the gamut. In the ICUs we monitor patients on mechanical ventilation and make changes to the ventilator parameters. We play an active role in the liberation from mechanical ventilation as well, using a step-by-step approach.

We are also involved in all types of respiratory therapeutics and procedures, including oxygenation, breathing exercises, CPAP, IPPB, incentive spirometry, pulmonary function testing, and transportation. We assist with airway management and CPR, and we are the go-to people for the assembly of various types of respiratory equipment.

In the home care and outpatient settings, we perform general treatments, IPPB, physical therapy, nebulizer treatments, and incentive spirometry. We also provide tracheostomy care and home mechanical ventilation, along with respiratory exercises and other modalities.

### **Educational progress**

As I noted earlier, the first bachelor's degree program for respiratory therapists was launched in 2002. The growing demand for RTs in Panama has since facilitated the creation of additional respiratory care educational programs. In 2012, we began a bachelor of science program at the 4th State University of Panama (UDELAS). This public university offers several BS programs, including more than 10 in the health care field. The respiratory care program is located in the School of Clinical Science.

In addition to the BS program, we have established a post-graduate program in pediatrics to train RTs to work in our children's hospital. We recently graduated 15 therapists from this program and are slated to begin the second class of post-graduates soon. We were thankful to work with professionals from Colombia to begin this program.

Given the increasing amount of knowledge necessary to practice in the profession, we have also started our first master's degree program in the profession. Twenty-four students are currently enrolled — 23 RTs and one nurse.



All of them have more than three years of experience in the adult ICU. This academic program was created out of a desire to offer a higher level of service to our patients and also to work out some differences that had arisen with the critical care physicians in our hospital. Faculty for the program is mainly comprised of critical care physicians, along with some RTs from Colombia. The program is comprehensive in nature, covering everything a therapist will need to practice at the highest level. For example, the first semester alone covers:

- Applied cardiopulmonary physiology
- Monitoring and evaluation of the critical care patient in the ICU
- Advanced mechanical ventilation (refers to the application of all the new modes)
- Research investigation
- Cardiovascular monitoring.

The Panamanian government is now offering scholarships to students in the master's degree program, as well as to students studying for the bachelor's degree and those enrolled in the pediatric post-graduate program.

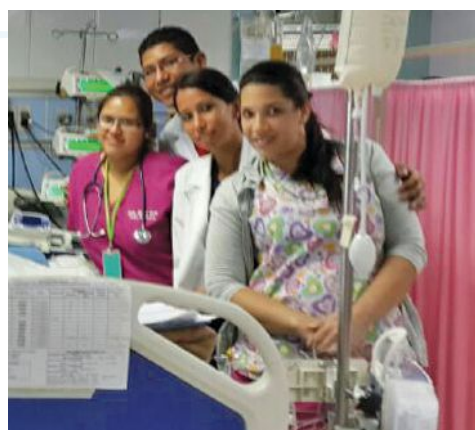
### Meeting challenges head on

Despite all the progress we have made, however, much work still remains to bring the respiratory care profession in Panama in line with that seen in other nations. The country is currently working to develop a credentialing system that will apply not just to respiratory care but to all of the health professions; and our professional organization, the Panamanian Association for Respiratory Care (APTR), is joining with other professional organizations in that effort. Our association is also working to increase its membership among respiratory therapists in the country, which has

not been an easy task. We need to do more to convince them of the value of the organization — although we do believe they should recognize that value, as the APTR has been the driving force behind their recent increased pay.

These challenges aside, we see a bright future for the respiratory care profession in our country. The APTR is working hard to establish it as a great profession, and we know RTs are the health professionals our nation needs to deliver high-quality care to people with cardiopulmonary disorders. ■

Despite all the progress we have made, much work still remains to bring the respiratory care profession in Panama in line with that seen in other nations.



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# Respiratory Care in Singapore

by Ivan Lee, BHS, RRT-NPS

It is often said that if you can find a job you love, then you wouldn't have to work a day in your life. This sounds like a cliché, but this saying rings especially true for me; and I think I can say that for many respiratory therapists I know. I have just finished my third year as a Registered Respiratory Therapist (RRT) in Singapore's flagship hospital — Singapore General Hospital — and I cannot think of another profession more suitable for me. As the profession of respiratory therapy is at its infancy stage in Singapore, we do not have a formal training program here. Therefore, the only viable option is for the

government to give out full sponsorships to train future RTs in accredited colleges in the United States.

During my brief stint in the national mandatory conscription in the military force, I was trained as a combat medic in basic skills like first aid, basic life support, etc. The adrenaline rush of attending to injured servicemen and helping to stabilize their condition in the field before transport was strangely addicting and nothing quite like what I had done before. I then realized that I wanted to pursue a career in health care; but I was also sure that I did not

want to be a nurse, while the training to be a physician is long. That narrowed it down to the plethora of allied health professions. Despite having many to choose from, I was certain that I wanted to work with more critically ill patients, which narrowed my options to respiratory therapy. Coincidentally, I came across a scholarship opportunity for full sponsorship to be trained as a respiratory therapist in the United States.

Knowing that there was an opening for only one position, I knew my chances of getting the full scholarship were very slim. Against all odds, I applied for the overseas scholarship and hoped for the best. The selection process was stringent, to say the least. Applicants were required to have stellar academic records and to undergo several interviews by respiratory physicians, senior leadership in the public health sector, and others. It is definitely a daunting experience to be interviewed by a panel in a boardroom, knowing that their decision could alter my life forever. By the grace of God, I made it past the rounds of interviews and was eventually awarded the scholarship to begin my studies in the spring of 2009. I was beyond exhilarated and grateful that I was chosen out of the many applicants.

The contractual agreement stated that upon graduating and receiving my credentials, I was expected



### About the Author

Ivan Lee, BHS, RRT-NPS, is a respiratory therapist practicing at Singapore General Hospital and a graduate of the University of Missouri-Columbia in the United States.

to return to Singapore to work in a government hospital for six years. With my heart full and bags all packed, I headed for America shortly afterward; and that started my adventure in the United States, and what a journey it has been!

### Enrolling in a U.S. university

Due to the strict time constraint to meet matriculation for spring 2009, I was told to apply to a selected few renowned respiratory therapy programs in the United States in the summer of 2008 and whichever accepted the application first would be where I would attend. I count myself extremely fortunate and lucky to have been accepted as a student at the University of Missouri-Columbia. As I read more about the program, I was also intrigued to know that the first bachelor's program with a major in respiratory therapy was actually founded there.

Even though I had never been to the United States and had never heard of Missouri before this, I was beyond excited to start my undergraduate life there, yearning to live out my very own American dream. I fondly look back at my four years spent in Missouri as the best years of my life thus far. It also helped that we were extremely fortunate to have an awesome team of respiratory therapists as the core of an extremely dedicated faculty,



Lee joined the Missouri AARC delegates at the 2011 House of Delegates meeting.

I was also fortunate to have been involved in the Missouri Society for Respiratory Care as one of the inaugural student liaisons during my junior year. That experience allowed me the rare opportunity as a student to learn from some of the very best in the profession and has given me treasured insights into the dynamics of the profession on a national scale.

which played a pivotal role in shaping me to be the RT that I am today. I was also fortunate to have been involved in the Missouri Society for Respiratory Care as one of the inaugural student liaisons during my junior year. That experience allowed me the rare opportunity as a student to learn from some of the very best in the profession and has given me treasured insights into the dynamics of the



Dr. Shawna Strickland was Lee's honors mentor at his 2012 graduation.

profession on a national scale. I also had the privilege to know more “movers and shakers” of the profession across the country, and I have maintained a connection to this day.

### Health care in Singapore

Despite having spent some years in the United States, I am embarrassed to admit that even now I do not understand how health care truly works in the country. However, I can share more about the health care system in Singapore. In Singapore, we have a universal health care system where the government ensures affordability of health care within the public health system, largely through a system of compulsory savings, subsidies, and price controls. Singapore's system uses a combination

of compulsory savings from automated payroll deductions (up to 10% of monthly income) as well as mandatory contributions from employers to provide subsidies within a nationalized health insurance plan (known as Medisave). Medisave works somewhat like a 401K retirement savings plan to fund medical expenses. Citizens may also choose to purchase private insurance to protect

from catastrophic illnesses. The government only spends about 4% of the Gross Domestic Product on health care, a sharp contrast to approximately 18% in the United States. The citizens here do not have as many restrictions on which doctors or facilities a patient can choose from.





The profession of respiratory therapy is relatively new to the health care scene here in Singapore; and due to a lack of manpower and staffing issues, the majority of the RTs work only in the ICUs. For the same reason, we are not tasked to administer inhaler and nebulized treatments to patients. Similarly, the pulmonary function laboratories and sleep units are staffed with technologists and not RTs, but we do get the occasional rotation to these units to keep our skills and knowledge up to date.

The scope of practice for respiratory therapists working in ICUs is similar to that in the United States, where we initiate and manage both invasive and noninvasive mechanical ventilation. The attending physicians often allow us autonomy to manage these ventilator adjuncts and titrate settings according to clinical assessments. RTs also are deemed experts for airway management, assisting in intubations and bronchoscopies; and we are also heavily involved in managing tracheostomized patients in the hospital. Education forms a big part of what we do at work as well, and we are often requested to give lectures to nurses, allied health colleagues, and residents on topics such as mechanical ventilation, noninvasive ventilation, tracheostomy care, and related areas.

Currently we do not have an RT department; however, we are staffed together with the pulmonologists and intensivists. We report to the head of the department, who is a pulmonologist. There are 10 RTs staffing the entire hospital (shocking, it seems). Out of the 10 of us, three are RRTs and were trained in the United States. The rest are mainly from the Philippines and have extensive working experience as RTs in the Middle East. We work in a shift system like RTs in the United States and provide around-the-clock coverage for our

patients. Each day shift is comprised of two or three RTs, and there is only one RT covering the night shift due to manpower constraints.

Although RTs are an integral member of the multidisciplinary team caring for the patients, health care workers and patients' relatives are not aware of the existence of our profession, much less the responsibilities entrusted to us. However, those who have worked in the ICU would definitely know who we are and what we can do. We are definitely given due respect as specialists with regard to mechanical ventilation and can be counted on to help with optimizing respiratory support for our patients.

We actively participate in the care planning for patients, including assessing the patient for readiness to wean from mechanical ventilation, for example. Currently I am also involved in the hospital's newly established tracheostomy team that makes rounds on tracheostomized patients and helps expedite the decannulation process for suitable patients. Even for the rest of the hospital workers who do not work in close proximity with RTs, we are usually the first they will contact for help with tracheostomy-related issues, home machines for continuous positive airway pressure (PAP) and bi-level PAP, oxygenating issues, and patients on invasive home ventilators.

### Honored to be an RT pioneer

Our potential for growth is truly exciting, and I'm very honored to be a part of the pioneering group of respiratory therapists in Singapore. There remains a lot to be done to invigorate the profession here, and I am unsure where my path will take me. But of this much I am sure: I will stay true to my roots and be an RT for the foreseeable future that lies ahead. ■

Our potential for growth is truly exciting, and I'm very honored to be a part of the pioneering group of respiratory therapists in Singapore.



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- Leadership
- Student Learning

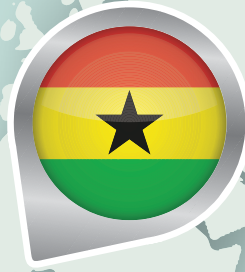
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- Quick course purchasing, attend online course, print certificate – a one-stop shop



UNIVERSITY

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# Update from the University of Ghana



**Front row left to right:** Dr. Paul G. Eberle, Dr. Esther Brobhey (PhD in pulmonary drug delivery and RT program director), Professor Patrick Ayeh-Kumi (dean), Dr. Audrey Forson (pulmonologist), Dr. Lisa M. Trujillo of Weber State University.

**Back row left to right:** Dr. William Obeng (pediatrician), Florence Twum (accountant), Dr. Abena A. Tettey (pediatrician), Roger G. Okpara (perfusionist), Dr. Samuel K. Asomani (internal medicine), Dr. Chris Owoo (anesthesiologist), Richard Daah (school officer), Dr. Robert Djangbletey (anesthesiologist), Senyo K. Gley (perfusionist), and Michael Mensah (respiratory therapist).

In 2011, the idea of developing respiratory therapy as a profession was introduced to Korle Bu Teaching Hospital and the University of Ghana. After several years of collaboration and the completion of curriculum development, the university is preparing for students to begin coursework in August 2016.

As representatives of the College of Health Sciences work on final accreditation, the need to prepare faculty to teach in the new bachelor of science degree in respiratory therapy program became a major focus. Since respiratory therapy is a new profession in Ghana, it wasn't possible to recruit experienced respiratory therapists with advanced degrees to be faculty in the program. Recruitment would need to come from existing faculty and physicians. The university invited a diverse group of individuals to participate as faculty in this groundbreaking program. These prestigious faculty members include three anesthesiologists, two pediatricians, two perfusionists, a pulmonologist, an internal medicine physician, an occupational therapist, and a PhD in pulmonary drug delivery.

The initial idea for training faculty consisted of inviting a few faculty members at a time to Weber State University. This opportunity would allow new faculty, who are primarily unfamiliar with the profession, to see respiratory therapy in action in the classroom as well as in hospitals and ancillary facilities. This option posed significant challenges. Most newly identified faculty were physicians, which meant their absence during training would place a significant stress on their departments.

This option was also financially burdensome and time intensive.

In order to alleviate these challenges, Lisa M. Trujillo, DHSc, RRT, developed and proposed a three-week in-country faculty-training program. Dr. Trujillo and Paul G. Eberle, PhD, RRT, from Weber State University delivered the program, which included the following:

- Overview of the profession and an introduction to the AARC, CoARC, NBRC, CoBGRTE, ICRC, and IERS
- Program and curriculum structure
- Syllabi review and assignments to faculty
- Recruiting, admissions, and advising
- Managing student files and developing a student handbook
- Use of canvas as a web-based medium to deliver content and other online resources
- Lab structure, simulation experiences, clinical rotations, and mentoring.

The program was taught every afternoon, allowing physicians to continue to care for patients in the morning. Dr. Trujillo and Dr. Eberle were also invited to join physicians at the bedside to observe and participate in patient care, as well as provide mini training sessions for critical care nurses and physicians.

In spring 2016, a follow-up training session will be provided to ensure faculty and administration are prepared to begin the program. Dr. Trujillo and Dr. Eberle also hope to participate in the selection of the first cohort of respiratory therapy students at that time. ■



Argentina

# How My International Fellowship Impacted My Career and My Country



**1997** visit opened the door to many new developments in Argentina

by Gustavo Olguin, MHA, PT, TRC



In 1997, I was selected for the AARC International Fellowship Program. For me, serving as an international fellow constituted a personal achievement at a professional level that would not only impact my career and my personal life, but also the respiratory care field in Argentina and throughout our region of Latin America.

It was a positive experience from every point of view. From the human perspective, I was allowed to make some very good friends whom I'm still in contact with today. Professionally speaking, being an AARC international fellow gave me the opportunity to interact with other professionals from both the United States and other parts of the world. I have been able to travel to their countries, which has allowed me to compare what was happening in my country with what was happening in theirs. I am also now connected to a range of international colleagues, which means I can make queries to, or receive them from, professionals and scientists from around the globe.

#### **It wasn't just me**

Over the past 20 years, respiratory care in Argentina has enjoyed sustained growth, the advent of improved technologies, and easier access to information. Thanks to these advances, we now have a very good scientific and professional stature in the health care field. I believe my fellowship, and those of other Argentinians who followed me as fellows — Gerardo Ferrero in 1998, Alejandro Midley in 2001, Horacio Abbona in 2004, and Nicolas Roux in 2014 — have had a great influence on the development of the specialty in Argentina. The first Argentinian fellow, Ariel Garnero in 1996, ended up remaining in the United States to study and work.

All of the fellows from Argentina have been physical therapists (PTs). When I was accepted into the international fellowship program, I was working as a PT assistant in the pediatric ICU at Garrahan Hospital. Today, I have served 25 years in this hospital, the past six as the head of physical and respiratory therapy. When I became director of the department, we were 35 professionals working for the entire hospital. Now I have 54 professionals in my department, and that includes specialists in pediatric respiratory care in every critical area.

Our hospital has more than 500 beds, and 132 of those are critical care beds. We are the ones who handle noninvasive ventilation throughout the entire hospital. Being an AARC international fellow gave me the tools I needed to build this kind of service.

The same has happened with our other international fellows — everyone has excelled in professional development. In fact, Alejandro Midley is director of the department of physical therapy at the Hospital Italiano de Buenos Aires, perhaps the biggest hospital in Latin America and the first hospital in Argentina to have a respiratory therapy department, led at that time by Nicolas Roux.

Nearly 20 years after taking part in the program, Gus Olguin believes his trip as a fellow to the United States helped spark positive changes for his country and those throughout Latin America.



Horacio Abbona has his own company that develops mechanical ventilators in our country, and he is also a renowned professor. Gerardo Ferrero has worked for top international companies in the respiratory care profession (and still does today), where he is involved in sales and clinical consulting, and of course, in educational endeavors around the world.

All this shows that the professionals chosen for the AARC International Fellowship Program really were leaders who would go on to do important things in the profession. That speaks highly of the program, the education, and information we received from our respiratory care city hosts during our international fellowship visits to the United States.

### **An eye-opening experience**

The International Fellowship Program definitely opened my eyes in many ways. Perhaps most significantly, I learned more about the importance of having a scientific and professional society such as the AARC to support professionals working in respiratory care. In the early years, we did not have a proper organization for the respiratory specialty in Argentina. We were instead included within medical societies such as the Argentina Society of Critical Care Medicine (SATI), the Argentina Society of Pediatrics, and the Argentina Association of Respiratory Medicine.

Even today, we belong to these prestigious organizations, we have an important place within them, and we form working groups to develop educational and scientific objectives. But the most important achievement for us was finally creating our own society, the Argentina Society of Cardio Respiratory Kinesiology (SAKICARE), born in 2011. I serve on the board of directors as vice president, and I am the president of our international conference that is taking place in Buenos Aires this month.

Being an international fellow also made me understand that there must be a special educational program for professionals engaged in respiratory care. While those in charge of respiratory care in Argentina are PTs, since my fellowship several formal educational programs in respiratory care have been developed, including a two-year postgraduate specialization for physiotherapists. The most prominent are those at the Nacional University of San Martin, managed by

## **Plan To Host an International Fellow Next Year**

Every year the ARCF sponsors an International Fellowship Program that brings physicians, therapists, and nurses from other countries to our shores to learn more about American-style respiratory care. Each fellow visits two cities in the United States. It can't happen without city hosts and coordinators in each of the localities, and now is the time for AARC members to begin making plans to host a fellow next year.

The medical institutions, educational programs, and other health care sites that volunteer to host a fellow provide:

- the opportunity to observe the delivery of respiratory care in both large and small hospitals and in the home or other alternate care sites (hospice, group home, SNF, etc.)
- the ability to discuss the management of respiratory care delivered in a variety of settings
- the opportunity to observe educational programs that train respiratory therapists at different levels.

Host city coordinators help communities plan all activities offered to the international fellows.

The international fellowships will take place in the fall, just prior to AARC Congress 2016, scheduled for Oct. 15–18 in San Antonio, TX.

The ARCF will begin accepting host city applications Jan. 1. In late 2015, begin to check for updates and application deadlines for this important international exchange program on the ARCF website at [www.arcfoundation.org/international/fellows/city\\_host.cfm](http://www.arcfoundation.org/international/fellows/city_host.cfm). ■



Chia-Chen Chu and Gustavo Olguin

the SATI, Favaloro University, and the University of the Gran Rosario. These programs are backed by the health ministry and are now a requirement to work in a critical area. I am fortunate to participate as a teacher on pediatric issues in the latter two programs, and I am the director of the Specialty in General Pediatrics and Neonatology at the University of Buenos Aires, which was developed at my hospital.

In Argentina, it is a fact that the number of respiratory specialists has increased, new educational programs have been developed, technology has improved, treatments have evolved, and scientific activity has increased in a significant way. Now we are working toward the provision of a better professional service. We have managed to for-

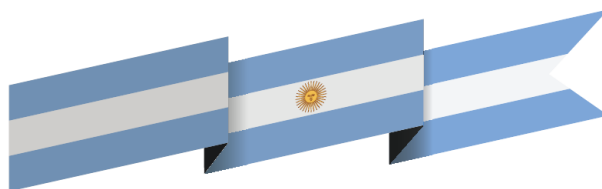
malize the activity of physiotherapists specialized in respiratory care and critical care at the Ministry of Health. I was involved at the discussion table, and we were able to achieve many of our goals, such as establishing the number of PTs per bed.

### Forever grateful

In this article, I wish to show that my professional life has been very active and has experienced ongoing development. Nothing has happened by chance — it was due to my love of the profession and my desire to always seek to improve. I have had success on the job, I have developed as a professional, and I have been fortunate to participate in scientific and professional activities that have crossed the borders of my country. I have lectured in Taiwan, Spain, Canada, the United States, Mexico, and in almost all the countries in Latin America.

I have also served as the Argentinian director on the Latin American Board for Professional Certification in Respiratory Therapy, and I am the current president of the Latin American Society in Respiratory Care (SOLACUR), which was created in 2012. The 2nd Argentine Congress of SAKICARE will be held this month in conjunction with the 4th International Congress of SOLACUR here in Buenos Aires.

I cannot be more grateful for having participated in the AARC International Fellowship Program. It was very important for my professional and personal development, affecting respiratory care in my country and throughout Latin America. ■



### About the Author

Gustavo Olguin is director of the PT department at the National Pediatric Hospital Dr. Juan P. Garrahan in Buenos Aires, Argentina. He also serves as director of pediatric and neonates PT and RC at the University of Buenos Aires; is president of the Latin American Society of Respiratory Care and vice president of the Argentine Association of Cardio Respiratory Kinesiology; and he serves as a clinical consultant of Nonin Medical Inc. for LATAM.



# Road Trip!

A how-to on the gathering of donated equipment and supplies, then bringing it all to a needed population on a medical mission

by Karen S. Schell, DHSc, RRT-NPS, RRT-SDS

Are you ready to roll? When you think of a road trip, most likely you are thinking of a particular destination and looking forward to a leisurely trip across country enjoying the sites, relaxing, and heading for some “away from home” experience.



Walt Wilson and Karen Schell

Over the last several years, “road trip” has been a different experience for our family. It means hooking up the trailer and heading out across country to pick up respiratory and medical supplies for our annual trip to Ghana, Africa.

This last year, through the AARConnect Education Section, we were able to connect with a respiratory program in Natchez, MS. We issued a call for supplies, and the students and program director at the Copiah-Lincoln Community College took action.

### **All you need to do is ask**

The group began collecting supplies and reaching out to other area schools for donations of equipment and supplies to help us collect needed items for the new respiratory program at the University of Ghana in Accra.

AARC Member Walt Wilson, RRT (program director of the RT program at Copiah-Lincoln Community College in Natchez, MS), and his students collected a trailer full of ventilators, air compressors, PFT machines, treadmills, and disposable supplies to get the respiratory therapy school off and running in Africa.

**Hit the road — from KS to MS — in less than 24 hours!**

I was just returning from a three-week trip to Ghana in June and recruited my husband, Jim, to hit the road for Mississippi the equipment and day after arriving home. We drove directly to Natchez, MS, and loaded up the equipment and supplies with the help of Walt and his students.

While in Natchez, Walt had promoted the visit in the local newspaper; and I delivered a presentation to the community about our medical mission. Local community members saw the promotion and attended the educational session. Two of



Students Holly Richardson and Jessica Porter helped collect and organize donations of equipment and supplies.





the ladies present had a large building downtown full of respiratory supplies they wanted to donate. They had been caring for a family member who recently expired and had a large amount of disposable respiratory equipment to donate. The truck and trailer ended up being packed to the rim — an additional bonus to the trip! The ladies were thrilled to be able to give the supplies to a worthy cause in memory of their loved one.

### **Back to Kansas!**

Due to time constraints with work schedules, there was not enough time to stay and visit; so it was back on the road that evening. Back in Kansas, we warehoused all the supplies for the next medical mission.

### **Reach out and Connect**

I still keep in touch with Walt — reaching out and connecting started a great friendship and future collaborations. I am now working





Students Jonterial Johnson, Dustin Longmire, and DCE Countney Nichols

on funding to get our “warehouse” of supplies shipped. Walt is working on his connections and engaging his students to reach out and connect through volunteering their services in their community.

Take a look around, do you have items that will help grow the profession and assist in the training of respiratory therapists in other countries? Jim and I are always up for a road trip! Maybe the next place we can visit will be in your backyard. ■

**About the Author**

Karen S. Schell, DHSc, RRT-NPS, RRT-SDS, is clinical assistant professor of respiratory care education in the School of Health Professions at the University of Kansas Medical Center in Kansas City, KS.



Students Macy Caviness, Natrisha Dixon, Kaitlyn Grayson, and Emily Murray

# Considering a Medical Mission?

by Lisa Trujillo, DHSc, RRT

When I share my experiences with mission trips, people often say, “I have always wanted to do something like that.” My response is, “You can and you should.” Participating in a mission trip can be life altering. Having spent four–eight weeks annually leading mission trips to West Africa over the past nine years, I can attest to the significant impact these trips have had on every facet of my life.

## Deciding if a mission trip is right for you

When considering participating in a mission trip, timing is important. It needs to be the right time for you. Mission trips require great sacrifice of time, resources, and finances; and they demand energy and dedication. Being away from family, work, and everyday comforts also add to the sacrifice. However, the reward for participating is beyond measure for you and those you serve.

## Questions you should ask yourself

**What is your motivation?** Is it your sense of adventure and desire to visit another country? Or is your motivation the desire to serve? If you are searching for a vacation, a mission trip may not be your best choice. If you are searching for an opportunity to impact the lives of others, then you are on the right track.

**How well do you adjust to extenuating circumstances?** It is essential that you understand what you are committing to because you will be spending a significant amount of time (often in close quarters) with new people in a foreign place under conditions that lack your familiar creature comforts.<sup>1</sup> Food, climate, language, culture, and the lack of consistent electricity and running water are only a few of the things you will need to adjust to.





### About the Author

Lisa Trujillo, DHSc, RRT, is associate professor and director of clinical education of the respiratory therapy department at Weber State University in Ogden, UT.

**What type of experience are you looking for?** Are you interested in medical, service, or humanitarian work? When determining what type of experience you are searching for, you may consider the level of difficulty and circumstances you will face.<sup>1</sup>

**How long are you willing to stay?** Short-term mission trips last one–four weeks on average. Long-term mission trips may range from two months to a year.

**How much are you willing to spend?** Cost will vary depending on the length of time and destination. Short-term mission trips may range from approximately \$2,500 to \$4,500. Costs generally cover in-country expenses such as ground transportation, lodging, meals, and excursions. Some may include airfare and some may not. Not all expenses are covered in the price to participate.

Know what your payment does NOT cover so you don't have any surprises. This may include your passport, visa for the country visited, prescription medications, immunizations, uniforms, bottled water, some meals, and excursions beyond those offered as part of the package.

### Selecting an agency or organization

It is often possible to find an agency or organization within your own community. Whether faith-based or nonreligious, most communities have organizations that are involved in some aspect of mission work. If you are unable to find a suitable fit with a local group, try searching online. Before committing to a trip, examine how well the trip matches up with your goals and expectations. Is adequate participant training provided prior to travel? Who are the leaders, and what experience do they have?

Finally, be sure to carefully research any organization you may consider traveling with to ensure they are well established, reputable, and have a strong track record.

## MEDICAL MISSION TABLE

Level of Difficulty	Location	Language	Ethnic Group	Housing	Overseas Experience
Low	U.S.	English	Different	Familiar housing	No experience
Low/ Medium	Foreign, urban	English	Different	Familiar housing in a large group setting	No/some experience
Medium	Foreign, urban, or rural	Foreign	Different	Small group housed together in a local community	Moderate experience
High	Foreign, rural	Foreign	Different	Small group housed separately with nationals	Very experienced

### Preparing to travel

It is highly recommended that you do your own research about the country you will be visiting. Although your sponsoring organization will give you information about immunizations and preventive medications you should obtain, you should take the time to visit the Centers for Disease Control and Prevention website ([www.cdc.gov/travel/](http://www.cdc.gov/travel/)) for additional information.<sup>2</sup>

Prior to traveling outside the United States, it is recommended that you register with the U.S.

Department of State through the Smart Traveler Enrollment Program (STEP) (<http://travel.state.gov/content/passports/en/go/step.html>)<sup>3</sup> prior to traveling. This allows you to receive important information about your destination country before and during your travels. It also helps the U.S. Embassy contact you in case of any type of emergency situation such as a natural disaster, civil unrest, or a family emergency.

Make three copies of your passport, travel visa, and driver's license. One is for your emergency contact person, one is for your group leader, and one is to carry in your luggage. You may also want to e-mail yourself a copy so you can access it anywhere.

Be sure your financial institution is aware of your travels. Unexplained foreign charges or ATM withdrawals may cause them to block your account, preventing you from accessing funds.

It is very important to understand the rules of professional practice for the country you will be visiting. Some may want a copy of your credential and/or license prior to your arrival. Be sure to practice only within your scope. You may be presented with opportunities to provide care that is beyond your scope and comfort level. Be ready to respond appropriately and professionally in order to respectfully remove yourself from a potentially difficult situation.<sup>1</sup>

Most organizations will ask that you use one of your checked bags for personal items and one to carry donations. This limits what you can take with you to one checked bag and your carry-on luggage. While packing, consider:

- If you need it, take it. You may not have the opportunity to buy it in country.<sup>1</sup>
- If it is valuable and not necessary, don't take it.
- Don't take flashy jewelry or other items with you. You may risk losing items, or you may become a target for petty theft.
- Carry personal medications in your carry-on bag and be sure they are in their original bottle with your name on the prescription label.
- If your trip is for more than one week, limit clothing to what you need for one week and plan to do laundry.

### Practical things to keep in mind

- Safety first! It is easy to become complacent while traveling, especially once we feel comfortable with our surroundings. It is important to always be alert and aware of your surroundings and stay with the group.

- Flexibility is essential! Although you have expectations as to what you want to accomplish, learn, and share, you must remember that you are a guest in another country with different cultural norms, a different pattern of living, different socioeconomic standards, and different views on organization, time, and preparedness.
- Poverty may look different than you expect. Poverty can be material, physical, spiritual, or systemic. Those we serve may lack resources, but they may be rich in other ways.
- You are an ambassador. Remember that you represent your country, your profession, and your organization.
- Keep a journal of your experiences before, during, and after your mission trip. It is amazing to reflect on your personal growth throughout this process.

### Rewarding experiences

The work is often hard. The days are often very long. You may go several hours between meals. The circumstances are difficult. You will see and experience things that are beyond what you are accustomed to. There will be times when you are able to impact someone's life. There will also be times when your hands are tied due to limited resources or cultural situations. These are often the most difficult to process.

There will be times of joy and sadness, exhaustion and exhilaration, sacrifice and reward. Collectively, they will touch you to your core and will impact who you are as a person, as a practitioner, and as a global citizen. ■

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### ADDITIONAL READING

Relevant Magazine website. Things no one tells you about going on short-term mission trips. Available at [www.relevantmagazine.com/reject-apathy/things-no-one-tells-you-about-going-short-term-mission-trips](http://www.relevantmagazine.com/reject-apathy/things-no-one-tells-you-about-going-short-term-mission-trips) Accessed Oct. 7, 2015

ShortTermMissions.com website. Key considerations when selecting a mission trip. Available at: [www.shorttermmissions.com/articles/selecting\\_a\\_mission\\_trip](http://www.shorttermmissions.com/articles/selecting_a_mission_trip) Accessed Oct. 7, 2015

— 2015 —

Since 1947, the AARC has been leading the effort to advance the respiratory care profession and promote quality respiratory care. Collaborating with our 50 state organizations and other organizations, we have successfully advocated at the federal, state and local level for patients, their families, the community, the profession and the respiratory therapist.

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As health care finances become more strained and patient care becomes increasingly more complex, the mutual challenges become greater for the profession and its industry partners. The inherent synergies of the corporate partner concept are to provide an effective way to address those needs utilizing our combined skills and resources.



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# Metamorphosis

by Raul Rascon, Jr.



## About the Author

Raul Rascon, Jr. is a respiratory therapy student at Weber State College in Oden, UT.

On May 8, 2015, I embarked on a journey to Ghana, Africa, on a humanitarian expedition with an organization named Charity Beyond Borders. The purpose was to promote health and respiratory care throughout the regions of Ghana. Little did I know that I would undergo a metamorphosis from this adventure, forever changing my life.

Upon visiting St. Patrick's hospital in Offinso, I was introduced to malaria: an entire ward filled with infants and small children suffering from this disease. They were septic, which caused them to have edema, high fevers, and labored breathing. I wanted to help; but unfortunately, medication was their only savior and required finances that these people could not afford.

At Korle Bu, a large hospital in Accra, I was given the opportunity to help in the emergency room. It was poorly supplied and in bad condition. Nothing was sanitary — and needles and bandages were tossed outside, openly exposed to the public. The ER was filled with patients in disheartening conditions. Beginning my triage seemed impossible. As I was attending to a woman suffering from a cobra bite, a different patient coded. We rushed to the patient and began performing CPR. We yelled out for an AED; but unfortunately, the hospital did not have one because of financial deficits. The doctors arrived and told us to quit performing CPR. I instantly knew what that meant... he was gone. The patient had been diagnosed with a myocardial infarction that had sealed his fate; this was the loss of my first patient.

In Agbogbloshie (an e-waste dump), an entire community was living there and viewed as the subordinate class of Ghana. Walking around the area, I saw individuals taking

apart junk cars in a search for essential pieces that could be taken to the market and sold for profit. Oil was running off into the river, which made life non-sustainable. Garbage was burned throughout the city, and kids would rummage through it in hopes of finding copper that could be sold in the markets. Several had scarification and burns from digging through the ashes of burnt debris.

Words cannot ever describe my experience nor ever serve it justice. The everyday things I take for granted are luxuries in Ghana. Life is precious and also fragile. My eyes were finally opened. I experienced a transformation that caused me to embrace my future as an empathetic health care worker. ■




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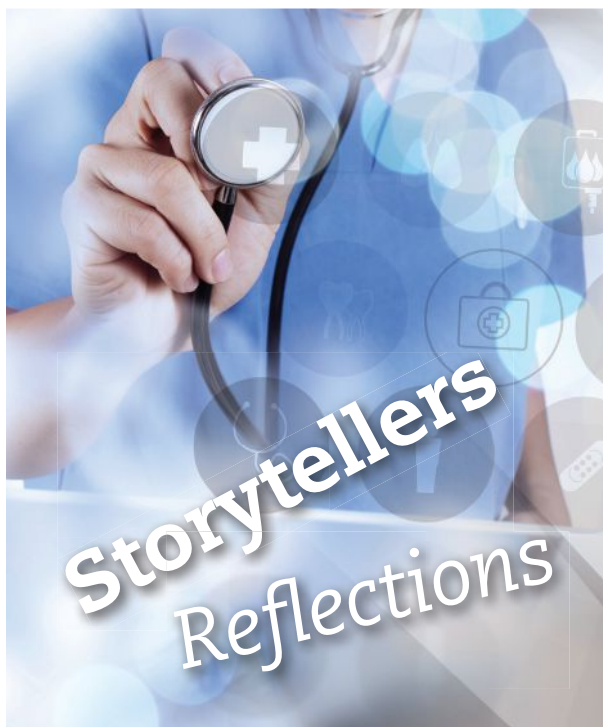
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► Press releases and photos on new products are welcome. Send to **Marsha Cathcart, AARC Times editor, at [cathcart@aac.org](mailto:cathcart@aac.org)**



# RC Currents

## New Columns in 2016



AARC Times is starting two new columns next year, and we need your stories to fill them up!

The first is called “Storytellers,” and it’s where AARC members can share stories about their favorite or most memorable patient. Maybe it was an “aha moment” when you knew you had made the right professional decision for that patient. Maybe it was when you first realized how much of a difference you were making in the lives of that patient and his family. Or maybe it was just something the patient said or did that made you laugh or cry or just be inspired to be a better RT.

The second, “Reflections,” is geared especially toward AARC members who have recently retired from the profession. We’d like you to take a look back at your career or some aspect of it and tell us what it meant to you and why. Funny, sad, inspiring — the door is wide open!

So start brainstorming some ideas and then submit your stories to AARC Times Editor Marsha Cathcart at [cathcart@aarc.org](mailto:cathcart@aarc.org). ■

## AARC Election 2016 Results Announced



Frank Salvatore

AARC President Frank Salvatore Jr., MBA, RRT, FAARC, announced the election results for the incoming officers and directors:

**President-Elect:** Brian Walsh, MBA, RRT-NPS, FAARC

**Directors At Large:** John Lindsey, MEd, RRT-NPS, FAARC; Doug McIntyre, MS, RRT, FAARC; Debra Skees, MBA, RRT, CPFT; and Pattie Stefans, BS, RRT.

Salvatore will serve the remaining year of his two-year term as president, and other continuing board members include Lynda Goodfellow, EdD, RRT, AE-C, vice president for internal affairs; Cynthia White, MSc, RRT-NPS, FAARC, vice president for external affairs; Karen Schell, DHSc, RRT-NPS, RRT-SDS, secretary-treasurer; George Gaebler, MEd, RRT, FAARC, past president; Cheryl Hoerr MBA, RRT, FAARC (Management Section); Ellen Becker, PhD, RRT-NPS, FAARC (Education Section); Keith Lamb, BS, RRT-ACCS (Adult Acute Care Section); Natalie Napolitano, RRT-NPS, AE-C, FAARC (Neonatal-Pediatrics Section); Kimberly Wiles, BS, RRT, CPFT (Home Care Section); and at-large directors, Bill Lamb, BS, RRT, FAARC; Timothy Op’t Holt, EdD, RRT, AE-C; and Lisa Trujillo, DHSc, RRT.

Three AARC Specialty Sections also held elections, and these members were elected to serve as chair-elects:

- Home Care:** Zach Gantt, RRT
- Sleep:** Marilyn Barclay, BS, RRT, CPFT
- Neonatal/Pediatrics:** Steve Sittig, RRT-NPS, C-NPT, FAARC. ■

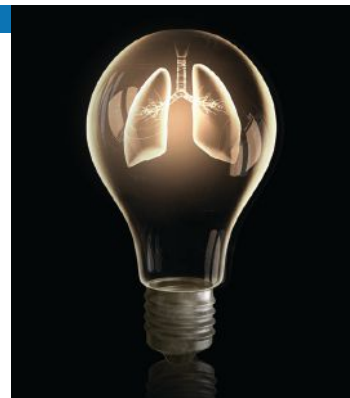


## Submit Your Ideas To Improve Airway Clearance

The AARC and Edison Nation Medical, the premier health care innovation marketplace, are encouraging AARC members to submit ideas that improve airway clearance products that are clinically efficient and effective devices, allow for greater patient comfort, and are smaller and lighter for greater portability.

Submit your idea today! If your idea is selected for development, you will receive an advance of \$2,500, 50% of licensing royalties, and be named as the inventor on any patent application.

To learn more or to submit your idea, go to <http://c.aarc.org/go/edisonairway>. ■



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## Request for Proposals at AARC Congress 2016

AARC Congress is an international respiratory education meeting that attracts more than 6,000 attendees annually. Preparing for this annual event takes considerable effort with planning that begins more than one full year before the meeting. The AARC invites you to submit proposals for individual lectures or symposia at AARC Congress 2016.

Individuals may submit proposals with interest in the practice of cardiorespiratory care. This is your opportunity to present educational content to your peers. If you believe you're a content expert or possess unique knowledge on topics relevant to any specialty section or roundtable, then this is your opportunity to showcase your knowledge on a national stage.

Proposals are encouraged from new and experienced presenters alike. At AARC Congress 2015, nearly 25% of all speakers were first-time presenters. This year it was someone else... next year it could be you! The deadline to submit proposals for sessions at AARC Congress 2016 (Oct. 15–18) in San Antonio, TX, is **Jan. 8, 2016**.

Submit your proposals at <https://secure.jotform.com/form/52526230882151> ■



## Reducing Readmissions Is COPD PRAXIS' Goal

The COPD Foundation has just launched a new initiative aimed at helping health care providers, health systems administrators, and policymakers share information and ideas on reducing readmissions among COPD patients. Billed as an "online collaborative," The COPD PRAXIS ([www.copdfoundation.org/Praxis/About-PRAXIS/What-is-PRAXIS.aspx](http://www.copdfoundation.org/Praxis/About-PRAXIS/What-is-PRAXIS.aspx)) features:

- Member discussion boards
- A searchable resource repository of impactful research, toolkits, and promising readmissions reduction practices
- Educational and innovation centers containing the latest professional and technological developments
- A policy corner devoted to relevant legislation and its impact on the PRAXIS user.

If your hospital is seeking to minimize its exposure to CMS penalties for excessive readmissions for COPD, check out PRAXIS today and see how it could help you and your colleagues come up with new and better ways of keeping your COPD patients at home and out of the revolving door of repeat hospitalizations. ■



## Here's Your Chance for a Free Membership Renewal

AARC *Times* is looking for creative AARC members to enter our annual AARC Photo Contest. Finalists will receive a **free** one-year membership renewal with the chance of their photo being chosen and featured on the cover of a 2017 AARC *Times* issue. For information on how to enter, go to [www.AARC.org/resources/publications/aarc-times](http://www.AARC.org/resources/publications/aarc-times) and click on the "Photo of the Year Contest" link. Deadline to submit photos is **April 1, 2016**. ■

## PHOTO OF THE YEAR CONTEST



## Moving on Up



**Raymond Pisani, BS, RRT-ACCS, FAARC**, received the 2015 Mercy Award from Teche Regional Medical Center in Morgan City, LA. The Mercy Award recognizes one employee from each of LifePoint Health's more than 60 hospitals, including Teche Regional, who profoundly

touches the lives of others and best represents the spirit and values on which the company was founded. Pisani was honored for his long history of service to his hospital and his community, including transporting patients after Hurricane Katrina, speaking at local schools, and serving in leadership capacities at the Louisiana Society for Respiratory Care and the AARC.

You can submit news about AARC members "moving on up" by sending it to Editor Marsha Cathcart ([cathcart@aacrc.org](mailto:cathcart@aacrc.org)).

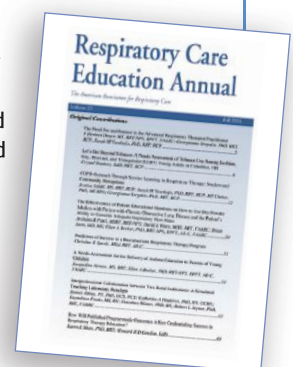
## Respiratory Care Education Annual Call for Papers

The AARC will publish Volume 25 of the *Respiratory Care Education Annual* (ISSN 2372-0735) in the fall of 2016. This refereed journal is committed to providing a forum for research and theory in respiratory care education and is listed in the Cumulative Index to Nursing and Allied Health Literature, and in Ulrich's Periodical Database.

The AARC Education Section invites educators to submit papers for consideration. Preference will be given to papers that emphasize original research, applied research, or evaluation of an educational method. Other topics that may be considered include interpretive reviews of literature, educational case studies, and point-of-view essays. Submissions will be reviewed based on originality, significance and contribution, soundness of scholarship (design, instrumentation, data analysis), generalizability to the education community, and overall quality of the paper.

Papers should be approximately 6–10 pages in length and must follow the guidelines as established by RESPIRATORY CARE. Abstracts should not exceed 250 words. General guidelines for the manuscript as well as guidelines for preparing the manuscript, text formatting, and reference formatting may be found at [http://rc.rcjournal.com/site/include/files/author\\_information.xhtml](http://rc.rcjournal.com/site/include/files/author_information.xhtml).

For more information, contact Dr. Dennis Wissing, editor, at (318) 573-9788 or Dr. Shawna Strickland at (972) 243-2272. Please send all manuscripts to the Editorial Board via the Respiratory Care Education Annual Submission Form (<http://form.jotformpro.com/form/52365807894973>). Deadline is **Feb. 15, 2016**. ■



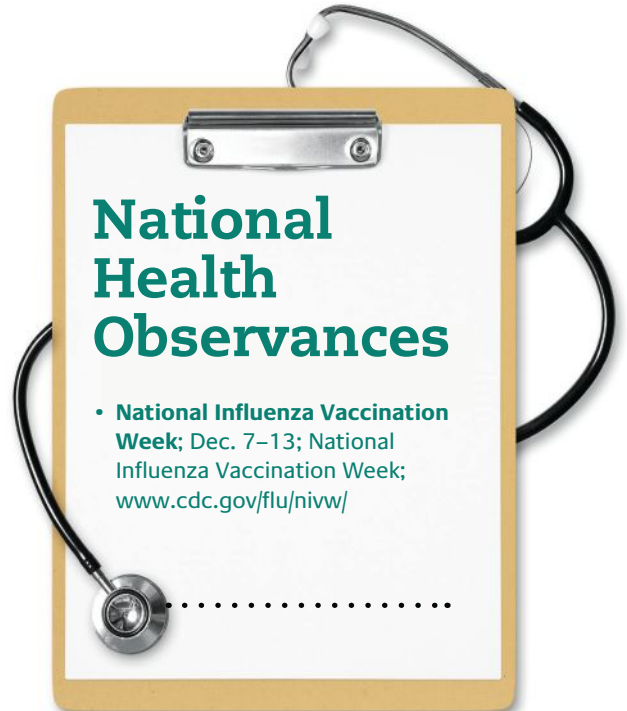
## Transitions

Regina Clark, MEd, RRT, passed away near the end of August at age 48. She was the respiratory therapy program director at Northwest Mississippi Community College in Senatobia, MS. Much beloved by students and faculty alike, a scholarship fund has been established in her name. ■

## Contribute to Our “Transitions” Column

The AARC “Transitions” column is devoted to sharing news about the passing of AARC members.

You can submit news about your colleagues’ recent passing by going to <http://c.AARC.org/transitions>. Please provide any information about the member’s recent obituary so that we can share it with the membership and pay tribute. ■



## Ratings Don’t Reflect Tobacco Imaging

Video games are rated for the level of violence and tobacco content they contain. New research out of the University of California, San Francisco suggests those ratings aren’t capturing the true picture.

The investigators interviewed 65 gamers between the ages of 13 and 50, asking about their favorite games and whether the games contained smoking imagery. Tobacco content included visible smoking equipment, characters mentioning smoking, or characters smoking a cigarette, pipe, cigar, or e-cigarette.

While 8% of the games received tobacco warnings, 42% actually had tobacco content. Among games rated “M” for “mature,” 75% contained verified tobacco content but the Entertainment Software Ratings Board provided warnings on only 4%.

The researchers believe parents should stop relying only on video game ratings when assessing appropriate games for their children. The study appeared in a recent issue of *Tobacco Control*. ■

## Strange But True...



**Hypoallergenic park?** Spanish researchers who studied the pollination characteristics of trees have determined that some are much worse at causing seasonal allergies than others. Their ultimate goal: create urban green spaces planted with trees that are the least likely to trigger an attack.

**Big bang:** You've heard e-cigarettes can cause fires. One did that and more to a 23-year-old who was using the device. The e-cig exploded while it was in his mouth, blowing a dime-sized hole in his palate, damaging some teeth, leaving him with a fractured neck and finger, and causing first-degree burns to his hand, chest, face, and corneas. (Fox 5 News)



**Inhaler first:** Mishka became the first sea otter to learn to use an inhaler last summer when she began having problems breathing due to smoke from wildfires in the area. A veterinarian at the Seattle Aquarium diagnosed her with asthma, and her trainer taught her how to use her nose

to activate the device and then take a breath. Watch a video of Mishka at <http://blog.seattleaquarium.org/conservation/sea-otter-mishka-diagnosed-asthma/>. ■



## Getting Drugs Right Where They Need To Be

In order to achieve therapeutic levels of a given drug at the pathological site of diseases in the lung, clinicians must deliver large amounts of the drug that can end up causing adverse effects to other organs in the body. But what if much smaller amounts of the drug could be delivered directly to the pathological site instead?

Columbia University researchers have developed a new system they believe will one day allow clinicians to do just that. The approach involves micro-liters of liquid that contain a drug. The liquid is instilled in the lung, where it is distributed as a thin film in a predetermined region and absorbed locally. The investigators developed a mathematical model to determine the liquid plug volume necessary to achieve that outcome, along with the parameters of programmed ventilation for delivery into a specific region of the lung.

"Liquid instillation has been used for providing lung surfactant to the entire lungs in premature infants that cannot produce enough surfactant to breathe normally," study author Jinho Kim was quoted as saying. "Although liquid instillation has great therapeutic potential, its applications have been unexplored, largely because of limited understanding of the liquid transport in the lung airways. We are very excited about the implications of our work." The study appeared recently in the *Proceedings of the National Academy of Sciences*. ■

## MY STORY

### RT Student Members: Send Us Your Stories

*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.

If you have a story to tell, please contact *AARC Times* Editor Marsha Cathcart at [cathcart@aacrc.org](mailto:cathcart@aacrc.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! ■



## Early Pulmonary Rehabilitation Shows Promise for COPD Patients

Many studies have shown significant benefits from pulmonary rehabilitation for COPD patients. But these programs usually wait until a patient with an acute exacerbation of the disease has been discharged from the hospital and is feeling up to the task.

Researchers from Taiwan believe pulmonary rehab can begin while the patient is still in the hospital recovering from the flare-up. They tested their theory in 61 elderly inpatients with an acute exacerbation who were randomized to either an experimental group that received respiratory rehabilitation exercise training twice a day for 10–30 minutes over four days or a control group that received usual care. Dyspnea and cough decreased and exercise tolerance and sputum expectoration increased significantly in the experimental group versus the control group. The study was published in a recent edition of the *International Journal of Chronic Obstructive Pulmonary Disease*.

Incidentally, the November 2015 *AARC Times* cover story last month featured respiratory therapists at Sanford Medical Center in Fargo, ND, who have been following a care plan that includes early pulmonary rehab and the RT's important role in pulmonary disease management. ■

## Secondhand Smoke Linked to Behavior Issues in Kids

Early exposure to secondhand smoke may lead to behavioral problems in children, a new study in *PLoS One* suggests. Researchers analyzed data from more than 5,200 primary school students in France and found that those exposed to secondhand smoke while in the womb and/or at a young age were at higher risk for behavioral problems, particularly emotional and conduct disorders.

“Our data indicate that passive smoking, in addition to the well-known effects on health, should also be avoided because of the behavioral disorders it may cause in children,” said study leader Isabella Annesi-Maesano, research director at the French Institute of Health and Medical Research. ■

## Researchers Say Sinus Surgery Improves Sleep

Functional endoscopic sinus surgery can improve sleep in people with and without obstructive sleep apnea (OSA). That's the take-home message from University of Utah researchers who surveyed 405 people who underwent the procedure to treat chronic rhinosinusitis. Sixty of the patients also had OSA.

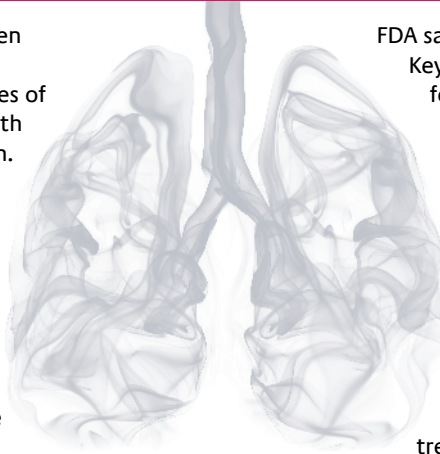
Results showed improved quality of life and disease severity in all of the patients. While sleep improved in all the patients, those without OSA reported greater improvements in sleep quality. The study was published in a recent edition of *JAMA Otolaryngology-Head & Neck Surgery*. ■



## FDA Approves Keytruda for Advanced NSCLC

Keytruda (pembrolizumab) has been approved by the U.S. Food and Drug Administration to treat advanced cases of non-small-cell lung cancer (NSCLC) with tumors that express the PD-L1 protein. Keytruda is approved for use with the PD-L1 IHC 22C3 pharmDx test, a companion diagnostic.

The safety of Keytruda was studied in 550 patients with advanced NSCLC. The most common side effects included fatigue, loss of appetite, dyspnea, and cough. Because the drug affects the immune system, less common side effects could include rash and vasculitis, the



FDA said. Pregnant women should not take Keytruda, which could harm a developing fetus, the agency warned.

Keytruda (marketed by Merck & Co., Inc.) has been approved under the agency's accelerated approval program, which allows approval of drugs to treat serious or life-threatening diseases based on clinical data that demonstrates reasonable likelihood of clinical benefit for patients. Survival benefit or disease-related symptom improvements in patients being treated with Keytruda have not yet been established. ■

## Study Finds Varenicline Has Fallen Short

A new study out of the University of California San Diego School of Medicine suggests the stop-smoking drug varenicline has done little to help people quit smoking over the long term.

Researchers analyzed two U.S. Census Bureau surveys of smokers age 18 and older that were conducted before and after varenicline became commercially available. Based on responses from more than 39,000 smokers, overall use of pharmacotherapy increased from 28.7% of smokers trying to quit in 2003 to 31.1% in 2010–2011. However, this slight increase in the use of cessation aids did not translate into more smokers kicking the habit. In 2003, approximately 4.5% of smokers reported successfully quitting for at least a year, compared with 4.7% in 2010–2011.

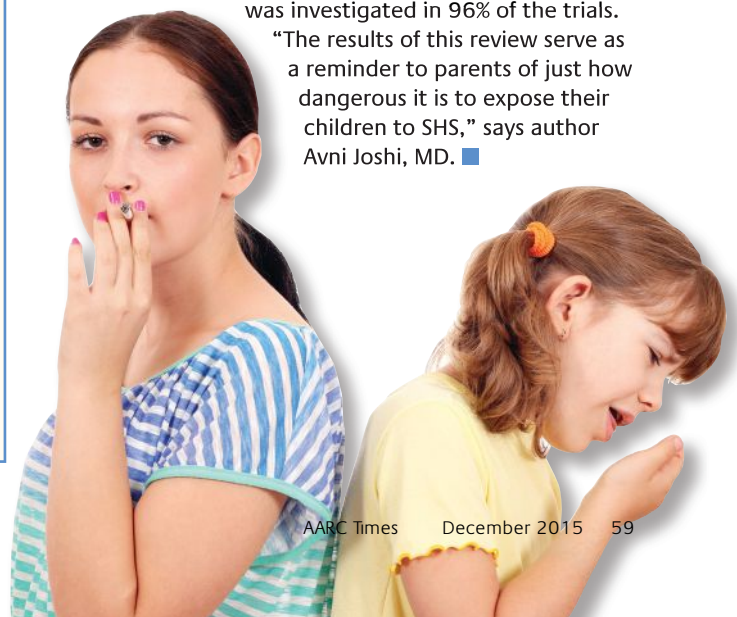
"We had hoped the new pharmacotherapy would help more people quit, but this is not what is happening," lead author Shu-Hong Zhu, PhD, was quoted as saying. "Instead, varenicline is replacing other options like the patch, without having any significant population-level impact on quitting success." The study appeared online August 17 in *Tobacco Control*. ■

## Secondhand Smoke Equals Greater Risk for Kids Hospitalization

According to a new study published recently in the *Annals of Allergy, Asthma and Immunology*, kids exposed to secondhand smoke (SHS) at home are nearly twice as likely to end up in the hospital as kids who are not. Researchers arrived at that conclusion after reviewing 25 previous studies on the topic involving more than 430,000 children with a mean age of 7.6 years.

Home exposure to secondhand smoke was investigated in 96% of the trials.

"The results of this review serve as a reminder to parents of just how dangerous it is to expose their children to SHS," says author Avni Joshi, MD. ■



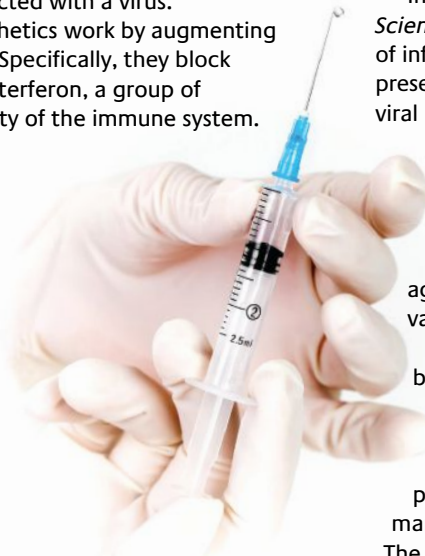
## Could Volatile Anesthetics Hold the Key to Flu Protection?

Previous research has shown children with upper viral respiratory tract infections who were exposed to the anesthetic halothane during minor surgical procedures had significantly less respiratory problems than children who did not receive halothane during surgeries. Thus, researchers from Johns Hopkins and the University of Buffalo decided to test the power of such volatile anesthetics on bacteria burden and lung injury following infection.

In a study conducted in mice that were exposed to influenza and *Streptococcus pneumoniae* bacteria and then given or not given volatile anesthetics, they found mice that were exposed to halothane had 450-fold less viable bacteria compared with non-halothane exposed mice. The treatment effectively made it appear as if the animals had never been infected with a virus.

The researchers believe the anesthetics work by augmenting the anti-bacterial immune response. Specifically, they block chemical signaling involving type I interferon, a group of proteins that help regulate the activity of the immune system.

“A therapy based on these inhaled drugs may help deal with new viral and bacterial strains that are resistant to conventional vaccines and treatments and could be a game changer in terms of our preparedness for future pandemics and seasonal flu outbreaks because it’s focusing on host immunity,” Johns Hopkins study author Krishnan Chakravarthy, MD, PhD, was quoted as saying. The investigators published their findings in a recent edition of *Anesthesiology*. ■



## More Progress Has Been Made on a Universal Flu Vaccine

Studies conducted over the past decade have shown that some people are capable of making powerful antibodies against many subtypes of influenza by targeting a site on the influenza virus that does not mutate rapidly. Unfortunately, these “broadly neutralizing antibodies,” or bnAbs, are rare. Researchers from The Scripps Research Institute and the Janssen Pharmaceutical Companies of Johnson & Johnson believe they may have found a way around that reality.

In a study published in a recent edition of *Science*, they targeted a protein on the surface of influenza called hemagglutinin (HA) that is present in all subtypes of flu and provides the key viral “machinery” that enables the virus to enter cells. The long “stem” region of HA, which connects the virus to cells, is so important to the process that mutations at the site are unlikely to be passed on. If the body could be induced to make an immune response against the HA stem, then a universal flu vaccine could be in the cards.

The researchers proved this was possible by engineering a synthetic version of the HA stem and including it in a vaccine. Studies in rodents and primate models found animals that received the vaccine were able to produce antibodies that could bind with HAs in many influenza subtypes, including H5N1 viruses. The next step is to see if it works in humans. ■



## Generational Divide



A study conducted among older and younger smokers in a low-income area of Chautauqua County, NY, revealed some interesting generational differences in the attitude people take toward smoking.

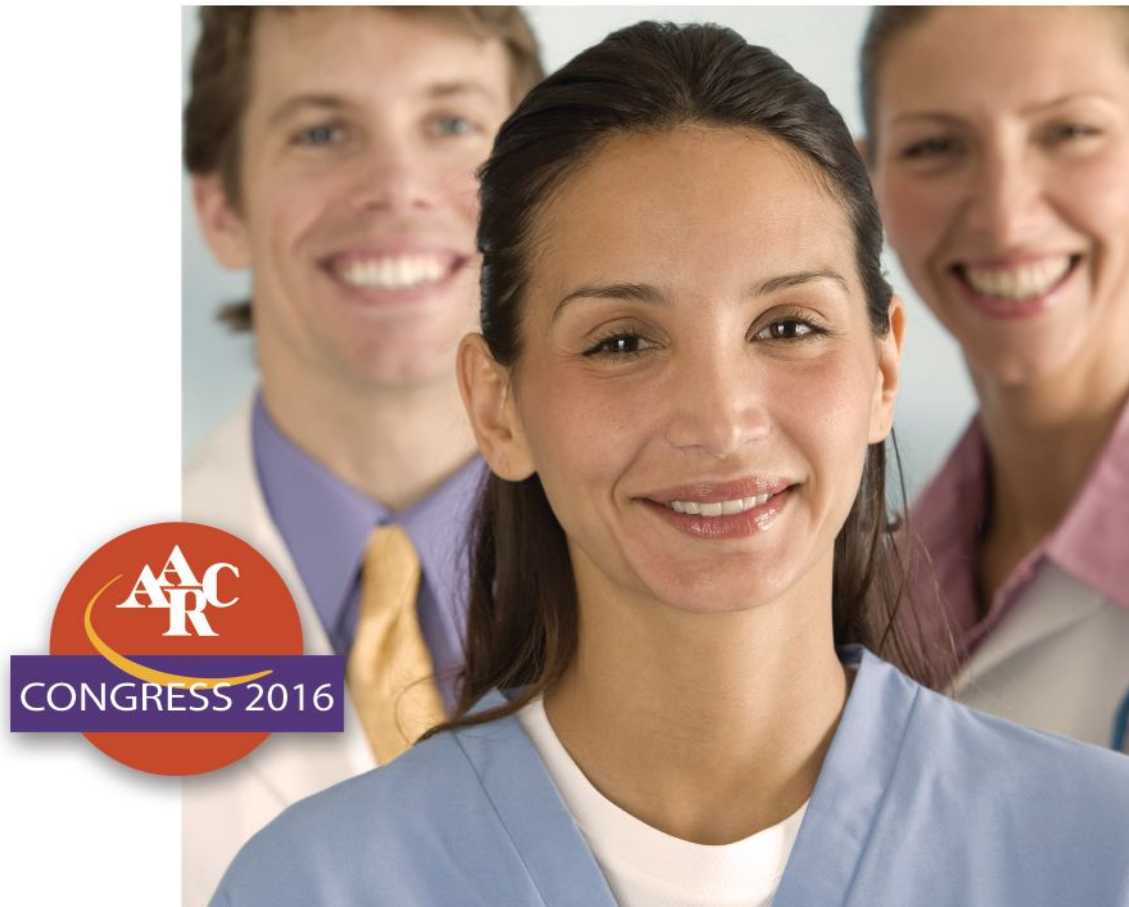
Investigators from the Roswell Park Cancer Institute conducted six focus groups with 54 individuals stratified by two age groups: 18–39 and 40 and older. Among the participants, 50% had less than a high school education, 39% were Medicaid recipients, and more than 60% reported annual household incomes of less than \$15,000.

Overall, 83% reported being a current smoker, and smoking status did not differ by age group. But attitudes about smoking did. In addition to worrying less about the difficulty of quitting or recognizing the need to quit, younger smokers reported no desire to be approached about their tobacco use within a discussion of an addictive health problem that requires assistance. Conversely, participants age 40 and older more readily acknowledged the health risks of smoking and had a greater interest in quitting assistance. The study was published in a recent edition of the *Journal of Community Health*. ■

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# **SUBMIT YOUR PROPOSALS**

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# Industry Watch

## **Breathe Technologies gets HCPCS codes for vent system**

Breathe Technologies Inc. reports that CMS has assigned two HCPCS codes for the company's Life2000 Ventilation System. The system received 510(k) clearance from the FDA in June and is indicated for adult patients who require positive pressure ventilation delivered invasively or noninvasively. The device can treat both acute and chronic respiratory failure and is suitable for use in home and institutional settings.

## **FDA accepts review of Teva supplemental New Drug Application**

The FDA has accepted review of the supplemental new drug application filed by Teva Pharmaceuticals for its new drug formulation Pro Air RespiClick. The albuterol sulphate-based inhalation powder is designed to treat or prevent bronchospasm in children between the ages of four and 11 with reversible obstructive airways disease and/or exercise-induced bron-

chospasm. The drug was previously approved for the treatment of these conditions in people age 12 and older.

## **Drive Medical acquires DeVilbiss Healthcare**

Drive Medical has acquired DeVilbiss Healthcare. According to the company, the acquisition provides Drive with one of the most valued brands in the respiratory and sleep categories in the health care industry. In the short term, the two companies will operate independently as they work to seamlessly integrate their operations in the Americas. Upon completion of the integration, the new company will be known as Drive DeVilbiss Healthcare Inc. in the United States, but they plan to continue to operate as independent entities in the rest of the world.

## **Nanosphere receives FDA clearance**

Nanosphere Inc. has received FDA 510(k) clearance for its Verigene<sup>®</sup> Respiratory Pathogens Flex Nucleic Acid Test (RP Flex) on the auto-

mated sample-to-result Verigene System. According to Nanosphere, RP Flex is the first of its kind and features novel Flex<sup>™</sup> software, which allows the 16 viral and bacterial targets identified by RP Flex to be reported as a full multiplex panel or in various user-defined subsets. Labs pay only for the targets ordered for each patient sample.

## **GSK, Theravance announce study results**

GlaxoSmithKline plc and Theravance Inc. have announced initial results from a study to assess the effects of Relvar<sup>®</sup>/Breo<sup>®</sup> Ellipta<sup>®</sup> 100/25 mcg on mortality in patients with COPD and cardiovascular disease. The study involved 16,485 patients from 43 countries who had COPD with moderate airflow limitation and either a history of, or increased risk for, CVD. While the study did not reach statistical significance for the primary endpoint, which was a reduction in death from any cause in patients with COPD and CVD, the investigators believe it has

provided a wealth of data to help clinicians understand the interplay between the two conditions and how to improve in management of people who have them.

## **IU researcher receives grant to study exercise training in PAH**

A physical therapy researcher with the IU School of Health and Rehabilitation Services at Indiana University-Purdue University Indianapolis has been awarded a \$465,000 grant from the National Institutes of Health to optimize aerobic exercise training for patients with pulmonary arterial hypertension. Building on her previous work in this area, Mary Beth Brown will conduct high-intensity interval training using a rat model with a more severe form of PAH to see if there is as much or more benefit as that seen with a mild form of the disease. She will employ implantable telemetry to measure pulmonary pressures during exercise over the course of disease development and treatment.

### Europe-wide project to develop inhaled antibiotics

Researchers at Queen's University Belfast are leading a large project to develop new drug treatments that could improve the lives of patients with cystic fibrosis and bronchiectasis. The iABC (inhaled Antibiotics in Bronchiectasis and Cystic Fibrosis) consortium is made up of lung specialists from across Europe and will develop new inhaled antibiotics to manage chronic lung infection in these patients. The new antibiotics, which are to be trialed over a five-year period, are expected to improve patients' quality of life by reducing lung infections and flare ups, improving lung function, and overcoming the antibacterial resistance that frequently occurs in patients with these conditions.

### Helix BioPharma reports results for NSCLC drug

Helix BioPharma Corp. presented an update on the ongoing clinical study for their drug candidate L-DOS47 during the 16th World Conference on Lung Cancer held in Denver, CO, last September. The presentation included data from the Phase I/II open-label dose escalation study of L-DOS47 as a monotherapy in non-squamous non-small cell lung cancer patients that is being conducted in five med-

ical centers in Poland. They report the drug was well tolerated at dose levels up to 4.33 µg/kg. Twenty-one out of 40 patients had an overall response of stable disease based on radiological assessment after completing two cycles of L-DOS47, and 11 continued with a response of stable disease after four cycles. One patient was dosed for 10 cycles over seven months without disease progression.

### Yale researchers to bring experts together to study NSCLC

Armed with an \$11 million grant from the National Cancer Institute, Yale Cancer Center and Smilow Cancer Hospital at Yale-New Haven will launch a new research program in NSCLC. Known as a Specialized Program of Research Excellence, or SPOR, the program will harness the strengths of academic cancer centers by bringing together experts in oncology, immunobiology, pharmacology, molecular biology, pathology, epidemiology, and addiction science to collaborate on projects. "The only way to approach a problem as big as lung cancer is to have experts in basic, translational, and clinical research working on several fronts, taking the research from the lab to the clinic and back again to develop even

newer insights," principal investigator Roy S. Herbst, MD, was quoted as saying.

### OxySure gets drone exemption from the FAA

According to OxySure Systems Inc., the Federal Aviation Administration granted its petition for an exemption to the rules governing commercial drone usage. The purpose of the petition was to allow the company to use drones for aerial operations in support of emergency response and services, disaster response and recovery, search and rescue, and humanitarian relief efforts. The granted exemption permits the operation of small, unmanned drones under controlled conditions in airspace that is limited, predetermined, and would provide safety enhancements to first responders on the front lines, OxySure reports.

### Kitabis Pak among 10 notable drug-device approvals

Kitabis Pak, the first co-packaging of generic tobramycin inhalation solution with a PARI LC PLUS nebulizer for cystic fibrosis, was among 10 notable drug-device approvals of 2014 published in a recent issue of *Drug Development & Delivery*. The article, which named the PARI LC nebulizer as an integral part of the co-packaging, summa-

rized Kitabis Pak as the first defined drug-device combination approved for CF that provides clarity for clinicians and patients with respect to optimal efficacy and safety.

### NVS Influenza Vaccines announces FDA panel recommendation

According to NVS Influenza Vaccines, now owned and operated by CSL Ltd., the FDA's Vaccines and Related Biological Products Advisory Committee has voted to recommend licensure of a candidate vaccine to help protect against seasonal influenza in those aged 65 years and older via accelerated approval. If approved, the candidate vaccine would become the first adjuvanted seasonal influenza vaccine licensed for use in adults aged 65 and older in the United States.

**Brief submissions and photos for this column may be sent to AARC Times Editor Marsha Cathcart at [cathcart@aacrc.org](mailto:cathcart@aacrc.org).** ■



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