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AARC Strategic Plan

AARC Vision/Mission Statement: The American Association for Respiratory Care (AARC) will continue to be the leading national and international professional association for respiratory care. The AARC will encourage and promote professional excellence, advance the science and practice of respiratory care, and serve as an advocate for patients, their families, the public, the profession, and the respiratory therapist.

AARC Strategic Objectives

- Validate the science of respiratory care and the value of the respiratory therapist (RT) in providing respiratory care by supporting, conducting, and publishing research information.
- Promote respiratory therapists as the best providers of respiratory care by assuring that the science that clarifies the value and role of the RT is provided to those stakeholders whose decisions and actions need to be guided by that information.
- Promote respiratory therapists and the American Association for Respiratory Care by developing and implementing promotion and marketing campaigns targeted to unique audiences.
- Assure the Association has the resources to meet the needs of its members and that the AARC has the needed financial, volunteer, and staff resources needed to accomplish the implementation of the strategic plan of the Association.

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

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Treating Allergies and Asthma in Extreme Environmental Conditions

by Thomas J. Kallstrom, MBA, RRT, FAARC

Exposure to extreme environments can certainly impact the ability of a patient with preexisting pulmonary disease to maintain a symptom-free life. These exposures exist around the world, and most patients with asthma or allergies are likely to come upon many of them regardless of where they live or travel. In fact, almost 160 million Americans live in areas that exceed federal health-based air pollution standards. According to Lambach, the two air pollutants that most commonly exceed these standards are ozone and particulates. There is a strong correlation between the two, with an associated increased cardiovascular morbidity and mortality.¹ Examples of extremes include air pollution, dust, and extremely low/high temperatures. Unless we choose to live in a glass bubble, we will be exposed to these extremes. The trick is being better informed on how to prevent these exposures.

Arid environments

For patients exposed to an arid desert environment, there is the risk of exposure to dust that contains levels of quartz and other substances and microorganisms that could exacerbate sensitive airways. Quartz dust has a tendency to irritate the lungs because it does not exit the lungs easily and can become embedded in the distal airways and alveoli.² A recent study by Kanatani et al notes that children living in areas impacted by desert-dust storms have a higher incidence of asthma.³ They noted that the heavier the levels of dust, the higher the likelihood that the child would be hospitalized. This was especially true with the combination of desert dust and higher levels of pollen and air pollutants.

Dust does not have to come from the desert to impact patients with respiratory disease. The attack on the World Trade Center in 2001 produced a massive cloud caused by the collapse of the buildings and burning rubble. Certainly those in the area who were exposed to the dust cloud, today have ongoing respiratory sequelae. Of particular note are also patients near the World Trade Center who had preexisting asthma. One such area is Chinatown, which is in walking distance from the site. After the attacks, childhood asthma rates increased and those with preexisting asthma had a worsening of their disease. This, in combination with higher levels of air pollution in the area, accentuated the effect of subsequent exposure to air pollution.⁴ Looking closer at air pollution in the New York City vicinity, the level of air pollution in the Bronx results in a 66% increase in patients hospitalized for asthma, of which 30% are likely to be poor and another 13% are likely a minority.⁵

You would not think that living in the desert would expose you to molds or dust mites, but it is actually the devices that work to relieve this extreme environment that introduce additional triggers. The use of evaporative coolers significantly increases indoor humidity levels and, thus, the potential for exposure to dust mites and mold. Patients with preexisting asthma who use swamp coolers should be counseled about the risk as well as ways to remove or prevent this introduction into

their dwelling.⁶

Cold environments

Cold air is yet another extreme that can cause patients with asthma to exhibit symptoms. Breathing in

about the author...



Thomas J. Kallstrom, MBA, RRT, FAARC, is associate executive director and chief operating officer of the AARC. He is also a member of the NAEPP Coordinating Committee.

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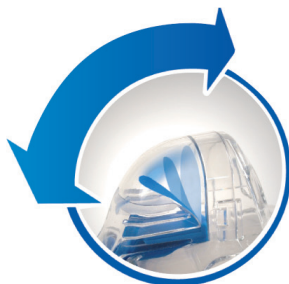
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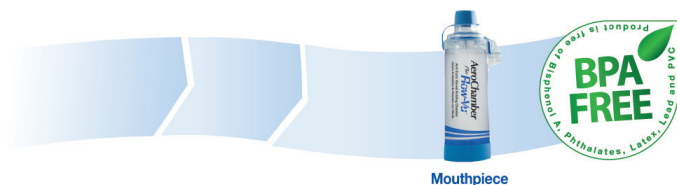
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cold air irritates the lungs of patients with asthma, which causes airway obstruction. This can be even more difficult for the patient who is exerting him or herself and, therefore, has an exercise-induced bronchospasm. Sometimes this reaction will present as coughing. This is a particular concern for patients with asthma who participate in outdoor sports activities in the winter months.

Managing the extremes

So what can we teach our patients about managing these extreme environmental exposures? The answer is essentially avoidance at all costs. The evening weather-cast does not forecast quartz levels in daily dust, but it does put out advisories that specify levels of particulate matter. Usually this is translated as air quality that is good, moderate, or unhealthy. Our patients should pay attention to these warnings, and when the levels are high they should be told to limit outdoor activity or simply stay indoors with the windows closed. If this happens during the summer months, running the air conditioner will help reduce dust exposure as well as reduce the



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humidity levels in the home. This advice also pertains to windy days when the pollen count is high. The patient should be directed to stay indoors and also not to hang clothing on the clothesline as the pollen will attach to the clothing.

When exposed to cold air, the prevailing recommendation is to cover your mouth with a scarf or a mask and breathe through your nose, which will act to humidify the air that is inhaled. If exercising, you should be doing a pre-exercise warm up as well as an albuterol treatment (as advised by their physician).

Exposure to the elements is going to happen; but if we better arm our patients with avoidance advice, perhaps they will be less likely to impact their respiratory status. ■

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Do We Have the Equipment To Safely Support the Pediatric Patient with Sleep Disorders?

by Cheryl A. Hoerr, MBA, RRT, CPFT, FAARC

During the past several decades, the respiratory community has become increasingly aware of the prevalence of sleep-disordered breathing (SDB) in the adult population due, in part, to the development of specialized diagnostic equipment. While the attention of the health community was initially focused on adult SDB, pediatric patients continued to be treated with the same equipment and protocols used in adult diagnostics. However, the sleep community soon realized that improvements were needed.

The National Sleep Foundation now estimates that approximately 69% of the pediatric population experiences some type of sleep problem.¹ Furthermore, the increased prevalence of childhood obesity is contributing to the growing number of children with obstructive sleep apnea (OSA), requiring sleep studies to diagnose and treat their problems.² Children with sleep disorders present differently from adults with the same disorder,³ and accurate diagnosis is dependent upon several factors:

- Equipment used for testing
- Proper equipment montage
- Technician's ability to acclimate the child and obtain quality study results
- Physician's knowledge of normal pediatric growth and developmental stages to provide accurate interpretation of the data and recommendation for optimal therapeutic interventions.

Diagnostic sleep equipment for children

There is no diagnostic sleep equipment system exclusively designed for testing children, and home sleep testing has not been validated for use with children.⁴ The

adult systems, however, can be adapted to work with a modified montage, and most of the dozen or so systems available can be effectively used to diagnose SDB in the pediatric population. In 1996 the American Thoracic Society published guidelines to ensure the collection of quality sleep data in children.⁵ These recommendations include the use of bio-calibrations to ensure the equipment is functioning properly and the data collected is reasonably reliable. There are also guidelines to help with age-appropriate sizing of equipment and placement of leads, electrodes, and other sensors for pediatric testing.

Diagnosis of pediatric sleep problems depends on a child's age and symptoms.⁶ However, if polysomnography is performed, the montage should include an electroencephalogram (EEG) to monitor brain activity, an electroculogram (EOG) to monitor eye movement, an electrocardiogram (ECG) to gather information on heart rate and rhythm, an electromyogram (EMG) to monitor chin and leg movement, a snore microphone, oral thermistors and/or nasal pressure transducers to measure respiratory airflow, chest and abdominal belts to measure respiratory movement, pulse oximetry with waveform graphics to reliably differentiate between legitimate desaturations and motion artifact, and end-tidal carbon dioxide (ETCO₂) monitoring.^{7,8} The accumulated data from this array of sensors will assist in scoring the various sleep stages and facilitate acceptable study interpretation.

The biggest difference in the montage for children is the use of ETCO₂ monitoring. Unlike adults, children may experience partial, persistent airway obstruction or obstructive hypopneas without significant oxygen desatu-

about the author...



Cheryl A. Hoerr, MBA, RRT, CPFT, FAARC, is director of respiratory and sleep services at Phelps County Regional Medical Center in Rolla, MO. She is also chair of the AARC's Management Section and president-elect of the Missouri Society for Respiratory Care.

rations;⁹⁻¹¹ and children with Down's syndrome and morbid obesity are especially prone to developing hypercarbia and hypoventilation.⁷ ET_{CO}₂ monitoring via sidestream capnometry is an essential adjunct in the diagnosis of obstructive hypoventilation and guards against these episodes of obstructive hypoventilation being missed when pulse oximetry is the only monitor of ventilation. There are some drawbacks to this technology when used in the pediatric population, most notably trying to keep the nasal catheter in place. Additionally, if the child is experiencing nasal congestion, the readings may be compromised. As another alternative, the use of transcutaneous CO₂ monitoring devices have been used with mixed results and "normative data in sleeping children is not available."⁷

PAP options

More than 85% of children diagnosed with OSA can be treated successfully with removal of enlarged tonsils and/or adenoids,^{12,13} but if mild symptoms persist or the child is not a candidate for surgery, there are a limited number of alternatives that have demonstrated favorable therapeutic response including administration of intranasal corticosteroids and use of oral appliances.¹³ Children with significant OSA will most likely need treatment with positive airway pressure (PAP) therapy. The use of PAP is off-label in children under the age of seven or less than 40 pounds, and the challenges to effective treatment include the lack of compliance with ordered therapy¹⁴ and the limited availability of PAP equipment for children. Many sleep labs resort to using masks, nasal pillows, and headgear designed for "petite" and "small" adults. And while this equipment works for larger children, even the smallest adult sizes may still be too large for younger children and allow an unacceptably large leak. In an effort to expand treatment options, some labs are experimenting with newer equipment like high-flow nasal cannulas,

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which can deliver a "PAP effect" to treat OSA in infants and small children.¹⁵ In an article in *Sleep Review Magazine*, Regina Patrick states that once a child is started on PAP therapy, experts recommend retesting "every 6–12 months to accommodate the changes in fat distribution, facial structure, and head size" that occur as a child grows. Retesting will also ensure that PAP levels are adequately adjusted and interface devices are working well.¹⁶

Pediatric polysomnography continues to be an evolving field, and the sleep community must continue to collaborate with manufacturers to develop diagnostic and therapeutic equipment that is better tailored to the pediatric population and their unique needs. ■

EDITOR'S NOTE

Cheryl Hoerr is scheduled to present three symposia, "Understanding Change Management," "Promoting Collaboration and Teamwork," and "Coaching Others" during the AARC International Respiratory

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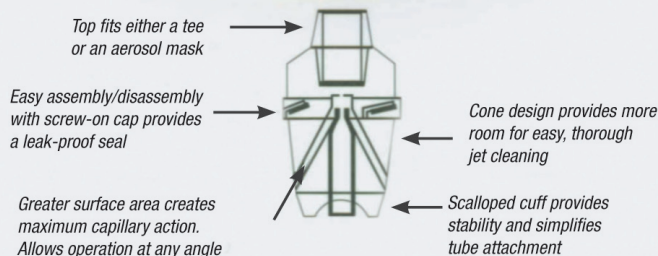
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Coming of Age

Preventive Health Screening for Older Adults

by Lee Guion, MA, RRT

The goal of preventive medicine in older adults is not only reduction in premature morbidity and mortality but preservation of function and quality of life.¹ However, older adults may not receive routine screening for conditions that may put them at risk of untimely illness and death. In a survey of 3,660 primary care physicians in the United States, Pham and colleagues found preventive services for Medicare beneficiaries aged 65 and older to be suboptimal and below national goals.² Respiratory therapists may be alarmed to discover that two of the three preventive services for older adults ranked highest by the U.S. Preventive Services Task Force (USPSTF):

- providing tobacco-dependence counseling to adults, and
- vaccinating older adults against pneumococcal disease,

were also those with the lowest delivery rates (less than 50% nationally).³

The USPSTF was formed to reduce confusion among clinicians regarding effectiveness of preventive medicine interventions.⁴ This independent panel of experts in primary and preventive medicine systematically reviews the evidence of effectiveness and recommendations for clinical prevention services. The value of preventive services is based on the burden of the disease prevented and the cost effectiveness of screening.

Prevention practices

The task force places prevention practices for the elderly into two categories: primary and secondary.

The goal of primary prevention is to prevent disease before it occurs (e.g., immunization for pneumococcal pneumonia and annual influenza strains). Secondary prevention detects disease before it is symptomatic (e.g., mammogram to detect breast cancer, colonoscopy to detect colorectal cancer). In general, preventing diseases of old age should start when one is young. The older the person, the less likely the benefit of community-based primary and secondary intervention and the greater the stress on tertiary (hospital-based) intervention.¹

Health screening tests that are most important for people 65 and older are also guided by the major causes of death in this population, which include heart disease, stroke, and COPD (see Table 1). The USPSTF publishes the "Guide to Clinical Preventive Services." Other organizations, societies, or foundations may have different recommendations, which may or may not be based on evidence-based research. Care must be individualized, based on family medical history, life-style choices, patient preference, and the clinician's professional experience and patient assessment (see Table 2).

Age 85 is the proposed cut-off range beyond which conventional screening tests are unlikely to be beneficial. Older adults themselves may lose interest in screening for life-limiting diseases and participating in health promotion activities. In her study of 195 older adults in a life-care community, Barbara

Resnick found a decrease in cancer screening and compliance with low cholesterol diets, and among the old-old (those 85+) there was a decrease in aerobic

about the author...



Lee Guion, MA, RRT, is a neurorespiratory specialist at Forbes Norris MDA/ALS Research and Treatment Center in San Francisco, CA. She also chairs the AARC's Neurorespiratory Roundtable.



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Table 1. Leading Causes of Death in People 65+

- Heart disease
- Malignant neoplasm
- Cerebral vascular disease
- Chronic obstructive pulmonary disease (COPD)
- Pneumonia and influenza

SOURCE
National Center for Health Statistics, U.S. Department of Health and Human Services, 2006

exercise. She concludes that this group of older adults was not interested in prolonging life and recommends an individual approach to health promotion that focuses on quality and not quantity of life.⁵

The U.S. government has launched a new health care website at www.healthfinder.gov that includes recommendations from the U.S. Preventive Services Task Force. One need only type in age and gender to get the recommendation for prevention screening tests.

RTs involvement in patient screening

The U.S. Preventive Services Task Force counsels clinicians to be selective in ordering tests and providing preventive services; suggesting community-level interventions may be more effective than clinical preventive services. RTs can advocate for elderly patients and partner with physicians to ensure patients are vaccinated for pneumococcal pneumonia and annual influenza strains. In addition, we can

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Table 2. Recommended Assessments and Screening Tests for People Aged 65+

Test/Examination	Frequency
Blood pressure	Every clinic visit or at least annually
Pulse	Every clinic visit or at least annually
Weight	Every clinic visit or at least annually
Cholesterol	Every 5 years (annually if at high risk)
Glucose tolerance test	Every 3 years or clinician's judgment
Urinalysis	Annually as appropriate
Thyroid test	Every 5 years
Dental cleaning and exam	Every 6 months
Clinical breast exam	Annually
Self breast exam	Monthly
Mammogram*	Annually up to age 70
Cervical exam**	Annually up to age 70
Fecal occult blood test	Annually
Digital rectal exam	Annually
Sigmoidoscopy or Colonoscopy	Every 5 years (with normal results) up to age 75 Every 10 years (with normal results) up to age 75
Vision exam	Annually (routine)
Hearing exam	Annually (routine)
Bone density (women)	At least once after menopause (men if high risk)
Prostate specific antigen***	Per clinician and with family history of prostate cancer
Clinical skin exam	Annually
Vitamin D	Every 1–3 years
Dementia	Screen if cognitive impairment is suspected, based on direct observation or concerns raised by family or caregivers
Falls	No evidence to include screening for falls in periodic health exams
Medication interactions	Review all medications and doses at each visit
Substance abuse (alcohol, tobacco, recreational drugs)	Verbal screening annually or with suspicion****

SOURCE

Adapted from "Guide to Clinical Preventive Services" Report of the U.S. Preventive Services Task Force, 2003–2008.

*American Geriatrics Society recommends mammograms be offered to women with at least 5 years of life expectancy up to age 85, and above 85 for those in "excellent health."

**The American Cancer Society guidelines recommend women can stop screening after age 70 if they have had 3 or more negative cytology tests within the last 10 years.

***USPSTF finds evidence is insufficient to recommend for or against screening with PSA.

****The Center for Substance Abuse Treatment (CSAT) of the Mental Health Services Administration (U.S. Department of Health and Human Services) provides a screening tool for health care providers to identify signs of possible problems in older adults: <http://kap.samhsa.gov/products/index.htm>

ensure our patients have been screened for tobacco use and given opportunities to participate in tobacco-dependence treatment programs. ■

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- Resnick B. Health promotion practices of the old-old. *J Am Acad Nurse Pract* 1998; 10(4):147-153.

RESOURCES

- Personal recommendations for prevention screening tests, based on age and gender — U.S. Preventive Services Task Force: www.healthfinder.gov
- Recommendations for preventive screening tests — Agency for Healthcare Research and Quality: www.ahrq.gov/clinic/prevenix.htm
- Seasonal updates on influenza — Centers for Disease Control and Prevention: www.cdc.gov/flu
- Segal-Gidan F. Elder care: Immunization schedules and screening after age 65 years. *JAAPA* 2010; 23(1):24-28.
- Smoking cessation guidelines — Office of the U.S. Surgeon General: www.surgeongeneral.gov/tobacco



Observations

Get Ready To Get Greener

by Sam P. Giordano, MBA, RRT, FAARC

Personal computers, BlackBerries, iPads, iPhones, Kindles, iPods... and on it goes. These are just a few in the long line of information-gathering devices now available to all of us around the world. Though these devices have yet to realize their potential within the context of medicine, a new day is coming that will underline the importance of such devices.

Given the Gulf oil spill and the needed discussions regarding energy conservation and minimizing our dependence on fossil fuels, it's only natural that the medical system be included in the cyberspace revolution. We now have more communication and information-delivery devices at our fingertips than ever before, and we'll need them all.

As our nation's health care system moves toward implementation of the recent health reform legislation called the Patient Protection and Affordable Care Act, we will see renewed emphasis from both payers and patients on the need for health care providers to provide care consistent with accepted medical guidelines for the treatment of any condition. While guidelines change from time to time, the volume of guidelines that care providers must be aware of continues to grow. This growth puts more pressure on you to find more efficient and effective ways to stay up to date on the latest scientific developments so that you are better positioned to support first your patients and then your attending physician as you help resolve chronic respiratory exacerbations and address acute pulmonary conditions.

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The AARC is doing its part to help you help your patients. The AARC is also doing its part to lessen its carbon

footprint by making information available through cyberspace as an alternative to print publishing. Over the next several months AARC will invest in new technical platforms that will make it easier for you to read this publication (*AARC Times*) and our science journal *RESPIRATORY CARE* without having to have a print subscription if you choose to do so.

While many publications are going this route, we should not overlook the additional value of publishing electronically with access through Internet or personal communication devices such as iPhones, MP3 players, and other digital devices. Not only will publishing electronically enable more user-friendly facets to acquire information, but it will also allow you to customize the way you want to receive and catalog bits of information.

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Putting the RT in the driver's seat

Putting the RT in the driver's seat

Time is vicious when wasted. But given everything that's coming down the road in health care, it's reassuring

about the author...



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

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A Level of Comfort

by Anthony L. DeWitt, JD, RRT, FAARC

Nearly all states have something very much like the regulations in Missouri, which state the following:

20 CSR 2255-5.010 Code of Ethics

(1) All respiratory care practitioners and permit holders shall—

(C) Perform only those procedures or functions in which s/he is individually competent and which are within the scope of accepted and responsible practice...

In addition, most states explain in either regulations or statutes what the scope of practice is. In Missouri, for example, the scope of practice is defined by a number of statutory paragraphs that set out broad categories or classes of procedures to be performed by therapists.

In most cases the issue of whether a particular procedure or technique falls within the scope of practice is easy to make. If the therapist has done the procedure before, documented his/her competency with the procedure, and is familiar with the medications being used, there is little doubt that the procedure falls within the scope of practice. In short, there's no barrier to doing the procedure.

In respiratory care, however, new frontiers are crossed every day as new procedures and new modalities are developed and implemented. What happens, then, when a physician, supervisor, or manager directs a therapist to perform a procedure that is arguably outside the scope of practice?

What should you do?

Scenario: Dr. Miller wants to perform a bronchoscopy in the patient treatment room in the respiratory care department. He

demonstrates several times how to insert the I.V. needle and states that on the next patient you're going to do it under his direct supervision. What should the therapist do?

As you might imagine, the answer is not an easy one. In nearly every state an unlicensed person may perform such procedures under the direct supervision of a physician so long as those procedures are not restricted by statute, rule, or regulation to being performed by another professional. The first question our RT must ask is: "Am I barred from doing this by the Nurse Practice Act, The Respiratory Care Practice Act, or some other statute?"

In Missouri the question is easy to answer because the Respiratory Care Practice Act is well-drafted. Among its many definitions of respiratory care it states that "The practice of respiratory care may also include, with special training, the following: (1) insertion and maintenance of peripheral arterial or venous lines and hemodynamic monitoring." Under Missouri law, the therapist could easily perform the procedure without worrying about a complaint from a licensing agency.

But of course, that is not the end of the inquiry. The other inquiry is competence. Seeing the procedure done on patients and then being told to do it on the next patient may not satisfy the requirement that a therapist receive "special training" under the statute, and it may itself be negligent if the therapist has no other training or skill in the procedure. Inserting an I.V. is only one part of the issue. I.V. fluids must be set to run at proper levels, and a therapist would need to be aware of

the complications involved in I.V. therapy. So, if while inserting the I.V. the patient is injured, or if the patient received too much fluid by I.V. and developed

about the author...



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



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hyponatremia, the therapist, the hospital, and the physician may all be liable in civil court.

What are your options?

If a therapist is asked to perform a procedure they do not feel comfortable with, there are several options. The first option is to obtain additional training and master the new skill to obtain the level of comfort. This is the route most managers would prefer from their staff. The other option is to declare that you are not competent to perform the procedure and (respectfully) refuse to perform it. A supervisor must be notified, and the therapist may need to be reassigned to different duties. The hospital may also take action to either enhance the therapist's training or terminate employment in some situations, but the therapist must always act to protect the patient. Doing a procedure that you are not competent to perform in order to save your job will not be a credible defense at either your malpractice trial or your Board hearing.

Most facilities, when implementing new programs or services, will embark on a course of training to ensure that all therapists come up to the level of competence necessary for performing those skills. At a minimum, training records should reflect both the content and material covered in any lectures or demonstrations, but also any pre- and post-test records that document competence. This is especially true if, like arterial blood gases or intubation, there are laboratory skill evaluations used to document competence. Retaining such training material and making sure that training records are updated every six months is a practical and inexpensive way to reduce malpractice risk.

A more vexing issue is the use of nebulized medications off-label. In some instances, for example, Tylenol overdose, the off-label administration of respiratory medications like Mucomyst is clearly supported in the scientific literature. Where a therapist is uncertain whether a drug may safely be given by nebulizer, they should not undertake that task until they have obtained assurance from a pharmacist that such delivery is safe.

Professionals are considered professionals because they are deemed to know what they can and cannot safely do. Medical professionals call in other specialists all the time when the complexity of a case exceeds their area of expertise. Respiratory therapists should do the same when faced with new or novel practice issues. ■

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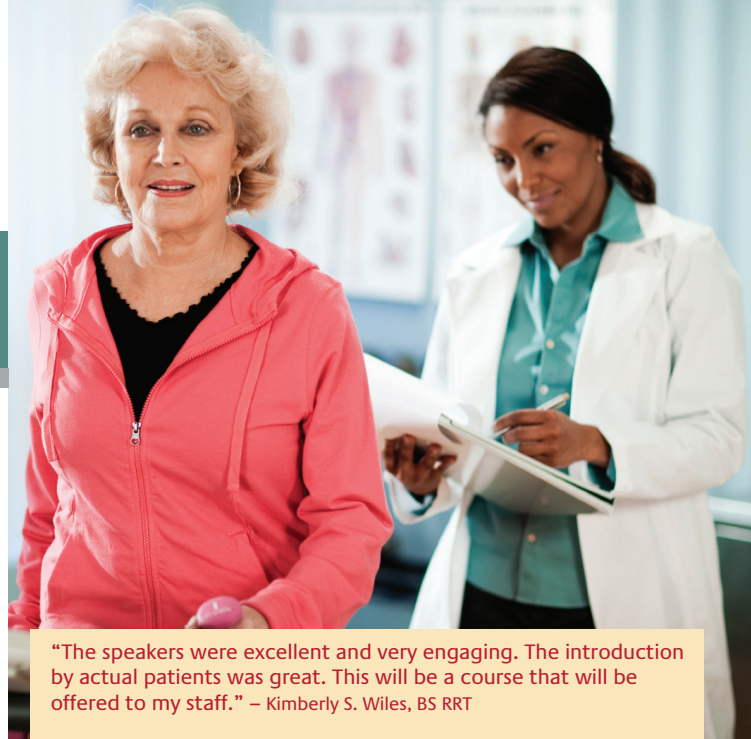
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AARC Participation in Coalitions and Ad Hoc Groups

by Cheryl West, MHA

As most of you are probably aware, from the federal government standpoint the AARC has several high-priority legislative and regulatory issues on its plate. Certainly our efforts to have Congress pass the Medicare Part B Respiratory Therapy Initiative (H.R. 1077/S. 343) and to fight for the creation of a permanent COPD program at the Centers for Disease Control and Prevention take top billing on the legislative side. Assuring that the new pulmonary rehabilitation Medicare benefit is implemented smoothly with no further onerous cuts to the Medicare home oxygen equipment and services benefit, keeps us focused on the regulatory side (and legislative side for that matter).

However, AARC does not limit itself to just those issues. We have many other specific issues important to the profession and our pulmonary patients that are both regulatory and legislative. The focus of this column, however, is the AARC's involvement in other Washington, DC, coalitions or ad hoc groups.

What is a coalition?

Most organizations and/or associations with a presence in Washington, DC, align themselves at one time or another with coalitions or loose ad hoc groups that have a particular issue to advocate for. Before the AARC aligns itself with any coalition, we scrutinize first the lead organization (and there is always one of those) and then the issue that is being pushed. We are very careful that before we add the AARC to any coalition letter or petition that we have vetted the issue and the organization thoroughly to assure that we are appropriately adding the name of the AARC onto the issue.

Sometimes these coalitions have a very broad agenda, such as Tobacco Partners, whose joint lead organizations are American Cancer Society, American Lung Association, and American Heart Association. Their efforts span a number of issues, from having Congress pass a law to increase the U.S. Food and Drug Administration's authority over tobacco products to inserting Medicaid smoking-cessation provisions into the health care reform law, or to a more narrow focus such as the group whose sole purpose was to ensure that Congress passed the Genetic Information Nondiscrimination Act (GINA) and once that happened is now focused on making sure regulations implementing that law will be forthcoming. We

participate in both of those coalitions, as well as the National Sleep Awareness Roundtable, which advocates for greater funding for sleep research and efforts to educate the public about sleep disorders. We also are involved in a coalition comprised of schools of allied health, which pushes for Congress to increase funding for colleges offering allied health professional education. Of course, AARC is very much involved, nearly to being considered one of the "lead" organizations in the U.S. COPD Coalition, which advocates both Capitol Hill and key federal agencies to promote greater recognition for COPD and COPD patients.

Why do we join?

The advantages of participating in these coalitions are many. For one thing, an association/organization participating as part of a coalition has its profile raised. Most letters or formal documents sent under a coalition banner include the participating association's name and often their logo. That means your Association's name is "put

about the author...



Cheryl West, MHA, serves as director of government affairs for the AARC. She can be reached at (972) 243-2272 or west@aarc.org.

“A rising tide raises all boats” can certainly be applied to participating in coalitions.

out there” on an issue that, while very important isn’t necessarily linked with your own organization. This higher profile can apply not only to regulators and lawmakers but the media as well. The lead organization/association more often than not does what can only be described as the “heavy lifting” — e.g., writing the letters or petitions or background papers. Working with a coalition that has a variety of participating associations/organizations also provides you potential access to policymakers whom you do not normally work with, thus providing an all-important contact that your own organization can utilize in the future on your own issues.

Coalitions are not just a federal phenomenon, only for national organizations and national issues. At the state level there are coalitions that have banded together on a particular issue, and state respiratory societies should investigate the opportunities to join. Of course, the same “rules” AARC uses at the national level would apply for the state societies — that is, making sure the “lead” organization is reputable and the issue being advocated is legitimate and would enhance the reputation of the society. The advantages of participating in coalition issues are the same at the state level as they are at the national. Moreover, helping one association or professional association (e.g., your state medical association) can pay big dividends down the road when you might need others to assist your state society on an issue. The old saying, “a rising tide raises all boats” can certainly be applied to participating in coalitions — whether they are state or national. ■

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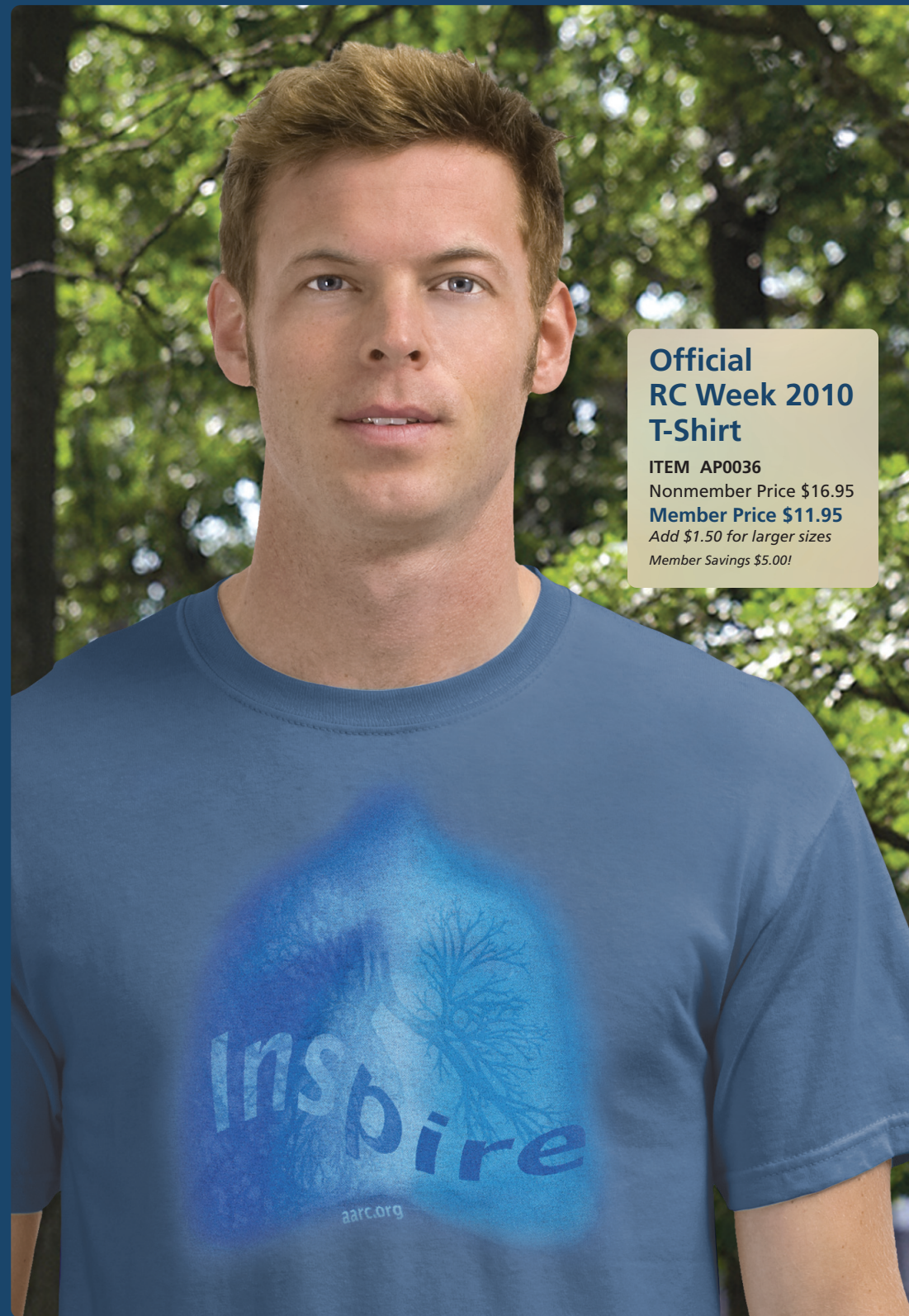
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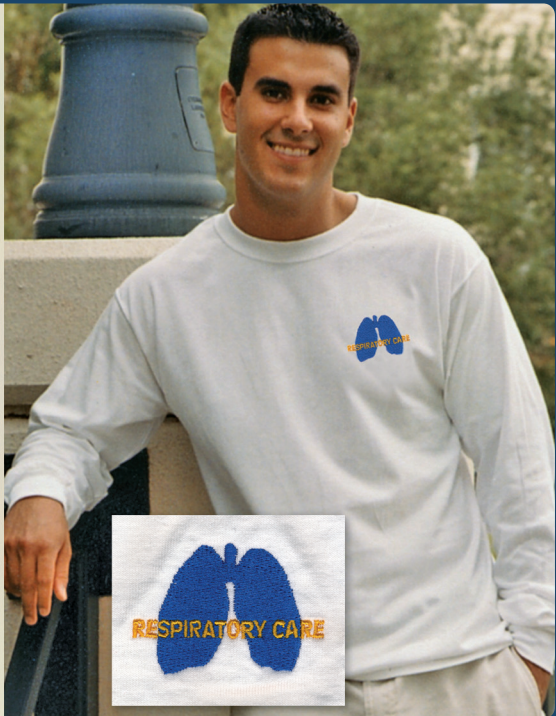
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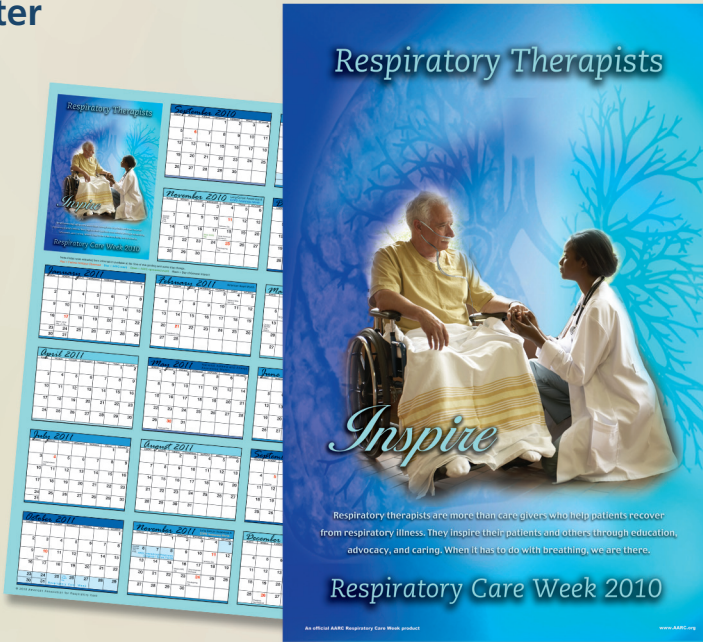
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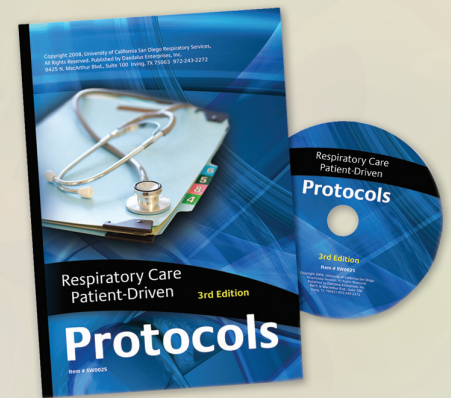
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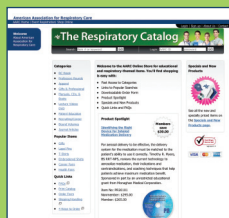
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The 2009 Zenith Awards went to:

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GE Healthcare — Gaurav Agarwal, Bill Phelan, and Tammy Noll accepting

The AARC presents five Zenith awards annually to the top corporations in the respiratory care industry at the annual International Respiratory CongressSM. Considered the “people’s choice” award of the respiratory care profession, they are highly prized by the recipients, who proudly display them on their websites and in their Exhibit Hall booths.

Draeger Medical — Ed Coombs accepting

The AARC will present the 2010 Zenith Awards to executives representing the five winning companies when the Association convenes its 56th International Respiratory Congress in Las Vegas, NV, on Monday, Dec. 6. Your vote could place your favorite company in the spotlight during this year’s Awards Ceremony. Now, that’s a great way to show them your appreciation for making your job easier.

**Top Companies Received
21st Annual Zenith Awards**

In last year's Zenith Award competition, we honored the following companies for reaching the pinnacle of excellence in service and support for the respiratory care profession: CareFusion, Covidien, Draeger Medical, GE Healthcare, and Masimo Corporation.

Get involved in choosing the recipients of this year's award by mailing your ballot card to the AARC today. ■



**Your official
ballot is attached
next to page 33
of this issue.
Cast your vote
today and mail
by Nov. 3.**

Covidien — Pete Wehrly accepting

CareFusion — Anthony López accepting

Masimo Corporation — Steve Paul accepting

Consider these voting criteria

When making your choice, evaluate the manufacturers, service organizations, and supply companies that have done the most outstanding job for you over the past year according to these criteria:

- Quality of equipment and/or supplies
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- Service record
- Truth in advertising
- Support of the respiratory care profession.

The following pages contain a list of companies serving the respiratory care markets. You may vote for up to 15 companies by circling your choices on the ballot card. Then, send in your postage-paid ballot card as soon as possible, for your response must be postmarked by Nov. 3 to qualify as an official Zenith Award ballot. ■

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2010 Zenith Award Nominees

You may vote for up to 15 companies by circling your choices on the ballot card. Your response must be postmarked by Nov. 3 to qualify as an official Zenith Award ballot.

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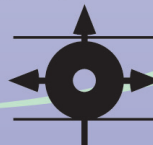
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| 332. Percussionaire Corp. | 384. Sibel S.A. | 439. Vapotherm Inc. |
| 333. Perma Pure LLC | 385. Siemens Healthcare Diagnostics | 440. Verathon Medical |
| 334. Perry Baromedical Corporation | 386. Simplicity Vacuums | 441. Victor Medical |
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| 337. Philips | 389. SleepMed | 444. Vital Technologies Inc. |
| 338. Philips Healthcare | 390. SleepNet Corporation | 445. VitaLine Inc. |
| 339. Philips Respironics | 391. SleepTech LLC | 446. Vitalograph Inc. |
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Linda Dean, RRT, Clinical Specialist
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Tuesday, October 26

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Vinciya Pandian MSN, CRNP
The Johns Hopkins Hospital

Wednesday, October 27

The Role of the Passy Muir® Valve in the Rehabilitation of the Spinal Cord Injured Patient

Rebecca Wills, RRT, LRCP-NPS
Pulmonary Program Manager
Madonna Rehabilitation Hospital

Thursday, October 28

Swallowing Safely: How You Breathe Matters

Gail Sudderth, RRT, Clinical Specialist
Passy-Muir, Inc.

Friday, October 29

Passy-Muir® Valve in the Patient Care Plan: A Manager's Perspective

Mike Harrell, RRT
Director of Clinical Education-Respiratory
Passy-Muir, Inc.

Tuesday, November 2

Interdisciplinary Decision-Making with Patients Requiring Tracheostomy and Mechanical Ventilation

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Cheryl Wagoner, MS, CCC-SLP
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Mechanical Ventilation on the Battlefield

by Michael J. Morris, MD, FACP, FCCP

Among the medical innovations on the battlefield, the development of mechanical ventilation has origins in military conflicts. As early as World War I (WWI), new ventilatory techniques were developed to assist with surgeries and decrease mortality of the severely injured. Many of the advances in the development and application of mechanical ventilation can be directly traced to the military with battlefield applications such as thoracic surgery for chest wounds, treatment of acute respiratory distress syndrome (ARDS), and aero-medical evacuation.¹ The utilization of mechanical ventilation in all echelons of battlefield medical care has revolutionized and dramatically improved the survival of wounded military personnel. Moreover, lessons learned from battlefield medicine have contributed directly to overall improvements in the technology and application of mechanical ventilation worldwide.

Pioneering efforts

Precursors to mechanical ventilation began in WWI when advances in anesthesia and new methods during open-thoracic surgery gained acceptance. An insufflation method was widely adopted to deliver anesthesia and provide positive-pressure ventilation, particularly in chest injury patients who required open thoracotomy. The work of two anesthesiologists, Drs. Ivan Magill and Stanley Rowbotham, based on their WWI experience, helped to simplify these methods of tracheal intubation for more general surgical applications.² By the advent of World War II (WWII), routine use of a large-bore cuffed endotracheal tube and handheld positive-pressure respiration was common for

surgical patients. The application of positive-pressure ventilation outside the operating room began in WWII by cardiothoracic surgeons in the North Africa Theater in an effort to combat a fatal trauma complication now recognized as ARDS. These surgeons modified an anesthesia machine to deliver positive-pressure oxygen via a face-mask and ward off the effects of alveolar leakage. A detailed account of 1,500 patients with thoracic injuries they treated was published in 1945 in *The Journal of Thoracic Surgery* and again in 1946 in *Annals of Surgery*.^{3,4} This innovative surgical group noted the presence of blood, serum, or mucus in the airway increased complications and mortality, especially in chest trauma patients. They suggested that application of positive-pressure oxygen opposed the hydrostatic pressures of the capillaries and increased the vital capacity.

Advances in assisted ventilation continued after WWII by three individuals, V. Ray Bennett, Dr. Forrest Bird, and Jack Emerson, all of whom applied the concept of positive-pressure breathing to clinical pulmonary medicine. All were civilians hired by the U.S. Army Air Corps during WWII to develop solutions to maintaining oxygenation in pilots at high altitudes. They were instrumental in developing breathing valves that delivered positive-pressure oxygen to pilots flying at high altitudes.⁵ By different routes, these individuals applied these valves in clinical medicine and signaled the beginning of modern respiratory care.

The Bennett positive-pressure valve was initially used in conjunction with a standard tank respirator during the 1948 Los Angeles poliomyelitis epi-

about the author...



Michael J. Morris, MD, FACP, FCCP, is an associate program director of the combined internal medicine residency at Brooke Army Medical Center and Wilford Hall Medical Center in San Antonio, TX. He is also a retired U.S. Army Medical Corps colonel who served on active duty as a pulmonary/critical care physician.



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dem. The Bennett mechanical ventilator was developed later in 1948 and, eventually, the Puritan-Bennett MA-1 became the standard mechanical ventilator for military hospitals in the 1960s. Dr. Bird's experiences as a military pilot and interest in respiratory physiology led him to develop a similar positive-pressure device. After medical school, he developed the Bird Universal Medical Respirator as an initial prototype and performed clinical testing of the Bird Mark 7 ventilator in the 1950s.⁶ Jack Emerson's experience in negative-pressure ventilation with the iron lung prior to the war turned to positive-pressure devices after WWII and led to the development of the Emerson High-Frequency Ventilator in 1955.⁷ These mechanical ventilators became the stalwarts of intensive care medicine for the next several decades. The widespread application of mechanical ventilation soon developed in parallel in the United States and Europe in the 1950s due to the poliomyelitis epidemic.

Continuing research

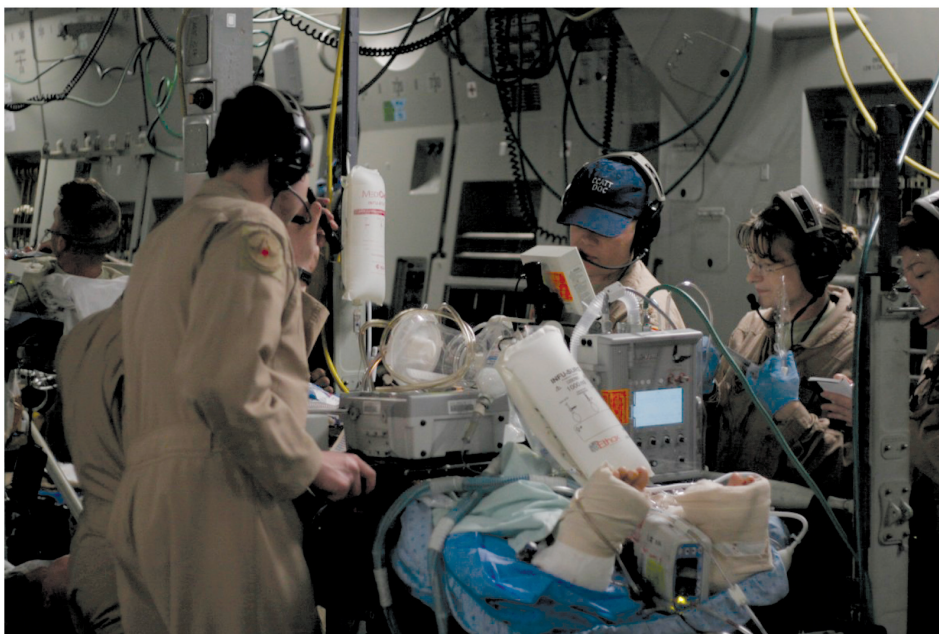
In 1967 at the height of the Vietnam War, Ashbaugh and colleagues published the landmark article that coined the term ARDS.⁸ Already well known to military physicians in Vietnam, they used mechanical ventilation to treat "Da Nang lung" or "shock lung," analogous to the "wet lung" of WWII but noted more often in casualties in the absence of thoracic trauma. The first published case series occurred in 1966 when 16 cases of ARDS were reported by Navy surgeons aboard the U.S.S. *Repose*. In the spring of 1968, a conference, "Pulmonary Effects of Nonthoracic Trauma" was

held in Washington, DC, and with significant input by military surgeons provided a forum for the most recent information on the pathophysiology and treatment of ARDS.⁹

Ventilator research continued in Vietnam throughout the war and provided early insights into several problematic areas. Military physicians from Walter Reed Army Institute of Research published findings on the use of pressure-limited (Bennett PR-2) versus volume-limited (Emerson Volume Ventilator) ventilation in patients requiring support for greater than 24 hours.¹⁰ These authors also published findings associated with long-term ventilatory support and noted 46% mortality in head injuries requiring mechanical ventilation. One particular problem they termed "pulmonary sepsis" gave an early example of ventilator-associated pneumonia.¹¹ Other surgical research conducted in Vietnam by Col. James P. Geiger identified the mechanics of pulmonary insufficiency and noted the beneficial use of diuretics.¹² Despite these advances, it was noted that availability and procurement of ventilators was predictably difficult and none were suitable for patient transport.¹³ As the war progressed, the Air Force also became more sophisticated in the transport of critically ill patients and developed several early models of transport ventilators.¹⁴

Evacuating casualties

Much effort since the Vietnam War has gone into developing and fielding the appropriate mechanical ventilator for the battlefield environment that is suitable for traumatic chest injury and allows for transportability of



Battlefield experiences of numerous military physicians and the efforts of several individuals with positive-pressure breathing devices advanced mechanical ventilation from its inception in the late 1940s to become the mainstay of modern ICU medicine.



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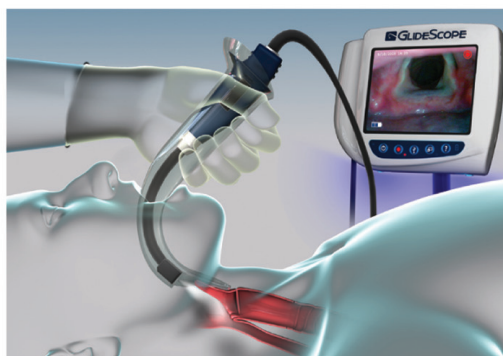
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patients.¹⁵ The Uni-Vent 750 portable ventilator (Impact Instrumentation, Inc., West Caldwell, NJ) became the standard ventilator inventoried by the U.S. Army for its battlefield hospitals in Operation Desert Storm and allowed new flexibility and transportability for mechanically ventilated casualties.¹⁶ The small size and portability of this ventilator allowed its use on rotary-wing aircraft to remove casualties from the battlefield.

A major change in modern warfare as seen in ongoing operations in Iraq and Afghanistan is the expansive battlefield and rapid mobility of military forces. The Air Force's answer for rapid and safe strategic evacuation of casualties requiring an intensive level of care was the Critical Care Air Transport Team (CCATT).¹⁷ A CCATT team is essentially a self-contained portable ICU with its own medical equipment and the medical team (critical care physician, nurse, and respiratory therapist) required to care for any ICU-type patient. Those patients with extensive trauma, shock, burns, respiratory failure, or multisystem organ failure who

previously occupied theater ICU beds for prolonged periods of time are now rapidly evacuated to definitive care outside the theater of operations within 24 hours of injury.^{18,19} During Operations Iraqi Freedom/Enduring Freedom, CCATT teams have provided nearly continuous transport of patients to Landstuhl Regional Medical Center in Germany. By the year 2007, approximately 2,000 patients were evacuated by CCATT, and the majority of those patients were on mechanical ventilation.²⁰ The ability to extend the medical evacuation system to Europe and the United States would not be possible without a proven and reliable transport ventilator. Definitive ICU care within the theater is also an important component of battlefield medicine. Current capabilities for mechanical ventilation in fixed facilities include Forward Surgical Teams and Combat Support Hospitals. The 164-bed Combat Support Hospital contains mechanical ventilators, respiratory therapy, and nursing care available for 24 ICU beds.

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Benefits to modern ICU medicine

The development of mechanical ventilation is rooted deeply with the military, where improvements in assisted ventilation are clearly tied to battlefield trauma. The battlefield experiences of numerous military physicians and the efforts of several individuals with positive-pressure breathing devices advanced mechanical ventilation from its inception in the late 1940s to become the mainstay in modern ICU medicine. Most importantly, mechanical ventilation in all echelons of care on the battlefield has decreased mortality from injuries and allowed the extension of medical care from the point of injury to definitive care in tertiary hospitals. ■

DISCLOSURE

Dr. Michael J. Morris is not affiliated with any of the products or companies mentioned in this article.

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HONORING EVAN'S MEMORY

**How American Gold Star Mothers
helps me cope with the loss of my
son to Operation Iraqi Freedom**

by Anita F. Dixon, BS, RRT



SGT. EVAN S. PARKER

Evan was my second son. He had blond hair, blue eyes, and freckles all over his body that he hated. One time he asked me why he had so many freckles, and I told him they were kisses from God. His response was, "Well, tell God to quit kissing me so much."

I look back now and realize that at a very early age Evan was living the Soldier's Creed. The name "Evan" even means "warrior," and that was his unit name as well. He was always a team player in everything he did, his missions always came first, he never accepted defeat, he would never quit, he would never leave anyone behind, and he was always there for his friends and family.

Evan loved sports — that was his ultimate dream — and he loved his family and friends too. His grandpa was his idol. We lived on a farm, and he loved the farm life and the animals, his horse, and his dog. He had a heart of gold and the biggest smile that you will ever find on a face. He was physically strong and fast, and a hard worker. At his funeral, Brig. Gen. Vern T. Miyagi described him as the soldier who would always do the right thing even though no one was looking.

The "Heather Project"

Evan joined the Army in May of 1999. He was a fire support specialist, and his permanent duty station for the next four and a half years was Schofield Barracks in Honolulu, HI. He left active duty in December of 2003 and was working a security job in Kansas City, KS, when he received his letter to report back to active duty at Ft. Sill, OK, in October of 2004.

He left for Iraq in January of 2005 and was stationed at Anaconda, where he was immediately placed in charge of the "Heather Project," a special mission to decrease the

▼ About the Author

Anita F. Dixon is a respiratory therapist in the emergency department at HCA Wesley Medical Center in Wichita, KS. In 2009 she took over as the Wichita, KS, chapter president of American Gold Star Mothers, and this past year as the Department of Kansas president.



Anita Dixon petitioned the state of Kansas for special Gold Star Mother license plates honoring fallen soldiers. She was the first to receive a set of the plates.

number of roadside attacks and ambushes. Evan successfully decreased the number from an average of 30 per month to three. Due to his success, in August of 2008, the "Sgt. Evan S. Parker Pavilion" was dedicated in his honor at Fort Shafter Flats Officers' Army Headquarters in Honolulu. He was also awarded the Hawaii Medal of Valor.

His men needed him

In May of 2005 Evan suffered a severe concussion, which earned him his first Purple Heart. We were notified via phone call alert. He was hospitalized for five days and placed on desk duty for one week. He hated the desk job and quickly talked his way back out into the field.

He came home for 17 days in July of 2005. He was weary and tired and a different young man. But we did not talk about his war experiences in those 17 days. We just enjoyed his presence and cooked him just about every food that his heart desired. When it was time for him to leave for the airport in Wichita, KS, he told me not to come and see him off. He said he would not be able to get

on that airplane if I were there, and he had to go back. His men needed him.

Last week of calls

Evan was good about calling home as often as he could get to a phone. We sent him phone cards on a regular basis, but it was hard to wait for a phone to open up and the line was usually long. So we generally heard from him about once every week or two.

The last week of his life, however, he called every day.



Sgt. Evan S. Parker was just 25 when he succumbed to injuries he suffered when an IED hit his unit in Iraq.

Saturday morning, Oct. 22, 2005, at 10 a.m., I received a call from him saying, “Mom, I love you — just wanted for you to know that. I’m going out on night patrol. I’ll call in the morning.”

The next morning, I received the call every parent dreads. It was not from Evan but from the command unit telling me of his devastatingly severe head injuries. Evan’s dismounted roadside patrol unit had taken a direct hit from an IED (improvised explosive device) that was thrown directly from a moving vehicle. Evan’s close friend lost both of his legs, and Evan suffered a shrapnel injury when a piece entered the right side of his head right below his helmet, traveling across his brain.

They said they did not expect him to make it, but he was in surgery in Balad, Iraq, as they were speaking to me. If he made it out, they would call me back and start the process for us to travel to Landstuhl Regional Medical Center in Germany to be with him. Six hours later I received the call that Evan was being life-watched to Germany and the neurosurgeon would call me when he had evaluated Evan. I received that call that night at

midnight. The news was not good. Evan was brain dead, but they would keep him alive until we arrived.

“Mom is here”

We left for Germany eight hours later and arrived at his side 24 hours later. He loved to rub his ears, so I rubbed them for him and put my face next to his and said, “Mom is here and I love you, Evan.” He turned his head very slightly and cradled his head in my face and hands. I know this was a gift from God and that Evan knew at that moment that I was finally there. He had hung on for my arrival and to hear me give him permission to go.

All of the staff knew that I was in the medical field and they were very good to me, allowing me to do things for Evan that only medical personnel are allowed to do. I was extremely grateful. Twenty-four hours later there was a beautiful Ceremony of Honor at his bedside, and Evan received his second Purple Heart and Bronze Star. We then removed Evan from the ventilator. He was gone within two minutes.

We stayed in Germany for the next six days so we



Dixon was in Washington, DC, last Memorial Day, where she rode with the Rolling Thunder as an honorary Patriot Guard Rider. Rolling Thunder member Dennis Joynt (left) served as her escort.

could all come home together on a commercial flight. This mother was not going to leave Germany without her son. Evan had a personal guard, Army Staff Nurse Maj. Kenny Grundy, who did not leave his side until they lowered him into the grave.

White is for peace

I learned that I was a Gold Star Mother shortly after the funeral. The Gold Star signifies the soldier's supreme sacrifice for his country — his life. I met a local American Gold Star Mother who was national president at the time, Betty Jean Pulliam. She had been an American Gold Star Mother for 40 years, losing her son in Vietnam. She encouraged me to join the organization, and I did.

In 2009 I took over as the Wichita, KS, Chapter president and this past year as the Department of Kansas president. Our mission statement is to "Support Veterans and Military Services in Honor and Remembrance of Our Children." We actively support financially, emotionally, and physically "Wreaths Across America," "Fisher Houses," "Walk to Remember," the "Homeless Veterans Dignity Funeral Program," "Wounded Warriors," and our local and statewide veterans hospitals. We stand at all funerals of active service members, those killed in action, and veterans. When you see us, we will all be wearing white. White signifies peace, the very principle for which our children served, fought, and died.

At any given opportunity, we serve alongside the Blue Star Mothers, Gold Star Wives, and Gold Star Families in

support and honor. We all hold a high honor for our service members and veterans.

A special bond

All of us American Gold Star Mothers have a special bond that will be with us for the rest of our lives. We all know the same pain and sacrifice. We gather frequently just to feel that bond without having to explain. It is our desire to give back to our active service members, wounded warriors, and veterans in honor, remembrance, and the desire to keep our children alive in our hearts. To us, it is so important that our children will always be remembered: "Lest no one forgets."

Right now American Gold Star Mothers work completely on donations. All of our money goes right back out in financial support of needs. I am currently working to erect the Operation Freedom Memorial here in Wichita in our beautiful Veterans Memorial Park. This memorial will honor all those from the state of Kansas who have been killed in action in Operation Desert Storm (the first Iraq war), Operation Iraqi Freedom, and Operation Enduring Freedom. It will also honor all of those who have served in these conflicts. ■



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The RT's Role in RSV Prevention During Flu Season

by Jaime Magnetico, MA, RRT-NPS

Many individuals, including health care workers, are not aware of what respiratory syncytial virus (RSV) is and what this serious illness can do to already compromised children. RSV is the leading viral pathogen that causes bronchiolitis and pneumonia in children worldwide. It affects people of all ages but is the most common cause of severe lower respiratory tract disease among infants and young children under two years of age.¹

Knowledge and public education about respiratory syncytial virus are the key components for preventing and fighting RSV illness. The more everyone knows about this disease, the more we can do to protect high-risk children. This includes premature infants, children less than two years of age who have chronic lung disease or a heart condition, and children who have weakened immune systems due to other various illnesses.

Trends and occurrence

Monitoring and knowing the trends from year to year can help in assessing when RSV threats will be at their peak; however, the exact time of year varies by region and season. It is not known why community RSV outbreaks occur when they do; but temperature, humidity, and other environmental factors are likely to contribute to the timing of outbreaks.² Even though RSV affects children worldwide, information on global patterns and trends are limited. On the other hand, there is plenty of information on how RSV affects our nation, and the state of Florida in particular. Each year in the United States an estimated 75,000–125,000 children under the age of one are hospitalized with RSV.³ Studies have shown that Florida has the longest RSV season.² There is

no way to predict when the virus will be most active, but organizations such as the Centers for Disease Control and Prevention (CDC) do what they can to monitor and report on RSV cases.

The CDC tracks RSV and reports on the occurrence of outbreaks. The U.S. government's "Morbidity Mortality Weekly Reports" provide information on when the infection is at its peak so health care professionals can see trends in the outbreaks of the virus. The National Respiratory and Enteric Virus Surveillance System (NREVSS) is a laboratory-based system that monitors temporal and geographic patterns associated with the detection of RSV, human parainfluenza viruses, respiratory and enteric adenoviruses, and rotavirus.⁴ This information plays an important role in the geographic patterns of these viruses. Monitoring and reports of outbreaks is a great way to inform people, especially health care workers, about RSV.

about the author...



Jaime Magnetico, MA, RRT-NPS, is a therapist in the NICU at Winnie Palmer Hospital for Woman and Babies in Orlando, FL. She is also an adjunct professor in the respiratory care program at Seminole State College.

Who is at risk?

The best way to reduce the number of new RSV cases is to educate everyone on the risk factors associated with contracting the virus and explain ways to prevent exposure from occurring. There is information for parents of high-risk infants; they just need to be steered in the right direction to protect their little ones. It is important that parents understand their child's susceptibility to RSV. Parents of high-risk infants can also help protect their children by taking them in for Synagis (MedImmune LLC, Gaithersburg, MD) injections, which will be discussed later. Since RSV is highly contagious, it affects almost all children before they reach their second birthday. High-risk individuals

need to take special precautions when around other sick individuals. It is important for parents of infants to pay attention to their child's surroundings, especially when it is RSV season. In healthy individuals, RSV will last a few weeks and clear up with little intervention necessary. In most cases, the child appears to have a cold; however, for the high-risk groups RSV can cause major complications. The following infants and children are at risk for severe illness due to RSV infection and should receive Synagis injections:⁵

- Infants born at 28 weeks' gestation or earlier during their first RSV season
- Infants born at 29–32 weeks' gestation who are up to six months of age
- Infants born at 32–35 weeks' gestation if two or more of the following risk factors are present: child care attendance, school-aged siblings, exposure to environmental air pollutants, congenital abnormalities of the airways, or severe neuromuscular disease
- Infants and children younger than two years with cyanotic or complicated congenital heart disease
- Infants and children younger than two years who have been treated for chronic lung disease within six months of the start of the RSV season.

Respiratory syncytial virus can be very problematic for high-risk children. Premature infants represent the largest population at risk for severe complications of RSV infections. Premature infants have a 10-fold higher risk of RSV-related hospitalization than full-term babies since they are born before sufficient passage of maternal immunoglobulin G (IgG) antibodies. These antibodies would normally protect the infant; however, since there is a lack of immunity, it is important to prevent RSV infection in the early months of life.⁶ Premature infant airways are smaller and have a higher chance of being blocked due to edema and debris that results from the inflammation in the lungs. These smaller babies have less energy than the full-term babies and are not able to work as hard to breathe. Once their respiratory system is compromised, they develop bronchiolitis, increase work of breathing, become tachypneic, and have retractions, which can result in hypoxia and cause apnea.⁶ To protect these fragile babies, prevention is very important and everything

RSV can affect the elderly who are 65 or older, especially if they live in a long-term care facility or spend long days in senior day care facilities.

should be done to protect their small airways. Other children who are susceptible during RSV season include children with complicated congenital heart disease, underlying lung disease (e.g., bronchopulmonary dysplasia, chronic lung disease, and cystic fibrosis), or immunosuppression (e.g., chemotherapy, congenital immunodeficiencies, and children with transplants).

RSV can be a very serious illness for babies; however, it can

also affect adults and elderly people. RSV can be just as problematic for these older individuals. High-risk adults include those with chronic heart disease, chronic lung disease, or compromised immune systems. RSV can affect the elderly who are 65 or older, especially if they live in a long-term care facility or spend long days in senior day care facilities. It is important for high-risk adults who may be at risk for contracting this virus to pay special attention to their surroundings and do what they can to protect themselves, especially when they are around others who may be ill. Simple practices such as handwashing can help save a life.

Prevention

There are other factors that if prevented can help decrease the chance of children becoming infected with RSV. Placing high-risk children in day care facilities can expose them to this virus. Children are always getting sick, and in healthy children you may never know they are infected with RSV. In day care facilities, children are constantly putting toys in their mouths, eating and drinking after each other, and spreading germs. High-risk children then have more of an increased risk of being infected in this kind of environment. If at all possible, keeping high-risk children out of day care facilities can help prevent them from contracting the virus.

Prevention is key when it comes to beating RSV. It is important that parents receive education on the ways to prevent their child from being infected with RSV. There are prophylactic methods of preventing further RSV complications in infants and children who are at an increased risk for developing a severe infection. In 1996 RSV-IGIV (respiratory syncytial virus immune globulin) was approved by the U.S. Food and Drug Administration (FDA) for the prevention of severe RSV infection in those children less than 24 months of age with chronic lung disease or premature birth. RSV-IGIV was the first agent clinically approved for the pro-



Since RSV is highly contagious, it affects almost all children before they reach their second birthday.

phylaxis of severe RSV infections, and it consists mostly of immunoglobulin G and trace amounts of immunoglobulin A and M.⁶ This was the first drug proven to decrease the severity of RSV illness in high-risk children. However, it is not to be used in patients with chronic heart disease or in children who have had a previously severe adverse reaction associated with human immunoglobulin products or in children with immunoglobulin A deficiency because of the possibility of anaphylaxis.

Prevention with Synagis

The current method of reducing the severity of RSV is to administer the drug palivizumab. Palivizumab (Synagis) is an FDA-approved monoclonal antibody that is given intramuscularly to prevent severe RSV disease in high-risk infants. RSV immunoprophylaxis with palivizumab should be initiated just prior to the onset of the local RSV season and terminated at its end with intramuscular injections administered every 30 days. Synagis is not a human blood product and, therefore, does not have the risks associated with blood products, as does RSV-IGIV. Synagis is also easier to administer than RSV-IGIV (one intramuscular injection/month versus four-hour intravenous infusion), and it can be administered in an outpatient setting.⁷

Safe practices

Unfortunately there is no vaccine to prevent children from getting RSV, but there are practices parents and family members can follow to protect their loved ones from becoming infected with RSV. In 2007 the Mayo Clinic recommended the following practices to help stop the spread of infection:⁸

- **Wash your hands frequently.** Do so particularly before touching your baby, and teach your children the importance of handwashing.
- **Avoid exposure.** Limit your infant's contact with people who have fevers or colds. This is especially important in premature babies and all infants in the first two months of life.
- **Keep things clean.** Make sure countertops are clean in the kitchen and bathrooms, especially when someone in your family has a cold. Discard used tissues right away.
- **Don't share drinking glasses with others.** Use your own glass or disposable cups when you or someone else is sick. Label each person's cup.
- **Don't smoke.** Infants who are exposed to tobacco smoke have a higher risk of contracting RSV and potentially more severe symptoms. If you do smoke, never do so inside the house or car.
- **Wash toys regularly.** Do this especially when your child or a playmate is sick.

Public awareness

The saying "an ounce of prevention is worth a pound of cure" is so true when it comes to RSV. Prevention is the best way to fight this disease that affects so many infants. Several organizations have started programs to track RSV throughout the nation to educate parents so they are aware of what they can do to help prevent their child from contracting RSV. One program is Helping Hand, which was created and designed to educate and support parents throughout RSV season.⁹ This program has created little stop signs for parents to hang on their infant's stroller that say "Please wash your hands before you touch mine." This not only makes people realize that they should practice handwashing; it is also a conversation starter for parents to inform others about the RSV illness. Having organizations and groups helps parents with high-risk children feel like there is help out there.

Other public information about RSV is available from the March of Dimes and The American Lung Association. Both of these organizations are well known, and they have spent years dedicating their time and research efforts to preemies and the well being of the cardiopulmonary system. The websites www.marchofdimes.com and www.lungusa.org provide great information on RSV. The websites break down the information into laymen's terms so that the public can better understand. They describe the disease, what causes it, how it can be prevented, and what to expect if your child becomes infected with it.

With respiratory syncytial virus being such a highly contagious virus, proper education and safe practices can help protect the little lives we cherish so much. There is plenty of educational material available for parents; they just need to know where to get it. As health care professionals, we can better educate ourselves and steer families in the right direction so they can learn more about the disease. The more everyone is informed about RSV, the better our fight against it will be. ■

DISCLOSURE

Jaime Magnetico is not affiliated with any of the products or companies mentioned in this article.

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Key Determinants of Successful Weaning in Subacute Ventilator/Respiratory Care Centers

by Gene Gantt, RRT

Advances in life-prolonging interventions over the last 30 years have led to a rapidly growing subgroup of patients who are medically stable but have not successfully weaned from the ventilator and require prolonged mechanical ventilation (PMV). These patients have specific needs that differ from those of patients needing acute intensive care. The National Association for Medical Direction of Respiratory Care defined PMV as mechanical ventilation for at least six hours per day for more than 21 days.¹ The number of patients requiring PMV is predicted to grow to 605,898 cases by the year 2020.² According to published studies, 50–67% of these ventilated patients can be liberated from mechanical ventilation utilizing a structured weaning approach and clinicians skilled in the use of therapist-driven protocols.³ Successful ventilator liberation is defined as at least seven days (one week) of ventilator independence.¹ The plight of these patients is very difficult as there are limited, often fragmented, post-acute resources for continued care.⁴

In recent years, the focus of inpatient care for patients requiring PMV has shifted from acute care hospitals to ventilator programs at long-term acute care hospitals (LTACHs) and subacute skilled nursing facilities (SNFs), where the cost of an extended stay is lower. LTACHs have an average length of stay of 28–30 days. Subacute units in SNFs have a much longer length of stay. Some SNFs provide 24/7 respiratory therapy and care to PMV patients, including weaning, while others do not. There is a rapidly growing trend in the United States to increase the scope and quality of subacute SNF facilities to provide continued weaning for the growing PMV population.

Key determinants

Mechanical ventilation can be abruptly discontinued in 75% of patients whose underlying cause of respiratory failure has either improved or resolved.⁵ Many weaning criteria have been presented and tested over the years; however, an evaluation of these criteria revealed that nearly 18% of all patients who were weaned successfully had previously failed the weaning criteria.

Since there are no foolproof predictors of weanability measures (e.g., minute volume), maximum inspiratory pressure, tidal volume, rapid shallow breathing, and CROP Index should serve as tools to complement the patient assessment and build a weaning plan of care.⁶

The basic key determinants of readiness to wean remain constant from the ICU to the subacute arena. These include resolution of the underlying disease process that necessitated ventilation: PEEP < 5 cm H₂O, FiO₂ < 0.5, afebrile, cardiovascular stability with heart rate < 140 beats per minute, absence of myocardial ischemia, no need for vasopressors, and hemoglobin > 8 grams per deciliter (gm/dl).⁷

about the author...



Gene Gantt, RRT, is the manager of business development for REMEO Ventilation USA based in Livingston, TN. He also serves the AARC as chair of the Long Term Care Specialty Section.

Other determinants

Once these basic criteria for eligibility to wean are met, attention must be paid to a wide variety of other determinants that are commonly associated with failure to wean. Central respiratory drive, respiratory muscle strength, and load applied to the muscles are all major considerations, as are comorbidities, nutrition, physiological factors, infections, wounds, and environment. In the subacute arena, clinicians are challenged to find

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ways to correct multiple issues in order to improve clinical status.

Psychological factors are due to multiple failed weaning attempts and are an important obstacle to weaning in the subacute environment and are often overlooked. Patients admitted to long-term care facilities have often been ventilated for a month or more prior to admission, and many have already been told they will live the rest of their lives on the ventilator. Depression and stress negatively impact ventilator weaning and survival. Jubran et al recently reported that of 336 patients admitted to long-term care, 142 (42%) were diagnosed with depressive disorders. The rate of weaning failure was higher in patients with depressive disorders than in those without such disorders (61% vs. 33%), as was mortality (24% vs. 10%).⁸ Care must be taken to approach the treatment of depression in these cases without excessive use of psychotropic drugs, which decrease respiratory drive. Alternately, in practice, subjective benefits have been realized by gaining the patient's trust, paying close attention to speech therapy, enabling the patient to speak using a speaking valve, and promoting personal hygiene. Patients who have been on PMV are also often afraid of losing this ventilator support. Because these psychological barriers can be significant, clinicians must provide careful, frequent communication and reassurance for the patient and family throughout the weaning process, as well as providing activities to relieve the depressive state.⁹

Metabolic factors, such as inadequate nutrition and electrolyte imbalances, are important considerations as they influence muscle strength and respiratory pattern. Patients who have chronic CO₂ retention from COPD compensated by bicarbonate retention are sometimes hyperventilated during mechanical ventilation, causing excessive bicarbonate that may interfere with weaning. A caloric regimen that is appropriate for the patient avoiding hypermetabolism and increased minute ventilation should be in place. It is important to maintain body weight and assess daily caloric intake.¹⁰

Analgesics and sedatives for sleep must be used very sparingly in the subacute environment. The PMV patient is sensitive to the pharmacology of these agents, and weaning can be significantly affected. Attention should be paid to day-night routines and adequate "natural" sleep time allowed.

While noninvasive ventilation, synchronized intermittent mandatory ventilation, pressure support, and T-piece trials several times daily are the methods most commonly used for weaning, the best weaning method should be chosen on an individual basis according to each patient and their individual needs.¹¹

The RT determinant

Finally, the respiratory therapist plays a crucial role as a determinant to the weaning success. In a major evi-

dence and technology report prepared for the Agency for Healthcare Research and Quality by the McMaster University Evidence-based Practice Center, differences in clinicians' intuitive threshold for reduction or discontinuation of ventilatory support were cited as having a greater impact on failure to wean than do weaning modes. When clinicians set a high threshold, many patients who could tolerate weaning remained on mechanical support longer than necessary.¹¹

The incidence of prolonged mechanical ventilation in the United States is projected to grow to more than 600,000 cases by the year 2020. Approximately half of those cases will be referred to subacute SNF ventilator facilities. However, multiple studies have shown that over 50% of the cases can be liberated from the ventilator at this level of care. Clinicians must prepare using a variety of clinical knowledge bases to adequately maximize the efforts of ventilator weaning in the subacute arena. A holistic multidisciplinary approach to the discontinuation of mechanical ventilation is the key to patient success in ventilator liberation. ■

EDITOR'S NOTE

Gene Gantt is scheduled to present a symposium on long-term care, "Trends in Alternate Site and Home Ventilation," during the AARC International Respiratory Congress in Las Vegas, NV, Dec. 6-9.

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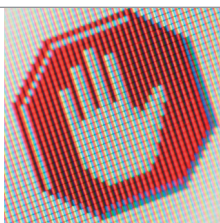


Ventilator-associated Pneumonia

By Debbie Bunch

Health care-associated infections cost the nation billions of dollars every year, and the U.S. government is determined to wipe them out. VAP is on the hit list, and respiratory therapists are key to mounting the attack.

Hospitals are meant to be places of healing, but for the estimated 1.7 million Americans who develop a health care-associated infection (HAI) each year — and the nearly 100,000 who die from one — they are just the opposite. For them, a hospital stay to treat one illness or condition turns into a nightmare as health professionals scramble to battle a secondary infection introduced by the health care system itself. These infections are devastating to a hospital's bottom line as well. The U.S. Department of Health and Human Services (HHS) puts the price tag at \$28-\$33 billion a year in excess health care costs.



What you can do to stop it in its tracks — and why now is the time to get the job done

Health care-associated infections arise from a number of causes, according to HHS. Transmission between patients and health care workers, overuse of antibiotics, and infections associated with *Clostridium difficile* and methicillin-resistant *Staphylococcus aureus* are all part of the problem. However, a great many of these infections are linked to medical procedures and the use of medical devices. In fact, statistics show about 75% of all HAIs occurring in the hospital setting fit into the following categories: surgical site infections, central line-associated bloodstream infections, catheter-associated urinary tract infections, and ventilator-associated pneumonia (VAP).

On the radar screen

HHS is planning to target these four categories in a new awareness campaign developed in conjunction with its HAI Action Plan and is already cracking down on the first three. In October 2008, the Centers for Medicare and Medicaid Services (CMS) declared that Medicare would no longer reimburse hospitals for costs associated with catheter-associated urinary tract infections, vascular catheter-associated infections, and some surgical site infections following certain procedures. VAP has yet to be added to the no-pay list, mainly because it has yet to be determined that VAP can always be prevented. But as the action plan and new awareness campaign show, VAP is definitely on the government's radar screen.

A recent study conducted by U.S. researchers at 54 medical centers and published in *Infection Control and Hospital Epidemiology* quantifies the problem.¹ The investigators compared 542 patients diagnosed with VAP with matched controls, finding:

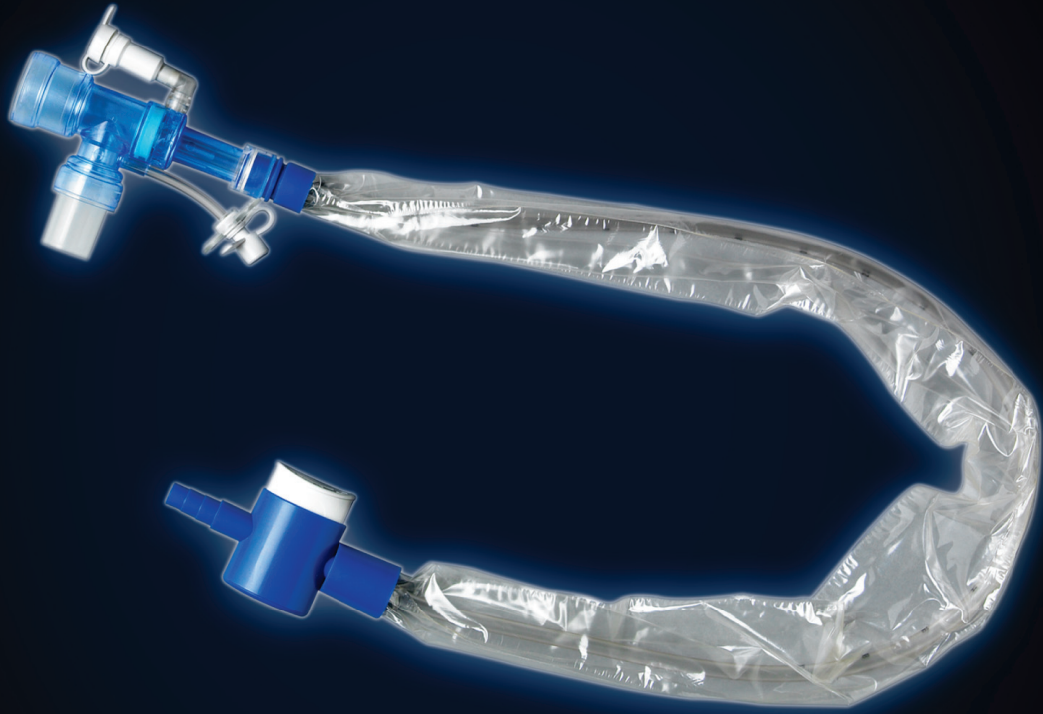
- Median total charges per patient were \$198,200 for case patients and \$96,540 for controls.
 - Corresponding median hospital costs were \$76,730 and \$41,250.
 - After adjusting for diagnosis-related group payments, median losses to hospitals were \$32,140 and \$19,360.
 - The median duration of intubation was 10.1 days vs. 4.7 days.
- The median duration of ICU stay was 18.5 days vs. 8.0 days.
 - The median duration of hospitalization was 26.5 days vs. 14.0 days.
 - Services likely to be directly related to VAP and having higher median costs for case patients included hospital care and respiratory therapy.

Prevention strategies

As the key health professionals working with ventilators in hospitals and other settings, respiratory therapists have a responsibility to help cut down on the number of infections related to ventilator care. The HHS action plan includes guidance on preventing VAP, divided into three priority modules. Recommendations in the first module were derived largely from The Society for Healthcare Epidemiology of America/Infectious Disease Society of America "Compendium of Strategies to Prevent Healthcare-Associated Infections in Acute Care Hospitals," a 2008 document reviewed and endorsed by the AARC. The second and third modules draw from recommendations made by the HHS Secretary's Healthcare Infection Control Practices Advisory Committee.



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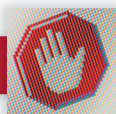
PRIORITY MODULE 1:



Recommendations for Routine Care of Patients Requiring Mechanical Ventilation

- Use noninvasive ventilation whenever possible.
- Use orotracheal rather than nasotracheal intubation when possible.
- Minimize the duration of ventilation; perform daily assessments of readiness to wean from ventilation.
- Prevent aspiration by maintaining patients in a semi-recumbent position (30°–45° elevation of head of bed) unless otherwise contraindicated.
- Use a cuffed endotracheal tube with an endotracheal cuff pressure of at least 20 cm H₂O and in-line or subglottic suctioning.
- Perform regular oral care with an antiseptic solution.

PRIORITY MODULE 2:



Recommendations for Appropriate Cleaning, Disinfection, and Sterilization of Ventilator Equipment

- Thoroughly clean all equipment and devices to be sterilized or disinfected.
 - Whenever possible, use steam sterilization (by autoclaving) or high-level disinfection by wet heat pasteurization at >158°F (>70°C) for 30 minutes for reprocessing semi-critical equipment or devices (i.e., items that come into direct or indirect contact with mucous membranes of the lower respiratory tract) that are not sensitive to heat and moisture.
 - Use low-temperature sterilization methods (as approved by the Office of Device Evaluation, Center for Devices and Radiologic Health, Food and Drug Administration) for equipment or devices that are heat- or moisture-sensitive.

- After disinfection, proceed with appropriate rinsing, drying, and packaging, taking care not to contaminate the disinfected items in the process.

- Preferentially use sterile water for rinsing reusable semi-critical respiratory equipment and devices when rinsing is needed after they have been chemically disinfected; if this is not feasible, rinse the device with filtered water (i.e., water that has been through a 0.2μ filter) or tap water, and then rinse with isopropyl alcohol and dry with forced air or in a drying cabinet.
- Between uses on different patients, clean reusable components of the breathing system or patient circuit (e.g., tracheal tube or face mask) inspiratory and expiratory breathing tubing, y-piece, reservoir bag, humidifier, and tubing, and then sterilize or subject them to high-level liquid chemical disinfection or pasteurization in accordance with the device manufacturers' instructions.
- Between treatments on the same patient clean, disinfect, rinse with sterile water (if rinsing is needed), or dry small-volume in-line or hand-held medication nebulizers.
- Between their uses on different patients, sterilize or subject to high-level disinfection portable respirometers and ventilator thermometers.

PRIORITY MODULE 3:



Recommendations for Appropriate Maintenance of Ventilator Circuit and Associated Devices

- Drain and discard any condensate that collects in the tubing of a mechanical ventilator, taking precautions not to allow condensate to drain toward the patient.
- Use only sterile fluid for nebulization and dispense the fluid into the nebulizer aseptically.
- Use only sterile (not distilled, non-sterile) water to fill reservoirs of devices used for nebulization.

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HHS TO LAUNCH HAI AWARENESS CAMPAIGN

The U.S. Department of Health and Human Services (HHS) is committed to reducing the number of health care-associated infections (HAIs) in the nation's hospitals and other facilities and has supported a number of initiatives designed to make that happen, including its HAI action plan. To further the cause, the government agency is now planning to launch an awareness campaign about all facets of the health care system, as well as the public at large.

For the clinician component, HHS will be targeting the four categories of HAIs that account for 75% of all HAIs in the acute care hospital setting: surgical site infections, central line-associated bloodstream infections, catheter-associated urinary tract infections, and ventilator-associated pneumonia. The overarching messages for clinicians will be to focus on the importance of hand hygiene, vaccination against influenza, prompt removal of catheters and other devices, and antimicrobial stewardship.

The top nine messages in the overall campaign include:

1. Many health care-associated infections are preventable.
2. A systemic approach to reducing the transmission of disease can be more effective than disease-specific approaches.
3. Developing and supporting basic and translational studies to address the gaps in the science in this field will allow generation of additional strategies to reduce the risks of HAI transmission.
4. It will take a strong partnership between federal and local/state governments and communities to truly help prevent HAIs. HHS is committed to this partnership and many of its operating divisions are and will be involved.
5. The education of best practices for providers and other health care personnel is critical to prevent HAIs.
6. Specific metrics and national targets have been developed by HHS in concert with national experts on controlling infections.
7. Educating patients on HAIs and how to prevent them is a critical part of the national effort.
8. An informed media can help promote the education of the American public about the need to prevent HAIs and what HHS and its partners are doing.
9. Preventive steps to control and prevent HAIs are cost-effective, save lives, and reduce disability for Americans.

The time to act on HAIs is now, and HHS and its partners are working closely with providers, health systems, community leaders, and governments to help prevent HAIs. ■

In more detail, from the AARC

The AARC has also published an evidence-based Clinical Practice Guideline on “Care of the Ventilator Circuit and Its Relation to Ventilator-Associated Pneumonia” that offers additional guidance. Key recommendations include:

- Ventilator circuits should not be changed routinely for infection control purposes. The maximum duration of time that circuits can be used safely is unknown.
- Evidence is lacking related to VAP and issues of heated versus unheated circuits, type of heated humidifier, method for filling the humidifier, and technique for clearing condensate from the ventilator circuit.
- Although the available evidence suggests a lower VAP rate with passive humidification than with active humidification, other issues related to the use of passive humidifiers (resistance, dead space volume, airway occlusion risk) preclude a recommendation for the general use of passive humidifiers.
- Passive humidifiers do not need to be changed daily for reasons of infection control or technical performance. They can safely be used for at least 48 hours, and with some patient populations some devices may be able to be used for periods of up to one week.
- The use of closed suction catheters should be considered part of a VAP prevention strategy, and they do not need to be changed daily for infection control purposes. The maximum duration of time that closed suction catheters can be used safely is unknown.
- Clinicians caring for mechanically ventilated patients should be aware of risk factors for VAP (e.g., nebulizer therapy, manual ventilation, and patient transport).

▼
You can find the complete guideline at www.rcjournal.com/cpgs/pdf/09.03.0869.pdf.



RTs can make a difference

The federal government's mission to cut back on the number of HAIs has generated a number of initiatives over the past few years and is expected to intensify as the nation implements provisions of the new health care reform law. The CMS policy on refusing to reimburse hospitals for preventable HAIs, the HHS action plan, and the Centers for Disease Control and Prevention's National Healthcare Safety Network, an Internet-based surveillance system currently being used by more than 2,600 hospitals nationwide to report HAIs (including VAP), show the government is serious when it says it wants to see a major reduction in these infections. States are now publishing action plans of their own. As of this spring, all 50 states, Washington DC, and Puerto Rico were on board.

Respiratory therapists can and should be at the forefront of these initiatives, particularly when it comes to preventing VAP. While not all cases of VAP may be preventable, many are — and as the bedside caregivers of ventilator patients, it is up to you to ensure the reduction of VAP is achieved. ■

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AARC Ventilator-associated Pneumonia Workshop Delivers Proven Strategies for Prevention

As the main article on these pages illustrates, ventilator-associated pneumonia (VAP) is a growing problem in the nation's hospitals, causing excess morbidity and mortality and adding thousands of dollars to the bottom line. As key health care providers in the ICU, respiratory therapists are essential in the battle against VAP, and a new traveling VAP Workshop launched in September by the AARC has the proven strategies you need to become a VAP management leader in your facility.

The workshop has already been a welcomed addition to several state society meetings and will be scheduled in more states going forward to ensure AARC members across the country have the opportunity to take advantage of it. Each three-hour session features VAP experts Marcos Restrepo, MD, and Patrick Dunne, MEd, RRT, FAARC, who cover all the bases when it comes to diagnosing, treating, and most importantly, preventing VAP in the hospital setting, including:

- An overview of the condition
- Why it is important for RTs to understand and treat it
- How VAP is associated with excess hospital costs
- Best practices for prevention.

So stay tuned to www.AARC.org and your state society website for more information about this valuable new program from the AARC; and when it comes to your area, plan to attend. The information you gain will help put a dent in the VAP numbers in your organization — and will make you the resident expert in VAP at your hospital as well. ■



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by **Debbie Bunch**

Fifth Career Choice a Winner for

2010 Jimmy A. Young Medalist



Peg Traband served as president of the AARC in 2002, bringing her expertise in developing the next generation of respiratory therapists — and her enthusiasm for mentoring — to the table. As a little girl growing up in Huron, OH, back in the 1950s and 1960s, Margaret “Peg” Traband, MEd, RRT, FAARC, thought she had four career choices: nun, teacher, secretary, or nurse. A couple of summers typing invoices for her father’s electrical contracting business quickly marked number three off the list (the kindest thing her dad could say was that she was a whiz with the correction tape), and by high school she had pretty much settled on career number four. Luckily for the respiratory care profession, a homecoming date intervened.

“It wasn’t until my sophomore year in college when I traveled to Toledo to attend the University of Toledo’s homecoming with my boyfriend — and now husband — that I heard about respiratory care,” recalls this year’s winner of the AARC’s prestigious Jimmy A. Young Medal. The couple ran into an “inhalation therapist” from a local hospital, who told Traband about her experiences caring for pulmonary patients and the great amount of satisfaction she received from her work. “When I returned to my college campus in Cincinnati, I called my mother and told her I was leaving school and moving to Toledo to be an inhalation therapist,” says Traband.

Of course, her mother quickly put the brakes on the whole idea, insisting her daughter learn more about this new profession first. So at the end of her fall semester, Traband went home and began volunteering with the inhalation therapy department at a local hospital in nearby Sandusky. Mom was adamant about her daughter getting a college degree too, so the RT-to-be started researching schools as well. “At that time there were only two programs in the state,” Traband says. “Cuyahoga Community College’s Parma Campus had a program accepting its second class.”

She visited the school and was interviewed by Bernie Kew, RRT, now known as one of the pioneering members of the profession. Kew accepted her into the program, and she graduated in June of 1972. She joined the American Registry of Inhalation Therapy (now the AARC) that same year, and by 1973 was ready to take her RRT exams. “My first position in respiratory care was at The Toledo Hospital working the third shift,” she says. “I was the first inhalation therapy school graduate hired in the hospital and the sixth Registered Respiratory Therapist in the city.”



“Her dedication, intellect, and professional expertise were indeed impressive in her role of clinical instructor. As medical director of the respiratory care program at The University of Toledo, I was honored to work with her in expanding the educational evolution of our profession from 1975 to date.”

**– Harold Stevens,
MD, FAARC**

“To watch Peg teaching patients is a pure joy. She is deliberate and patient in making sure that even the most difficult patient walks away with knowledge about their lung health and knows what a respiratory therapist does.”

– Melaine Giordano, MS, RN, CPFT

Every year the AARC bestows the Jimmy A. Young Medal on a member of the profession who has exceeded all expectations for meritorious service to the AARC and advancement of the respiratory care profession. The award honors the memory of Jimmy A. Young, MEd, RRT, a rising star in the respiratory care profession who died unexpectedly at the age of 40. Among his many accomplishments were serving as director of the first inhalation therapy department at Massachusetts General Hospital in Boston, co-authoring one of the first textbooks on respiratory care, “Principles and Practice of Inhalation Therapy,” and serving as the 22nd president of the AARC.



The importance of mentoring

Traband's initial experiences on the job were both rewarding and a little scary, she says now. But her first summer in the hospital introduced her to a concept that would not only help her handle her apprehension but also figure markedly into her future role as a respiratory therapy educator. "It was during this summer that I met my lifetime mentor, Dr. Harold Stevens [MD, FAARC]," she says. "Many a night Dr. Stevens would greet me in the post-op open heart recovery room and join in giving me report." He also gave the young therapist his home phone number, which she says she used on more nights than she can count. "Always patient, always kind, he would answer my questions. When there was an especially difficult patient he would be back in the hospital by five, checking on the patient and me."

Dr. Stevens' mentoring helped Traband develop her skills, and as a school-trained RT back in the days when formally educated RTs were few and far between, she was des-

By January of 1975, Traband was teaching in the didactic part of program, and she went on to earn both her baccalaureate and master's degrees from the University of Toledo. She's been with the university ever since, moving up the ranks from instructor to tenured full professor, holding positions ranging from program director and associate dean and interim dean of the College of Health Science and Human Service to her current position as interim executive director and vice provost of the Learning Collaborative. The Learning Collaborative is a student-centered component of the university that brings diverse programs and services together to better meet the needs of students. She's had many mentors along the way — and paid it forward by mentoring numerous RTs herself.

Dr. Stevens says mentoring her has been a pleasure. "Her dedication, intellect, and professional expertise were indeed impressive in her role of clinical instructor," he notes. "As medical director of the respiratory care program at The University of Toledo, I was honored to work with her in expanding the educational evolution of our profession from 1975 to date."

Volunteering for the profession

Traband says her three biggest accomplishments on the job have been seeing the RC program win the Program Excellence Award from the Ohio Board of Regents; witnessing the creation of the College of Health Science and Human Service, which was formed in 1999 with Dr. Sullivan as its first dean and herself as associate dean; and the development of the Learning Collaborative, which she leads today.

She's also proud of the graduates who have come out of the RC program. "The program attracts students from all over the world and has tremendous outcomes on the credentialing exams," she notes. Well known alumni range from Dr. Robert May, an anesthesiologist who is currently the medical director of the program and a past National Board for Respiratory Care (NBRC) president, to Dr. Patricia Metting, who earned her PhD in cardiopulmonary physiology at age 24 and presently teaches components of the medical school curriculum and is the vice provost at the University of Toledo Health Science Campus.



tinued for a quick climb up the ladder. By January of 1973, she was serving as a clinical instructor for the newly developed inhalation therapy program at the University of Toledo's Community and Technical College. Jerome Sullivan, PhD, RRT, FAARC, now professor emeritus and international consultant, had been recruited by Dr. Stevens to serve as program director, and Traband soon had not one but two key people in her corner. "The stars had aligned perfectly. My two lifelong mentors had entered my life. They continue to this day to support and guide me in my career."



However, Traband has lots of accomplishments as a volunteer, as well, where she's been serving in numerous capacities since the days when she and Dr. Sullivan traveled to Cleveland after a long day's work to attend meetings of the then Ohio Chapter of Inhalation Therapy — one of two respiratory therapy organizations in the state that were ultimately merged into the current Ohio Society for Respiratory Care. She served as secretary and treasurer of the state society; and when Sullivan was elected president of the AARC in 1990, he appointed her to serve on the Board of Trustees for the NBRC.

"I was a member of the Clinical Simulation Examination Committee and the Therapist Written Examination Committee, and I worked on the first version of the Neonatal Pediatric Specialty Examination," Traband says. She was also there when the NBRC developed the computerized clinical simulation examination and played a role in the creation of the secure self-assessment examinations.

Traband served as NBRC president in 1994–95, continuing her mission to ensure the highest possible standards for the organization. "Peg has devoted much of her time and effort into promoting respiratory care, the profession of which she is clearly proud," says Theodore Oslick, MD, FAARC, who worked with her during her tenure at the NBRC. "She is unique in her ability to accomplish every goal while maintaining her always present equanimity and calm demeanor."

NBRC Executive Director Gary A. Smith, BS, CRT, FAARC, agrees. "When I first met Peg, it was evident that

she was a dedicated professional who was committed to diligence in everything in which she was involved. My interaction with her for many decades has only reinforced my initial impressions."

Moving the profession forward

Traband served as president of the AARC in 2002, bringing her expertise in developing the next generation of respiratory therapists and her enthusiasm for mentoring to the table. "As I reflect on my service to the AARC, I believe one of the ideas that took shape in my presidency was the meeting of the past president, the president, and the president-elect — now affectionately known as the 3P meeting," she says. "These meetings ensure the continuity of the leadership of the organization and the recognition that this is a complex organization. This is another excellent example of the role of mentoring in our profession."

She also played an instrumental role in the development of the AARC's "2015 and Beyond" project — a series of three conferences held over the past few years to determine the knowledge, skills, and attributes that the respiratory therapist of the future will need in order to move forward in the 21st century. "When Peg was AARC president, she recognized the need to develop an objective basis for the future evolution of our profession," says AARC Executive Director Sam Giordano, MBA, RRT, FAARC. "She initiated the '2015 and Beyond' project, which will guide the profession through health reform changes and assure a relevant role for RTs in the future."

Filling the need for patient interaction

Since her AARC presidency, Traband has remained active in the Association, volunteering with the consumer program at the AARC International Respiratory Congress, which educates the public about diseases such as asthma and COPD and offers information to those struggling with respiratory disease. She has also volunteered for the COPD Foundation’s Mobile Spirometry Unit (MSU), which partners with AARC members to deliver spirometry testing and device and medication education at events across the United States. “I have always loved working with patients, and as I moved into teaching at the university, I felt a loss without patient interaction,” she says. “The work with the MSU has filled that need. I love being able to talk with people about lung health.” Melaine Giordano, MS, RN, CPFT, is a fellow volunteer at these events who has witnessed



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— Peg Traband

firsthand how Traband moves easily between academia and bedside care. “To watch Peg teaching patients is a pure joy,” she says. “She is deliberate and patient in making sure that even the most difficult patient walks away with knowledge about their lung health and knows what a respiratory therapist does.”

Helen Sorenson, MA, RRT, FAARC, remembers working with Traband at

the very first Consumer Program in Las Vegas and was impressed by her knowledge, energy, and sense of humor. “Not everything went as planned that afternoon — the Cowboy Convention took most of our patients’ parking spots — but the brave patients who showed up were memorable, like the lady, dressed like a biker, who stood up holding an inhaler and said, ‘they told me I had COPD and to use this when I needed it. What is it, and what am I supposed to do with it?’ Peg was quick to sit down and explain many, many things to her that afternoon.”

Family support is key

Traband credits her family with making her long history of volunteer service possible. “My husband and I have been married since September of 1972, right after my first summer on the night shift at Toledo Hospital, so he has been a solid partner through it all with me,” she says. Her three children were ages 10, nine, and eight when she began her service with the NBRC in 1990; and

she remembers them helping her coordinate travel schedules to accommodate both her work-related travel and her husband’s.

The kids often accompanied their mother when she went to NBRC/AARC events, too. “My son Joe, now 30, remembers entering the tacky tourist contest at the AARC Summer Forum at the Don CeSar in Saint Pete Beach, FL; and my daughter Katie, now 29, remembers a week with the NBRC in Phoenix playing in the pool with other AARC Board members’ children,” she recalls. “My youngest, Margie, just returned from the Summer Forum in Marco Island with me and was told by numerous attendees that they remembered her as a youngster in a sundress and sunbonnet at much earlier Summer Forums.”

Traband believes her children have benefited from watching both their mother and father succeed in their careers — especially her daughters, who grew up knowing there were many more career opportunities for women than just the four available to Traband all those years ago. “My daughters have seen me as a role model and have seen many other successful women achieve professional goals,” she says.

Full circle

When Traband learned she was to receive this year’s Jimmy A. Young Medal, the highest honor the AARC bestows upon one of its members, her family was certainly first and foremost in her mind. But not far behind were the colleagues whom she says have made such a big difference in her career. “AARC Past President Dianne Lewis [MS, RRT, FAARC] called my house,” she says, recalling that day last March. “I was overwhelmed, and to be quite honest, pretty emotional about this honor and very humbled. Unfortunately, my husband had gone on Saturday errands and I had no one at home to tell. I quickly found Jerry Sullivan’s cell phone number and placed a call.”

She reached him at an American Respiratory Care Foundation meeting in Dallas. “I was able to share my great news with my long-time mentor. Patrick Dunne [MEd, RRT, FAARC] and Gary Smith, also wonderful mentors, were at the Foundation meeting as well, so I hit the trifecta. I am most grateful for the wonderful mentors that I have been afforded in my career.”

As she reflects on the long journey that has brought her to this peak of her career, she also realizes she’s come full circle, in a way, back to those four career possibilities she grew up with. “In the end I did become a teacher — one of my original four choices,” she says. “Just not the type of teacher I envisioned as a youngster.” ■

AARC Times PHOTO CONTEST

CALL FOR ENTRIES



**IMPORTANT:
PLEASE READ THE FOLLOWING
PHOTO REQUIREMENTS**

Adhering to these requirements will assure that your photograph will be acceptable for publication. A good photograph produced at the wrong resolution may render it unsuitable for reproduction.

➔ **Since the photo is for the cover,** we require a vertical format. Turn your camera sideways to take the photo.

NO	YES
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➔ **If your photo is taken with a standard film camera,** we will need a color print and negative shipped to us at **PHOTO CONTEST**, AARC, 9425 N. MacArthur Blvd., Suite 100, Irving, TX 75063-4706.

➔ **Most digital cameras give you a choice of settings for image resolution.** Photos taken at lower resolution settings take up less room on your memory card but may not be useable for print productions. Set your camera for the highest resolution photo and save it as JPEG or TIFF.

➔ **We prefer that you mail a CD of your photo since it will probably be too large to be e-mailed.** If you do try to e-mail, please send it directly to our production manager, Donna Knauf, at knauf@aacr.org and indicate clearly in your e-mail that the photo is for the Photo Contest.

HERE'S YOUR CHANCE TO HELP CHOOSE THE COVER OF AARC TIMES MAGAZINE

HERE'S HOW IT WORKS:
AARC Times will collect photo entries from the membership. Contest finalists will receive **FREE DUES** on renewal AND will

automatically be entered into the publication's Photo-of-the-Year Contest, which will take place in the November 2010 issue.

The Photo-of-the-Year winner will see his or her photograph on the **COVER** of the January 2011 issue of *AARC Times*!

WHAT KINDS OF PHOTOS ARE WE LOOKING FOR?

Heartwarming photos of your adult patients who rely on your care and guidance and who inspire you.

JUST FOLLOW THESE SIMPLE RULES:

- Provide a signed release for any patients or co-workers pictured in your photos. The form is available online at www.aarc.org/headlines/photo_contest/ or can be faxed to you by calling Karen at (972) 406-4661. Photos cannot be published without signed releases.
- Send a brief background story with the photo.
- Photos will not be returned and become the property of the AARC.
- Do not print photos from your home printer.
- Photographic prints of good quality are acceptable. Please read the requirements we have provided at left so that you send your photo in a format that can be used and reproduced in a magazine.

WWW.AARC.ORG

CONGRESS PREVIEW:

The AARC International Respiratory Congress is just a couple of months away, and as the *Advance Program* in this issue of *AARC Times* shows, there will be a wealth of information on the table for respiratory therapists, physicians, nurses, and other clinicians in attendance.

AHRQ Director To Present AARC Congress Keynote Speech

Attendees at the AARC Congress in Las Vegas, NV, this Dec. 6–9 will hear from a leader in the research community as Carolyn M. Clancy, MD, director of the U.S. Agency for Healthcare Research and Quality (AHRQ) at the Department of Health and Human Services, takes the podium for the keynote address.

A general internist and health services researcher, Dr. Clancy's major research interests include improving health care quality and patient safety and reducing disparities in care associated with a patient's race, ethnicity, gender, income, and education. As director of the AHRQ, she launched the first annual report to Congress on health care disparities and health care quality.

Dr. Clancy is a graduate of Boston College and the University of Massachusetts Medical School. Following clinical training in internal medicine, she was a Henry J. Kaiser Family Foundation Fellow at the University of Pennsylva-



Sessions NOT To Be Missed

nia. Before joining the AHRQ in 1990, she was also an assistant professor in the department of internal medicine at the Medical College of Virginia.

Dr. Clancy served as the director of the AHRQ's Center for Outcomes and Effectiveness Research before being appointed director in 2003. She was reappointed to the director's position in 2009, and she also serves as a clinical associate professor in the department of medicine at the George Washington University School of Medicine. She is a senior associate editor of *Health Services Research* and sits on multiple editorial boards, including those for the *Annals of Internal Medicine*, *Annals of Family Medicine*, *American Journal of Medical Quality*, and *Medical Care Research and Review*.

A member of the Institute of Medicine, Dr. Clancy was elected a Master of the American College of Physicians in 2004, and in 2009 she received the William B. Graham Prize for Health Services Research.



Carolyn M. Clancy, MD

While it would be impossible to sit in on all of the presentations at this premier respiratory meeting of the year, there are five you definitely won't want to miss.



The best event in Vegas is at the Convention Center Dec. 6–9! Log on to www.AARC.org/education/meetings/congress/advance_program for up-to-the minute information on Respiratory Care 2010.



▶ Putting Best Evidence into Practice for Optimum Patient Benefit

Doing the right thing for patients is the goal of every clinician, but how do you know what the right thing is? This session covers the latest evidence-based thinking on key modalities in respiratory care and how “knowledge translation” is essential to putting them to work at the bedside.

“Many studies show that the actual use of best evidence by clinicians is highly variable, and millions of patients do not receive therapies that could substantially improve their symptoms or even save their lives,” says David Pierson, MD, FAARC, one of three presenters

during the symposium. “Attendees will learn why actually putting best evidence into practice — at the bedside, in the clinic, or in the patient’s home — is the responsibility of everyone working in respiratory care.”

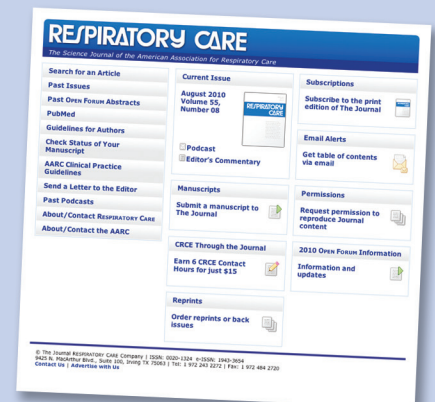
As key members of the multidisciplinary health care team, respiratory therapists have an important role to play in “knowing the best practices in their area, in helping to create and implement evidence-based protocols reflecting those best practices, and in making sure that every patient actually receives the care specified in those protocols,” Dr. Pierson says.



▶ JOURNAL SYMPOSIUM: What’s RESPIRATORY CARE Up to These Days?

RESPIRATORY CARE is the respiratory care profession’s premiere science journal, peer-reviewed and listed in *Index Medicus*. Keeping up with the papers published in the Journal is the responsibility of everyone delivering respiratory therapy services. In this symposium, you’ll hear what editors of the Journal believe are the most important papers they have published in the past year. You’ll also learn more about the recent Journal Conferences on Patient-Ventilatory Interactions and Neonatal/Pediatric Respiratory Care.

“The journal provides the scientific basis for respiratory care practice,” says Editor-in-Chief Dean R. Hess, PhD, RRT, FAARC. “The symposium will provide an update on content published in RESPIRATORY CARE in 2010. We will highlight the best original reports and the best case studies, and we will also provide summaries of the two Journal Conferences held in 2010.”



▶ Interactive Sessions

Audience participation is the hottest thing in conferences today, and the Program Committee is making sure the AARC Congress delivers excellent interactive sessions, using the latest in audience response system (ARS) technology. Three interactive sessions include:

- **Clinical Neonatal/Pediatric Cases: An Interactive Approach**
- **Let's Play the Game: An Exercise in Using Process Improvement Tools**
- **Puzzlers: Stuff You Should See at Least Once**

"Attendees at the Congress have requested more interaction with the speakers," says Program Committee Chair Michael Gentile, RRT, FAARC. "The ARS is the solution." Customized for the AARC by AARC members John Hiser, MEd, RRT, CPFT, FAARC, and Ira Cheifetz, MD, FAARC, in conjunction with AARC staff member Crystal Maldonado, Gentile says the ARS system has generated lots of enthusiasm from both speakers and participants. "We have received an overwhelmingly positive response from AARC members when the ARS has been used."

So, how does it work? It integrates questions with the speaker's PowerPoint slides and allows the audience to vote on a topic or answer a question using remote controls that communicate with a computer via receivers located around the room. The computer then tallies the results and immediately displays them on a screen for all to see. "This creates a fun and interactive learning environment for participants and speakers. It also confirms audience understanding of key presentation points," says Gentile. "The added benefit to the attendees at the Congress is increased interaction with the presentation... instead of just listening to a lecture, the audience gets to be part of the lecture."

"The added benefit to the attendees at the Congress is increased interaction with the presentation."

—Michael Gentile

▶ Thomas L. Petty's Legacy for Respiratory Care



Thomas L. Petty

The respiratory care profession lost a giant in the respiratory care profession last December when Thomas L. Petty, MD, FAARC, passed away. This December, attendees will get a chance to learn more about how this legendary physician impacted their profession in a symposium covering his contributions to knowledge about acute

respiratory distress syndrome, COPD and home care, medical education, and the respiratory care profession itself. The session will also include an overview of Dr. Petty, the man, and why he will be remembered for decades to come.

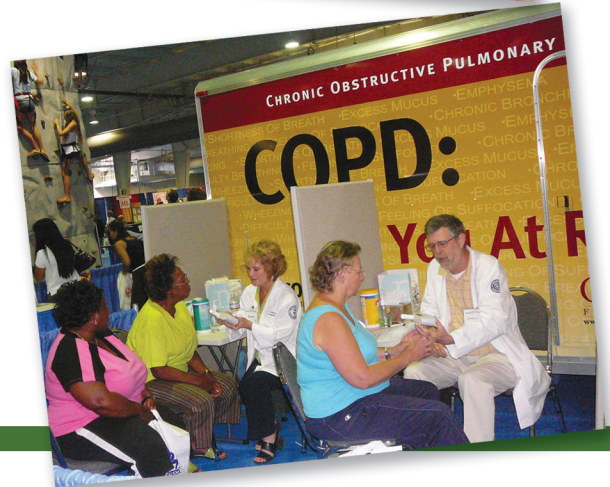
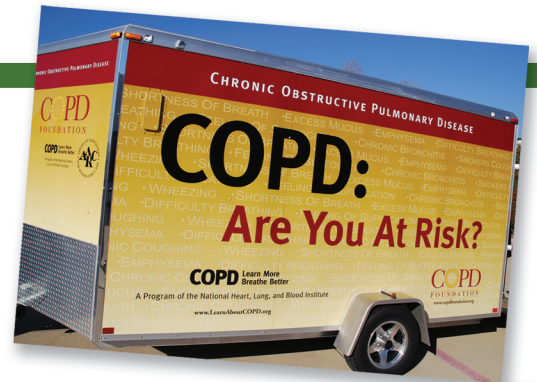
"Dr. Petty was known as the father of long-term oxygen therapy for good reason," says Robert McCoy, RRT, FAARC, who will be one of the presenters. "He published and taught more on the subject than anyone else." McCoy says Dr. Petty's passion for people was his hallmark, and once his own pulmonary condition required oxygen, his understanding of what it was like to actually be an oxygen patient drove him to write several books on the patient's perspective in his final years. "Those who attend this symposium will be able to hear what it was like to have the privilege of knowing the man not only as a great physician, but also as a great friend and a great person. His legacy will live on in all of us," McCoy says.

▶ Mobile Spirometry Unit Study Results Revealed

The AARC has been working with the COPD Foundation to bring a faster, simpler method for case finding of people with COPD. The Mobile Spirometry Unit (MSU) has been traveling the United States for several years now, providing testing and device and medication instruction. The MSU, using respiratory therapists as screeners and educators, has screened more than 8,500 people at health fairs and other events across the country.

Last year, the AARC validated a new method used to screen people for testing. You can learn all about the results in this session. Using the new approach, people are asked six yes/no questions about COPD risk factors. Those with two or more positive responses proceed to peak flow testing, and anyone with a peak inspiratory flow less than 70% predicted goes on to be tested with spirometry.

“We have reduced the number of people needing spirometry to around 5% of all the people we see, which also significantly reduces the number of false-positive tests common to screening spirometry events,” says AARC Associate Executive Director Steve Nelson, MS, RRT, FAARC. ■



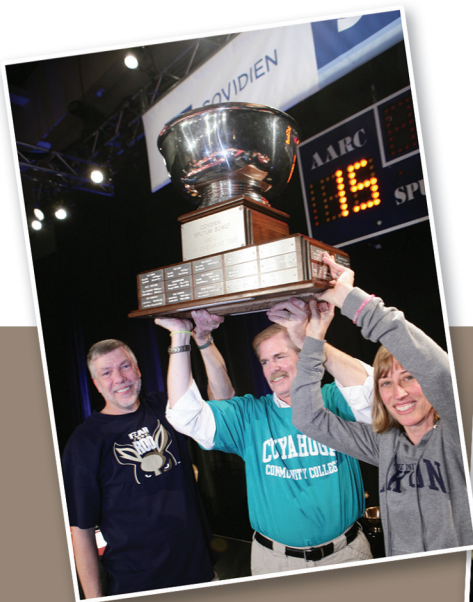
▶ Sputum Bowl 2010 Sure To Get Your Adrenalin Pumping

The AARC International Respiratory Congress features four days of cutting-edge presentations and symposia designed to educate attendees on the latest information on respiratory care. But that’s not the only way people learn at this meeting. Our annual Sputum Bowl competition is also a great way to pick up additional knowledge, as the audience watches teams from across the country square off in this knowledge bowl.

“Combine an exciting sports event with a big dose of intelligence. Stir vigorously, then add a lot of personalities from around the country, a cup or two of the unknown, a bucketful of nerves, and a handful each of wit and humor. Top everything with fun and serve with camaraderie. This is Sputum Bowl,” says Sputum Bowl Committee Chair Debbie Hendrickson, BS, RRT.

Hendrickson says she and her committee have a great show planned for Las Vegas. “We’re going way, way out this year,” she says. “There will be special half-time entertainment and refreshments. You have to be there!”

The Sputum Bowl is supported by Covidien, an AARC Corporate Partner. ■



RESPIRATORY CARE 2010



The 56th Annual Convention and
Exhibition of the
American Association For Respiratory Care
in fabulous Las Vegas, Nevada

Join us for Respiratory Care 2010

Advance Program

December 6–9, 2010



Las Vegas Convention Center • Las Vegas, Nevada, USA • AARC.org



The 56th AARC International Respiratory

Welcome

These days, it's more important than ever that you choose the best options available to keep you at the top of your professional game. The AARC Congress delivers the education, motivation, contacts and activities you want all in a single 4-day event.

It is our great pleasure to invite you to the largest and most comprehensive respiratory care meeting in the world. Nowhere else will you find an educational meeting like Respiratory Care 2010 – in Las Vegas, NV. Working in concert with the AARC Specialty Sections, the Program Committee offers educational sessions for everyone; from the student therapist, to the experienced clinician, from the department manager, to the program director – and everyone else in between. While you may choose to attend other educational meetings throughout the year, only at Respiratory Care 2010 will you...

- Feel the energy, camaraderie, and pride generated by thousands of respiratory therapists all in the same place – all under one roof. A great way to recharge your batteries.

- Receive the latest information on clinical topics that impact you, your employer, and your patients.
- Be given the platform to network with peers and leading experts from across the country.
- Have the ability to see and touch all of the latest technology in the AARC Exhibit Hall – technology that allows you to provide better, more efficient care to your patients.
- Experience the results of research conducted by your peers on a multitude of topics related to the field. More than 17 OPEN FORUM symposia will be offered throughout the 4-day meeting.
- Receive all of the continuing education credits (CRCEs) required to maintain your state license (and then some).



It's a numbers game every day in Las Vegas

Here are some numbers that will always work in your favor!

250+ sessions on current respiratory care topics

300+ original research projects

4 days of networking and education

3 days of exhibits of all companies in the industry

2 pre-Congress courses

4 breakfast symposia and

more to come

170+ speakers

26+ CRCE credits

So register now and connect to the professional event where everything is about quality respiratory care.

- Participate in programs covering all aspects of specialty practice within the profession: adult critical care, neonatal and pediatric care, home care, continuing care, rehabilitation, diagnostics, transport, management, education, sleep, and long-term care, all presenting the latest information.

While you read through this Advance Program, you'll quickly realize that this is the "can't miss event of the year." Respiratory Care 2010 in Las Vegas offers you more than any other respiratory care meeting. Be a part of the event that your peers will be talking about for years to come.

See you there!

PROGRAM COMMITTEE

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Bill Galvin MEd RRT CPFT AE-C FAARC

Cheryl Hoerr MBA RRT CPFT FAARC

Garry Kauffman MPA FACHE RRT FAARC

David J Pierson MD FAARC

Dean R Hess PhD RRT FAARC - *Consultant*

Ray Masferrer RRT FAARC - *Consultant*



Monday, Dec 6

8:30 am – 10:55 am

OPENING SESSION

sponsored by



Sam P Giordano
MBA RRT FAARC
AARC Executive
Director/*Presiding*

8:30 am – 10:10 am

AARC AWARDS CEREMONY

The ceremony recognizes the “doers” in the profession, from students to long established practitioners. Be there and applaud your peers. Today it’s them; tomorrow it may be you.

10:15 am – 10:55 am

KEYNOTE ADDRESS

CAROLYN M CLANCY MD

Director, US Health and Human Services’
Agency for Healthcare Research and
Quality (AHRQ), Washington DC

As director of AHRQ, Dr. Clancy will provide an overview of gaps in health care quality, where the nation is doing well, and what steps need to be taken to ensure that all Americans get the best care possible.



8:00 am – 6:00 pm

33rd National Competition SPUTUM BOWL® PRELIMINARIES

Deborah J Hendrickson RRT/*Presiding*

Supported by an unrestricted educational grant from



Teams from the AARC state affiliates, along with students teams, compete in the preliminary competitions. The top four teams will advance to the Finals on Wednesday evening, Dec 8.



Las Vegas Convention Center • Las Vegas, Nevada, USA • AARC.org



11:00 am

EXHIBIT HALL OPENING CEREMONY



**Timothy R Myers RRT-NPS and
Karen J Stewart MS RRT
FAARC/Presiding**

The 2010 and 2011 AARC Presidents open the Exhibit Hall. As the “Gold Standard” of all respiratory care meetings, the Congress presents all the manufacturers and suppliers in the industry. The Exhibit Hall offers attendees an opportunity to make purchases right on the spot, often at special discounts. Don’t miss this great opportunity! The Exhibit Hall will be open from 11:00 am until 4:00 pm Monday through Wednesday, Dec 6-8.

11:05 am – 11:45 am

PRESENTING AN OPEN FORUM® ABSTRACT Teresa A Volsko MHHS RRT FAARC, Hudson OH

The purpose of this presentation is to introduce the neophyte research presenter to the customs, roles and experience of presenting in an OPEN FORUM session. Included will be the stages of an OPEN FORUM presentation: setting up the poster, interacting with the moderators and OPEN FORUM attendees at the posters, presenting at the podium and participating in moderated audience discussion of the research. An audience response system will be used to engage the audience in critiquing the good and bad examples of each stage of the presentation.

11:05 am – 11:50 am

ORIENTATION FOR FIRST-TIME ATTENDEES Presented by the AARC Program Committee

This program overview includes suggestions on how to maximize your time not only at the educational session, but also at the exhibits and peripheral activities.



Exhibit Hours at The Buying Show: Monday - Wednesday, Dec 6 - 8, 11:00 am - 4:00 pm





12:30 pm – 2:25 pm

OPEN FORUMS #1 and #2

Clinicians present the results of their scientific studies. Abstracts with a similar focus are clustered into a symposium to encourage discussions and interactions among investigators and observers; posters expand the information presented. **See abstract titles and authors on page 86-95.**

1:00 pm – 1:40 pm

Social Networking in the Workplace: No Big Deal or HIPAA Disaster Waiting to Happen?

Colleen L Schabacker BA RRT FAARC, Cookeville TN

Much has been written about social networking and its appropriateness in the workplace. There is clearly an impact on productivity. This lecture will define the benefits and pitfalls of social networking.

1:00 pm – 1:50 pm

Practical Approach to Acute Respiratory Failure: A Case-based Discussion

Ognjen Gajic MD, Rochester MN

This presentation will cover the advanced concepts of applied physiology on an example of a patient with severe shock and respiratory failure with extreme hypoxemia as approached by the Rapid Response Team. Multiple overlapping critical care syndromes will be discussed including: shock, acidosis, ARDS, sepsis, right ventricular dysfunction, ventilator-induced lung injury, acute coronary syndrome, and pneumothorax. The approach to patients in extremes with severe hypoxemia will also be discussed with the audience.



RESPIRATORY CARE

OPEN FORUM® Symposia

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Clinicians present the results of their scientific studies. Abstracts with a similar focus are clustered into a symposium to encourage discussions and interactions among investigators and observers; posters expand the information presented. Seventeen OPEN FORUM Symposia will be presented during the four days of Respiratory Care 2010. **See pages 86-95 for symposium sessions, abstracts titles and authors.**

1:00 pm – 1:45 pm

Long-Term Care Section Membership Meeting Gene Gantt RRT/Presiding

Section members meet to determine their needs and priorities, as well as how to use the AARC resources to accomplish them. All Congress attendees, including section non-members are invited to attend and to participate.

1:00 pm – 2:40 pm

Aerosol Drug Administration: Concepts and Practice

1:00 pm – 1:30 pm

Assessing New Technologies: Patient-Device Interaction and Deposition

Arzu Ari PhD RRT PT CPFT, Atlanta GA

Since the introduction of the first inhaler in 1956, advances in technology have made aerosol delivery much more efficient and accessible for patients with pulmonary diseases. At the end of this presentation, participants will be able to learn new technologies available for aerosol drug delivery and assess their strengths and limitations in clinical use in terms of patient-device interaction and impact on drug deposition to the lungs.

1:35 pm – 2:05 pm

What Is the Role of Inhaled Medication in Mechanically Ventilated Patients?

Rajiv Dhand MD, Columbia MO

Inhaled medications are often administered to mechanically ventilated patients. Multiple variables influence the effectiveness of medication delivery. This presentation will evaluate the effectiveness and optimization strategies to be included in clinical practice.

2:10 pm – 2:40 pm

Optimizing Aerosol Drug Delivery in Pediatrics and Neonates

Arzu Ari PhD RRT PT CPFT

Aerosolized bronchodilator delivery to pediatrics and neonates is complex due to the multiple factors that affect the amount of aerosol deposited in the lower respiratory tract. At the end of this presentation, participants will be able to determine the factors affecting aerosol drug delivery to pediatrics and neonates and provide recommendations for optimizing the efficiency of aerosol drug administration in order to reach therapeutic endpoints in children.

1:00 pm – 3:50 pm

Student-centered Seminar: From Grade to Grad

1:00 pm – 1:30 pm

Becoming a Professional

Toni L Rodriguez EdD RRT, Phoenix AZ

This presentation provides an overview of the profession of respiratory care to include its evolution, role, and value. Emphasis will be placed on the characteristics and traits of a professional and the critical importance of being involved and maintaining professional membership.

1:35 pm – 2:05 pm

Getting Credentialed: Part 1—the Written Exams

Bill Galvin MEd RRT CPFT AE-C FAARC,

Gwynedd Valley PA

The presentation will address the factors that make for success in the examination process. It will cover preparatory issues—what you will experience on site—as well as test-taking strategies and techniques. Emphasis will be placed on the written component of the NBRC credentialing process.

2:10 pm – 2:40 pm

Getting Credentialed: Part 2 — The Clinical Simulation Exam

Bill Galvin MEd RRT CPFT AE-C FAARC

This presentation provides an overview of the job selection process to include the resume and the interview process. Emphasis will be placed on securing meaningful and satisfying employment.

2:45 pm – 3:15 pm

Getting the Job

Colleen L Schabacker BA RRT FAARC, Cookeville TN

This lecture will provide an overview of the job selection process to include the resume and the interview process. Emphasis will be placed on securing meaningful and satisfying employment.

3:20 pm – 3:50 pm

Continuing Your Education

Lynda T Goodfellow EdD RRT FAARC, Atlanta GA

This presentation provides an overview of the continuing education needs and opportunities after completion of your RC education. Emphasis will be placed on lifelong learning and the need to continue to enhance formal education as well as professional education.

1:30 pm – 3:00 pm

Living the Dream: A Tale of Two Matts

Matt Johnston, Minneapolis MN and

Matt Eddy, Boston MA

Both Matts are ventilator users but have made history with their respective stories. They will each discuss their personal journey and how respiratory therapists have helped them realize their goals.

1:30 pm – 3:15 pm

Motivating and Engaging Your Staff

1:30 pm – 2:20 pm

Success Through Motivation

Mark D Babic RRT, Cleveland OH

Success can only be achieved in today's competitive business world through motivated employees. For a hospital to be successful, they need to find ways to not only achieve employee satisfaction but, more importantly, to fully engage them. This presentation will involve a high degree of interaction between the presenter and the audience.

2:25 pm – 3:15 pm

Integrating Respiratory Care in Your Organization: Hard-wiring Your Value!

Mark D Babic RRT

What do nurses and physicians really want from RTs? With better integration throughout your hospital, RTs will gain visibility and respect, and your value will be understood and accepted. This will be an interactive lecture, so come ready to join in!





1:30 pm – 4:55 pm

Year in Review: Part I

Presentations reviewing and discussing the most significant papers published in recent months.

1:30 pm – 2:00 pm

Invasive Mechanical Ventilation

Neil R MacIntyre MD FAARC, Durham NC

2:05 pm – 2:35 pm

Non-invasive Ventilation

Stefano Nava MD, Pavia Italy

2:40 pm – 3:10 pm

Ventilator-associated Pneumonia

Richard D Branson MSc RRT FAARC, Cincinnati OH

3:15 pm – 3:45 pm

Pediatric Mechanical Ventilation

Robert M DiBlasi RRT-NPS, Seattle WA

3:50 pm – 4:20 pm

Aerosol Therapy

Ruben D Restrepo MD RRT FAARC, San Antonio TX

4:25 pm – 4:55 pm

Pulmonary Function Testing

Gregg L Ruppel MED RRT RPFT FAARC, St Louis MO

1:50 pm – 2:55 pm

Clinical Controversies in Pediatric Respiratory Care: The Debate Goes On

Michael R Anderson MD, Celveland OH and
Ira M Cheifetz MD FCCM, Durham NC

Ever wonder what the experts are saying about some of the more controversial aspects of respiratory care? This ongoing, interactive debate between two experts in the field will provide contrasting views on clinically relevant topics that routinely affect critically ill infants and children. How should PEEP be optimized? Is non-invasive ventilation indicated for all etiologies of acute respiratory failure? Should recruitment maneuvers be routinely used? These controversial topics and others will be discussed. The presentation will include interactive discussion with the audience using an automated response system.

2:00 pm – 3:25 pm

Stopping the Revolving Door for COPD

2:00 pm – 2:40 pm

The Clinical and Economic Impact of Recidivism

Douglas S Laher MBA RRT, Cleveland OH

This presentation will describe the clinical and economic impact of unplanned readmission for patients with COPD, and will discuss the root cause of recidivism and the anticipated initiatives to eventually penalize acute hospitals and physicians for excessive readmissions.

2:45 pm – 3:25 pm

A Novel Case Management Intervention to Reduce Health Care Utilization

Naresh A Dewan MD, Omaha NE

This presentation will describe an innovative case management approach for COPD patients and discuss the methodology and findings in terms of overall utilization of health care services.

2:00 pm – 3:40 pm

Understanding Sleep Disorders

2:00 pm – 2:30 pm

Understanding Sleep Apnea

Antonio Stigall MBA RRT RPSGT, Melbourne FL

This presentation will review the types of sleep-disordered breathing and discuss prevalence and symptoms associated with each condition. Surgical and nonsurgical treatment modalities will be briefly discussed.





2:35 pm – 3:05 pm

Sleep and Sexual Function

James P Shaffer MD, Melbourne FL

This presentation will review sleep architecture and the relationship to endocrine function and identify sociological and environmental trends that impact sleep timing and sexual performance. The presenter will also review and define proposed sexual parasomnias.

3:10 pm – 3:40 pm

Sleep in the Intensive Care Unit

James P Shaffer MD

This presentation will review the unique aspects of sleep in the ICU and explore the effect of common sedatives and analgesics on sleep architecture and quality. The speaker will propose some basic guidelines for improving sleep in the ICU.

3:00 pm – 3:45 pm

Is BPD Inevitable?

Adel Bougatef MD, Brussels Belgium

With improvements in the survival rate for extremely premature infants, the prevalence of BPD continues to rise. This increased prevalence of bronchopulmonary dysplasia is occurring despite prenatal lung maturation techniques, postnatal surfactant replacement therapy, and important advancements in mechanical ventilation. This presentation will review the pathophysiology of BPD as well as discuss several multifaceted management strategies aimed at minimizing chronic lung disease in the vulnerable neonatal population.

3:00 pm – 4:55 pm

OPEN FORUMS #3 and #4

Clinicians present the results of their scientific studies. Abstracts with a similar focus are clustered into a symposium to encourage discussions and interactions among investigators and observers; posters expand the information presented. **See abstracts and authors on page 86-95.**

3:05 pm – 5:00 pm

High-frequency Ventilation: Matching Technology to Pathophysiology

High-frequency ventilation is increasingly being used in neonatal and pediatric ICUs. But how do you determine which high-frequency device should be used for an individual patient? When do you use jet, oscillatory, or percussive ventilation? Does it really matter? This session will review these ventilatory strategies and their applications to specific disease states.

3:05 pm – 3:30 pm

HFJV—High-frequency Jet Ventilation

Walter L Williford RRT, Durham NC

High-frequency jet ventilation can be valuable strategy for managing neonates with acute respiratory failure. However, potential applications go well beyond this population. The indications and management strategies for jet ventilation will be discussed.

3:35 pm – 4:00 pm

HFOV—High-frequency Oscillatory Ventilation

John Arnold MD, Boston MA

High-frequency oscillatory ventilation has long been accepted as a standard approach to infants and children with severe acute lung injury. However, this approach may not be ideal for all patients. The indications and management strategies for oscillatory ventilation will be reviewed by one of the leading experts in the field.

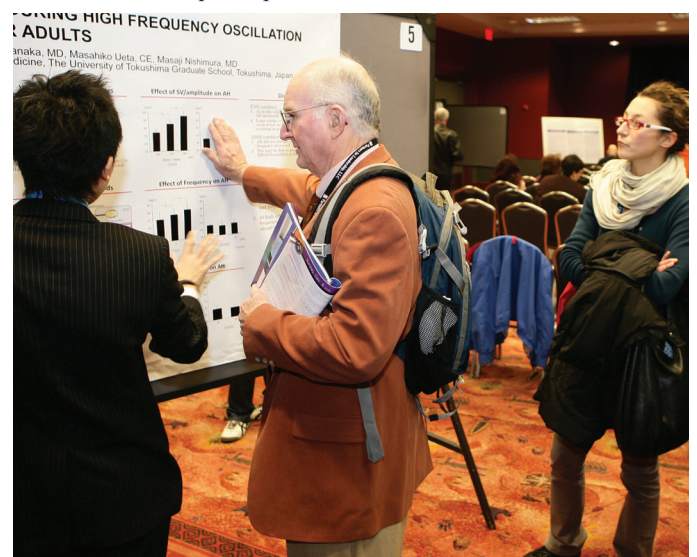
4:05 pm – 4:30 pm

HFPV—High-frequency Percussive Ventilation

Adel Bougatef MD, Brussels Belgium

High-frequency percussive ventilation is a standard strategy in many burn units, although its application goes well beyond this patient population. Most recently, percussive ventilation saw a significant increase in use during the H1N1 pandemic. The indications and management strategies for percussive ventilation will be reviewed by one of the pioneers of this ventilatory strategy.

300+ OPEN FORUM poster presentations and discussions.





4:35 pm – 5:00 pm

Matching Technology to Pathophysiology: Panel Discussion

Ira M Cheifetz MD FAARC, Durham NC

Now that you have heard about the various high-frequency ventilatory strategies, how do you determine the optimal approach for an individual patient? Each of these ventilatory modalities has clear advantages and disadvantages. This presentation will review application of high-frequency ventilation based on physiology and pathophysiology. Time will be allotted for an open discussion between the audience and the panelists. Come hear what the experts have to say and offer your opinions as well.

3:15 pm – 4:55 pm

Patient Safety in Home Care

3:15 pm – 3:45 pm

Common Safety Risks in Respiratory Home Care David A Gourley MHA RRT FAARC, Pompton Plains FL

In this presentation the speaker will identify common safety risks for the home respiratory patient and outline risk reduction strategies. He will explain sentinel event reporting, including conducting follow-up investigations and analyzing the findings.



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Congress is approved for all the
credit hours you need
to maintain your state license,
more than 26 hours.**

3:50 pm – 4:20 pm

Emergency Preparedness in Respiratory Home Care Timothy W Buckley RRT FAARC, Chicago IL

This presentation will provide an overview of emergency management regulatory requirements with specific reference to the home care environment, and discuss the elements of an effective emergency management plan for a home care company, including strategies for identifying those most at risk for service disruption.

4:25 pm – 4:55 pm

So, What Do We Do When Patients Won't Cooperate? David A Gourley MHA RRT FAARC

The presenter will provide examples of types of patient non-adherence with basic safety teaching and the potential adverse consequences and discuss strategies that will encourage patients and/or caregivers to comply with basic safety practices, including actions to be taken in the event of a natural disaster.

3:30 pm – 4:55 pm

Your Influence as an RT Leader

3:30 pm – 4:10 pm

Expanding Your Leadership Influence Scott Reistad RRT CPFT, Centura CO

The speaker will outline how to expand your influence in your organization beyond the RT department and throughout your organization to establish the "brand value" of your department and your services.

4:15 pm – 4:55 pm

Influencing Cultural Change Scott Reistad RRT CPFT

Many leaders are able to affect policies, staffing, procedures, and productivity in their department relatively easily. Yet, to



move toward a world-class department, one must actually affect cultural change in their department from one of “technical competence” toward a culture of interpersonal excellence, teamwork, and accountability.

3:35 pm – 4:30 pm

Defending Your License

Anthony L DeWitt JD RRT FAARC, Jefferson City MO

No therapist wants to face their Respiratory Care Licensure Board, but many do every year. In this presentation Attorney Anthony DeWitt, FAARC, examines the causes of licensure discipline and the various ways that therapists can come to the attention of their boards. He presents a compelling trial sequence from a real licensure case. Therapists will not want to miss this exciting and dynamic presentation. At the conclusion of this presentation you will be able to: (1) understand the key issues that cause respiratory care discipline, (2) understand the process by which boards mete out discipline, (3) understand the importance of legal counseling in meeting the challenge to a therapist’s license.

4:00 pm – 4:40 pm

An Evidence-based Look at Rapid Response Teams

Carl R Hinkson RRT, Seattle WA

The last several years have seen widespread adoption of rapid response systems in acute-care hospitals in an attempt to identify and manage acute patient deterioration outside the ICU setting. This presentation reviews the rationale for such systems and the published evidence for their effectiveness in reducing adverse patient outcomes and affecting cost-savings for the institution.

4:00 pm – 4:40 pm

Case Study Discussion of Ethical and Legal Issues in Respiratory Care

Joseph Goss MSJ RRT AE-C, Paramus NJ

The lecture will discuss select legal and ethical dilemmas therapists face during practice. The presentation will highlight a case to emphasize the selected ethical and legal issues. Also, it will note ways to recognize improper ethical behavior and the possible consequences of illegal actions.

4:10 pm – 4:50 pm

Circadian Rhythm Sleep Disorders

Paul A Selecky MD FAARC, Newport Beach CA

This presentation will address various sleep disorders that may impact the respiratory therapist and will discuss the impact of sleep on work performance. Types of sleep disorders discussed will include shift work sleep disorder, jet lag, as well as delayed and advanced types of circadian rhythm sleep disorders.

4:35 pm – 5:05 pm

Management Section Membership Meeting

Cheryl A Hoerr MBA RRT FAARC/Presiding

Section members meet to determine their needs and priorities, as well as how to use the AARC resources to accomplish them. All Congress attendees, including section non-members are invited to attend and to participate.

Disclosure of Faculty Conflict of Interest

- The AARC remains strongly committed to providing the best available evidence-based clinical information to participants of this educational activity and requires an open disclosure of any potential conflict of interest identified by our faculty members.
- It is not the intent of the AARC to eliminate all situations of potential conflict of interest, but rather to enable those who are working with the AARC to recognize situations that may be subject to question by others.
- All disclosed conflicts of interest are reviewed by the AARC Program Committee to ensure that such situations are properly evaluated and, if necessary, resolved.
- The AARC educational standards pertaining to conflict of interest are intended to maintain the professional autonomy of the clinical experts inherent in promoting a balanced presentation of science.
- Through our review process, all AARC CRCE activities are ensured of independent, objective, scientifically balanced presentations of information.
- Disclosure of any or no relationships will be made available on-site during all educational activities.

Industry Support Statement

- The AARC is proud of the collaboration we have had with friends in industry for many years, and we wish to acknowledge our appreciation for their unrestricted educational grants for the International Respiratory Congress.
- All sponsored sessions are identified by the program, handouts, and signage.
- The AARC accepts support only on the condition that the AARC Program Committee be the sole organizer of all sessions, including selection of speakers and topics.



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17 OPEN FORUM Symposia

Abstract Tiles and Authors

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The OPEN FORUM at the AARC Congress is a unique opportunity for attendees to experience the results of scientific studies performed by their colleagues. Abstracts and posters of their work are presented in a symposium format that encourages discussion and interactions among investigators and observers. Indeed, some attendees refer to the OPEN FORUM as the most significant event at the Congress. The **RESPIRATORY CARE** journal is proud to present this year's 17 OPEN FORUM Symposia. Once again respiratory care professionals have stepped forward and analyzed the things they do with critical eyes. We encourage you to review all the abstracts in the November issue of **RESPIRATORY CARE** and when they are posted on the Journal website. Come to the Congress and experience an OPEN FORUM symposium. We guarantee you a unique educational experience.

Monday, Dec 6, 12:30 pm – 2:25 pm

OPEN FORUM #1

Ventilation/Ventilators—Part I

- Bench Study of Heliox Tank Duration When Using the LTV 1200 Ventilator—Joel Brown II BS RRT, Newark DE
- The Therapist Driven Policy and Protocol: Positive Change for Patient Care—Joel Brown II BS RRT, Newark DE
- Use of the One Way Valve When Administering HFOV and Inhaled Nitric Oxide—Kenny Winn BSRC, Charlotte NC
- Case Series: Report of Patients at Our Institution Ventilated in Neurally-Adjusted Ventilatory Assist (NAVA) With Severe Obstructive Physiology—Brandy Seger BS, Cincinnati OH

- Procedural Ventilation by RT Managed High Frequency Oscillation Ventilation (HFOV) During Cardiac Tissue Ablations in the EP Lab Improves Catheter Stability and Decreases Procedure Times—John Murphy MSOL, Indianapolis IN
- Decreasing Unplanned Extubations in a Level IV Neonatal Intensive Care Unit—Annette Norman BS RRT-NPS C-NPT, Dickson TN
- Importance of Tracheostomy to the Weaning Success in Patients With Conscious Disturbance in Respiratory Care Center—Yu-Chan Lee BSc, Taipei Taiwan
- Evaluation of Patient-Ventilator Synchrony in the Respironics ST/D Vision and V60 When Ventilating a Mannequin Interfaced With an Electronic Breathing Simulator—Britney Griffith, Boise ID
- A Comparison of Delivered F_{IO_2} With a 10 LPM 80:20 Heliox Bleed-in on a Respironics Vision at Different Set F_{IO_2} 's and Tidal Volumes—Shannon Cocilova BS, Loma Linda CA
- Diagnosing Diaphragmatic Dysfunction With Continuous Diaphragmatic Muscle Activity Monitoring—Daniel Rowley BS, Charlottesville VA
- Comparison of APRV and BIPAP in a Mechanical Model of ARDS—Ehab Daoud, Cleveland OH
- Auto-PEEP During APRV Varies With the Ventilator Model—Ehab Daoud, Cleveland OH
- Evaluation of Electrical Impedance Tomography in Various Modes and Settings of Mechanical Ventilation—Roger Reichenbach, Detroit MI
- HFOV for ARDS and H1N1 Influenza: a Retrospective Review—Crystal Robertson RRT, Monroe MI
- Effect of Volume or Pressure Control Ventilation on Simulated Chest Tube Leaks—Olga Nazarenko, Cleveland OH
- Effectiveness of Therapist Driven Mechanical Ventilation Weaning Protocol in a Long Term Acute Care Hospital—Patricia Silver MEd, Memphis TN
- Non Invasive Assisted Rapid Shallow Breathing Index for Prediction of Failure in Non Invasive Ventilation—Jerry Lang, Boston MA

Monday, Dec 6, 12:30 pm – 2:25 pm

OPEN FORUM #2

Monitoring/Equipment—Part 1

- Rapid Expansion of an ECMO Program: a Novel Simplified Venovenous System for Adult Patients—Anthony Diez Sr BS, Creedmoor NC
- Integrated Pulmonary Index as a Possible Screening Tool for Pulmonary Disease—John Hill, Browns-Mills NJ
- A New Delivery Circuit in Evaluating Vasodilator Response of Inhaled Nitric Oxide in Patients With Idiopathic Pulmonary Arterial Hypertension—Ching-Tzu Huang, Taoyuan County Taiwan





- Evaluation of Free Flow Oxygen Devices for Use in Non Resuscitation Situations—Kathleen Deakins MHSA, Cleveland OH
- Variability Amongst T-Piece Resuscitation Circuits: Are All Circuits Created Equal? —Kathleen Deakins MHSA, Cleveland OH
- Measurement of PEEP On Manual Ventilation Systems—Rodrigo Adasme Lic, Santiago Metropolitana Chile
- ETCO₂ Monitoring in the Post-Operative Surgical Patient—Cory Daniels BSc, Lakeland FL
- Reference Data for Determining Ventilator Alarm Limits—Rory Mullin, Cleveland OH
- Use of Capnography to Assure Airway Patency During Inhaled Vasodilator Delivery With Nitric Oxide for Vasoreactivity Testing in the Cardiac Catherization Lab—John Murphy MSOL, Indianapolis IN
- Pulse Oximetry Evaluation in Hypoperfused ICU Patients—Edgar Delgado BS RRT, Pittsburgh PA
- Breath-by-Breath Update of Pulmonary Dead Space Fraction Measurement—Lara Brewer, Salt Lake City UT
- Patient-Specific Calculation of Initial Respiratory Rate Setting—Lara Brewer, Salt Lake City UT
- Integrated Pulmonary Index Stability in Healthy Adults Under Changing Conditions—Jonathan Waugh PhD RRT RPFT CTTS, Birmingham AL

Monday, Dec 6, 3:00 pm – 4:55 pm

OPEN FORUM #3

Management—Part I

- Best Leadership Practices in Interdisciplinary Communication Between Registered Nurses and Respiratory Therapists—Paula Aherns MA RRT, St Paul MN
- Development and Implementation of an Electronic Medical Record Chart Audit Process—Russell Graham AS, Houston TX
- Rapid Response Revisited: a Continued Success Story? —Russell Graham AS, Houston TX
- The Relationship of Employee Productivity to Billing Units in a Respiratory Care Department of an Oncological Academic Center—Clarence Finch MS, Houston TX
- The Impact of Therapist-Driven Protocols on Respiratory Therapist's Job Satisfaction—Kristin Burns BSc, Parma Heights OH
- Nationwide Survey of Licensure Requirements for Management Standards in Respiratory Care Practice Acts—Terrence Smith MHS, Asheville NC
- The Perceived Cultural Self-Efficacy of Respiratory Therapist and Nurses: a Comparative Study—Linda Birnbaum MS RRT, East Brunswick NJ
- Implementation of Community Based Outreach—Sandy Rhodes, San Diego CA
- Using HME's to Reduce the Cost of Mechanically Ventilation—Frank Sandusky MBA, North Olmsted OH
- Rapid Response: Are We Making a Difference?—Eugene De Guzman RRT, San Diego CA

- Changing Aerosolized Antibiotic Administration Times Reduces Patients Stay—Richard Bennett BS, Cleveland OH
- Implementing a Clinical Service Improvement Team to Ensure Best Practice—Garner Faulkner II BSRC, San Diego CA
- Comparison of Methods for Medication Storage and Transport by Respiratory Therapists in an 800 Bed Medical Center—Daniel Grady MEd, Asheville NC
- Evaluation of AARC Benchmarking Metric Validity—Robert Chatburn MHHS RRT-NPS FAARC, Cleveland OH
- Improving Response Time for Respiratory Care Disaster Preparedness Plan—Jenifer Graves, San Diego CA
- Implementation of a Patient Driven Protocol in the Era of Computerized Physician Order Entry (CPOE)—Dana Stauffer, Hershey PA
- The Value of a Capitated Pulse Oximetry Program—John Emberger Jr BS RRT, Newark DE
- Decreasing RCP Exposure to Potentially Harmful Aerosol Particles—Ricky Bowen BS, Durham NC
- Restructure of Hiring Process to Increase Retention Rates—Carol Mihailuk, San Diego CA

Monday, Dec 6, 3:00 pm – 4:55 pm

OPEN FORUM #4

Case Reports

- Overinflation Cuff of Tracheostomy Tube-Acquired Post Intubation Tracheo-Esophageal Fistula—Hsiang Chang, Kaohsiung Taiwan
- Tracheal Aggenesis—Hsiang Chang, Kaohsiung Taiwan
- ECMO: a Novel Treatment for Tracheal Dehiscence After Slide Tracheoplasty—Jenni Raake MBA RRT-NPS, Cincinnati OH
- A Case Study: Use of High Flow Nasal and Vibrating Mesh Nebulizer During Asthma Exacerbation on a Pregnant Woman—Pamela McDermott AS, Springfield MA
- Ludwig's Angina and Negative Pressure Pulmonary Edema: a Case Report—Damien Beilman RRT, Wichita KS
- Case Report: 72 Year Old Male Presenting With Pulmonary Alveolar Proteinosis—Michael Bocci BS, Houston TX
- Skin Preparation Process for the Prevention of Skin Breakdown in Patients Who Are Intubated and Treated With RotoProne—Mary Ellen Jackson RRT, Austin TX

RESPIRATORY CARE

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Tuesday, Dec 7, 12:30 pm - 2:25 pm

OPEN FORUM #5

Home Care; Sleep; Rehab; O₂ Therapy

- Wegener's Granulomatosis Seen in an Adolescent Female With Broncho-Pleural Fistula—Gary Lowe MEd RRT-NPS RPFT, Little Rock AR
- Ex-Vivo Lung Perfusion and Ventilation—Paul Nuccio MS, RRT FAARC Boston MA
- High Frequency Oscillatory Ventilation Rescue Refractory Hypoxemia in a Patient With Transfusion-Related Acute Lung Injury—Chin-Hua Huang, Taoyuan County Taiwan
- Implementation of the 2005 AHA CPR Guidelines Including the Use of an Impedance Threshold Device Improves in-Hospital Cardiac Arrest Survival Rates—a 5-Year Case History—Ken Thigpen RRT BS, Jackson MS
- Use of Neurally-Adjusted Ventilatory Assist to Treat a Large Pulmonary Air Leak: a Case Report—Matt McNally BS, Lebanon NH
- Use of Electrical Activity of the Diaphragm to Help Transition a Patient to a Home Mechanical Ventilator: a Case Report—Matt McNally BS, Lebanon NH
- Use of Heliox and Non-Invasive Ventilation in Combination to Treat Acute Cystic Fibrosis Exacerbation: a Case Report—Matt McNally BS, Lebanon NH
- The Value of the Shift/Team Leader in Facilitating Home Care Discharges—Ernest Jones, San Diego CA
- Discharge and Transfer of a Ventilator Dependent Patient From Out-of-State to Home: a Case Report—Louis Kaufman BS, Germantown MD
- Assessment of Patient Instruction of Continuous Positive Airway Pressure Therapy in the Patient's Home vs. in the Medical Equipment Supplier's Office—Louis Kaufman BS, Germantown MD
- Use of Heated Humidified High Flow Nasal Cannula for an Infant at Home: a Case Study—Louis Kaufman BS, Germantown MD
- Assessment of Respiratory Therapists' Knowledge of Current Long-Term Oxygen Equipment—Louis Kaufman BS, Germantown MD
- Evaluation of the Invacare IOC100P Oxygen Conserving Device—Louis Kaufman BS, Germantown MD
- COPD: Transition of Care and Rehospitalization Rates—Brian Carlin MD FAARC, Pittsburgh PA
- Validation of Liter Flow Rates on an Oxygen Cylinder System With Built in Regulator—Ryan Stecks BSRT, Little Rock AR
- Evaluation of Bronchial Pressures During Adult High Flow Nasal Cannula—Keith Hirst MS, Chicago IL
- Comparative Evaluation of Pulsed Dose Oxygen Conserving Devices—Robert Chatburn MHHS RRT-NPS FAARC, Cleveland OH
- Effect of Signal Loss on Respiratory Rate Recording With a Clinical Oxygen Dose Recorder—Lauren Furnkase, Youngstown OH
- Pulmonary Rehabilitation Designs a Plan to Step Up in Times of Disaster the Pulmonary Rehabilitation Respiratory Care Surge 2010 Disaster Plan—Jill Baker MS, Falls Church VA
- Patient Referral Tracking Outcomes in a Pulmonary Rehabilitation Program—Susan Farrell BS, Falls Church VA
- Art as a Therapeutic Outlet in the Pulmonary Rehabilitation Setting—Yvonne Sledge, University City MO
- Successful Application of Adaptive Servoventilation in a Patient With Sleep Disordered Breathing Secondary to Chronic Opioid Usage—Vichaya Arunthari MD, Jacksonville FL
- Determinant Factor of Oxygen Desaturation Recovery Time After a Six Minute Walk Test in Patients With COPD—Chika Hirota, Kawasaki Japan
- A Bench Study to Compare Humidity Output of Various CPAP Machines Equipped With Integrated Humidifiers—Robert McCoy RRT FAARC, Apple Valley MN





- The Role of Care-Givers in Assisting COPD Patients With the Use of Nebulizers at Home—Bothaina Alhaddad BPharm MSc, London United Kingdom

Tuesday, Dec 7, 12:30 pm – 2:25 pm

**OPEN FORUM #6
Education—Part I**

- Hands on Simulation Experience vs. Observation: a Knowledge Outcomes Analysis—Patricia Achuff MBA, Philadelphia PA
- NBRC Secure Self Assessment Tests: Saudi Arabia Experience—Faten Al Hubaishi BS, Riyadh Saudi Arabia
- Survey of Students Utilization of Video Taped Classroom Lectures—Ijaz Ahmed MD RRT, Galveston TX
- Enhanced Knowledge of Evidence Based Process (EBP) Though Professional Inquiry (PI) Council Project for Respiratory Therapists—Cynthia White BA Cincinnati, OH
- A Campus Community's Attitudes and Behaviors Regarding Tobacco Usage—Christy Kane PhD, Louisville KY
- Evidence-Based Practice Readiness Survey: an Analysis of Current Knowledge of a Pediatric Respiratory Care Services Department—Gary Lowe MEd RRT-NPS RPFT, Little Rock AR
- Respiratory Practice Team Boosts Employee Morale While Improving Patient Care/Outcomes and Decreasing Costs—Julie Colquist AOS BBA, Tempe AZ
- Bridging the Knowledge Gap Between the Bedside Respiratory Therapist and the Evidence: Educating Respiratory Therapists on the Use of Evidence-Based Practice Skills—Abby Motz BS, Cincinnati OH
- Fostering Educational Growth to Promote Future Leaders in Respiratory Care—Abby Motz BS, Cincinnati OH
- Survey of Existing Conditions of the Respiratory Care Team in Japan: an Analysis of Impact Factors—Nakanishi Miki, Nishinomiya Japan
- Writing Analysis of Student Volunteer Experience Verbatims Shows Little Linguistic Diversity—Mohamed Gamadid BAS, Rochester MN
- Respiratory Therapist Use of a Pediatric Tracheostomy Training Manual for Home Caregivers—Leane Soorikian BS, Chester Springs PA
- Interdisciplinary High-Fidelity Clinical Simulation: Effects on Teamwork Communication and Decision Making—Georgianna Sergakis PhD, Columbus OH
- Evaluation of the Ohio State University Health Coach Training Program—Crystal Dunlevy EdD, Columbus OH
- Delivery of Asthma Education in the U.S. — Bill Pruitt MBA RRT, Mobile AL
- Therapists' Experiences as Clinical Preceptors—Jennifer Keely BHS RRT, Columbia MO

Tuesday, Dec 7, 3:00 pm - 4:55 pm

**OPEN FORUM #7
Diagnostics**

- Does Screening Spirometry Effectively Detect or Diagnose Lung Disease in At Risk Populations?—Billy Collins DHSC(c), Rocky Mount NC
- Screening of Obstructive Sleep Apnea in Awake Subjects—Paulo Caseiro MSc, Coimbra Portugal
- An ABG Procedure Complications Analysis—Joel Brown II BS RRT, Newark DE
- Conditions Associated With a Nonspecific Pattern of Pulmonary Function Tests: Experience in Japan—Yohei Yatagai, Naka-gun Tokai-mura Japan
- Impact of a Therapist-Driven Protocol Including Incentive Spirometry and High-Frequency Chest-Wall Oscillation on Incidence of Post-Operative Pneumonia—Eileen Luley MS, Rome NY
- A Comparative Study of FVC Fev₁ and TLC in Non-Smoking Saudi Students at Eastern Province Saudi Arabia With Caucasian Reference Values—Noor Al-Khathlan MSc, Dammam Eastern Province Saudi Arabia
- Comparison of a Non-Invasive Blood Pressure Measuring Device to Arterial Blood Pressure During Cardiopulmonary Exercise Testing—Carl Mottram BA RRT RPFT FAARC, Rochester MN
- Comparison of Exhaled Nitric Oxide (ENO) Before and After Drinking Water—Carl Mottram RRT RPFT FAARC, Rochester MN
- Does Exhalation Time of the Forced Vital Capacity Maneuver Significantly Affect Mean Estimates of Pulmonary Function Screening Parameters? — Kathleen Clark MS RRT CPFT, Columbia SC
- A Safer Method of Performing Apnea Tests Using Carbogen and Capnography for Patients on APRV—Maria Madden BS RRT, Fallston MD
- Vital Capacity Above the Lower Limit of Normality Does Not Exclude a Restrictive Lung Defect—Alan Moore, Birmingham United Kingdom
- A Comparison of the Stability of PO₂ and PCO₂ Stored in Plastic Arterial Samplers—F. Herbert Douce MS, Columbus OH
- Clean My R.I.D.E. (Reduce Inhalation of Diesel Exhaust): Phase Two—Randall Baker PhD, Augusta GA

Tuesday, Dec 7, 3:00 pm - 4:55 pm

**OPEN FORUM #8
Airways Care**

- A Case Study: Effective Ventilation During Rapid Response With the Patient in the Seated Position—Marnni Hutchins AS, San Diego CA
- One Hour Interventional Algorithm Using Humidified High Flow Therapy (HHFT) Optiflow Nasal Canula in Acute Respiratory Failure—Stephane Delisle MSc, Montréal QC Canada



10:00 am – 10:50 am

Circulation: The Influence of the Ventilator and ECMO on Hemodynamics

Ira M Cheifetz MD FAARC, Duke University Medical Center, Durham NC

Cardiorespiratory interactions play a significant role in the physiology of a critically ill patient; however, these interactions are often underappreciated when ventilator parameters are adjusted. As the ventilator is adjusted, what happens to the cardiovascular system? This presentation will review the interactions between the lungs and heart.

11:00 am – 11:45 am

Panel Discussion: Ask the Experts

Ira M Cheifetz MD FAARC
Michael A Gentile RRT FAARC
Brian K Walsh MBA RRT-NPS FAARC

Pose your problems and concerns to our group of ventilator experts as they share their technical experience and expertise on issues related to the pediatric ventilator patient.

11:45 am – 12:55 pm

Lunch—On Your Own

1:00 pm – 1:50 pm

Lung Protection

Neil R MacIntyre MD FAARC, Duke University Medical Center, Durham NC

The use of mechanical ventilation can help as well as hurt the patient. What effect does positive pressure ventilation have on the lung? What are safe levels of oxygen and carbon dioxide? How can we employ mechanical ventilation and safely protect the lung from injury? This presentation will review the concept of ventilator induced lung injury, lung protective ventilatory strategies and permissive hypercapnia/hypoxemia.

2:00 pm – 2:50 pm

Management of the Ventilator Withdrawal Process

Dean R Hess PhD RRT FAARC, Massachusetts General Hospital, Boston MA

The indications for mechanical ventilation are fairly well documented in the literature. However, the withdrawal process less understood and more subjective. When should the discontinuation of

mechanical ventilation be considered? What process should be followed? This presentation will review the ventilator withdrawal process, to include; recognizing withdrawal potential, the role of the SBT, managing patients who fail the SBT, and the role of NIV.

3:00 pm – 3:50 pm

Patient-Ventilator Synchrony

Richard D Branson MSc RRT FAARC, University of Cincinnati, Cincinnati OH

With the enhanced capabilities and features of the contemporary mechanical ventilators comes the potential for patient-ventilator dysynchrony. How would one identify asynchrony/dysynchrony? What can the therapist do to correct the problems of asynchrony/dysynchrony? This presentation will review management of asynchrony/dysynchrony in mechanical ventilation, to include; autocycling, intrinsic PEEP, triggering, the role of flow in synchrony and breath termination issues.

4:00 pm – 4:45 pm

Panel Discussion: Ask the Experts

Richard D Branson MSc RRT FAARC Dean R Hess PhD RRT FAARC Neil R MacIntyre MD FAARC

Pose your problems and concerns to our group of ventilator experts as they share their technical experience and expertise on issues related to the adult ventilator patient.





Tuesday, Dec 7

8:30 am – 9:20 am
**AARC ANNUAL
BUSINESS
MEETING**

Timothy R Myers
RRT-NPS, AARC
President / Presiding

The official Annual Meeting of your professional association. The 2011 AARC Officers, Board of Directors and House of Delegates officers are installed. Reports from the AARC leadership are presented. The meeting concludes with the inaugural address of the 2011/2012 AARC President, Karen J Stewart MS RRT FAARC.

9:30 am – 10:20 am

**37TH DONALD F EGAN SCIENTIFIC
MEMORIAL LECTURE**

This lecture provides an overview of in-depth information about dynamic aspects of pulmonary physiology, pulmonary medicine, or clinical respiratory care. The lectureship is extended to a recognized world-class participant in the area of interest — investigator, clinician, or academician.



***The Mechanical Ventilator—
Past, Present, and Future***

Robert M Kacmarek
PhD RRT FAARC, Boston MA

The continuing development of the mechanical ventilator has helped to define the profession of respiratory care. In the beginning ventilators were simple in design, today they are highly complex and sophisticated microprocessors capable of providing multiple modes of ventilatory support. However, the question that must be addressed is: What should be the capabilities of future mechanical ventilators? In this presentation the rationale for the historical refinements of the mechanical ventilator will be discussed and the needed changes to future generations of mechanical ventilators will be outlined.



Las Vegas Convention Center • Las Vegas, Nevada, USA • AARC.org



8:00 am – 6:00 pm

33RD NATIONAL COMPETITION SPUTUM BOWL® PRELIMINARIES

Deborah J Hendrickson RRT / *Presiding*
Madison WI

Supported by an unrestricted educational grant from



Teams from the AARC state affiliates compete in the preliminary competitions. The top four teams will advance to the Finals on Wednesday evening, Dec 8, along with the Student Sputum Bowl finalists.



Exhibit Hours at The Buying Show: Monday - Wednesday, Dec 6 - 8, 11:00 am - 4:00 pm





10:30 am – 11:10 am

Patient Safety, Resource Management, and Essentials of Communication: A Perspective from the Bedside to the VP's Desk

Michael R Anderson MD, Cleveland OH

Few clinicians are able to provide a comprehensive perspective on patient safety, resource management, and essentials of communication from the bedside to the hierarchy of hospital administration. Dr. Anderson will provide a broad base of valuable information for the bedside clinician to improve understanding of the medical system and to learn valuable information to improve the bedside care of our patients.

10:30 am – 11:10 am

The AARC CPGs – Making A Difference

Ruben D Restrepo MD RRT, San Antonio TX

This presentation will update the activities of the AARC Clinical Practice Guidelines Committee, with particular attention to the CPGs published in 2010.

10:30 am – 11:10 am

Interfacing Respiratory Care Information Systems with Computerized Physician Order Entry (CPOE)

George W Gaebler MS Ed RRT FAARC, Syracuse NY

The speaker will present the reasons, justification for, and outcomes that are realized from the creation of a fully interfaced RCIS with CPOE. The presenter will cover planning, system build, and pitfalls to be avoided when trying to interface a RCIS with hospital mainframe systems.

10:30 am – 11:10 am

Proving the Value of RTs—Inpatient Screening Program for Obstructive Sleep Apnea

Joy E Hargett RRT, Houston TX

This presentation will discuss the development and implementation of an inpatient OSA screening program in a large, metropolitan hospital. The presenter will discuss her experience with identifying and screening high-risk patients and will explain how the program has enhanced sleep lab referrals resulting in revenue stream enhancement.

10:30 am – 11:30 am

Professor's Rounds: Therapeutic Application of One-Lung Ventilation

Professor: Charles G Durbin Jr. MD FAARC, Charlottesville VA

Presenter: Randal S Blank MD PhD, Charlottesville VA

Patients with unilateral lung disorders present unique challenges for their caregivers. During this presentation, treatment

RESPIRATORY CARE

OPEN FORUM® Symposia

Seventeen OPEN FORUM Symposia will be presented during the four days of Respiratory Care 2010. See pages 86-95 for symposium sessions, abstracts titles and authors.

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ADVANCING CRITICAL CARE

of a patient with alveolar proteinosis undergoing bronchoalveolar lavage will be discussed. Techniques of lung isolation, problems with oxygenation, and issues related to mechanical ventilation will be discussed. This case will be used to develop an approach management of other situations that may benefit from single lung ventilation such as bronchopleural fistula, unilateral ARDS, and lung transplantation.

10:30 am – 11:45 am

Travel Challenges for Patients with Chronic Respiratory Disease

10:30 am – 11:05 am

Traveling with Oxygen

Joseph S Lewarski RRT FAARC, North Ridgeville OH

This presentation will provide an overview of current FAA regulations for using personal oxygen equipment inflight and will review the important pre-travel arrangements oxygen patients must make to ensure TSA clearance, prompt boarding and a safe air travel experience.

11:10 am – 11:45 am

Traveling with Ventilatory Support

Lisa Wolfe MD, Chicago IL

This presentation will provide details of the challenges faced by patients and their family/caregivers when traveling with ventilatory support, provide examples of patients who have successfully traveled with their ventilatory support devices, and offer helpful hints to ensure a safe travel experience.

10:30 am – 11:55 am

Clinical Neonatal-Pediatric Cases: An Interactive Approach

Stacey Peterson-Carmichael MD, Durham NC and Robert M DiBlasi RRT-NPS, Seattle WA

Ever wonder how your diagnostic and management styles and decisions compare with those of your peers? In this interactive audience response session, interesting neonatal and pediatric cases will be presented from the physician and RT perspectives. Come learn and share your opinions with the presenters and your colleagues.



10:45 am – 11:30 am

Hot Topics in Pediatrics and Transport Cardiopulmonary Implications in the Morbidly Obese Pediatric Patient with Acute Respiratory Failure

Jerome Spinnato RRT-NPS, Pittsburgh PA

The current trend of obesity in the United States, particularly in children, represents a challenge to pediatric hospitals, interfaculty transport teams and outlying hospitals. Anticipation and effective management of potential complications is critical to achieving successful outcomes. This lecture will focus on the unique anatomic and physiologic characteristics of obese children that complicate airway management, mechanical ventilation and cardiopulmonary response. A review of epidemiology and current literature pertaining to this population will be discussed. Additionally, this lecture will review pre-transport considerations for both outlying hospitals and interfaculty transport teams.

11:15 am – 11:55 am

Does the Arterial PaCO₂ Really Matter?

Ken Tegtmeier MD, Cincinnati OH

Arterial blood gas analyses are frequently obtained for patients with acute lung injury. Many ventilator manipulations are made based on the PaCO₂ value. But does the PaCO₂ really matter? This presentation will provide a thoughtful approach to the concept of permissive hypercapnia from the medical literature to the application at the bedside.

11:15 am – 11:55 am

Hospital-acquired Infections: How Are We Doing?

Supported by an unrestricted educational grant from



Robert M Kacmarek PhD RRT FAARC, Boston MA

Hospital-acquired infections significantly influence health care costs, length of stay, morbidity and mortality. RTs play an influential role in the identification, treatment, and prevention of hospital-acquired infections. Strategies from simple to complex can have a direct effect on the outcome of your patient.

11:20 am – 12:00 noon

RT and the Recession: Leading Through Troubling Times

Douglas S Laher MBA RRT, Cleveland OH

Leadership is a staple, or should be, in every RT department. Some individuals are talented leaders while others are great managers, but not necessarily great leaders. During difficult economic times, it is incumbent upon managers to lead more effectively than ever. Attendees will leave this presentation armed with tangible action items that they can take back to the office to make immediate changes in their dealings with employees.

11:20 am – 12:00 noon

The Ethics of Using Non-invasive Ventilation at the End of Life

**Shawna L Strickland PhD MEd RRT-NPS AE-C,
Columbia MO**

This presentation will address the ethical issues associated with using non-invasive ventilation to sustain life in futile situations. There are situations in which the RT faces ethical dilemmas as they strive to provide the most ethical patient care, although the patient has completed a “do not attempt resuscitation” or “do not intubate” order. The presentation will view the situation from all perspectives and review current literature regarding attitudes about using non-invasive ventilation at the end of life.

12:30 pm – 2:25 pm

OPEN FORUMS #5 and #6

Clinicians present the results of their scientific studies. Abstracts with a similar focus are clustered into a symposium to encourage discussions and interactions among investigators and observers; posters expand the information presented. **See abstract titles and authors on pages 86-95.**

1:00 pm – 1:45 pm

The AARC Leadership Institute: Preparing Tomorrow's Leaders Today

**Toni L Rodriguez EdD RRT, Phoenix AZ,
Linda I Van Scoder EdD RRT FAARC, Indianapolis IN
and Robert L Chatburn RRT-NPS FAARC,
Cleveland OH**

The Leadership Institute program is comprised of a core curriculum that each participant must complete comprised of topics related to a basic skill set any practitioner would need to advance professionally (ie: communication, leadership, basic finance, computer skills etc). After completion of the core curriculum, individuals can complete any or all of 3 separate tracks: Management, Education and/or Research. Upon





completion of the Core and a Track, the individual will be awarded a certificate of completion. The main goal of the Fast Track program is to make accessible to any RT anywhere the skills and mentorship required to advance as a professional in their work environment. The topics for the three tracks were chosen because they are key to the advancement of our profession, and the AARC is committed to growing our own future leaders.

1:00 pm – 1:45 pm

Agencies Updates

Timothy R Myers RRT-NPS—AARC President

Michael T Amato—ARCF Chair

David L Bowton MD—CoARC Chair

Gregg L Ruppel RRT RPFT FAARC—NBRC President

The leadership of the AARC, ARCF, CoARC and NBRC will present the most updated information affecting the profession, research, accreditation, and credentialing. A must-attend session in your agenda!

1:00 pm – 1:45 pm

PFT: Back to Basics

Gregg L Ruppel MEd RRT RPFT FAARC

St Louis MO

Pulmonary function testing is a valuable tool for evaluating the respiratory system. These tests provide valuable data that is used to assist in the diagnosis of a variety of diseases and formulate treatment plans. This presentation provides an overview of the current practices and standards.

1:00 pm – 1:45 pm

The Respiratory Therapist as a Clinical Research Coordinator: A Non-traditional Role

Jan D Fernandez CCRC RRT-NPS, Atlanta GA

This presentation gives a brief historical overview of research as well as how and why it has changed over the years. The role of a clinical research coordinator is defined. The presentation also describes how a respiratory therapist is



a perfect match for this type of non-traditional role. The presenter will also present some examples of the research that she is coordinating.

1:00 pm – 3:35 pm

Monitoring of the Mechanically Ventilated Child

1:00 pm – 1:35 pm

Lung Volume Measurements—Is the Holy Grail Really on the Horizon?

John H Arnold MD, Boston MA

The titrate to the ideal PEEP remains an active clinical controversy. However, if lung volumes cannot be accurately determined, then how can PEEP really be optimally set? This presentation will review new strategies and technologies to accurately assess lung volume for mechanically ventilated patients.

1:40 pm – 2:15 pm

Airway Graphic Analysis: A Lost Art?

Ken Tegtmeier MD, Cincinnati OH

Most modern-day ventilators continuously display airway graphics. But do you routinely analyze airway graphics in the care of your ventilated patients? Come learn about various strategies and technologies to accurately assess lung volume for mechanically ventilated patients.

2:20 pm – 2:55 pm

Capnography—Really the 5th Vital Sign

Michael A Gentile RRT FAARC, Durham NC

The data are mounting that capnography is underutilized in our ICUs. Should capnography be the 5th vital sign? Should all mechanically ventilated patients be monitored with capnography? These questions and others will be discussed based on the available medical literature.

3:00 pm – 3:35 pm

Pulmonary Function Testing—How, When, and Why

Stacey Peterson-Carmichael MD, Durham NC

Pulmonary function testing for extubated patients is routine, but what about mechanically ventilated children? This presentation will review the indications, techniques, and benefits of assessing the pulmonary function of intubated pediatric patients.





1:00 pm – 3:50 pm

Continuing Care for Patients with Diseases Affecting Ventilation

1:00 pm – 1:30 pm

Overview of Neuromuscular Diseases Affecting Ventilation

Lisa F Wolfe MD, Chicago IL

The presenter will discuss the etiology and pathology of neuromuscular diseases having an adverse impact on ventilation and gas exchange and will describe the pathophysiology that must be addressed in this patient population.

1:35 pm – 2:05 pm

Challenges of Providing Ventilatory Support for Neuromuscular Patients

Joshua O Benditt MD, Seattle WA

This presenter will describe the role of the RT in managing a patient with respiratory impairment secondary to a neuromuscular disease in the post-acute care setting, and will discuss the special challenges this patient population presents to the clinician.

2:10 pm – 2:40 pm

Options for Secretion Management in Neuromuscular Disease Patients

Louis Boitano MSc RRT, Seattle WA

This presentation will provide an overview of the challenges of maintaining effective secretion management for neuromuscular patients with impaired cough and/or artificial airway, and will discuss the role(s) of family caregivers in this essential undertaking.

2:45 pm – 3:15 pm

Special Challenges in Pediatric Patients with Neuromuscular Disease

Denise Willis RRT-NPS, Little Rock AR

The presenter will describe the special considerations in maintaining effective ventilation and secretion management in children afflicted with a neuromuscular disease and will present examples of programs that allow this special patient population to effectively participate in activities of daily living.

3:20 pm – 3:50 pm

Tips of the Trade: Optimizing Non-invasive Ventilation for Chronic Neuromuscular Disease

Louis Boitano MSc RRT

This presentation will share experiences and outcomes with the use of non-invasive techniques to maintain effective ventilation across the spectrum of activities of daily living in patients with neuromuscular disease, and will provide examples of how various challenges can be addressed without compromising patient safety.

1:00 pm – 4:55 pm

AARC's 26th New Horizons in Respiratory Care Symposium: ARDS Update

1:00 pm – 1:35 pm

What Is ARDS?

Jesus Villar MD PhD, Canary Islands Spain

How is ARDS defined? What are some of the practical problems with the current definitions? Is there a difference between clinical definitions used to enroll subjects into clinical trials?

1:40 pm – 2:15 pm

Is ARDS Preventable?

Ognjen Gajic MD, Rochester MN

Accumulating evidence suggests that many cases of ARDS are preventable. What are the roles of tidal volume limitation, PEEP, limiting transfusions, conservative fluid balance, etc, in the prevention of ARDS?

2:20 pm – 2:55 pm

Conventional Ventilator Management of ARDS

Dean R Hess PhD RRT, Boston MA

What tidal volume should be used? How should PEEP be set? Should volume-targeted or pressure-triggered modes be used?

3:00 pm – 3:35 pm

Approaches to Hypoxemia in Patients with ARDS

Randal S Blank MD PhD, Charlottesville VA

What is the evidence to support nonconventional ventilatory approaches such as recruitment maneuvers, APRV, HFOV, prone positioning, and inhaled vasodilators to improve oxygenation in ARDS?

3:40 pm – 4:15 pm

NIV for ARDS

Stefano Nava MD, Pavia Italy

NIV is standard care for COPD exacerbation and acute cardiogenic pulmonary edema. But does it have a role in ARDS? When, if ever, should it be used in this setting?

4:20 pm – 4:55 pm

Pediatric ARDS

Ira M Cheifetz MD FAARC, Durham NC

How does ARDS in children differ from that in adults? What is the evidence? What ventilator strategies should be used in pediatric ARDS?



1:30 pm – 2:35 pm
Sleep Disorder Basics

1:30 pm – 2:00 pm
Sleep Apnea Therapy—Basics and Newer Types of Therapy

Paul A Selecky MD FAARC, Newport Beach CA
This session will first review the basics of positive airway pressure therapy including CPAP and bi-level PAP, and follow up with a discussion of some of the newer modalities of PAP available to patients and clinicians including ASV.

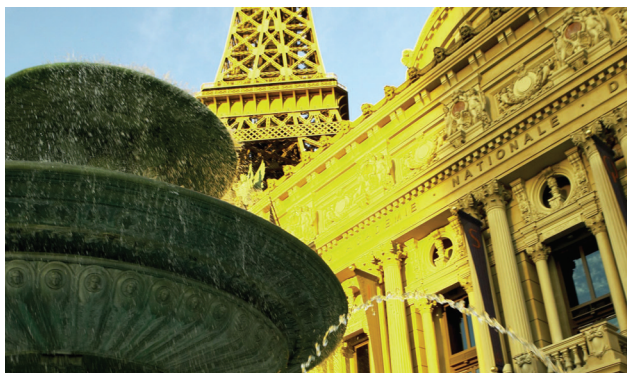
2:05 pm – 2:35 pm
Optimal PAP Adherence—What Does the Patient Need?

Joy E Hargett RRT, Houston TX
This session will discuss the challenges of ensuring patient compliance with prescribed PAP therapy. The speaker's experience with measures for boosting optimal adherence to therapy will be described.

2:00 pm – 3:40 pm
Transitioning Care: Roles for Respiratory Therapists

2:00 pm – 2:30 pm
Identifying and Closing the Gaps in the Care of Patients with COPD

Brian W Carlin MD FAARC, Pittsburgh PA
The presenter will describe the known gaps in the care and management of patients with COPD ranging from the detection of COPD, to the management of a patient with an exacerbation, to the use of pulmonary rehabilitation as a component of such care.



2:35 pm – 3:05 pm
Competencies for the Respiratory Therapist Providing Home Care

Kim Wiles RRT, Ford City PA
The presenter will describe the competencies that are required for a respiratory therapist who provides home care. A program to impact the transition of care for a COPD patient from the hospital to the home environment based upon these competencies will be described.

3:10 pm – 3:40 pm
Innovative Transition of Care Partnerships for Hospitalized Patients Making the Transition from Acute Care to Home Care

Dan Easley, Ford City PA
The presenter will describe an innovative partnership for providing the transition of care for patients who are hospitalized with COPD to the home environment, with focus on customer satisfaction, quality of care, and seamless process of transition.

2:00 pm – 4:55 pm
You and The Law

2:00 pm – 2:40 pm
Ethics, Adverse Events and the RT: Do I Have to Report That?

Thomas R Lamphere RRT, Sellersville PA
Health care workers and RTs in particular routinely face ethical questions and challenges every day. Obvious ethical questions including the removal of life support are frequently discussed. However, there are numerous other ethical questions and decisions that RTs are forced to make every day regardless of the health care venue in which they work.

2:45 pm – 3:25 pm
Risk Management and the Respiratory Therapist

Jonathan Fanaroff MD JD, Cleveland OH
Identify the role of respiratory therapy in risk management. Does multidisciplinary care affect the risk at the bedside? Who is really at risk at the bedside? Includes creating action plans and remedies when everything really does go wrong.

3:30 pm – 4:10 pm
Ten Things You Can Do to Avoid the Courtroom

Anthony L DeWitt JD RRT FAARC, Jefferson City MO
Anyone who has ever been served with lawsuit papers knows the sick feeling that goes through you



when they arrive. Will everything be alright? Will my insurance protect me? But few of us on a daily basis do the 10 things we need to do to keep lawsuits at bay. This presentation will look at 10 simple steps you can take every day to ensure that you are not sued, or that if you are, you will be able to prevail. At the conclusion of this presentation you will: (1) understand the value of personal relationships in lawsuit avoidance, (2) appreciate the value of the apology as a means of avoiding litigation, (3) understand the steps in documentation that help prevent lawsuits.

4:15 pm – 4:55 pm

Educator Academy: Legal Issues for RC Educators
Jonathan Fanaroff MD JD

Respiratory care program and clinical faculty are frequently faced with legal issues related to the student. These issues can entail such things as criminal background checks, confidentiality in the clinical setting, accessing patient records, to name a few. This presentation will provide an overview of these issues as they relate to ADA, HIPAA, FERPA, etc.

2:00 pm – 4:55 pm

Contemporary Topics in Programmatic Accreditation

2:00 pm – 2:40 pm

Models of Articulation: From Associate Degree to Baccalaureate Degree to Master's Degree
Kathy Rye EdD RRT FAARC, Little Rock AR

Attendees will be provided with an overview of various models of articulation currently in use in our profession. General topics include programmatic and curriculum planning to ensure participation and collaboration by key individuals. Models used in other health care disciplines will also be discussed.

2:45 pm – 3:25 pm

Incorporating Inter-Rater Reliability into Your Curriculum

Kathy Rye EdD RRT FAARC

This presentation will cover the strategies needed for successfully incorporating inter-rater reliability methods into student evaluations. Emphasis will be placed on inter-rater reliability in the clinical setting as well as the steps necessary to comply with the new CoARC accreditation standards.

3:30 pm – 4:10 pm

The Annual Report Process: Strategies for Success
Stephen Mikles EdS RRT FAARC, Pinellas Park FL

Attendees will be provided with an overview of CoARC's new Web-based annual reporting tool, E-Accreditation, which assists programs in their collection of annual program data and outcomes data. The presenter will focus on the process and strategies for successfully completing the annual report in time for the April 15, 2011 deadline.

4:15 pm – 4:55 pm

Don't Sleep on It! Revising Your Polysomnography Program to Meet Current Standards
Thomas Smalling PhD RRT RPFT RPSGT FAARC, Bedford TX

Attendees will be provided with an overview of the new accreditation standards and its implications for programs offering the polysomnography program option. The presenter will focus on recent changes in accreditation of polysomnography programs and the strategies for implementing programmatic changes to address compliance with the new standards.

2:45 pm – 4:10 pm

The Business of Sleep

2:45 pm – 3:25 pm

Opening a Sleep Laboratory—Making a Dream a Reality

Harold Davis RRT CPFT, Searcy AR

This presentation will discuss the market research that is vital when planning to open a sleep disorders laboratory. The presenter will share his experiences with the preparations required to successfully open and ensure continuing operation for this specialty business.

3:30 pm – 4:10 pm

Sleep Laboratory Accreditation
Harold Davis RRT CPFT

This presentation will review the preparation necessary to successfully complete the accreditation process for an Independent Diagnostic Testing Facility (IDTF). Attendees will receive tips on continuing compliance with accreditation standards.

3:00 pm – 4:55 pm

OPEN FORUMS #7 and #8

Clinicians present the results of their scientific studies. Abstracts with a similar focus are clustered into a symposium to encourage discussions and interactions among investigators and observers; posters expand the information presented. **See abstract titles and authors on page 86-95.**





3:45 pm – 4:55 pm

Does the Type of Manual Resuscitator Really Matter?

3:45 pm – 4:05 pm

Self Inflating vs. Non-self Inflating Bags: Is There Really a Difference?

John W Salyer MBA RRT-NPS, Seattle WA

The differences between the two most widely utilized manual resuscitators will be discussed. Advantages and disadvantages of each approach will be presented via a comprehensive review of the available medical literature.

4:10 pm – 4:30 pm

T-piece vs. Manual Inflating Bags: Is It Worth the Additional Expense?

Timothy R Myers RRT-NPS, Avon OH

This presentation will review the types of semi-manual resuscitators and then contrast them to the most widely used version of manual ventilation—the ‘bag.’ Is the T-piece resuscitator superior to the more common approach?

4:35 pm – 4:55 pm

Should We Manually Resuscitate at All? Are We Doing More Harm Than Good?

Brian K Walsh MBA RRT-NPS FAARC, Dallas TX

Are we doing more harm than good with manual resuscitators? Should manual resuscitation be reserved only for dire situations? This presentation will review the myth that educated hands can provide a consistent airway pressure, minute ventilation, and assessment for changes in lung compliance.



3:45 pm – 5:00 pm

Respiratory Home Care 2010 and Beyond

3:45 pm – 4:20 pm

Competitive Bidding and Other Regulatory Initiatives

Greg Spratt RRT CPFT, Philadelphia MO

This presentation will provide an update on the status of national competitive bidding and will review other regulatory initiatives that might impact respiratory home care.

4:25 pm – 5:00 pm

Impact of Reimbursement Changes on the Provision of Clinical Support Services and Possible Solutions

Louis M Kaufman RRT-NPS AE-C FAARC, Olney MD

This presentation will review how respiratory home care companies have been impacted by reimbursement changes and will discuss novel interventions that can be used to maintain needed clinical support when financial resources are challenged.

3:50 pm – 4:50 pm

Let's Play the Game: An Exercise in Using Process Improvement Tools

Darnetta Clinkscale MBA RRT, St Louis MO

Building on the information provided with regard to tools and techniques, the presenter will engage the audience using the Audience Response System (ARS) to engage the attendees in highly interactive exercises to demonstrate how to utilize these tools to decrease waste while maintaining quality.

4:00 pm – 4:40 pm

Management of the Difficult Pediatric Airway: Tricks of the Trade

John Arnold MD, Boston MA

What would you do if faced with a difficult airway? Can you identify a potential difficult airway? Does your ICU have the specialized equipment to manage an unexpected difficult airway? The answers to these essential clinical questions and others will be answered. Preparing for the unexpected difficult airway situation may be life-saving.

4:20 pm – 5:00 pm

Cardiorespiratory Interactions

Charles G Durbin Jr MD FAARC, Charlottesville VA

This presentation will review the interactions between the right and left heart chamber filling during a single heartbeat, describe how mechanical ventilation impacts these interactions, and review techniques used to measure cardiac output and how mechanical ventilation affects them.



Welcome Party

Monday, Dec 6 • 7:30 pm
Las Vegas Hilton



Roche 5-K Fun Run and Walk Tuesday, Dec 7 • 6:30 am



33rd  COVIDIEN

Sputum Bowl[®] Finals

Wednesday, Dec 8 • 7:00 pm
Las Vegas Hilton

Test your respiratory care knowledge in a fun and challenging atmosphere.
Special half-time entertainment. Complimentary beverages.



Wednesday, Dec 8

The largest
respiratory care
Exhibit Hall in the world
will be open in Las Vegas
on Monday-Wednesday,
Dec 6-8,
11:00 am–4:00 pm.

Many exhibitors
will be offering show
discounts.
Make your purchasing
plans now for
“The Buying Show.”
Don’t miss this unique
opportunity with all the
companies showing their
latest products and
advancements.

8:30 am – 9:20 am

26TH PHIL KITTREDGE MEMORIAL LECTURE

This lecture provides a critical and incisive evaluation of an aspect of clinical respiratory care of emerging or increasing importance.

COPD Heterogeneity: What This Will Mean in Practice

Stephen I Rennard MD, Omaha NE

Dr. Rennard is Larson Professor of Medicine in the Pulmonary and Critical Care Medicine Section of the Department of Internal Medicine at the University of Nebraska Medical Center. Dr. Rennard maintains an active program of clinical investigation in COPD and tobacco-dependence treatment and a program of basic research in the mechanisms of lung tissue repair and remodeling, including the role of stem cells in disease pathogenesis and repair.



Las Vegas Convention Center • Las Vegas, Nevada, USA • AARC.org



7:00 pm 33RD NATIONAL COMPETITION SPUTUM BOWL[®] FINALS

**Wednesday Dec 8
Las Vegas Hilton**

Supported by an unrestricted educational grant from



The top four teams will advance to the Finals on Wednesday evening, Dec 8, along with the Student Sputum Bowl finalists.

Test your respiratory care knowledge in a fun and challenging atmosphere. Special half-time entertainment. Complimentary beverages.



Exhibit Hours at The Buying Show: Monday - Wednesday, Dec 6 - 8, 11:00 am - 4:00 pm





9:30 am – 10:05 am

The Legacy of the ARDSnet

Jesus Villar MD PhD, Canary Islands Spain

It has been 11 years since the ARDSnetwork was published. Dr. Villar will examine where we've been, where we are now, and where we need to go in this controversial but vital part of our practice.

9:30 am – 10:10 am

2011: The Year in Preview

Bruce K Rubin MD MEng MBA FAARC, Richmond VA

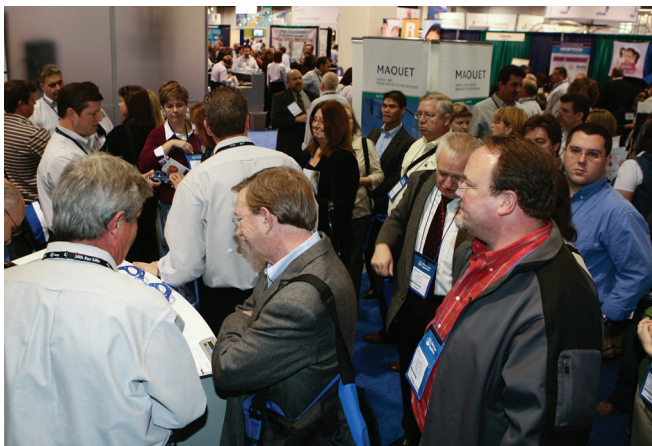
Dr. Rubin will speculate (based on where he thinks the field will be going) about important papers that will be published in 2011 and how these affect the practice of respiratory care.

9:30 am – 10:10 am

Novel Approaches to Improving Outcomes in Pulmonary Rehabilitation

Michele L McCarroll PhD FAACVPR, Akron OH

Pulmonary rehabilitation (PR) has been shown to improve exercise capacity and overall quality of life for patients suffering from chronic pulmonary disease; however, there is little research that demonstrates that the improvements observed in functional capacity transfers to improvements in specific activities of daily living (ADL) skills. Furthermore, it is difficult to find an ADL assessment specific to the chronic pulmonary disease population or for outpatient PR programs. Since the main objective of PR is to not only improve exercise capacity but to also improve functional independence at home, a functional activity training program may be an essential part of a successful PR program.



RESPIRATORY CARE OPEN FORUM® Symposia

Sponsored by **IKARIA™**
ADVANCING CRITICAL CARE

Clinicians present the results of their scientific studies. Abstracts with a similar focus are clustered into a symposium to encourage discussions and interactions among investigators and observers; posters expand the information presented. Seventeen OPEN FORUM symposia will be presented during the four days of Respiratory Care 2010. See pages 86–95 for symposia sessions, abstract titles and authors.

9:30 am – 10:15 am

The Upper Airway and Cardiopulmonary Exercise Testing

Carl D Mottram RRT RPFT FAARC, Rochester MN

This presentation will describe utilizing flow volume loop testing and video laryngoscopy during cardiopulmonary exercise to define flow limitations, inappropriate breathing strategies and structural upper airway abnormalities that appear during exercise sessions. Testing techniques and case studies will be reviewed.

9:30 am – 10:35 am

Unconventional and Extreme Respiratory Support

9:30 am – 10:00 am

Therapy for Patients with Refractory Hypoxemia

Randal S Blank MD PhD, Charlottesville VA

This presentation is a review of techniques for the treatment of refractory hypoxemia. After attending this lecture the therapist will be able to describe the role of pharmacologic therapies for acute pulmonary hypertension in patients with refractory hypoxemia. Surgical approaches for refractory hypoxemia including closure of right-to-left atrial shunts and extracorporeal therapies for hypoxemic respiratory failure will be discussed.

10:05 am – 10:35 am

Therapy for Extreme Hypercarbia

Charles G Durbin Jr MD FAARC, Charlottesville VA

This presentation will describe conventional treatment approaches for patients with extreme hypercarbia and explain experimental therapies directed at controlling CO₂ production while increasing its removal. The presenter will review efficacy data associated with these treatments and approaches.

9:30 am – 11:10 am

Oxygen Therapy for Chronic Hypoxemia: What We Should Know

9:30 am – 10:00 am

State of the Art in LTOT: What Does the Science Say?

Brian W Carlin MD FAARC, Pittsburgh PA

This presentation will review current science behind the use of supplemental oxygen therapy and discuss the perceived gaps in the science and how to resolve the potential impact.

10:05 am – 10:35 am

Continuous Flow vs. Pulse Dose Delivery: Is One Better Than the Other?

Patrick J Dunne MED RRT FAARC, Fullerton CA

This presentation will review the available data comparing the effectiveness of continuous flow to pulse dose delivery systems and will provide guidelines for the proper use of each system.

10:40 am – 11:10 am

Newer Devices for the Delivery of LTOT

Timothy W Buckley RRT FAARC, Chicago IL

This presentation will describe the newest types of oxygen delivery technologies and the advantages they portend for oxygen-dependent patients and will identify the potential limitations of certain devices for selected patient populations.

9:30 am – 11:10 am

Creating and Maintaining a Culture of Safety

9:30 am – 10:00 am

Errors and the RT: Some Inconvenient Truths

John W Salyer MBA RRT-NPS, Seattle WA

The presenter will discuss cases in which RTs had a role in clinical errors, the risks associated with litigation, and how we can achieve risk reduction through improvement in clinical documentation.

10:05 am – 10:35 am

Creating a Culture of Safety in Your RC Department

Dave Croswell RRT-NPS, Seattle WA

The presenter will address error proofing, classification of procedures, standard work, risk-benefit assessment, and using electronic incident reporting—all as a cohesive means to create a culture of safety within the RT staff.

10:40 am – 11:10 am

Back to the Bench: A Scientific Approach to Evaluating Equipment Performance and Safety in Your Department

Robert M DiBlasi RRT-NPS, Seattle WA

The presenter will address developing research questions based upon clinical reports from the bedside, designing bench

studies to answer questions related to equipment performance, designing bench studies to answer questions related to patient/equipment interactions, and taking these improvements back to the bedside.

9:30 am – 11:25 am

OPEN FORUMS #9 and #10

Clinicians present the results of their scientific studies. Abstracts with a similar focus are clustered into a symposium to encourage discussions and interactions among investigators and observers; posters expand the information presented. **See abstract titles and authors on pages 86–95.**

9:30 am – 11:45 am

Hot Topics in Neonatology

9:30 am – 10:00 am

Respiratory Management of the Premature Infant

Sherry L Courtney MD, Manchester NY

For the premature infant, every mechanical ventilator breath damages alveoli. What are the current strategies to reduce the incidence of chronic lung disease? What does the future hold? This presentation will answer these and other clinically relevant questions.

10:05 am – 10:35 am

The New BPD: What Does the Future Hold?

David Durand MD, Oakland CA

How has bronchopulmonary dysplasia (BPD) changed? Why have these changes occurred? What is the anticipated prognosis for premature infants born today? These and other important questions about the “New BPD” will be answered.

10:40 am – 11:10 am

Therapy for Pulmonary Hypertension: Nitric Oxide and Beyond

David Durand MD

The field of pulmonary hypertension is changing as rapidly as any other in the neonatal and pediatric worlds. New acute



and chronic medications are quickly becoming available to treat this vulnerable population. One of the world's leaders on pulmonary hypertension will review current management strategies and offer thoughtful insight into the future.

11:15 am – 11:45 am

Pulse Oximetry—Is Closed Loop Really Necessary? **Sherry E Courtney MD, New Hyde Park NY**

Closed-loop FiO₂ control for our ventilators is on the horizon. Many resources have been used to develop this technology. But is it really necessary? Will patient care be improved by closed-loop controls? Come hear one of the experts review the available data as well as offer speculations for the future.

9:30 am – 12:00 noon

Controversies in the Mechanical Ventilation of Adults with Acute Respiratory Distress Syndrome

9:30 am – 9:40 am

Introduction and Explanation of Ground Rules for Pro-Con

David J Pierson MD FAARC, Seattle WA

Despite studies establishing the value of lung-protective ventilation in managing patients with ALI-ARDS, controversy persists about the “best” way to achieve this while supporting oxygenation. Although the target delivered tidal volume and optimal static airway pressure are less contentious issues than in the past, there are still numerous options in providing ventilatory support, with conflicting evidence and strongly held opinions on the part of many clinicians. This symposium highlights several of these areas of conflict, with each side of the controversy presented by a noted authority in the field.

9:45 am – 10:15 am

Airway Pressure Release Ventilation Has Important Advantages Over Conventional Volume-targeted Ventilation for Managing ALI-ARDS

Pro: Richard D Branson MSc RRT FAARC, Cincinnati OH

Con: Neil R MacIntyre MD FAARC, Durham NC

Airway pressure release ventilation limits peak airway pressure while increasing mean airway pressure and maintaining alveoli in a maximally recruited state through prolongation of what is effectively the inspiratory phase. It also permits spontaneous breathing. The discussants review the theoretical and practical aspects of using APRV in ALI-ARDS —

both pro and con — in comparison with conventional volume-targeted ventilation.

10:20 am – 10:50 am

Higher PEEP Is Better in Managing ALI-ARDS

Pro: Jesus Villar MD PhD, Canary Islands Spain

Con: Richard H Kallet MS RRT FAARC, San Francisco, CA

In the ventilatory management of patients with ALI-ARDS, higher levels of PEEP are associated with better oxygenation as measured by arterial PO₂ and PaO₂/FIO₂ ratio. Whether this benefit is sufficient to offset the increased risks for lung over distension and hemodynamic compromise remains controversial. The discussants review the theoretical basis for higher PEEP levels and the existing evidence base in terms of both physiologic benefit and effects on patient-relevant outcomes in an attempt to clarify this contentious issue.

10:55 am – 11:25 am

PEEP Should Be Set Using Esophageal Pressure Measurements in Managing ALI-ARDS

Pro: Michael A Gentile RRT FAARC, Durham NC

Con: Carl R Hinkson RT RRT, Seattle WA

PEEP and end-inspiratory plateau pressure do not have the same implications for both benefit and harm in all patients with ALI-ARDS, and this is especially true when chest wall stiffness may be playing a role. This discussion summarizes the rationale for measuring trans-pulmonary pressure by means of an esophageal balloon and using this measurement to set PEEP. The participants will also place this newly popular procedure in clinical perspective and attempt to decide whether it is valid, safe, and clinically beneficial.

11:30 am – 12:00 noon

High-Frequency Oscillatory Ventilation Should Be Part of Your Institution's Armamentarium for Managing Severe ALI-ARDS

Pro: Neil R MacIntyre MD FAARC

Con: Dean R Hess PhD RRT FAARC, Boston MA

Some patients with severe ARDS experience critical hypoxemia despite optimal adjustment of conventional volume-targeted or pressure-targeted ventilation. HFOV is one option for managing these and other patients with hypoxemic respiratory failure. The discussants will present the advantages and disadvantages of this alternative approach to ventilatory support, from both theoretical and practical perspectives.

10:15 am – 10:55 am

Don't Lose Sleep Over Home Testing

Rebecca F Olson RRT, Waukesha WI

Many challenges discourage patients from testing in attended sleep labs. As a result, many do not get tested, diagnosed or treated for obstructive sleep apnea (OSA). Alternative diagnostic options for the OSA population will be explored, and the advantages and disadvantages of each methodology will be discussed, including legal aspects of home testing and self referral.

10:15 am – 11:00 am

Home Care Section Membership Meeting

Robert W McCoy RRT FAARC/Presiding

Section members meet to determine their needs and priorities, as well as how to use the AARC resources to accomplish them. All Congress attendees, including section non-members are invited to attend and to participate.

10:15 am – 11:15 am

Delivering Respiratory Care Education Via Alternative Course Delivery Methods

Shawna L Strickland PhD MEd RRT-NPS AE-C, Columbia MO

This presentation will address the use of various alternative course formats in the context of delivering respiratory care education. The presenter will provide an overview of the meaning of success in a respiratory care educational program and progress into the definition of 3 course delivery methods (traditional classroom environments, online course environments and blended learning environments). Following the establishment of baseline knowledge, the presenter will compare and contrast the various course delivery methods and identify ways to integrate these methods to facilitate maximum learning in the respiratory care educational program.

10:20 am – 11:00 am

Mobile Spirometry Unit and Its Impact on COPD Detection

Steve Nelson MS RRT FAARC, Irving TX

AARC has partnered with the COPD Foundation to do pulmonary function testing at public events since 2006. The MSU has provided testing and information to more than 35,000 people with over 250 respiratory therapists participating around the country. In 2008, they began validating a method of COPD case finding from an NHLBI and COPDF consensus conference. Risk factors and PEF are used initially, instead of spirometry, to determine who would benefit from additional testing. Using PEF as the primary measure increased the number of people who had contact with respiratory therapists, while improving the accuracy of typical public events.

10:40 am – 12:20 pm

Hyperbaric Medicine

10:40 am – 11:10 am

Introduction to Hyperbaric Medicine

Clifford E Boehm MD RRT Master SCUBA Diver, Baltimore MD

This presentation will allow therapists to recognize and understand the theory of hyperbaric medicine and the approved indications for its use. Contraindications to the therapy will also be discussed.

11:15 am – 11:45 am

Hyperbaric Therapy and the Respiratory Therapist—A Perfect Fit

William C Gearhart CHT DMT EMT CFPS, Baltimore MD

This presentation will allow therapists to recognize and understand the basic fundamentals of HBOT delivery. Existing safety standards related to HBOT delivery will also be discussed.

11:50 am – 12:20 pm

Hyperbaric Oxygen Services—This Ain't Your Daddy's HBO

Garry W Kauffman MPA FACHE RRT FAARC, Lancaster PA

This presentation will allow therapists to recognize and understand how to analyze HBO as a clinical service and business opportunity to enhance organizational performance. Business delivery models (in-house, out-source, collaboration) will be presented. The discussion will include an appreciation of physician demands and responsibilities related to HBO therapy.



11:00 am – 11:30 am

Reimbursement Issues in Home Sleep Testing

Jackie McClure RRT FAARC, Melbourne Beach FL

This presentation will be a brief overview of Medicare, Medicaid and private insurance billing issues associated with home sleep testing. Reimbursement for home sleep testing as well as legal aspects of home testing will be explored.

11:05 am – 11:45 am

Diagnostics Section Membership Meeting

Michael Tracy RRT-NPS RPFT/Presiding

Section members meet to determine their needs and priorities, as well as how to use the AARC resources to accomplish them. All Congress attendees, including section non-members are invited to attend and to participate.

11:15 am – 11:55 am

Do No Harm: Cultivating a Culture of Safety and Accountability

Richard M Ford RRT FAARC, San Diego CA

Some would say that there is no more dangerous place to be in this nation than in a hospital. This presentation will define the extent of preventable deaths and injuries to patients, the cost of such failures, and how we can develop and hard-wire a culture of safety and accountability.

11:05 am – 11:45 am

Adult Acute Care Section Membership Meeting

Michael J Hewitt RRT-NPS FAARC/Presiding

Section members meet to determine their needs and priorities, as well as how to use the AARC resources to accomplish them. All Congress attendees, including section non-members are invited to attend and to participate.

11:25 am – 12:00 am

Neonatal/Pediatrics Section Membership Meeting

Brian K Walsh MBA RRT FAARC/Presiding

Section members meet to determine their needs and priorities, as well as how to use the AARC resources to accomplish them. All Congress attendees, including section non-members are invited to attend and to participate.

3:00 pm – 4:55 pm

OPEN FORUMS #11

Clinicians present the results of their scientific studies. Abstracts with a similar focus are clustered into a symposium to encourage discussions and interactions among investigators and observers; posters expand the information presented. **See abstract titles and authors on pages 86–95.**

1:00 pm – 2:05 pm

Year in Review: Part 2

1:00 pm – 1:30 pm

Asthma

Bruce K Rubin MD MEngr MBA FAARC, Richmond VA

This presentation will review the most important papers published on asthma in the past year.

1:35 pm – 2:05 pm

COPD

Rajiv Dhand MD, Columbia MO

This presentation will review the most important papers published on COPD in the past year.

1:00 pm – 2:25 pm

Patient Safety: It's Everyone's Job!

1:00 pm – 1:40 pm

Safety Monitoring of Patients Outside of the Critical Care Environment—Implications for the Respiratory Therapist

John Sabo MS RRT RN, Houston TX

Increasing concern about patient safety in hospitals is driving new ways of thinking about patient monitoring. As more patients are being diagnosed with obstructive sleep apnea and other conditions altering responses to pain medications, the need for novel “remote” respiratory monitoring strategies increases. The monitoring sites extend beyond critical care as patients are released to general floor care areas under opioid-based patient controlled anesthesia (PCA) for pain management. Surveillance monitoring of at-risk patients outside of critical care will be reviewed, and early intervention strategies for pending respiratory distress will be discussed. The difficulty in monitoring ventilation, including those using CPAP, will be discussed. Potential solutions including remote monitoring and clinician alert/notification systems will be considered.

1:45 pm – 2:25 pm

Cutting Corners to Getting It Done: Is It Worth the Gamble?

Barbara Hannibal RRT AE-C, St Louis MO

Have you ever thought about the impact of an incomplete patient handoff? What about an incomplete patient assessment? Often therapists resort to violating quality standards to deliver patient care. This presentation discusses the potential impact these actions have on patient safety and quality.



1:00 pm – 2:25 pm

Our Very Smallest of Patients...

1:00 pm – 1:25 pm

Ventilation Strategies for Very Low Birthweight Infants

John S Emberger RRT, Newark DE

Strategies for conventional pressure-controlled and volume-targeted ventilation for extremely low birthweight premature infants will be reviewed along with the available medical literature. Guidelines for initiating and ventilating this vulnerable population of infants will be discussed.

1:30 pm – 1:55 pm

Non-invasive Monitoring in Neonates: Can We Stop the Progression of Multi-faceted Injury in the Extremely Premature Infant?

Kathleen M Deakins RRT-NPS, Cleveland OH

As important as the advances in the ventilation of the premature infant is the non-invasive monitoring of these strategies. New techniques and strategies for the monitoring of this vulnerable population will be discussed along with the potential benefits in pulmonary and neurologic outcomes.

2:00 pm – 2:25 pm

The Changing Physical Environment: Effects on Respiratory Care

Kathleen M Deakins RRT-NPS

Does the physical environment of the NICU really matter? What are the effects of single patient rooms on the delivery of health care from patient and staff perspectives? Have family accommodations in the neonatal ICU setting interfered with the daily operations of the unit? These controversial issues and others will be discussed.

1:00 pm – 2:35 pm

Ethics and the RT

1:00 pm – 1:45 pm

Ethics: The Good, the Bad, and the Ugly

Shawna L Strickland PhD Med RRT-NPS AE-C, Columbia MO

This presentation will address the ethical issues associated with using non-invasive ventilation to sustain life in futile situations. A review of the technology and the basic ethical principles based on the Georgetown Model will begin the session. This presenter will address situations in which the patient has completed a “do not attempt resuscitation” or “do not intu-

bate” order, as well as situations in which the respiratory care practitioner faces ethical dilemmas as he or she strives to provide the most ethical patient care. Case scenarios will be used to stimulate thought and discourse among the audience.

1:50 pm – 2:35 pm

Respiratory Therapist as a Member of the Biomedical Ethics Committee

Douglas E Masini EdD RRT-NPS RPFT AE-C FAARC, Savannah GA

Respiratory therapists are the 911 of health care. Therefore, respiratory therapists are the best resource to communicate critical care, ventilation, and life support technology within the framework of an ethics committee. The speaker explores the emerging role of a respiratory therapist within the committee and in multidisciplinary bedside ethics consultation teams.

1:00 pm – 3:10 pm

Above the Clouds and Under the Sea

1:00 pm – 1:40 pm

Update on Altitude-related Illness

Andrew M Luks MD, Seattle WA

This lecture reviews the pathophysiology, clinical features, diagnostic criteria, management, and prevention of illness that develops in people who ascend to high altitude: acute mountain sickness, high-altitude pulmonary edema, high-altitude cerebral edema, and chronic mountain sickness.





1:45 pm – 2:25 pm

High-altitude Simulation Testing

Matthew J O'Brien RRT RPFT, Madison WI

This presentation discusses the pre-travel, low-altitude evaluation of patients with cardiorespiratory disease who are at risk for development of hypoxemia when they travel to higher altitudes, via commercial airliner and by other means. After a review of the evidence base supporting the use of the High Altitude Simulation Test (HAST) and of the indications for its use, practical guidance for performing it will be presented, including equipment, gas delivery, safety, and billing and documentation.

2:30 pm – 3:10 pm

Physiology and Complications of Diving

Andrew M Luks MD

Both free diving and scuba diving can have serious respiratory-related complications. This presentation reviews the physiologic effects of both forms of diving and reviews the adverse effects that may occur, including decompression sickness and barotraumas. It includes descriptions of the clinical manifestations and management of each complication, along with methods of prevention.



1:00 pm – 3:10 pm

Presentation, Assessment and Treatment of Neurologic Emergencies in the Neonatal and Pediatric Transport Setting

1:00 pm – 1:45 pm

Presentation and Assessment of Neurologic Emergencies in Infants and Children

Steven E Sittig RRT-NPS FAARC, Rochester MN

Children with neurologic diagnoses make up a large percent of patients referred for interfaculty transport. Early identification and rapid management of physiologic compromise limits the potential for secondary insults and improves outcomes. The lecture will discuss the epidemiology, assessment, and presentation of infants and children with neurologic emergencies. A review of the physiologic basis of the physical findings from seizures to increased intracranial pressure will be discussed. The lecture will conclude with a symptom-based approach to assessment of the neurologically comprised patient.

1:50 pm – 2:35 pm

Treatment and Outcomes of Neurologic Emergencies in the Transport Setting

Bradley A Kuch RRT-NPS, Pittsburgh PA

It has been reported that under-treatment and secondary insults are major factors associated with poor outcomes in children with neurologic emergencies. The lecture will examine the most recent guidelines for the treatment of infants and children with brain injury. The evidence surrounding use of hypertonic (3%) saline, mannitol, and hypothermia will be reviewed. Additionally, the feasibility of controlled hypothermia in the transport setting will be discussed. The presentation will conclude with an evidence-based review of the literature surrounding the outcomes of children with neurological diagnoses.

2:40 pm – 3:10 pm

Neurologic Case Studies: When a Seizure Is Not Just Another Seizure!

**Steven E Sittig RRT-NPS FAARC and
Bradley A Kuch RRT-NPS**

Presenters will provide an assortment of neurologic case scenarios that will occur in the pediatric interfaculty transport setting. Through audience participation, we will collect the pertinent clinical information needed to identify the underlying cause of neurologic deterioration. We will then discuss these clinical findings and how they influence decision making when selecting the appropriate therapeutic interventions. The lecture will also review how the recommended guidelines pertain to each patient scenario, familiarizing the RT with best practice strategies.

1:00 pm – 3:15 pm

What You Need to Know About Sleep-disordered Breathing

1:00 pm – 1:30 pm

OSA in the Acutely Hospitalized Patient

Peter C Gay MD, Rochester MN

A discussion of specific conditions associated with OSA in the acute care setting will be followed by a review of the impact of obstructive sleep apnea on treatment and successful patient outcomes.

1:35 pm – 2:05 pm

Sleep-disordered Breathing in CHF

Sairam Parthasarathy MD, Tucson AZ

A discussion of specific conditions associated with congestive heart failure and sleep-disordered breathing will be followed by a review of the impact of SDB on treatment and successful patient outcomes.

2:10 pm – 2:40 pm

Sleep-disordered Breathing in COPD

Peter C Gay MD

A discussion of specific conditions associated with COPD and sleep-disordered breathing will be followed by a review of the impact of SDB on treatment and successful patient outcomes.

2:45 pm – 3:15 pm

Obesity Hypoventilation

Sairam Parthasarathy MD

A discussion of specific conditions associated with obesity hypoventilation will be followed by a review of its impact on treatment and successful patient outcomes.

1:00 pm – 4:25 pm

Career Development Tune-up

1:00 pm – 1:30 pm

Leadership Gold

Scott Reistad RRT CPFT, Denver CO

There are multiple lessons that leaders learn, some the hard way. In this session, the presenter will help attendees navigate the challenging roles of leading people successfully.

1:35 pm – 2:05 pm

Servant Leadership: Developing the Leader Within You

Douglas S Laher RRT MBA, Cleveland OH
The best days of the hierarchical leadership model of a top-down approach is behind us, at least hopefully. The value of a servant

leader, both to the individuals they support as well as the organization, will be described by the presenter, with a highly interactive format to engage the audience.

2:10 pm – 2:40 pm

The Synergy Challenge: Creating the “Win-Win”

Kenneth Thigpen RRT FAARC, Jackson MS

The presenter will “unpack” some unique approaches that are designed to achieve alignment and engagement with work teams. He will provide simple approaches to increase the effectiveness of teams and leaders.

2:45 pm – 3:15 pm

Recruitment and Retention: It’s a Team Effort!

Garry W Kauffman MPA RRT FAARC
Lancaster PA

For those managers who feel that recruitment, interviewing, orienting, and engaging staff is their job, you are just plain wrong! The presenter will provide a “Top 10” list of how managers and staff must collaborate to get the right respiratory therapist on board and keep them engaged.

3:20 pm – 3:50 pm

Productivity and Benchmarking—

Finding the Strength in the Numbers

Richard M Ford RRT FAARC, San Diego CA

The presenter will lead a discussion to address the power of using data to drive and support key decisions. There are significant advantages to dovetailing the experiences of others and developing a compelling business case to achieve what is needed to provide exceptional care for our patients and staff.

3:55 pm – 4:25 pm

How Do You Handle: Stump the Experts

Panel Discussion
Attendees will have the opportunity to query the expert panel as to strategies they have implemented in order to handle any one of a myriad of challenges facing leaders and staff today.





1:30 pm – 4:40 pm

Dr. Tom Petty's Legacy for Respiratory Care

Thomas L Petty, MD (“Dr. Tom” to thousands of respiratory therapists and patients with lung disease) was one of the true pioneers of our field, with a career spanning half a century. This symposium, held one year after his death, reviews his many major contributions to the understanding and management of pulmonary disease, and celebrates the many ways in which his work and personal charisma have affected both the field and the profession of respiratory care.

1:30 pm – 1:50 pm

Introduction: Who Was Tom Petty?

David J Pierson MD FAARC, Seattle WA

This presentation will give an introductory overview of Dr. Petty's life, and his contributions both to our knowledge of respiratory illness and to the welfare of patients with lung disease.

1:55 pm – 2:20 pm

The Acute Respiratory Distress Syndrome

This presentation will summarize and explain Dr. Petty's role in describing ARDS and establishing the role of PEEP in its management.

2:25 pm – 2:55 pm

Chronic Obstructive Pulmonary Disease and Home Care

Robert W McCoy RRT FAARC, Apple Valley MN

The speaker will present a summary of Dr. Petty's many important contributions to the development of long-term oxygen therapy, pulmonary rehabilitation, respiratory home care, education of the public, and the early detection of COPD.



3:00 pm – 3:30 pm

Medical Education

Kent Christopher MD RRT FAARC, Denver CO

This presentation reviews Dr. Petty's seminal contribution as a teacher, not only in training hundreds of clinicians, researchers, and educators in pulmonary medicine (including many of the field's current leaders worldwide), but also in educating front-line practitioners in his region and internationally, as well as his role as a prolific author and speaker.

3:35 pm – 4:05 pm

The Respiratory Care Profession

Sam P Giordano MBA RRT FAARC, Irving TX

This presentation will highlight Dr. Petty's long, influential, and sometimes controversial role in promoting respiratory care and advocating for respiratory therapists, including his work with the AARC.

4:10 pm – 4:40 pm

Remembering Tom Petty

A personal reminiscence of Dr. Petty as mentor, colleague, and close friend, with reflections on his importance as a pioneer of respiratory care and his legacy for the future.

2:10 pm – 4:25 pm

The Role of the Respiratory Therapist in Tobacco-dependence Treatment

2:10 pm – 2:40 pm

What Every RT Should Know

Scott Cerreta RRT, Tucson AZ

The speaker will review the “5As” skill and the “AAR” method every RT should know and practice to promote tobacco-dependence treatment, and describe how RTs can complement tobacco-dependence treatment efforts offered through community-based public health organizations.

2:45 pm – 3:15 pm

Integrating Brief Tobacco Interventions into Practice

Jay Taylor RRT TTS, Fargo ND
This presentation will describe strategies for integrating tobacco-dependence treatment skills into staff training to empower RTs to become tobacco-dependence treatment advocates, and share helpful hints to enable RT departments to launch a tobacco-dependence treatment program.

3:20 pm – 3:50 pm

Medications for Tobacco-dependence Treatment

Jonathan B Waugh PhD RRT, Birmingham AL



The speaker will describe the array of pharmacological agents currently available to assist with tobacco-dependence treatment efforts and discuss the potential adverse side-effects of certain medications and the appropriate strategy to monitor for such occurrences.

3:55 pm – 4:25 pm

The Stigma of Tobacco and Other Odors in Our Profession

Scott Cerreta RRT

This presentation will describe the direct and indirect effects of lingering tobacco and other offensive odors on the clothing and body of RTs, and discuss how tobacco use among RTs is perceived by other health care workers.

2:30 pm – 4:05 pm

Biomarkers in Exhaled Breath

2:30 pm – 3:15 pm

Clinical Use of Exhaled Nitric Oxide

Michael Davis RRT, Charlottesville VA

Exhaled nitric oxide is a novel non-invasive biomarker with valuable clinical utility to the respiratory therapist. Attendees will be provided with an overview of the history and its role in pulmonary physiology as well as collection methods, case studies, and current research.

3:20 pm – 4:05 pm

Clinical Relevance of Exhaled Breath Condensate pH

John Hunt MD, Charlottesville VA

Airway pH affects both physiologic and cellular lung health. The ability to collect exhaled breath condensate (EBC) provides a non-invasive route for clinicians to measure airway pH. This presentation will discuss the clinical relevance of the acid-base chemistry of the airways and current research.

2:30 pm – 4:30 pm

Vision 2015

The AARC's 2015 and Beyond project was launched in 2007 to set future directions for the respiratory care profession. The third and final conference took place in July 2010, followed by a Community Input Session aimed at hearing from respiratory therapists across the nation. This presentation will present the final determinations and recommendations.

**Visit AARC.org
for Program Updates.**

2:40 pm – 4:20 pm

Around the World...

2:40 pm – 3:10 pm

The Quakes of a Nation: An RT's Story from Haiti

Mike McKenna RRT-NPS, Ridley Park PA

From a respiratory therapist's perspective, personal experience from a rescue mission in Haiti after the earthquake of January 2010 will be shared. The role of the respiratory therapist was incredibly valuable during this tremendous natural disaster. The residual effects of a year later will be considered.

3:15 pm – 3:45 pm

The Agony and Ecstasy of Starting the Respiratory Therapy Profession in a Country of a Billion People

**Vijay Deshpande MS RRT, Atlanta GA
and Vijai Kumar R MD DTCD FCCP FAARC,
Hyderabad India**

Many of the new generation of respiratory therapists in the U.S. are unaware of the challenges faced by early inhalational therapists 40–50 years ago. This presentation will share the experience of starting the respiratory care profession in India with the many challenges that were seen in our country decades ago. Similarities and differences will be shared from personal experiences.

3:50 pm – 4:20 pm

Development of Pediatric Non-invasive Ventilation in Critical Care in Argentina

Gustavo Olguin MHA CRT, Buenos Aires Argentina

Respiratory therapists in the U.S. often take for granted mechanical ventilation protocols and technology. This presentation will share an eye-opening view of the efforts required to develop non-invasive and invasive ventilation programs abroad.





3:00 pm – 4:55 pm

OPEN FORUMS #12 and #13

Clinicians present the results of their scientific studies. Abstracts with a similar focus are clustered into a symposium to encourage discussions and interactions among investigators and observers; posters expand the information presented. **See abstract titles and authors on pages 86–95.**

3:15 pm – 3:55 pm

Respiratory Care of the Morbidly Obese Patient

John D Davies MA RRT FAARC, Durham NC

Obesity is a public health epidemic affecting the majority of adults. Obesity has a tremendous impact on all organ systems. Respiratory therapists must be armed with the latest research as well as an understanding of anatomy and physiology in order to effectively care for this special patient population.

3:20 pm – 4:10 pm

Pediatric Puzzlers: Stuff You Should See at Least Once

Bruce K Rubin MD MEngr MBA FAARC, Richmond VA

Common practice conditions may present in a very unusual manner. Can you diagnose Dr. Rubin's clinical dilemmas? Learn from one of the world's leading pediatric pulmonologists, while having fun at the same time in this interactive session. Is it a horse or a zebra—you decide!



3:20 pm – 5:00 pm

Data in Respiratory Home Care: What We Have—What We Need

3:20 pm – 3:50 pm

Using Medical Device Reporting Data to Improve Home Ventilator Safety

Angela King RRT-NPS RPFT, Detroit MI

Participants will learn how to access the Medical Device Reporting database on the FDA website. The presenter will discuss the most common causes of reported adverse incidents with home mechanical ventilators and strategies to reduce their reoccurrence.

3:55 pm – 4:25 pm

Using a Novel Outcome Survey Tool to Gain Patient Insight

Nicholas J MacMillan AGS RRT FAARC, Stevensville MD

The presenter will discuss the challenges of gathering relevant outcome data in an austere financial environment and will describe a new patient survey instrument and the potential value of and uses for the data obtained.

4:30 pm – 5:00 pm

Collecting and Integrating QI Data for Better Decision Making

Susean L Nichols RRT, Long Beach CA

The presenter will discuss the requisite components of a formal QI program required by all home care accrediting agencies and will provide examples of how data obtained from QI activities can be used to improve day-to-day operations within the organization.

4:00 pm – 5:05 pm

Protocols in Respiratory Care and Demonstrating Value

4:00 pm – 4:30 pm

The Anatomy of a Protocol

Suzan J Herzig RRT, Alpine CA

Thinking about developing protocols? Where do you start? The presenter will work through defining protocols and will outline the building blocks of developing protocols and how to overcome barriers to implementation. Examples of protocols that have been successful and may serve as models for others in developing their programs will be shared.



4:35 pm – 5:05 pm
Protocols—Holding the Gains
Suzan J Herzig RRT

The benefits of protocols will be presented, along with a discussion of how to hold the gains. The process of starting out small, and how to refine and grow your program, will also be discussed. Getting long-term buy-in from staff and physicians is critical and will be reviewed.

4:10 pm – 4:55 pm
Disaster Response—Respiratory Therapists in Action

Michael E Donnellan MBA RRT-NPS, Oakland CA
 The speaker will share his experience as a DMAT member and discuss preparations necessary for implementing an adequate response to mass casualty events.

4:20 pm – 5:00 pm
High-flow Oxygen Therapy: Real Benefit or Just a Fad?

Timothy R Myers RRT-NPS, Cincinnati OH
 The use of high-flow oxygen therapy is growing at an exponential rate, but do the available data support this practice? The AARC's Immediate Past President will review the medical literature and discuss the recent trends in the application of this respiratory support strategy. Is there a real benefit to the use of high-flow oxygen therapy, or is it just a passing fad?

4:30 pm – 5:10 pm
How to Start and Facilitate a Respiratory Care Journal Club

Carl R Hinkson RRT, Seattle WA
 This presentation discusses how a journal club for department staff can facilitate professionalism and continuing respiratory care education as well as bolster morale. Included will be practical advice on starting and facilitating a journal club and obtaining CRCE credits as an incentive for staff attendance.

4:35 am – 5:00 am
Education Section Membership Meeting
Lynda Goodfellow EdD RRT FAARC/Presiding
 Section members meet to determine their needs and priorities, as well as how to use the AARC resources to accomplish them. All Congress attendees, including section non-members are invited to attend and to participate.

11:05 am – 11:45 am
Continuing Care/Rehab Section Membership Meeting
Debra Koehl MS RRT AE-C/Presiding
 Section members meet to determine their needs and priorities, as well as how to use the AARC resources to accomplish them. All Congress attendees, including section non-members are invited to attend and to participate.





8:30 am – 9:10 am

Feet on the Floor—Mobilizing Patients, an Interdisciplinary Approach

Janet Fantazia BSHS AE-C RRT, Modesto CA

What can we do as RTs to help our patients with mobility? We have heard about mobility with ventilator patients in the ICU. This presentation is to encourage mobility in all areas of the hospital.

8:30 am – 9:10 am

Cultural Competency Patient-centered Care and World View Differences—It's Not All About Me

Robin Kidder RRT AE-C, St Louis MO

How patients view health care providers and how health care providers view patients are directly proportional. We used to think of cultural competency as based on age, sex, disability, race, ethnicity, religion, and sexual orientation. Hear from a therapist's perspective their experience with cultural diversity when providing care to patients and interacting with peers and members of the health care team.



8:30 am – 9:25 am

My Patient's Airways Are Plugged: What Should I Do?

Poor airway clearance for a variety of reasons is a common occurrence in the neonatal and pediatric setting. This old problem continues to generate great controversy. This session will debate two common approaches: drug therapy and secretion clearance devices. Which is more effective? Which is more resource effective? Does it even matter? Two experts in the field will debate the options. Come see what they have to say and offer your opinions.





8:30 am – 8:55 am

Drug Therapy Is as Effective As Secretion Clearance Devices

Bruce K Rubin MD MEngr MBA FAARC, Richmond VA

Pharmacology in airway clearance has grown over the past 10 years. With new generation mucolytics being phased in and old being phased out, which one is best for my patient? Hypertonic saline is now being used at an increasing rate for a variety of effectiveness. Should this be the new airway clearance drug of choice? I have parents ask me about expectorants, what am I supposed to tell them? Are they helpful? Is drug therapy cheaper and more effective than airway clearance devices and therapist time? Is there data to support the increasing use of medications? This presentation will review the data and rationale behind drug therapy in those patients who require assistance with airway clearance.

9:00 am – 9:25 am

Proper Airway Maintenance and Secretion Clearance Devices Are More Effective Than Mucolytics

Brian K Walsh MBA RRT-NPS RPFT FAARC, Dallas TX

The variety and design of airway clearance devices and therapy has changed dramatically over the past 10 years. Do we really need drug therapy to properly maintain airway clearance, or can we maintain airway function with the use of proper airway clearance techniques? Is there a right time, right place, and right patient for each of the devices? Or are mucolytics actually more cost effective? Are there any data? This presentation will review the data and rationale behind the use of secretion clearance adjuncts or devices.

8:30 am – 9:35 am

Ventilator Graphics: What Can I See, What Can I Do?

8:30 am – 9:00 am

Basic Graphics Interpretation: Easy Steps to Success

John S Emberger RRT, Newark DE

Participants will see live, real-time graphics and learn an easy approach to interpretation of most common issues in adult ventilator patients. Interventions for common problems will be displayed and discussed.

9:05 am – 9:35 am

Advanced Graphics Cases

John S Emberger RRT

Participants will see live, real-time graphics of a wide variety of particularly unusual cases. Interventions and progression of these complicated cases will be discussed.

8:30 am – 10:15 am

A Rational Approach to Acquiring Capital Equipment and Supplies

8:30 am – 9:20 am

Equipment Evaluation in RT: A Successful Systematic Approach

Joseph Dwan MS RRT, Clackamas OR

The presenter will guide the attendees through the iterative process that he has hard-wired in his organization that is based on defined criteria that has allowed his organization to make sound decisions on capital equipment selection.

Exhibit Hours at The Buying Show: Monday - Wednesday, Dec 6 - 8, 11:00 am - 4:00 pm





Thursday, Dec 9

9:25 am – 10:15 am

A Rational Approach to Purchasing RT Supplies for Quality and Cost Savings

Joseph Dwan MS RRT

Using criteria-based evaluation and Group Purchasing Standards (GPS), the presenter will review how he has succeeded in reducing costs while maintaining quality in the acquisition of RT supplies for his organization.

8:30 am – 10:25 am

Emerging Trends in Long-term Mechanical Ventilation

8:30 am – 9:05 am

Trends in Alternate Site and Home Ventilation: New Challenges for RTs

Gene Gantt RRT, Livingston TN

There are emerging trends in use of NIV in alternate sites. Accordingly, there are changes in patient population and challenges in payer acceptance.

9:10 am – 9:45 am

Conversion from Artificial Airway to Noninvasive Ventilation: Clinical Challenges

Zachary Gantt RRT, Livingston TN

Transition from ETT to volume assisted NIV for long term ventilation may be the new paradigm. Transition and decannulation of tracheostomized patients to NIV presents significant clinical challenges. Case presentations will be used to demonstrate patient pathways.



RESPIRATORY CARE OPEN FORUM® Symposia

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Clinicians present the results of their scientific studies. Abstracts with a similar focus are clustered into a symposium to encourage discussions and interactions among investigators and observers; posters expand the information presented. Seventeen OPEN FORUM symposia will be presented during the four days of Respiratory Care 2010. **See pages 86–95 for symposia sessions, abstract titles and authors.**

9:50 am – 10:25 am

LTC—A New Era in Respiratory Education Preparing the New RTs

Christy D Walker RRT, Dalton GA

The importance of clinical education in the LTC setting due to the growing population of patients needing respiratory care outside of the acute care facility is an increased need. The levels of expectation, comfort, clinical competency and understanding of the care of the patient in the LTC setting prior to and following the clinical experience may be lacking in the current system. This presentation will examine the impact of LTC clinical education on students as part of the advanced practitioner respiratory therapy program.

8:30 am – 11:05 pm

Putting Best Evidence into Practice for Optimum Patient Benefit

8:30 am – 9:05 am

What Is Knowledge Translation, and Why Should I Care?

David J Pierson MD FAARC, Seattle WA

High-quality evidence and clinical practice guidelines do not guarantee improved patient care. This presentation defines the important and growing field of knowledge translation and identifies the barriers that prevent its effective implementation. It provides concrete examples of these barriers from the field of respiratory care and describes approaches for overcoming them for the benefit of patients, institutions, and the whole health care system.

**Visit AARC.org
for Program Updates.**



9:10 am – 9:45 am

Applying Best Evidence in the Use of Sedation in the Mechanically Ventilated Patient

Charles G Durbin Jr MD FAARC, Charlottesville VA

Important patient outcomes are affected by the use of sedation by clinicians managing mechanically ventilated patients. This presentation reviews the currently available evidence on this topic and discusses how it may be applied practically at the bedside.

9:50 am – 10:25 am

Mechanical Ventilation and the “N of 1” Patient Care Construct

David M Wheeler RRT-NPS, Cleveland OH

Evidence-based medicine is the conscientious, explicit, and judicious use of current best evidence applied to the decision-making process concerning the care of individual patients. The n-of-1 practice construct is a means of formulating mechanical ventilation strategies with and for patients in an individualized fashion, incorporating continuous monitoring of their response. This presentation will elaborate on these definitions and illustrate how best evidence can be used to improve the care of individual patients.

10:30 am – 11:05 am

Setting the Ventilator for Maximum Patient Comfort

Richard H Kallet MS RRT FAARC, San Francisco CA

The patient’s experience of mechanical ventilation during acute illness can vary dramatically depending on how the clinician sets the ventilator, apart from such considerations as tidal volume, pressure limits, and mode. This presentation addresses patient-ventilator synchrony in this context, summarizing the available evidence and discussing how it can best be applied at the bedside.

9:00 am – 11:35 am

Journal Symposium: What’s RESPIRATORY CARE Up to These Days?

9:00 am – 9:35 am

Journal Conference Summary: Neonatal and Pediatric Respiratory Care: What Does the Future Hold?

Ira M Cheifetz MD FAARC, Durham NC

This presentation will summarize the RESPIRATORY CARE Journal Conference on Neonatal/Pediatric Respiratory Care.

9:40 am – 10:15 am

Journal Conference Summary: Patient-Ventilatory Interaction

David J Pierson MD, Seattle WA

This presentation will summarize the RESPIRATORY CARE Journal Conference on Patient-Ventilator Interactions.

10:20 am – 10:55 am

The Top 5 Original Research Papers Published in RESPIRATORY CARE in 2010

Dean R Hess PhD RRT FAARC, Boston MA

This presentation will identify and review the 5 best original research papers published in the Journal in 2010.

11:00 am – 11:35 am

The Top 5 Case Reports Published in RESPIRATORY CARE in 2010

David J Pierson MD

This presentation will identify and review the 5 best case reports published in the Journal in 2010.

9:15 am – 10:55 am

Gaps in COPD Care: What They Are and What We Need to Do

9:15 am – 9:45 am

Gaps in Making the Diagnosis

Joshua Benditt MD, Seattle WA

The presenter will describe the obstacles to having COPD properly diagnosed in a timely manner and discuss the impact of early detection in reducing the rate of further deterioration in lung function.

9:50 am – 10:20 am

Gaps in the Management of Exacerbations During Hospitalization

Naresh A Dewan MD, Omaha NE

This presentation will discuss the variances in how COPD exacerbations are being managed during a hospitalization and will review the evidence-based guidelines for the optimal management of an exacerbation.





10:25 am – 10:55 am

Gaps in Discharge Planning

Debra M Koehl MS RRT-NPS, Indianapolis IN

The presenter will discuss the consequences of poorly coordinated discharge planning of a COPD patient following admission for an exacerbation and will describe the potential advantages of having RTs more involved in the discharge planning process for these patients.

9:30 am – 10:25 am

Inhaled Medical Gases: More Than Oxygen

Unlike the early days of the inhalational therapists, respiratory therapists administer many medical gases beyond oxygen. This session will review the application of inhaled gases in the health care setting.

9:30 am – 9:55 am

Heliox and Inhaled Anesthetics: More Than Just Beta-Agonists for the Asthmatic

Melissa K Brown RRT, San Diego CA

Heliox and inhaled anesthetics play a valuable role in the management of the asthmatic. The medical literature along with the technical aspects of gas delivery will be reviewed. Care of the patient with status asthmaticus is much more than oxygen, steroids, and beta-agonists.

10:00 am – 10:25 am

What Other Therapeutic Gases Can Patients Inhale?

Jenni Raake RRT MBA, Cincinnati OH

Have you ever considered administering carbon dioxide, carbon monoxide, or nitrogen to your patients? Why would you consider these approaches? This presentation will review the clinical applications of the more “unusual” inhaled medical gases.

9:30 am – 11:10 am

Novel Uses for Patient Simulation

9:30 am – 10:00 am

Using Simulation to Diagnose Potential Bedside and System Errors (Latent Threats)

Roberta Hales MHA RRT-NPS RN, Philadelphia PA

Simulation has been reported as a method to identify potential latent conditions (errors) or “accidents waiting to happen” that may predispose health care institutions to system failures/errors and affect the quality and safety of patient care. The Joint Commission’s initiatives for patient safety encourage health care institutions to diagnose and correct latent conditions before they contribute to mishaps in patient care. Simulation is a proactive tool that can be used to assess latent conditions (threats) in patient care environments, current protocols, and hospital systems. This presenter will demonstrate how simulation can be used to identify potential latent conditions (errors).

10:05 am – 10:35 am

Using Simulation to Train for Low-volume, High-risk Emergencies

Roberta Hales MHA RRT-NPS RN

Many of the therapies that RTs are trained to provide occur infrequently in the clinical environment. Emergencies also occur infrequently, but quick and decisive action is usually required to avoid patient harm. Simulation can be used to increase therapist exposure to these events, allowing them the confidence and experience to respond appropriately during high-risk, low-volume events. Participants will identify several low-volume, high-risk therapies for patients in their institution and discuss the process for designing a simulation for a low-volume, high-risk event.

10:40 am – 11:10 am

Simulation and Usability Testing

Roberta Hales MHA RRT-NPS RN

Technology and therapeutic modalities are ever evolving. It is often challenging for RTs to adequately evaluate them because it is a time consuming and inexact process. Simulation improvisation and usability can play an important role for evaluating new/old equipment, modes of ventilation, and clinical protocols in a simulated dynamic environment. Testing in simulated environments allows the participants to experience and explore the technology in a physical work context and uncover subtle device use errors and protocol design flaws. The presenter will compare several methods of usability and equipment testing and examine the process for using simulation to evaluate new equipment and protocols.



9:30 am – 11:25 am

OPEN FORUMS #14 and #15

Clinicians present the results of their scientific studies. Abstracts with a similar focus are clustered into a symposium to encourage discussions and interactions among investigators and observers; posters expand the information presented. **The titles and authors of all abstracts begin on page 86.**

9:45 am – 10:35 am

Blood Gas Laboratory: POC Certificate Program

Bruce Toben RRT-NPS CPFT, Piscataway NJ

The American Association for Clinical Chemistry (AACC) is developing a program to educate participants on best practice standards as they relate to blood gas laboratory operations. This Web-based modular program will include sessions on regulatory compliance, quality assurance systems, device connectivity, and other topics pertaining to laboratory diagnostic testing. Admission criteria for the program and highlights of each module will also be discussed.

10:20 am – 11:10 am

Managing the Represented Workforce

Richard M Ford RRT FAARC, San Diego CA

Unions represent health care workers in a variety of capacities. While some managers view organized labor as a burden, others build great teams. Consideration in managing a represented workforce will be discussed and programs described that provide staff with a voice in department-level decision making.

10:30 am – 11:55 am

Respiratory Care of the Child with Neurodisability

10:30 am – 10:55 am

Pulmonary Complications in the Child with Neurodisability

Robert Warren MD, Little Rock AR

This presentation will describe the progression of chronic lung disease in the child with neurodisability. Specific topics will include the challenge of managing airway secretions as well as invasive and non-invasive ventilatory strategies.

11:00 am – 11:25 am

Living Longer, Living at Home

Denise Willis RRT-NPS, Little Rock AR

This presentation will describe the therapist's role, both inpatient and outpatient, in caring for technology-dependent children. Issues and challenges include equipment hurdles, the home environment, family involvement, transitioning to the adult hospital as the patient ages, and more. Emphasis will be placed on quality of life.

11:30 am – 11:55 am

Acceptance, Avoidance, and Advocacy—A Parent's Perspective

Amy Wilson EMT, Benton AR

As a parent of a respiratory-technology dependent child, this presenter will demonstrate what families want therapists to know about caring for trach/ventilator-dependent children. The family's perspective, challenges, coping mechanisms, and emotions will be shared. You may cry and laugh, but you will not forget this presentation.

10:30 am – 12:00 noon

Keep Them Awake: Developing Powerful and Productive In-Service Education Programs

Jody Lester MA RRT, Nampa ID and Bill Galvin MSEd RRT CPFT AE-C FAARC, Gwynedd Valley PA

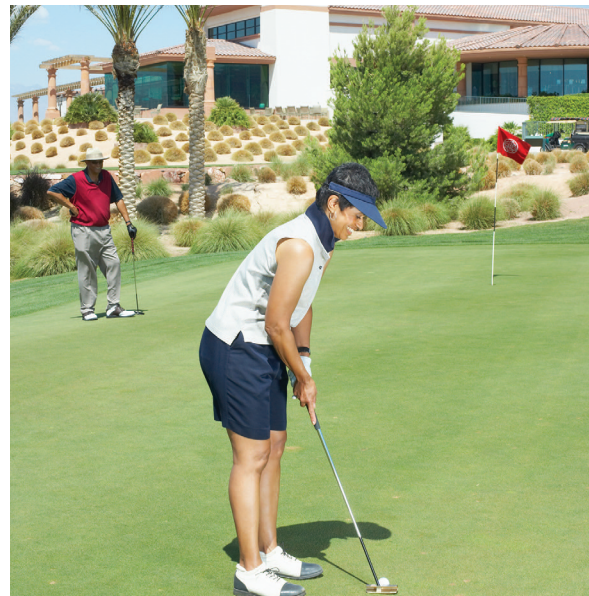
Are you charged with developing clinician or patient in-services? Come learn the steps that will ensure your success. Topics will include learning objectives, PowerPoint development, and outcome assessment.

10:45 am – 11:35 am

The State of Polysomnography: Current Trends, Challenges, and Opportunities

Donna Arand PhD, Dayton OH

This presentation will provide an overview of the key trends impacting polysomnography today including economic factors, demographic shifts, and increased awareness of sleep disorders. Challenges facing the discipline will be discussed including education, training, recruitment and retention. Finally, the presenter will look to the future and project shifts likely to occur within the field over the next 5–10 years.



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11:05 am – 11:50 am

Sleep Section Membership Meeting

Tony Stigall MBA RRT RPSGT/Presiding

Section members meet to determine their needs and priorities, as well as how to use the AARC resources to accomplish them. All Congress attendees, including section non-members, are invited to attend and participate.

11:15 am – 12:00 noon

Surface & Air Transport Section Membership Meeting

Steven E Sittig RRT-NPS C-NPT FAARC/Presiding

Section members meet to determine their needs and priorities, as well as how to use the AARC resources to accomplish them. All Congress attendees, including section non-members, are invited to attend and participate.

11:15 am – 12:05 pm

A Common Sense Guide to Patient Safety for the Respiratory Therapist

Thomas R Lamphere RRT, Sellersville PA

Patient safety is a primary concern for all health care workers including the RT. Groups such as The Joint Commission and state/federal agencies have been formed to create and enforce numerous rules and regulations aimed at keeping patients safe.

11:20 am – 12:00 noon

Implementation of A Respiratory Care Services Inpatient Satisfaction Program

Dottie Biggar RN ANP-BC, St Louis MO

The Joint Commission requires hospitals to measure patient satisfaction. However, a “real time” system that would pro-

vide feedback that allows for immediate intervention is needed and will be reviewed in this session. In addition to a review of the tools and process that were involved in implementing this program, the presenter will provide tips to prevent potential pitfalls encountered, including surveyor bias.

1:00 pm – 1:40 pm

Challenges in Pediatric Non-invasive Ventilation

Jenni Raake MBA RRT, Cincinnati OH

Pediatric non-invasive ventilation is a challenge — both in terms of devices and interfaces. This presentation will explore these challenges and share thoughts for solutions. Interface issues, patient comfort, and evaluation of clinical efficacy will be discussed.

1:00 pm – 1:40 pm

Interdisciplinary Clinical Practice

Ellen Perry RRT, Chandler AZ

This presentation will define RT scope of practice, explain the implications of interdisciplinary care, and describe how electronic medical records impact RT care.

1:00 pm – 1:45 pm

Strategies for Maintaining and Increasing Patient Sleep Volume in Tough Times

John Sabo MS RRT RN

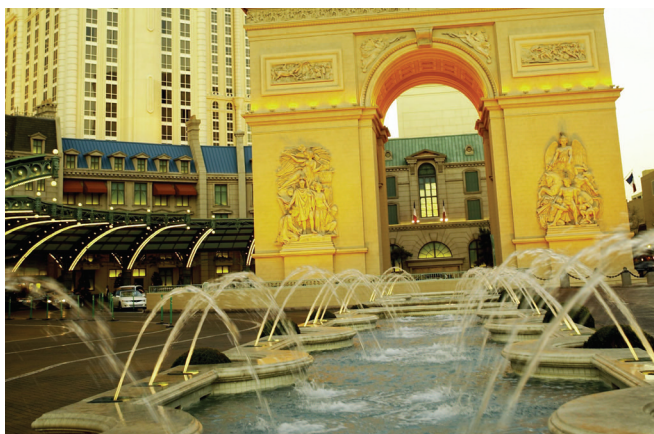
The speaker will share successful marketing strategies for maintaining volumes in these tough times. Specific discussion items include development of a branding strategy, Continuous Patient Aftercare Program (CPAP), development of alternate referral sources and adoption of more entrepreneurial marketing efforts.

1:00 pm – 1:50 pm

RT as Inventor: How to Invent, Analyze, Develop, and Protect New Product Ideas

Daniel J Grady MEd RRT FAARC, Asheville NC

Respiratory therapists are natural inventors because of their expertise in clinical problem solving and adapting technology to clinical needs. This presentation will identify two techniques for inventing new technology and cite 3 criteria which may be used to analyze marketability of new technology. Resources that may be used for research and development of inventions will also be discussed.





1:00 pm – 1:50 pm

Understanding Change Management

Cheryl Hoerr MBA RRT CPFT FAARC, Rolla MO

Some people dread change while others welcome it, especially if they are the ones pushing for the changes. Change is inevitable, and managers must be able to teach their staff how to embrace change by understanding the reactions to change and using the understanding to deal with the challenge of change.

1:00 pm – 2:40 pm

Inhalation Injuries and Burns: What You Need to Know

1:00 pm – 1:30 pm

Anatomy of Inhalation Injury

Shawn Fagan MD, Boston MA

Inhalation injury can be a life-threatening crisis. Careful assessment and management of these patients must take place in a timely manner. This presentation will describe the physiologic effects of inhalation injury.

1:35 pm – 2:05 pm

Inhalation Injuries—A Great Challenge for Respiratory Therapists

Kathy Short RRT RN, Chapel Hill NC

This presentation will describe the challenges respiratory therapists face when caring for patients with inhalation injuries and burns. It will explain how an interdisciplinary approach to care is vital to the survival of patients with inhalation injuries.

2:10 pm – 2:40 pm

Blood, Sweat and Tears: Long-term Outcomes of Burn Patients

Shawn Fagan MD

Patients with thermal injuries require intensive treatment for a long period of time. After all of the resources needed to care for these patients, what are the long-term outcomes and quality of life? This presentation will show case studies illustrating the ongoing effects of burn injuries.

1:00 pm – 2:55 pm

OPEN FORUMS #16 and #17

Clinicians present the results of their scientific studies. Abstracts with a similar focus are clustered into a symposium to encourage discussions and interactions among investigators and observers; posters expand the information presented. See abstract titles and authors beginning on page 86.

**Visit AARC.org
for Program Updates.**

1:00 pm – 3:15 pm

Evidence and the Best Practice of Respiratory Care

1:00 pm – 1:30 pm

Clinical Trials and Their Impact on the Practice of Respiratory Care

Thomas Wing MHS RRT, Boise ID

Specific examples will be used to demonstrate the processes by which clinical trial outcomes serve as a driving force behind the determination of best practice. Additionally, the presenter will discuss the roles and responsibilities of RTs in this process.

1:35 pm – 2:05 pm

Lavage with Suction—Convincing Verdict or Is the Jury Still Out?

Jody Lester RRT, Nampa ID

Lavage prior to tracheal suction has been largely discontinued following analysis of the evidence. However, a recent study found lower VAP rates in patients who were lavaged. A discussion of this topic will be used to help illustrate the process for evaluating conflicting research findings.

2:10 pm – 2:40 pm

Therapeutic Hypothermia Following Asphyxia—How Strong Is the Current Evidence?

Thomas Wing MHS RRT

The presenter will analyze and discuss the study outcomes for trials of adult, pediatric and newborn populations who were treated with therapeutic hypothermia after asphyxia. A specific focus will be to determine whether the evidence supports continued practice.

2:45 pm – 3:15 pm

Fetal Origin of Adult Disease—How New Concepts May Affect Practice

Jody Lester RRT

Barker's hypothesis of fetal origin of adult disease (FOAD) will be used as the foundation for discussion of how new concepts may affect practice.





1:00 pm – 3:50 pm

Pulmonary Rehabilitation 2010 and Beyond: Challenges and Opportunities

1:00 pm – 1:30 pm

NCD, ITP, MAC, etc: Learning and Understanding the Acronyms

Debra Koehl MS RRT-NPS AE-C, Indianapolis IN

The presenter will describe the myriad of abbreviations used to describe the various aspects of pulmonary rehabilitation and the importance of a thorough understanding of their interpretation.

1:35 pm – 2:05 pm

Medical Direction in Pulmonary Rehabilitation Brian W Carlin MD FAARC, Pittsburgh PA

This presentation will describe the role of the medical director in a pulmonary rehab program and how to comply with CMS requirements.

2:10 pm – 2:40 pm

Documentation Essentials

Gerilynn Connors RRT FAACVPR, Falls Church VA

The presenter will discuss the required documentation for timely reimbursement for pulmonary rehabilitation and provide insight into how audits are conducted and ways to avoid problems.

2:45 pm – 3:15 pm

Staffing Essentials

Trina M Limberg RRT, San Diego CA

The presenter will describe how to plan for proper patient-therapist ratios in a pulmonary rehab program and discuss the use of multi-disciplinary professionals in the most effective manner.



RESPIRATORY CARE

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3:20 pm – 3:50 pm

Pulmonary Rehabilitation for the Lung Transplant Patient

Paul F Nuccio MS RRT FAARC, Boston MA

The presenter will discuss the special and unique pulmonary rehabilitation needs of this special patient population.

1:45 pm – 2:25 pm

Coughers, Wheezers, and Noisy Breathers

Robert Warren MD, Little Rock AR

Children often cough and wheeze. What does it mean? Which children require work-up and therapy? This presentation will offer thoughts on the different diagnoses of infants and children who present with wheezing or coughing. Therapeutic considerations will be discussed.

1:45 pm – 2:25 pm

Improving Written Communication: A Review for Busy Health Care Professionals

William A French MA RRT, Kirtland OH

Within the respiratory care community, there are many ways for individuals to share unedited written communication (eg, listservs, AARConnect, etc.). Too often, these communications contain errors in spelling, punctuation, grammar, and rhetoric. These errors detract from the credibility of the communication and make the writer (and, by extension, the profession) appear less professional. This presentation shows examples of such communication (done discreetly), demonstrates how such errors could be corrected and/or avoided, and reviews basic principles of writing in English. Resources for improving writing will be presented. Effective communication among health care professionals is becoming



more important all the time. And yet, communication skills are often under-emphasized in school and not reinforced in practice.

1:50 pm – 2:35 pm

The Basic Concepts of LEAN

Darnetta Clinkscale MBA RRT, St Louis MO

We've all seen the typical "flavor of the month" that purports to improve quality and customer satisfaction while cutting costs to the bone. While many of these programs have come and gone and many have not demonstrated any countable savings, the LEAN program is one that has demonstrated reduction of waste while ensuring patient care and safety is maintained and/or improved. This presenter will educate you as to the basic concept and tools that you can implement in your organization.

2:00 pm – 2:50 pm

A New Model for Care—The Acute Pulmonary Unit

John S Sabo MS RRT RN, Houston TX

The presenter will lead the audience through the process whereby his organization created the Acute Pulmonary Unit (APU). Starting with a multidisciplinary team, they developed the strategic objectives and the implementation plan that led to the opening of a unit that met financial and clinical goals.

2:00 pm – 4:10 pm

Establishing and Improving an Asthma Self-Management Education (ASME) Program: Applying for the AARC's ASME Certification

2:00 pm – 2:40 pm

Why Establish an ASME Program

Timothy B Op't Holt EdD RRT AE-C FAARC, Mobile AL

This presentation will address the rationale for establishing an ASME program. Additionally, it will describe the elements of the ASME program and how an ASME program is organized.

2:45 pm – 3:25 pm

The ASME Instructional Team and Resources

Karen Gregory MS APRN-BC CNS RRT AE-C, Edmond OK

This presentation will identify the instructional team and the physical and fiscal support needs of the program. It will identify the target population and methods for determining individual needs. Additionally, it will address the continuing education requirements.

3:30 pm – 4:10 pm

Action Plans, Patient Outcomes and CQI for an ASME Program

Rhonda Vosmus RRT-NPS AE-C, Portland ME

This presentation will address how to write an asthma action plan, assess outcomes and monitor quality. Additionally, the presentation will discuss who has established a successful ASME program.

2:30 pm – 3:10 pm

Disease-specific Management Strategies for Mechanically Ventilated Infants

Robert M DiBlasi RRT-NPS, Seattle WA

What are the clinical implications of the latest research? For the last 3 decades, time-cycled, pressure-limited ventilation has been the most common form of respiratory support available for neonates. Research focused on devices and management strategies has identified many new approaches. This presentation will provide the respiratory therapist with clinical insight on disease-specific invasive ventilatory techniques used to support neonates with various forms of lung injury.

2:45 pm – 4:25 pm

Providing Clinical Respiratory Home Care Services in an Austere Financial Environment

2:45 pm – 3:15 pm

An Education Program That Encourages Patient Participation

Robert W McCoy RRT FAARC, Apple Valley MN

The speaker will discuss the importance and necessity of patients assuming greater responsibility in their continuing care at home and will present examples of comprehensive education programs that help patients/caregivers maintain optimal respiratory health in spite of their chronic respiratory disease.

3:20 pm – 3:50 pm

Higher Flow Oxygen Delivery: Available Options

Louis M Kaufman RRT-NPS AE-C FAARC, Olney MD

This presentation will describe the available option for those home care patients requiring higher oxygen doses to maintain effective oxygenation and will discuss strategies to address the limitations of conventional oxygen delivery devices for this unique patient population.





3:55 pm – 4:25 pm

Pulse Dose Delivery Devices: What You Don't Know Could Hurt Your Patients

Robert W McCoy RRT FAARC

The presenter will review the available performance data for gaseous, liquid and concentrated oxygen pulse dose delivery systems and will describe the unintended consequences of not considering the performance limitations of certain types of pulse dose delivery systems.

2:50 pm – 4:25 pm

Coaching, Developing, and Mentoring Your Staff

2:50 pm – 3:10 pm

Promoting Collaboration and Teamwork

Cheryl Hoerr MBA RRT CPFT FAARC, Rolla MO

People want to be appreciated and valued for their contributions. Managers must be able to create a working environment in which people value each other and recognize the importance of each member's contribution to the team.

3:15 pm – 3:35 pm

Managing Conflict

Karen J Stewart MS RRT FAARC, Charleston WV

Handling conflict in the workplace can be quite difficult. Managers have to deal with forceful egos, with people's strong beliefs that they are right, and occasionally with childish behavior.

3:40 pm – 4:00 pm

Coaching Others

Cheryl Hoerr MBA RRT CPFT FAARC

High performing organizations have systems in place that encourage each individual to perform to their optimum level.



This lecture will share ideas about equipping therapists with the tools and knowledge that they need to develop themselves as well as coaching tips for managers.

4:05 pm – 4:25 pm

Acting Strategically

Karen J Stewart MS RRT FAARC

Strategy keeps you focused so you can decide where to invest critical resources. An understanding of the organization's broad strategy is essential for ensuring alignment of department goals. This presentation will discuss ways to understand your organization's strategy, execute against it, and measure your performance.

3:00 pm – 4:05 pm

RTs Take the Lead!

3:00 pm – 3:30 pm

Just Add Respiratory Therapists and Mix!

Mary K Hart RRT AE-C, Dallas TX

All that's missing from the Peak Performance USA program is the RT. This program is up to date, comprehensive, and Web-based to make it easy to access and utilize. The presenter will guide the audience through the use of this valuable tool that will not only provide great care, but increase the visibility and value of the RT.

3:35 pm – 4:05 pm

RTs Lead the Way in Quality Improvement

Mary K Hart RRT AE-C

This presentation will demonstrate how one hospital respiratory therapist led the way in providing asthma management in the ED through a new and innovative process that improved care, reduced cost, and positioned the RT, among others, as valued health care professionals.

3:20 pm – 4:00 pm

Back to Basics: How Oxygen and Carbon Dioxide Are Transported in the Blood

Andrew M Luks MD, Seattle WA

An understanding of how oxygen gets into the blood, how it is stored and transported once it is there, and how carbon dioxide is carried from the tissues to the lungs for elimination, is fundamental to the practice of respiratory care. This lecture provides a concise refresher course on this bread-and-butter but somewhat complicated topic.

**Visit AARC.org
for Program Updates.**

Travel Discounts/Information



TRAVEL DISCOUNTS/INFORMATION

Discounts may be obtained only through these web sites and toll free numbers. Discounts are available for AARC Congress attendees, family members and friends.

AMERICAN AIRLINES

Online at www.aa.com. Enter 49D0AA in the Promotion Code box (no booking fee). Call AA Meeting Services at 800-433-1790 and refer to Authorization A49D0AA (booking fee added).

AirTran Airway

Call, or have your travel agent call, AirTran Airways EventSavers Desk at 866-683-8368. Refer to Event Code LAS120310 and the AARC Meetings. The discount is available only by calling the toll free number.

CONTINENTAL AIRLINES

Online at www.continental.com. Enter ZGQQAWTJM8 in the Offer Code box (receive an additional 3% off and no booking fee). Call Continental Meeting Works at 800-468-7022 and refer to Z code ZGQQ and Agreement Code AWTJM8 (booking fee added).

Delta

Call, or have your travel agent call, Delta Meeting Network Delegates at 800-328-1111. Refer to Account Code NM654. The discount is available only by calling the toll free number (no booking fee).

BUDGET RENT A CAR

Online at www.budget.com. Click "More Options". Enter U064639 in the Offer Code (BCD) box. Call 800-772-3773. Refer to Discount Offer Code U064639.

ENTERPRISE

Online at www.enterprise.com. Enter Discount Rate Code L9D0194 in the "Optional" code box. On the following page enter AME in the Sign In box. Call 800-736-8222. Refer to Discount Rate Code L9D0194.

HERTZ

Online at www.hertz.com. Enter 049T0003 in the Convention Number (CV) discount box. Call 800-654-2240. Refer to Convention Discount Code 049T0003.

Las Vegas Monorail

The Las Vegas Monorail is offering AARC International Respiratory Congress attendees exclusive fare discounts! Use the Monorail to get from the Las Vegas Hilton to the Strip without the hassles of traffic and wasted time. Buy Monorail Tickets in advance and save 20% <https://tickets.lvmonorail.com/aarc2010mdnnsjkslfel>.

Registration and Fees

REGISTRATION POLICIES

- American Express, MasterCard, and VISA are the only credit cards accepted.
- Members who have paid the current year's dues and are in good standing or whose applications are in process will be admitted at the member rate.
- Members registering on-site will be required to present their current membership card. Any person who does not present a current membership card must register at the non-member rate.
- All students will be required to pay a registration fee. AARC members with student status can register at the student rate. Students who are not members of the AARC are required to pay the non-member rate.
- An active member is not permitted to register as an exhibitor or to assist in a booth unless he/she is an employee of the exhibiting firm.
- Spouses may register for the Congress on-site only. Any logical proof indicating that the person is a member's spouse will be accepted.
- Advance registration fees must be prepaid. No invoice will be issued. An acknowledgement will be made of the fee paid.
- **Refund requests must be in writing and must be received by Nov 17, 2010.** A fee of 35% will be deducted from the refund to cover processing. No refunds will be made after November 17.
- No soliciting from exhibitors and attendees is permitted without AARC permission.

REGISTRATION FEES (SEE NEXT PAGE)

Congress	By Oct 31	After Oct 31	Daily (on-site)
AARC Active/Associate	\$360	\$385	\$190
AARC Student Member	\$160	\$170	\$ 80
Non-member*	\$490	\$500	\$275

Active Duty Military

We have a special offer for all health care professionals, not just respiratory therapists, on active duty in all branches of the US armed forces, as well as military reservists recalled to active duty. See details.

Alpha-1 Antitrypsin Deficiency for the Respiratory Therapist Sunday, Dec 5, 2010

Congress registration required. No course registration fee is required but you must pre-register. Attendance is limited. Deadline: Nov 17, or when the course is full. You must attend the entire course to receive CRCE credit; no partial credit will be given. *The Alpha-1 and Mechanical Ventilation Courses run concurrently; you may register for only one*

Mechanical Ventilation course

Sunday, Dec 5, 2010

Pre-registration is required. Attendance is limited. Deadline: November 17 or when course is full. You must attend the entire course to receive CRCE credit; no partial credit will be given. *The Mechanical Ventilation Course and the Alpha-1 Course run concurrently. You may register for only one.*

By October 31	AARC Member	Non-member
MV Course only	\$180	\$280*
If registered for Congress	\$70	\$110*

November 1-17	AARC Member	Non-member
MV Course only	\$210	\$310*
If registered for Congress	\$100	\$140*

*You may become an AARC Member prior to registering (www.aarc.org). If you opt to pay the non-member fee, you are entitled to a complimentary 12-month AARC membership.

Faxed or Mailed Registrations

Complete the Registration Form and mail or fax it to the AARC. Details are on the form.

Receipts

A receipt for your registration fee(s) will be sent to you prior to your departure for Las Vegas. Present the receipt on-site to receive your name badge and registration packet(s).

On-site Registration Hours

Sunday— 12/5	10 am–6 pm
Monday— 12/6	7 am–4 pm
Tuesday— 12/7	7:30 am–4 pm
Wednesday— 12/8	8 am–4 pm
Thursday— 12/9	8 am–12 noon

8 am–6 pm CRCE Assistance Available

(You can fill out the Registration Form and bring it with you for on-site registration.)



Site and Hotel Information

Las Vegas Convention Center Las Vegas Hilton

Site Information

Congress lectures and exhibits will take place at the Las Vegas Convention Center, 3150 Paradise Road, Las Vegas, NV 89109, unless otherwise noted. During the Congress, the official social functions and pre-Congress courses will be held at the Las Vegas Hilton located next to the Convention Center.

Hotel Reservations/Dining Deals Bonus

Room reservations are available at the Las Vegas Hilton, AARC headquarters hotel, 3000 Paradise Road, Las Vegas, NV 89109-1287.

Book your room in the official AARC room block via any of the methods listed below in the "Instructions" paragraph and receive a Las Vegas Hilton Dining Deals coupon book worth \$100 in food and beverage specials. Coupons will be valid at TJ's Steakhouse, the world famous Benihana, Paradise Cafe and much more. One coupon book per sleeping room.

Reservation Deadline

The deadline to make housing reservations at the AARC Congress rate is Thursday November 4. After this date, AARC room blocks will be released and the hotel may charge higher rates. Beginning November 5, call the Hilton's Convention Reservations Department for availability at 800-635-7711 or 702-732-5301.

Room Rate

Come enjoy the recently renovated sleeping rooms at the Las Vegas Hilton. Choose from a range of newly updated rooms—where upgraded amenities and thoughtful details ensure your comfort. Enjoy a restful, rejuvenating night's sleep in your ultra soft bedding. Stay connected with high speed Internet access (for an additional fee) or dial up an in-room movie on the crystal-clear plasma TV.

Classic Room—\$129 + 12% tax single/double occupancy
Features a king-size bed or two double beds, new upgraded bed linens, carpet and wall coverings, as well as a wide range of amenities including a 37" plasma television, CD and MP3 player, in-room safe, iron and ironing board, hair dryer, and working desk.

Premium Room—\$139 + 12% tax single/double occupancy (limited availability)
A fully renovated guest room with new luxurious pillow-top premium mattresses, luxurious bed linens, 37" plasma televisions, premium pillow collection, CD and MP3 player, in-room safe, iron and ironing board, hair dryer, working desk, in-room refrigerator, luggage rack and a completely renovated and upgraded bathroom.

Resorts Club Room—\$179 + 12% tax single/double occupancy (limited availability)
Upgrade to the Resorts Club Room and enjoy all of the inclusions of the Premium Room plus plush bathrobes and slippers, upgraded bathroom amenities, and in-room printer. Includes access to the exclusive Resorts Club lounge on the 24th floor where you can enjoy sumptuous power breakfasts, warm cookies and light snacks, and complimentary wine and cheese receptions.

Instructions

To make your reservation you may:
Go online to AARC Housing via www.AARC.org.
or Call 800-635-7711 toll free or 702-732-5301. Refer to Group Code SARCOR.
or Fax the reservation form to 702-732-5805, ATTENTION: Mike or Sam, Convention Reservation Department.
or Mail the housing form, with guarantee to: Convention Reservations, Las Vegas Hilton, 3000 Paradise Rd., Las Vegas, NV 89109-1287. The Housing Reservation Form is attached.

Guarantee

A one night room guarantee is required for each room, payable by credit card, or a check with mailed reservation forms only. Make the check payable to the Las Vegas Hilton. Credit cards will be charged immediately for the deposit amount.

Deposit amounts (single/double occupancy)

Classic Room: \$129 + 12% = \$144.48
Premium Room: \$139 + 12% = \$155.68
Resort Club Room: \$179 + 12% = \$200.48

Special Requests

Special requests cannot be guaranteed; however, the hotel will do their best to honor all requests. The hotels will assign specific room types upon check-in, based on availability.

Acknowledgements

Online: You will be given the option for an e-mailed or faxed acknowledgment when you complete your reservation.

Fax or mail: Indicate your delivery preference at the bottom of the reservation form.

Changes/Cancellation/ Penalties

Through Thursday, November 4, 2010, any changes in the name of occupants, arrival/departure dates, or cancellations can be made via the method the reservation was originally made. Beginning November 5, all requests for changes/cancellations must be made by calling the Las Vegas Hilton's Reservations Department at 800-635-7711 or 702-732-5301.

If your cancellation is received in writing a minimum of two weeks prior to arrival date, your full deposit will be credited. Cancellations received less than 14 days prior to arrival will be assessed one night room and tax by the Hilton. Failure to register at the hotel on your confirmed date will result in the loss of your deposit. The hotel will assess an early departure fee for departure date changes at check-in.

Hotel Reservation for AARC

AARC International Respiratory Congress 2010



Meeting Dates December 6-9, 2010 (Monday–Thursday) • Deadline for receipt is November 4, 2010

Please read instructions thoroughly before completing form. Type or Print clearly.

FOR ADDITIONAL RESERVATIONS
PLEASE DUPLICATE THIS FORM.

Las Vegas Hilton rates:
Classic Room – \$129 US
Premium Room – \$139 US
Resort Club Room – \$179 US
All rates are + 12% tax, single/double occupancy per night



FOUR WAYS TO MAKE RESERVATIONS

Reservations request must be received by November 4, 2010



Make your hotel reservation on the internet at
www.aarc.org/education/meetings/congress/advance_program/site.cfm



Call 800-635-7711 toll free or 702-732-5301 to make a reservation over the phone. Refer to Group Code SARC0R. Have this form handy when speaking to the reservation agent.



Complete this form and fax to 702-732-5805, ATTN: Sam or Mike, Convention Reservations Dept.



Complete this form and mail to
 Convention Reservations
 Las Vegas Hilton
 3000 Paradise Rd
 Las Vegas, NV 89109-1287

Make check payable to Las Vegas Hilton.

- To check for room availability after November 4, call 800-635-7711 toll free or 702-732-5301.
- Each reservation must have an occupant's name.
- If your cancellation is received in writing a minimum of two weeks prior to arrival date, your full deposit will be credited. Cancellations received less than 14 days prior to arrival will be assessed one night room and tax. Failure to register at the hotel on your confirmed date will result in the loss of your deposit. The hotel will assess an early departure fee for departure date changes at check-in.

INSTRUCTIONS

To make a reservation at the Las Vegas Hilton, the convention headquarters hotel, please provide ALL requested information. TYPE or PRINT LEGIBLY.

Name _____

Company _____

Mailing Address _____

City _____ State _____

Zip/Postal Code _____ Country _____

Phone _____

OCCUPANTS / ROOM / ROOM TYPE

Room	C (Classic Room)	P (Premium Room)	R (Resort Club Room)
Room Type	S (1 person/1bed)	DBL (2 persons/1 bed)	DBL/DBL (2 persons/2 beds)

Occupant Name	Room/ Room Type	Arrival Date	Depart Date	Number of nights
---------------	--------------------	-----------------	----------------	---------------------

Room #1 _____ / _____

Share with _____

Room #2 _____ / _____

Share with _____

Room #3 _____ / _____

Share with _____

Room #4 _____ / _____

Share with _____

ROOM REQUESTS

Requests will be honored based on availability but are not guaranteed.

Non-Smoking _____ Handicapped equipped _____ Other _____

RESERVATION GUARANTEE

I authorize the hotel to charge my account for only the first night's deposit (requested room rate + 12%) for each reservation.

Check one box only. Deposit will be charged to your card immediately.

American Express Visa MasterCard Discover Diners Club

Credit Card # _____ Expiration Date _____

Name on Card _____

Signature _____

SEND ACKNOWLEDGEMENT TO:

E-mail: _____

OR

Fax: _____

OR

Mail to address above



2010 Exhibitors

Exhibit Hours

Monday, Dec 6
11 am – 4 pm

Tuesday, Dec 7
11 am – 4 pm

Wednesday, Dec 8
11 am – 4 pm

*Exhibitors list as
of Aug. 31, 2010*

A

ADVANCE/Marion Matters
Aerogen
Air Lift and CareFore Medical
Air Liquide Healthcare America
Corporation
Airborne Life Support
Systems/VIA Medical
AirGuard Medical Products Co.
Airon Corporation
AirSep Corporation
Alere
Ambu Inc.
American Institute
ARC Medical, Inc.
Aureus Medical Group

B

B & B Medical Technologies
Baitella AG
Bay Corporation
Baylor Health Care System
Bio-Med Devices, Inc.
Board of Registered
Polysomnographic
Technologists
Boehringer Ingelheim
Pharmaceuticals
Boston Medical Products Inc.
Bunnell Incorporated

C

Cadwell Laboratories, Inc.
CareFusion
Center for Medicare & Medicaid
Services
Children's Medical Center Dallas
Clement Clarke International
Ltd.
Clippard Instrument
CME America
CoARC
Compumedics USA, Inc.
CooperSurgical
Cornerstone Therapeutics Inc.
COSMED USA, Inc.
Covidien
Cross Country TravCorps

D

Dey Pharma, L.P.
Draeger Medical, Inc.

E

ElectroMed, Inc.
ELSEVIER
Epiphany Cardiology
Products, LLC
Epcal Inc.
Excelsior College

F

Fisher & Paykel Healthcare
Flight Medical Innovations, Ltd

G

GaleMed Corporation
GE Healthcare
General Physiotherapy
Goldstein & Assoc. Inc.

H

Hamilton Medical, Inc.
Health Educator Publications,
Inc.
Hill-Rom
Hi-Tech Medical
Hospira
HSINER Co., LTD

I

I.V. League Medical
IDEM
Ikaria
Impact Instrumentation, Inc.
InfaSurf, ONY Inc.
Ingen Technologies
IngMar Medical, Ltd.
Innovative Respiratory Concepts
Instrumentation Industries
Instrumentation Laboratory
Intergrated Services
Intersurgical Incorporated
Invacare Corporation

J

Jones and Bartlett

K

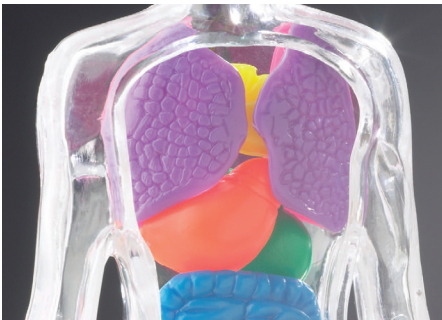
KARL STORZ Endoscopy-America,
Inc.
KarmelSonix Ltd.
Kettering National Seminars
Kimberly-Clark Healthcare
King Systems Corporation





L

Laboratory Data Systems, Inc.
Lakeland Regional Medical Center
Lambda Beta Society
Legacy Health
LifeWatch
Loma Linda University Medical Center
Lotus Medical



M

MAQUET, Inc.
MARPAC
Marsh US Consumer
Masimo
MAXAIR by BMDI
MedGraphics
Medical International Research USA, Inc.
Medical Reserve Corps
MediServe
MedLox Group
Mercury Medical
Methapharm
Monaghan Medical Corporation

N

National Board for Respiratory Care, Inc. (NBRC)
Neotech Products
Nephron Pharmaceuticals Corp
Newport Medical Instruments, Inc.
Nihon Kohden America
Nonin Medical
Nouvag AG
Nova Southeastern University
nSpire Health

O

Omneotech
OPTI Medical Systems, Inc.
Oridion Medical 1987 Ltd.

P

Passy-Muir Inc.
Patient Shield Concepts LLC
Percussionaire Corporation
Pharmaxis, Inc.
Philips Respironics
Praxair Healthcare Services
Precision Fluidics Division of Parker Hannifin
Precision Medical Inc.
Pulmodyne, Inc.

R

Radiometer America, Inc.
Respiratory Health Services
RMS Medical Products
Roche Diagnostics
RT/Sleep Review

S

Salter Labs
Scarf King
Sentec, by Master Dist. Bemes, Inc.
SeQual Technologies, Inc.
Seton Family of Hospitals

Siemens Healthcare Diagnostic
Silicon Microstructures, Inc.
Smiths Medical
SonarMed, Inc.

T

TaiDoc Technology Corporation
Talecris Biotherapeutics
Teleflex Medical
The Compliance Team, Inc.
The Respiratory Group (TRG)
Tri-anim
TSI, Incorporated

U

University Health Systems of Eastern Carolina
University of Virginia Health System

V

Vapotherm, Inc.
Verathon Medical
Vitalograph Inc.
VORTTRAN Medical Technology 1, Inc.

W

Westmed





Industry Watch

Kamada receives FDA approval for alpha-1 drug

The FDA has approved its alpha-1 proteinase inhibitor Glassia™ for the treatment of alpha-1 antitrypsin deficiency, according to Kamada. John Walsh, president of the Alpha-1 Foundation, congratulated Kamada, “We are delighted to welcome Kamada to the U.S. market. Glassia™ offers a new, innovative therapeutic alternative for our patients, and we look forward to the company’s entry into our patient community.”

FAA approves Invacare POC for commercial flights

According to the Invacare Corporation, Federal Aviation Administration SFAR No. 106 has been amended to include the Invacare® SOLO₂® Transportable Concentrator for use on-board passenger aircrafts. “Following the success of the Invacare® XPO₂™ Portable Concentrator for in-flight use, we are pleased to offer patients another option to meet their oxygen needs while traveling,” Joe Lewarski, BS, RRT, FAARC, vice presi-

dent of the Invacare respiratory division, was quoted as saying.

nSpire Health teams up with Amerinet Group Purchasing

nSpire Health has entered into a three-year contract with Amerinet Group Purchasing Organization that will offer Amerinet customer hospitals and clinics exclusive access to nSpire Health’s respiratory products and services, including the newly released HDpft™ pulmonary function testing systems.

Cardinal Health completes acquisition

Cardinal Health has completed its acquisition of Healthcare Solutions Holding LLC. Healthcare Solutions Holding is the parent company of a number of subsidiaries, including P4 Pathways and P4 Healthcare, which serve key participants across the chain of specialty care. A company spokesman says the addition of these value-added services is an important building block in Cardinal Health’s strategy to create a differentiated set of services for oncology and specialty customers.

Bio-Rad forges ahead with HIV assay

Bio-Rad Laboratories Inc. has submitted a Pre-market Approval application to the FDA for its fourth-generation HIV assay, the GS HIV Combo Ag/Ab EIA. The assay detects HIV antigens and HIV antibodies, offering early detection of HIV infections as well as detection of acute HIV infections. “We look forward to being able to offer this assay in the U.S., as it is able to detect a significant number of additional cases of acute HIV infections compared to HIV antibody testing alone,” says John Goetz, Bio-Rad’s vice president and group manager of clinical diagnostics.

Seegene introduces new TB test

Seegene has introduced its Anyplex™ MDR-TB Screening Test, a real-time PCR molecular diagnostic capable of simultaneous detection of TB and genetic mutations leading to multi-drug resistant TB within four hours. According to the company, the test allows clinicians to determine quickly whether a patient is infected with a strain of TB resistant to the two most

powerful anti-TB drugs, isoniazid and rifampicin.

New lab set up in Haiti

Thanks to collaboration between the Association of Public Health Laboratories and International Relief Solutions LLC, a critically needed laboratory facility is being set up at the main hospital in Port-au-Prince, Haiti. The 24' by 36' modular laboratory is replacing a temporary tent facility that has served the L'Hôpital de l'Université d'État d'Haïti since the January earthquake. Since the earthquake, the number of patients being treated at the hospital has tripled from 14,000 per month to almost 42,000, thus increasing the demand for laboratory testing.

Peregrine launches cancer study

Peregrine Pharmaceuticals Inc. has initiated a second randomized Phase IIb non-small cell lung cancer trial comparing bavituximab plus carboplatin and paclitaxel versus treatment with carboplatin and paclitaxel alone in frontline patients. “Bavituximab represents an entirely new targeted

approach to cancer therapy,” David E. Gerber, MD, assistant professor at UT Southwestern Medical Center, was quoted as saying. “Earlier lung cancer studies combining bavituximab with conventional chemotherapy have shown encouraging response rate and progression-free survival data compared to historical outcomes using chemotherapy alone.”

NIH: CoFAR funding to continue

The NIH has announced the Consortium of Food Allergy Research (CoFAR), established in 2005, will be funded for five more years. CoFAR will continue to foster new approaches to prevent and treat food allergies and also expand in scope to include research on the genetic causes underlying food allergy and studies of food allergy-associated eosinophilic gastrointestinal diseases.

New NCI director

Nobel Prize winner Harold E. Varmus, MD, was recently sworn in as the National Cancer Institute’s (NCI) 14th director. Dr. Varmus was co-recipient of the Nobel Prize in Physiology or Medicine in 1989 for studies of the genetic basis of cancer. He most recently served as president of Memorial Sloan-Kettering Cancer Center in New York City,

and from 1993–1999 was director of the NIH.

Kai Medical gets FDA 510(k) clearance

Kai Medical has received 510(k) clearance from the FDA to market an updated version of its wireless respiratory rate monitor, Noncontact Respiratory Spot Rate Check 200. “Receiving FDA clearance for our second wireless, noncontact respiratory rate monitoring product extends our position in the market,” says Kai Medical CEO Dustin Shindo.

Philips Respironics hosts open house

Nearly 500 Philips Respironics employees, volunteers, family, and friends gathered last June at the company’s new manufacturing facility in Upper Burrell, PA. The 172,000-square-foot LEED-certified building houses

the high-volume production of sleep therapy systems. Included were guided plant tours, product demonstrations, a mock production line where children and adults could build a CPAP device, and several other kid-friendly activities.

SonarMed to foster tracheal tube research

SonarMed™ Inc. has launched a new program that will foster research related to tracheal tubes in hospital respiratory care. “Partners in Progress” will increase the availability of the SonarMed™ Airway Monitoring System for research and defer some of the costs associated with acquiring and using the system for research, according to the company. The program is open to any clinician interested in conducting research in the respiratory care profession.

Olympus acquires Spiration

The Olympus Corporation has acquired Spiration® Inc., a company specializing in the development of minimally invasive devices for the treatment of acute and chronic conditions of the lungs. Olympus Medical provides solutions for endoscopic observation, diagnosis, and treatment, including endobronchial ultra-

sound and flexible bronchoscopy.

Pharmaxis: positive findings for CF drug

Pharmaxis recently announced top-line results from a second large-scale global Phase III trial of Bronchitol® (mannitol inhalation powder) in patients with cystic fibrosis. The results support improvement in lung function in CF patients seen in the first Phase III study. The company now plans to meet with the FDA to discuss a new drug application for the drug.

Discovery Laboratories progresses with Surfaxin

Discovery Laboratories Inc. has received written guidance from the FDA that is consistent with its ongoing, comprehensive preclinical program to resolve the sole remaining Chemistry, Manufacturing & Control issue necessary to potentially gain FDA marketing approval for Surfaxin® (lucinactant) for the prevention of respiratory distress syndrome (RDS) in premature infants.

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



Marketplace

Featuring information on products and equipment from manufacturers

GlideScope Cobalt AVL



The new GlideScope® Cobalt AVL defines advanced video laryngoscopy—with airway views in DVD-clarity, and real-time recording to capture the details of your difficult airway cases.

The Cobalt AVL features all-new digital technology, for airway views in high-resolution detail, enabling swift intubation.

verathon.com | 800.331.2313



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Smith Seminars
CEUs for RTs

www.smithseminars.com
866-857-2211

Live Online 2010

AARC Approved Traditional CRCEs
\$10 Each Presentation
See Calendar of Live Days on website

Live Lectures

AARC-Approved for 8 CRCEs
\$80 Each Day
See Locations on website or call

Online Courses or Booklets

2 CRCEs AARC-Approved
Non-Traditional

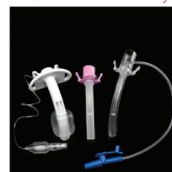
Twelve Hours Live

3 sessions of 4 hours each
\$40 per Session or \$120 all Day
See Locations on website or call

If you would like Smith Seminars to present a seminar in your area, please call Debra at

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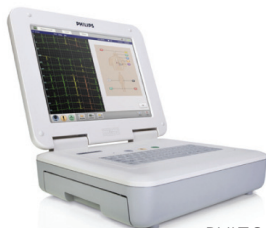
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RC Currents

IN THE NEWS

► Influenza Update: World in Post-Pandemic Stage, but Seasonal Flu Vaccine Is Still Recommended

On Aug. 10, 2010, the World Health Organization (WHO) declared the end of the 2009 influenza pandemic brought on by the H1N1 virus. The declaration was based on strong indications that influenza worldwide is transitioning toward seasonal patterns of transmission.

WHO further noted that the 2009 H1N1 viruses will likely continue to circulate for some years to come, but they will be taking on the behavior of a seasonal flu virus. This does not mean that the H1N1 virus has entirely disappeared; current flu outbreaks, including those primarily caused by the 2009 H1N1 virus, show intensity similar to that seen during seasonal epidemics.

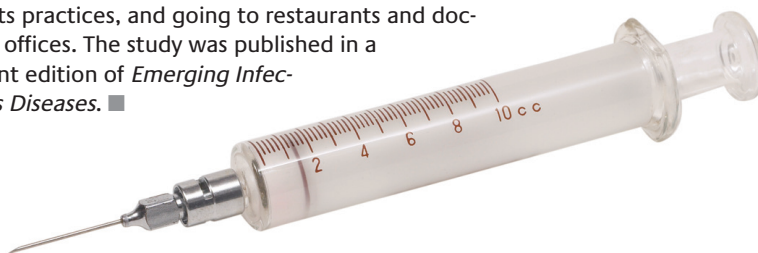
WHO officials say that health care professionals' continued vigilance is extremely important, and it is likely that the H1N1 virus will continue to cause serious disease in younger age groups and pregnant women, at least in the immediate post-pandemic period.

There are no changes for the United States in terms of Centers for Disease Controls' recommendations for the upcoming flu season. The U.S. 2010–2011 flu vaccine will protect against an H3N2 virus, an influenza B virus, and the 2009 H1N1 virus. The CDC states there is an ample supply of flu vaccine for the 2010–2011 U.S. flu season, and vaccinations are available at this time.

Pregnant women, young children, and anyone with underlying health conditions like asthma, diabetes, and neuromuscular diseases are at especially high risk for influenza-related complications and should receive vaccinations immediately. The CDC recommends a three-step approach to fighting flu: vaccination, everyday preventive actions, and the correct use of antiviral drugs if recommended by a physician. The most important step is for everyone to get a flu vaccine each season.

In related influenza news, investigators from the National Institutes of Health report they have been working on a universal flu vaccine that would use a two-step immunization approach to elicit infection-fighting antibodies that attack a diverse array of influenza virus strains. So far, the approach has proven effective in animal studies, according to a recent *NIH News* story.

Also, CDC researchers recently reported that closing schools to stop the spread of flu might not get the job done. Researchers who studied one closed school in Pennsylvania found that instead of staying home, 69% of the children spent their days off visiting stores, attending sports practices, and going to restaurants and doctors' offices. The study was published in a recent edition of *Emerging Infectious Diseases*. ■



Simulation Roundtable Provides Community for RTs

The AARC has just formed a new Simulations Roundtable. Individuals joining the community will be discussing ideas related to the use of patient simulations in respiratory care education. Julianne Perretta, MSEd, RRT-NPS, who has agreed to head the new roundtable, is the simulation educator for the Johns Hopkins Medicine Simulation Center in Baltimore, MD.

Those who join the new roundtable will be helping to guide future formalized training for respiratory therapists using patient simulation, aid the AARC in bringing formalized recommendations to the Simulation Alliance Task Force, participate in a forum for asking questions regarding simulation curriculum development and utilization, and collaborate on multi-centered simulation research and training for respiratory therapists.

All of the AARC's roundtables are open to any AARC member at no extra charge. And now they are all housed on the Association's new social media site, AARConnect (<http://connect.aarc.org/AARC/AARC/Home>). To join, pull down on "Directory" and then "All Communities." From there, type Simulation Roundtable into the search box.

Other AARC roundtables include Asthma Disease Management, Disaster Response, Geriatrics, Hyperbarics, Informatics, International Medical Missions, Military, Neurorespiratory, Research, and Tobacco-Free Lifestyle. ■

Doug Laher, MBA, RRT, Joins Executive Office as AARC Associate Executive Director

The AARC recently announced that Douglas Laher, MBA, RRT, has filled the position of associate executive director.

“We are extremely pleased that Doug will be joining us here at the AARC. Doug has been a respiratory therapist for over 17 years and will bring his expertise to help further the efforts of the AARC as we advocate for the respiratory therapist and the patients they serve,” says Chief Operating Officer Thomas J. Kallstrom, MBA, RRT, FAARC. “We look forward to our new addition to the AARC Executive Office Team.”

Laher has served the AARC for many years as a volunteer and most recently as a member of the Board of Directors and Chair of the Management Section. He has spent his professional career at the Cleveland Clinic Health System. ■



Last Chance To Enter the 2010 AARC Photo Contest

The AARC is looking for creative members to enter our monthly Photo Contest. *AARC Times* will collect photo entries from the membership, and winners will receive free dues upon membership renewal and automatically will be entered into the publication's Photo-of-the-Year Contest, to take place in the November 2010 issue.

The member who wins the Photo-of-the-Year Contest will have the photo on the front cover of the January 2011 issue of *AARC Times* in addition to being prominently displayed at the AARC Executive Office.

What kinds of photos do we want? Heartwarming pictures of your adult patients who rely on your care and guidance and who inspire you. Only high-resolution photos of good quality will be considered. Please read the requirements below so that you will send your photo in a format that can be reproduced in a printed magazine.

All entrants must be AARC members and must provide a release form signed by patients or co-workers pictured in the photos. The form is available online at www.AARC.org/headlines/photo_contest/release_form.pdf, or it can be faxed to you by calling Karen at (972) 406-4661. All photos in the contest will become the property of the AARC and will not be returned. Adhering to the following requirements will assure that your photo will be acceptable for publication. A good photo produced at the wrong resolution may render it unsuitable for reproduction in *AARC Times* magazine.

- Since the photo is for the cover, the picture must be in a vertical format.

- Most digital cameras give you a choice of settings for image resolution. Set your camera for the highest resolution photo and save it as JPEG Fine or JPEG Normal for most pictures. RAW is the best setting to use for large photos. Low-resolution photos will not be accepted for publication.
- Mail a CD of your photo to us since it will probably be too large to be e-mailed (AARC, 9425 N. MacArthur Blvd., Ste. 100, Irving, TX 75063-4706). If you do try to e-mail a photo, please send it directly to our production department at knauf@aacr.org and indicate clearly in your e-mail that the photo is for the AARC Photo Contest. ■



Industry Profile: MAQUET

This month MAQUET President and CEO Dr. Chima Abuba discusses the company and where it's headed.

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

Dr. Abuba: MAQUET was founded in 1838. Throughout our long history we have been focused on innovations and advancements in medical, surgical, and intensive care technologies. We are part of the Swedish-owned GETINGE Group of Companies, which operates under the brands ArjoHuntleigh, GETINGE, and MAQUET.

The critical care division of MAQUET is known worldwide for SERVO ventilators. The SERVO platform offers all conventional modes of ventilation and capnography, plus our NAVA® technology and a host of leading-edge clinical applications designed for clinically supportive lung-protection strategies.

The MAQUET surgical workplaces division designs and manufactures innovative products including surgical lights, surgical tables, and ceiling service units for the operating room (OR) and ICU. In addition, we are striving to provide a top-notch, all-inclusive approach for the exciting new world of hybrid ORs.

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

Dr. Abuba: Last spring, MAQUET was proud to introduce NIV NAVA®, which adds noninvasive ventilation capability to our NAVA technology. NAVA stands for “neutrally adjusted ventilatory assist” and is truly revolutionary, as it allows the patient and ventilator to work together in synchronous harmony. We are continually focused on new technologies to help clinicians provide optimized care and comfort for their patients.

MAQUET is currently developing an exciting new anesthetic delivery device engineered to both improve anesthetic agent delivery and provide advanced lung-protection capability. This new product is CE marked and launched in Europe. The 510K is pending for the U.S. market.

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



Dr. Chima Abuba

Dr. Abuba: NAVA and the new NIV NAVA are designed to improve synchrony while providing a means of monitoring the diaphragm for improved bedside decision support. The respiratory therapist is now given, as never before, hard evidence-based data to support informed clinical decisions, helping to improve outcomes, optimize sedation levels, and expedite weaning — all of which have a strong, positive impact on patient care.

AARC Times: Do respiratory therapists work for your company; if so, in what capacity?

Dr. Abuba: Yes, MAQUET is proud to have 38 RTs, plus two RNs, on our team who are dedicated to supporting our customers. In addition, our sales organization is comprised of more than 90% RTs.

Having respiratory therapists as part of our team enables us to have first-hand knowledge of what our customers need and want. The RTs are key in allowing us to be at the forefront in the development of clinically relevant products.

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

Dr. Abuba: MAQUET is historically committed to supporting the health care community with leading-edge products to help hospitals, clinicians, and patients reach their goals — this will never change.

The economic realities are complex in today's health care environment. Well aware of the challenges, MAQUET dedicates a significant portion of our revenues to research and development for continuous product innovation and improvement. In addition, our highly skilled service network helps ensure our products are in optimal working order to extend product life, keeping cost of ownership to a minimum.

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

Dr. Abuba: With our continuous technological advances, I see medical devices becoming more efficient and compact, with ergonomically sensitive designs to support minimally invasive or non-invasive procedures. I also think these designs will be more upgradeable to help reduce costs and waste. Acquisition costs will continue to adjust according to competition. Lastly, we will see more intelligent devices that deliver care based upon patient real-time input. These products will provide superior decision support to help clinicians deliver individualized care and treatments focused more on the patient, less on the device. ■

Navy Bans Tobacco Use in Submarines

The U.S. Navy recently announced its ban on the use of tobacco in its fleet of submarines. "Recent testing has proven that despite our atmosphere purification technology, there are unacceptable levels of secondhand smoke in the atmosphere of a submerged submarine," Vice Adm. John J. Donnelly, commander of submarine forces, was quoted as saying in the *New York Times*. "The only way to eliminate risk to our nonsmoking sailors is to stop smoking aboard our submarines."

The ban will not go into effect until the end of the year so that sailors who smoke will have time to quit. Each submarine now has a smoking-cessation coordinator to help them kick the habit. ■



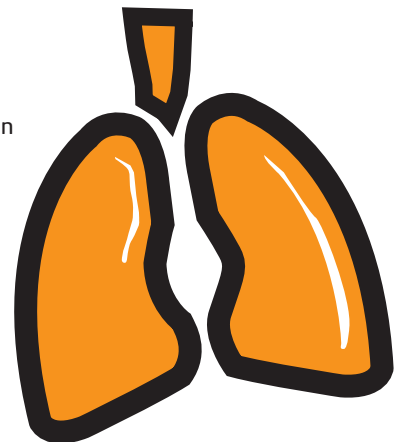
U.S. Navy photo by Lt. Lara Bollinger/Released

Celebrate Respiratory Care Week

If you have waited until the last minute, it's not too late, but you need to act fast. We have hundreds of ideas online at www.aarc.org/rcweek. Plus, respiratory merchandise can be obtained through our Online Respiratory Catalog by selecting "Store" at www.aarc.org.

We also want to hear about what you do to celebrate National Respiratory Care Week this year. So plan to take a few high-resolution photographs of your event, write a 100-word description, and send

to us. You just might find your story on the AARC website or in an upcoming issue in "RC Currents." Please include a cover letter and contact information (phone, fax, e-mail). Send submissions to us **before Nov. 5** using this address: *AARC Times*, RC Week, 9425 N. MacArthur Blvd., Ste. 100, Irving, TX 75063-4706; or e-mail debbunch@aol.com. ■



Have You Read Michelle Baker Today?



AARC member Michelle Baker, RRT, loves her job as a respiratory therapist at Ashland Samaritan Hospital in Ashland, OH. “I think I was drawn to respiratory care in part because my grandmother had such severe COPD,” she says. “I remember studying the activities of daily life in the pulmonary rehab section in college and having a real ‘light bulb’ moment. I recognized almost every exercise, tip, trick, and shortcut to make life easier and more autonomous for people living with COPD because I had been watching my grandmother use those same techniques every day for as long as I could remember. Someone had taken the time to teach her those techniques, and she lived a much fuller life because of them.”

Baker says helping patients understand their recent diagnosis of COPD and teaching them some basic skills be-

RT Michelle Baker displays one of her columns in the Mansfield News Journal in Ashland, OH.

fore they go home is her favorite part of the job. But despite the satisfaction she gets from her work, there was another side to this therapist that was still yearning for something else. When she saw a notice in the local newspaper that was seeking members of the community to serve as guest columnists throughout the year, she saw her chance to fulfill that unmet need. “I have always wanted to be a writer but never had the nerve to actu-

ally submit anything for publication,” she says. “So I shot off a sample column and waited. I was so excited when I found that I was one of the writers chosen to participate.”

Over the past year, Baker has been published several times, writing columns in the *Mansfield News Journal* about a friend who is battling cancer, another on the joys of motherhood, and a third on the power of forgiveness. While she has yet to delve into respiratory care — the HIPAA laws have made her wary — she says being an RT has definitely affected her writing, noting that being in the profession has made her see the world very differently than most people.

Baker says she has received a lot of good feedback on her columns, including from her co-workers, who have taken the topics she’s covered and used them to start discussions of their own. While she hasn’t discussed her column with any of her patients, she knows they’re reading it, too. “I don’t mention it to my patients, although sometimes it is hard to see it lying on a bedside table and not point out ‘that’s me!’” ■

Nominate an AARC Member for “Success Stories” or “Interesting People”

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

► Transitions

Beth Hughes, RRT, was appointed to North Dakota's nine-member Tobacco Prevention and Control Advisory Committee by Gov. John Hoeven. Hughes is a 30-year veteran of respiratory care who currently serves as a professor in the St. Alexius Medical Center-University of Mary RT program in Bismarck. (Photo 1)



1



2

Abe Johnson, ThM, RRT, has been named dean of academic affairs for Health Sciences and Emergency Services at Collin College in Texas. Johnson previously served as director of the respiratory care program at the school. (Photo 2)

Donna Hawk, RRT, AE-C, was honored as a Volunteer of the Week by the American Lung Association (ALA) earlier this year.

Hawk serves as a facilitator for the ALA Better Breathers Club program and has also advocated on behalf of the ALA on health issues associated with proposed biomass plants in New England. She works as a pulmonary rehabilitation clinician at Baystate Medical Center in Massachusetts. (Photo 3)



3

Ted Lanier, RRT, has been promoted to director of respiratory therapy at St. Peters Hospital in Helena, MT. Lanier earned his respiratory therapy degree from Great Falls Vo-Tech and is a veteran of the Montana National Guard.

Al Neumann, RRT-NPS, CPFT, owner and CEO of Corner Medical in Buffalo, MN, was honored as the Alumni of the Year by the Mayo School of Health Science-University of Minnesota RT program. A 1983 program graduate, Neumann was recognized for his philanthropic activities, including the establishment of an annual scholarship for students in Minnesota and Wisconsin. (Photo 4)



4

Gordon Gunderson, RRT, died in July after a long battle with brain cancer. Gunderson spent his career at Sioux Valley Hospital in Sioux Falls, SD, where he served in positions ranging from critical care supervisor to coordinator of the bronchoscopy PFT lab. Gunderson also served in the AARC House of Delegates and was president of the South Dakota Society for Respiratory Care until his health concerns forced him to step down last February. (Photo 5)



5

David Mosher, RRT, passed away in June at the age of 46. A therapist at Vanderbilt University Hospital in Nashville, TN, he served four years as a U.S. Navy Corpsman and was a certified master scuba diver.

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



Honoring Military RTs

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

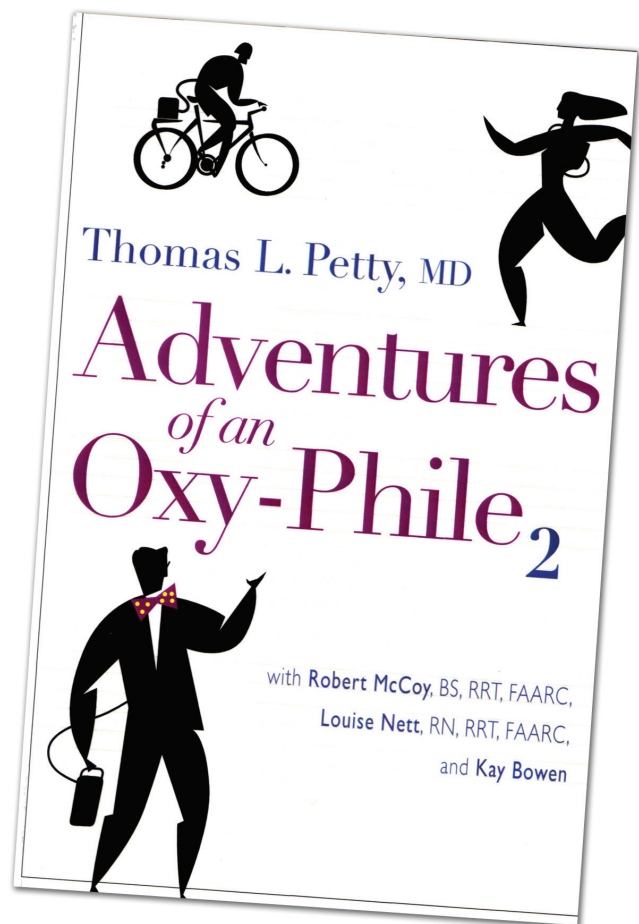
Please go online at www.AARC.org/go/mm where you will find an online form you can fill out to provide information about your service. You can also download your photo there.

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

Oxy-Phile Adventures Redux

Before Thomas L. Petty, MD, FAARC, passed away last December, he was writing another of his popular books for patients on long-term oxygen therapy (LTOT). Like the first volume, “Adventures of an Oxy-Phile2” was going to be designed to show people on LTOT what a full and active life they can lead, despite the need for supplemental oxygen.

After his death, Dr. Petty’s long-time friends and colleagues Louise Nett, RRT, RN, FAARC, Bob McCoy, BS, RRT, FAARC, and Kay Bowen decided one of the best ways to honor his memory would be to finish the book. That has now been completed, and the book, published in June, is being distributed to patient groups and others. The book features chapters by a wide range of LTOT users who share the incredible journeys they’ve taken with oxygen in tow, plus information and advice from McCoy, Nett, and other clinicians. More information about the book is available at www.drtpetty.org. ■



► Strange But True

Fountain of Youth? A new study from Japan suggests oxygen might help combat wrinkles. When researchers placed mice that had been subjected to UVB radiation into an oxygen chamber, they developed fewer wrinkles than similarly exposed mice not placed in the chamber. (*American Journal of Physiology — Regulatory, Integrative and Comparative Physiology*)



Pucker Up: North Dakota State University researchers find pickle juice stops muscle cramping due to exercise about 45% quicker than ingesting no fluids and about 37% quicker than drinking water. But since tests were conducted before the juice had a chance to leave the stomach, they speculate it may be affecting nervous system receptors rather than relieving the mild dehydration known to induce such cramping. Therefore, a water chaser may be advised.

Please Don't Be Calling: Bee populations dropped nearly 30% in the United States last year and are also

declining in other areas of the world. Researchers from India’s Panjab University believe cell phones could be to blame. When they fitted cell phones to a beehive, the bees stopped producing honey and the queen only produced half the normal number of eggs. The scientists believe the radiation coming from the phones could be affecting a pigment bees use to navigate.

Where the Air Is Rare: University of Berkley researchers who compared the genetic makeup of 50 high-dwelling Tibetans and 40 lower dwelling Han Chinese found it took only 3,000 years for the Tibetans to develop genetic mutations allowing them to thrive in a low-oxygen environment. The investigators say it is the fastest genetic change ever observed in humans.

Confusion Down Under: The lungs didn’t do very well in a recent survey of Australian men and women. When asked to name their most important organs, they ranked the lungs in fourth place, behind another organ people can live without. The top order was brain, heart, eyes, and then lungs. So, this begs the question: Would they really rather see than breathe? ■

Mayo Clinic Promotes Social Media

These days, just about everyone is using some form of social media. The AARC even launched its own social networking site, AARConnect, earlier this year. The site has already generated a lot of excitement among members who appreciate the chance to develop stronger bonds with fellow members across the country.

Now the world-famous Mayo Clinic is trying to do the same thing on a broader scale. Mayo's new Center for Social Media is being billed as a first-of-its-kind effort to expand the use of services ranging from Facebook to Twitter among patients, hospitals, and health systems. The overarching goal is to improve health literacy, health care delivery, and population health worldwide.

If you have yet to check out AARConnect, go here to get started: <http://connect.aarc.org>. If you want to learn more about the Mayo initiative, visit <http://socialmedia.mayoclinic.org/>. ■



Interferon May Play a Role in Treating Asthma

Could interferon help treat people with asthma? It's possible, say University of Texas Southwestern Medical Center investigators. In a study involving isolated human cells, they found interferon blocks the development of T helper 2 cells, a class of T lymphocytes known to cause asthma by promoting the allergic response.

"Interferon is blocking the development of these cells and their stability, and it's doing this by targeting the very transcription factor that regulates their development and stability in the first place," study author Dr. J. David Farrar was quoted as saying. "By targeting this transcription factor, we've turned off the key component that regulates the entire process." He and his colleagues believe these findings provide evidence that targeting this particular group of cells with interferon might be an effective therapy for people with asthma. This study appeared in the July 15 issue of the *Journal of Immunology*. ■

RT Student Members: Send Us Your Stories and Editorials

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

Have you volunteered at a summer asthma camp or helped organize the DRIVE4COPD program in your state? Have you advocated for respiratory therapy in your state capitol or on Capitol Hill? Maybe you and your RC student friends have collaborated to build a house with Habitat for

Humanity. Perhaps you witnessed a lifesaving event outside the hospital setting or experienced something that took your breath away. Whatever the story, we would like to review it.

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

RTs Assist in Rehabilitating Lungs for Transplant

According to the United Network of Organ Sharing (UNOS), about 1,800 people in the United States are currently waiting for new lungs. Unfortunately, only about 15–20% of lungs removed from donors end up being suitable for transplant, and many people die before they can ever receive a transplant.

Thanks to a new approach originally developed in Toronto, Canada, and now being studied at Brigham and Women’s Hospital in Boston, MA, those figures may soon improve markedly — and two AARC members will be able to say they were part of the process.

Paul Nuccio, MS, RRT, FAARC, and Christine Perino, RRT, have been working alongside physicians and perfusionists to perform *ex vivo* perfusion on lungs not suitable for transplant in order to rehabilitate them so that they could potentially be used for human transplantation. The team received approval to try the procedure on five sets of lungs, and the initial experiments have gone well. The group believes this strategy could ultimately double the number of lungs suitable for transplant.

Nuccio and Perino got involved when the team came to the RC department looking for old equipment they could use for the experiment. “I



RTs Paul Nuccio (far right) and Christine Perino (center) participate in the *ex vivo* perfusion experiment with (left to right) Phillip Camp, MD, director of the Lung Transplant Program, and Zain Khalpey, MD, a clinical cardiac fellow. Standing behind the ventilator is Paul’s son Nick, an RT student who was allowed to observe the ground-breaking procedure.

learned about this in late 2009 when I was asked if we had an old ventilator that we were no longer using that could be loaned or donated to this project,” says Nuccio, the director of pulmonary services. “After meeting with other members of the team and learning more about the protocol, it was clear that the best option would be to use a current-generation critical care ventilator. This would clearly require the expertise of respiratory therapists, and our willingness to participate was more than welcomed by the team.”

Soon Nuccio and Perino, a night-shift supervisor at the hospital, were participating in practice runs held on a

monthly basis to get ready for the first experiment on a real set of lungs. “We were able to identify additional equipment needs, placement of equipment and supplies, etc.,” says Perino. “As Paul mentioned, we identified early on that we needed to upgrade from a basic, portable ventilator to a critical care ventilator to enhance ventilation options and monitoring capabilities. We also decided that monitoring end-tidal CO₂ might add to the data being collected.”

The protocol used by the team calls for ventilation to begin at a very low volume, then gradually increase to a pre-agreed-upon volume of 6–8 mL/kg. “Recruitment maneuvers are performed periodically, followed by oxygen challenges,” notes Perino. “We monitor such parameters as volumes, pressures, compliance, resistance, and capnography.” Clinicians draw venous and arterial blood gases and analyze them throughout the procedure, and lung biopsies are also performed at regular intervals. Suctioning is performed as necessary.

“This is a great example of a somewhat nontraditional role of a

respiratory therapist,” Nuccio points out. “It would have been easy to say we are just too busy to be involved with such a time-consuming endeavor... but opportunities like this do not come along every day.”

Getting involved with that nontraditional role was a great way to wow the younger generation of RTs, too. Nuccio’s son Nick, an RT student at a local college, happened to be there when one of the experiments was set to happen and was allowed to observe.

“This was such an amazing thing to be able to experience, especially as a student,” says Nuccio. “It really helped me to see the important role of the respiratory therapist and how directly involved we can be. To think that a respiratory therapist can play a part in helping to increase the number of patients who will receive the lungs that they need in order to survive makes it clear to me that I chose the right profession.” ■

National Health Observances

- **World Spirometry Day;** Oct. 14; AARC, European Respiratory Society, European Lung Foundation; www.2010yearofthelung.org; materials available
- **Respiratory Care Week;** Oct. 24–30; AARC, (972) 243-2272; www.AARC.org/rcweek; promotional materials available
- **Lung Health Day;** Oct. 27; AARC, (972) 243-2272; www.AARC.org/rcweek; promotional materials available
- **Lung Cancer Awareness Month;** November; Lung Cancer Alliance; (202) 463-2080; www.lungcanceralliance.org
- **COPD Awareness Month;** November; AARC, (972) 243-2272, www.aarc.org; COPD Foundation, (866) 316-COPD, www.copdfoundation.org
- **World COPD Day;** Nov. 17; Global Initiative for Chronic Obstructive Lung Disease (GOLD); www.goldcopd.org
- **Great American Smokeout;** Nov. 18; American Cancer Society; (800) ACS-2345; www.cancer.org

Wood Smoke Increases COPD Risks

Researchers from the Lovelace Respiratory Research Institute have found that exposure to wood smoke, either from home heating or cooking, or ambient pollution, increases the risk of COPD and related pulmonary problems. The research was based on the results of questionnaires administered to more than 1,800 current and former smokers between the ages of 40 and 75, along with demographic and smoke-exposure information, and sputum samples that were analyzed for epigenetic changes to eight genes known to be associated with lung cancer.

Wood smoke exposure was significantly and independently associated with an increased risk of respiratory disease, especially among current smokers, non-Hispanic whites, and men. It was also linked to specific COPD outcomes in people who had aberrantly methylated p16 or GATA4 genes. People with more than two of the eight genes showing methylation were also significantly more likely to have a lower than predicted FEV₁. The study appeared in a July issue of the *American Journal of Respiratory and Critical Care Medicine*. ■



Contribute to Writer’s Corner

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

Web Watch

FDA Patient Safety News (PSN) is a monthly video news show for health care professionals. It covers significant safety alerts, recalls, new product approvals, and offers important tips on protecting patients. Read the complete stories and watch or download the video program at www.fda.gov/psn. Many of these PSN stories contain video footage and demonstrations that may be useful to clinicians and educators in health care facilities and academic institutions. ■

My 2006 International Fellowship Experience

by Dr. Vijayalakshmi Thanasekaraan

To be the only physician among the five international fellows in 2006 was a great honor, and the American Respiratory Care Foundation's efforts to acquire a visa for me to visit the United States were unforgettable.

My first host city was Falls Church, VA, where Parul Shah, RRT-NPS, clinical manager of respiratory care at Inova Fairfax Hospital, provided me with a good experience in the ICUs and pulmonary rehabilitation center. The role of the respiratory therapist in both were tremendous, and I enjoyed being in a center where the largest number of lung transplants for 2006 had been carried out — about 36 for the year. I also enjoyed seeing the RT's role in the fiberoptic suite and PFT lab and during managerial meetings.

I was especially fascinated by the pulmonary rehabilitation center, which pro-



Dr. Vijayalakshmi Thanasekaraan (left) visits with 2007–2008 AARC President Toni Rodriguez, EdD, RRT, in Las Vegas.

vides a well-organized program of inpatient and outpatient care carried out by a team of well-qualified, experienced respiratory care personnel.

My second host city was Rochester, MN, home to the famous Mayo Clinic. My host was Kris Hammel, RRT, RPFT, and she had five busy days scheduled for me. I was most interested in the respiratory therapy educational program, including the curriculum, morning reporting by the respiratory therapy students, ICU rounds with consultants, and the multi-disciplinary simulator center.

Education provided by Jeff Ward, MEd, RRT, CPFT, FAARC,

was impressive, and the curriculum was well organized. They were using written examinations as evaluation tools, along with demonstration of skills, self-assessment exercises, faculty reviews, and rounds. The respiratory care rotation through each area was also significant, with students being trained both professionally and administratively.

On the clinical side, I was able to observe a pulmonary alveolar lavage for pulmonary alveolar proteinosis performed by anesthesiologists with assistance from my host. The responsibilities of the RTs were enormous, and I was impressed by the willingness of the consultants to accept the RTs' suggestions. Their research, along with consultants in the various sections of the pulmonary medicine department and ICU, was also commendable, as was the work I saw RTs accomplish in the PFT and sleep labs.

From Rochester, I traveled to the 52nd AARC International Respiratory Congress in Las Vegas, NV. The Congress recognized the International Fellows, and there was a dinner held for the fellows at the Hilton Hotel. Overall, my fellowship was a unique and unforgettable experience. ■

Vijayalakshmi Thanasekaraan is a physician in Chennai, India.



Dr. Thanasekaraan (second from right) joins her colleagues in the official International Fellow photo for 2006.



New Members

Welcome to the AARC

U.S. Members

A

Torres, Jeffrey, Fort Wainwright, Ak*

Alqahtani, Khaled, Mobile, Al
Birka, Lydia, Silverhill, Al
Carter, Jacqueline, Mobile, Al*
Corum, Katie, Grand Bay, Al
Cothran, Evelyn, Centre, Al*
East, Lorna, Birmingham, Al*
Ellison, Kelly, Mobile, Al
Findley, John, Mobile, Al
Harris, Yakeler, Selma, Al*
Jaggars, Rita, Midland City, Al*
Leigh, Tamara, Elberta, Al*
Masters, Mike, Headland, Al*
Turner, Jason, Fairhope, Al*

Hendrix, Zena, Maumelle, Ar*
Perry, David, Roland, Ar*
Woods, Erica, Wynne, Ar

Adams, Kara, Vail, Az
Alcott, Philip, Phoenix, Az
Angel, Peter, Phoenix, Az
Aries, David, Prescott Valley, Az*
Atkins, Lamar, Phoenix, Az
Bacon, David, Phoenix, Az
Bagstad, Brett, Peoria, Az
Bayard, Geraldine, Queen Creek, Az
Bond, Stephen, Glendale, Az
Borchik, David, Phoenix, Az
Brooks, Timothy, Phoenix, Az
Brown, Scott, Surprise, Az
Busche, Jack, Glendale, Az
Busche, Jeremy, Glendale, Az
Butts, Christopher, Cottonwood, Az
Chavez, Paul, Phoenix, Az
Cheloha, Donald, Phoenix, Az
Clement, Edward, Scottsdale, Az
Cooper, Crista, Glendale, Az
Cooper, Heather, Surprise, Az
Cox, Courtney, Surprise, Az
Daugherty, Karen, Peoria, Az
De La Huerta, Gina, Glendale, Az
Deac, Cosmina, Phoenix, Az
Demoruelle, Steven, Phoenix, Az
Dibble, Stephen, Phoenix, Az
Dickerson, Rudi, Phoenix, Az
Dilorenzo, Ron, Phoenix, Az
Edge, Aimee, Phoenix, Az
Edwards, Dominique, Surprise, Az
Ellis, Christopher, Morristown, Az
Escobar, Adam, Phoenix, Az
Feldman, Cody, Surprise, Az*
Flood, James, Chandler, Az
Flores, Raymundo, Tolleson, Az
Foremny, Ryan, Litchfield Park, Az

Forsythe, Jenna, Phoenix, Az
Fouts, Jeri, Anthem, Az
Garcia, Amanda, Cashion, Az
Garza, Steve, Peoria, Az
George, Robert, Glendale, Az
Gonzalez, Sarah, Bullhead City, Az
Gosney, Brian, Peoria, Az
Goverman, Jodi, Phoenix, Az
Grebner, Tanasha, Glendale, Az
Grinnell, Vanessa, Surprise, Az
Grover, Ernest, Goodyear, Az
Hanrahan, Mark, Glendale, Az
Harpe, Audrey, Glendale, Az
Heinz, Robert, Phoenix, Az
Hickman, Tyler, Cave Creek, Az
Hicks, Laurie, Phoenix, Az
Hikida, Kimberly, Phoenix, Az
Hovatter, Angela, Goodyear, Az
Hughes, Jessica, Goodyear, Az
Hunter, Shena, Phoenix, Az
Inscoc, Danielle, El Mirage, Az
Jackson, Shacora, Phoenix, Az
Jacob, Pietros, Laveen, Az
Johnson, Shanequa, Phoenix, Az
Jonson, Cesar, Glendale, Az
Joseph, Michael, Phoenix, Az
Kamara, Zainab, Glendale, Az
Klabbatz, Donna, Queen Creek, Az
Kuminski, Jonathan, Phoenix, Az
Kurtz, Michael, Phoenix, Az
Landavaso, Lydia, Phoenix, Az
Ledesma, Paula, Youngtown, Az
Lee, William, Wittmann, Az
Lehrman, Brittany, Glendale, Az
Little Midura, Linds, Chandler, Az
Luchenta, Susan, Phoenix, Az
Lundberg, Charlene, Phoenix, Az
MacNabb, Mark, Surprise, Az
Maldonado, Maria, Gilbert, Az*
Manjares, Ronald, Avondale, Az
Marquez, Arturo, Phoenix, Az
Martinez, Hector, Glendale, Az
Mays, Che, El Mirage, Az
Mazurek, Dionne, Maricopa, Az
McFadden, Erick, Goodyear, Az*
Mendenhall, Tate, Scottsdale, Az
Mendoza, Jamie, Phoenix, Az
Mendoza, Robert, Phoenix, Az
Meyers, Travis, Phoenix, Az
Moore, Maureen, Surprise, Az
Munoz, Jayne, Gilbert, Az*
Murariu, Emanuela, Glendale, Az
Murillo, Margarita, Lake Havasu City, Az
Naranjo, Heather, Surprise, Az
Newton, Meagan, Peoria, Az
Nguyen, Emmy, Mesa, Az
Nguyen, Lily, Gilbert, Az
Norton, Shelby, Avondale, Az
Patel, Nimit, Phoenix, Az
Perez, Ivonne, Avondale, Az
Phan, Sandy, Gilbert, Az
Quick, Amy, Phoenix, Az
Racosky, Patrick, Surprise, Az

Rambo, Katie, Surprise, Az
Ramirez, Jorge, Phoenix, Az
Rea, Shandi, Glendale, Az
Reyes, Henry, Peoria, Az
Rice, Travis, Phoenix, Az
Riggers, Eleanor, Mesa, Az*
Rivas, Henry, Glendale, Az
Rodriguez, Fernando, Glendale, Az
Rodriguez, Ryan, Phoenix, Az
Rojo, Rosalynda, El Mirage, Az
Sanchez Conchos, Stephanie, Peoria, Az
Sawi, Agatha, Phoenix, Az
Scott, Amy, El Mirage, Az
Selby, Rachelle, Mesa, Az*
Shaw, Brad Lee, Glendale, Az
Shelstad, Hayley, Peoria, Az
Shepard, Jacquelin, Glendale, Az
Sholl, Martin, Wittmann, Az
Siemion, Michelle, Anthem, Az
Smith, Farris, Phoenix, Az
Smith, Nathan, Phoenix, Az
Spencer, Tammy, Glendale, Az
Steed, Jessica, Phoenix, Az
Stott, Andrea, Mesa, Az
Swiger, Dan, Chandler, Az
Tabor, Joanna, Phoenix, Az
Taylor, Ashley, Phoenix, Az
Taylor, Sarah, Desert Hills, Az
Thomas, Keila, Avondale, Az
Torres, Stephanie, Buckeye, Az
Town, Lisa, Glendale, Az
Trammell, Christophe, Phoenix, Az
Valderas, Alex, Surprise, Az
Van Vuuren, Jordan, Goodyear, Az
Walker, Tracy, Chandler, Az
Weisman, Linda, Scottsdale, Az
White, Alexandra, Surprise, Az
Williams, Sarah, Avondale, Az
Yanez, Adan, Phoenix, Az
Yoder, Stephen, Gilbert, Az

C

Allin, Jason, Loma Linda, Ca
Amaral, Jason, Yucaipa, Ca*
Arevalo, Michael, Montrose, Ca
Aubuchon, Shelley, Adelanto, Ca
Babb, Edgar, Corona, Ca
Bacayan, Kurt, Victorville, Ca
Baylon, Frank, Bellflower, Ca
Becerra, Paulina, Downey, Ca
Benasfre, Sanderson, Wilmington, Ca
Benavides, Leticia, West Covina, Ca
Biscocho, Angeline, Chino Hills, Ca
Broellos, Ashley, Rancho Cucamonga, Ca
Brown, Gina, Hesperia, Ca
Buenaventura, Maureen, Sun Valley, Ca*
Burgin, Barry, Rocklin, Ca*
Cantaros, Olegario, Azusa, Ca
Cao, Candice, West Covina, Ca
Carroll, Laquanah, Victorville, Ca

These individuals have been approved for membership in the AARC. Any member may object to a new membership by filing a written objection with the Executive Office within 30 days. *Active Members

New Members

Casas, Maria C, Temecula, Ca*
Casipit, Kimmylou, Foster City, Ca*
Castro, Monica, Hesperia, Ca
Castro, Rosa, Hesperia, Ca
Cerame, Christopher, Placentia, Ca
Covarrubias, Omahr, San Jacinto, Ca
Cruz, Prudence, Mira Loma, Ca
De Dios, Beatriz, Moreno Valley, Ca
De La Pena, Cedric, Fontana, Ca
Dedmon, Lisa, Carmel, Ca*
Dennis, John, Covina, Ca*
Diaz, Jennifer, Fontana, Ca
Dingley, Elena, Diamond Bar, Ca
Dorst, Matt, Alta Loma, Ca
Elkins, Kevyn, Victorville, Ca
Enriquez, Regina, San Bernardino, Ca
Esparza, Victor, Colton, Ca
Espinosa, Gabriela, Victorville, Ca
Evers, Tom, Phelan, Ca
Felix, Matthew, El Monte, Ca
Fernandez, Wilfred, Yucaipa, Ca
Forcina, Susan, Harbor City, Ca*
Fortunato, James, Cerritos, Ca
Fotia, Nicholas, Rancho Cucamonga, Ca
Garcia, Benjamin, Redlands, Ca
Geraci, Anthony, Covina, Ca
Gigante, Nemarco, West Sacramento, Ca*
Guevara, Ciró, Moreno Valley, Ca
Hamilton, Richard, San Pedro, Ca*
Hardisty, Thomas, Santa Rosa, Ca*
Hardy, Leslie, Valencia, Ca*
Haro, Yvette, La Puente, Ca
Henderson, Joelene, Escondido, Ca*
Henderson, Logan, Corona, Ca
Hernandez, Julio, Temecula, Ca
Hernandez, Rosa, West Covina, Ca
Hernandez, Susana, Pacoima, Ca*
Hoang, William, Anaheim, Ca
Hu, Eva, Rancho Cucamonga, Ca
Huerta, Alisa, Riverside, Ca
Jackson, Matthew, Fullerton, Ca
Jalad, Emmy Lou, Pomona, Ca
Jenkins, Harold, Manteca, Ca
Jordan, Mary, Blue Jay, Ca
Juan, Quezada, La Puente, Ca
Kaplan, Harrison, Buena Park, Ca*
Keys, Gretchen, Castaic, Ca*
Kim, Ivan, Fullerton, Ca
King, Randal, Irvine, Ca*
Koo, Daniel, Redlands, Ca
Lacson, Gale, Colton, Ca
Lara, Jason, San Bernardino, Ca
Lara, Karen, San Bernardino, Ca
Link, Joyce, San Diego, Ca*
Lizarraga, Cesar, Monterey Park, Ca
Lopez, Brandie, La Verne, Ca
Lumban, Patricia, Ontario, Ca
Luyen, Tam, Garden Grove, Ca
Maglanque, Michael, West Covina, Ca
Magno, Paul, Victorville, Ca
Maitre, Suzanne, Monterey, Ca*
Marquez, Carrie, Whittier, Ca
Martinez, Jade, Anaheim, Ca
Martinez, Lizbeth, Fontana, Ca
Mayaco, Marc, Victorville, Ca
McCabe, William, Diamond Bar, Ca
McCoy, Shauntel, Fontana, Ca
McDonald, Jennifer, Pomona, Ca
McKinley, Jewel, Hemet, Ca*
McKinney, Keith, Perris, Ca
Mejia, Raymond, Corona, Ca
Mendoza, Tyler, Fontana, Ca
Miller, Kalaokahaku, Arcadia, Ca
Montefalcon, Jessica, Sherman Oaks, Ca*
Montenegro, Brandon, San Bernardino, Ca
Morales, Rudolf, Corona, Ca
Mote, Ryan, Rancho Cucamonga, Ca

Muller, Andrew, Redlands, Ca
Nasir, Basil, Covina, Ca*
Nguyen, Hao, Garden Grove, Ca
Nguyen, Katie, Rosemead, Ca
Nwabekee, Success, Montclair, Ca
Ojukwu, Solomon, Moreno Valley, Ca
Orozco, Edith, Paramount, Ca
Pacheco, Anthony, Van Nuys, Ca
Palacios, Evelyn, San Bernardino, Ca
Palencia, Alton Caine, Corona, Ca
Pelston, Cynthia, Los Angeles, Ca*
Pena, Eva, Costa Mesa, Ca
Pendharkar, Gauri, Los Altos Hills, Ca*
Perry, Christopher, Vacaville, Ca*
Pham, Cam, Pomona, Ca
Purificacion, Jeremy, West Covina, Ca
Quartaroli, Jennifer, Waterford, Ca*
Quintero, Mark, Moreno Valley, Ca
Ramirez, Eugene, Chino Hills, Ca
Ramos, Arnel, Chula Vista, Ca*
Reger, Joseph, San Bernardino, Ca
Rivera, Hector, Victorville, Ca
Rocha, Andre, Anaheim, Ca
Rodriguez, Anthony, Yucaipa, Ca
Rodriguez, Oscar, Paramount, Ca
Rondilone, Sam, Perris, Ca
Ruiz, Remberto, Los Angeles, Ca
Ruizcarranza, Aquiles, Fontana, Ca
Sais, Timothy, Hesperia, Ca
Salas, Juan, Duarte, Ca
Salib, Edward, Fountain Valley, Ca*
Santos, Tristan, Cerritos, Ca
Sapuriada, Lino Joel, Fontana, Ca
Sardinha, Rory, El Monte, Ca
Scherger, Rebecca, Fullerton, Ca
Silva, Carolina, Los Angeles, Ca*
Somasundaram, Mohan, Highland, Ca
Start, Christian, Redlands, Ca
Stepps, Shiyeka, Rancho Cucamonga, Ca
Stewart, Johanna, Downey, Ca
Sy, Kevin, Corona, Ca
Tandel, Sunil, Sacramento, Ca*
Taylor, Troy, Laguna Hills, Ca*
Thomas, James, San Bernardino, Ca
Tinkler, Tiffany, Rowland Heights, Ca
Tjalsma, Crystal, Norwalk, Ca
Torres, Brianna, Chino Hills, Ca
Tully, Jessica, La Verne, Ca
Tuning, Diane, Hesperia, Ca
Valencia, Dave, Temecula, Ca
Van Steenberg, Jeff, Huntington Beach, Ca
Vazzano, Debra, Long Beach, Ca
Vega, Griselle, Fontana, Ca
Virgo, Danhill, West Covina, Ca
Walls, Joseph, San Jose, Ca
Weatherill, Rebekah, Ontario, Ca
Webster, Sheldon, Fontana, Ca
Williams, Crystal, Richmond, Ca*
Wong, Taelour, Los Angeles, Ca

Adams, Erin, Centennial, Co
Archuleta, Derek, Aurora, Co
Beiriger, Pamela, Arvada, Co*
Carr, Patricia, Arvada, Co
Curie, Vanessa, Thornton, Co
Elswick, Lisa, Englewood, Co
Figueroa Saucedo, Ida, Aurora, Co
Fritze, Patrick, Thornton, Co
Gallegos, Marisa, Denver, Co*
Glenn, Maria, Denver, Co
Goddard, Jennifer, Lakewood, Co
Greenlee, Diana, Centennial, Co
Hamill, Daniel, Denver, Co
Jager, Brenda, Thornton, Co*
Jones, Kevin, Denver, Co
Keiser, Mandi, Centennial, Co
Kim, Dana, Denver, Co

Marshall, Jumaane, Aurora, Co
Metherell, Jason, Denver, Co
Miner, Charmin, Castle Rock, Co
O'Layo, Melinda, Aurora, Co*
Penn, Salinda, Denver, Co
Reider, Priscilla, Aurora, Co
Rohde, Robert, Fort Collins, Co*
Schultz, Erica, Wheat Ridge, Co
Sisis, Sherri, Parker, Co
Slaughter, Shaniqua, Aurora, Co
Thompson, Kyle, Denver, Co
Torweihe, Jonathon, Aurora, Co
Whittemore, Tara, Brighton, Co*
Wingate, Dixie, Greeley, Co
Wolery, Shawn, Greeley, Co
Zikan, Doug, Aurora, Co

Deoliveira, Ana, Naugatuck, Ct*
Dubourg, Heather, Winsted, Ct*
Glance, Melissa, Deep River, Ct*
Huie, Treishana, Bethel, Ct*
Morris, Jonnsi, Simsbury, Ct*
Ruthen, Michael, South Windsor, Ct*



Hayden, Brenda, Washington, DC

Downs, Andrea, Nassau, De*
Goldfarb, Luann, Rehoboth Beach, De*
Nedelka, Mary, Frankford, De*



Barnard, Susan, Port Richey, Fl*
Black, Leslie, Tarpon Springs, Fl*
Castaneda, Eugenio, Hialeah, Fl
Doyle, Robert, Ocala, Fl*
Dunkley, Alma, Miami, Fl*
Llerena, Carlos, Miami, Fl*
Lloyd, Linda, Jacksonville, Fl*
Magno, Joel, Orlando, Fl*
Mahanke, Kathyann, Winter Springs, Fl*
Markovits, Mary, Orlando, Fl
Martinez, Edison, Miami, Fl*
Mathai, Joy, Fort Lauderdale, Fl*
Perry, Susan, Madeira Beach, Fl*
Pfister, Barbara K, Fort Pierce, Fl*
Robertson, Deborah, Sarasota, Fl*
Saenz, Shelley, Lakeland, Fl*
Schroeder, Tara, Orlando, Fl*
Sharpe, Richard, Miami, Fl*
Shideler, Jeremy, Deltona, Fl*
Shields, Loretta, Punta Gorda, Fl
Smith, Leah, Sanford, Fl*
Stein, Michael, Homestead, Fl*
Thelusma, Ketly, Port St Lucie, Fl*
Westerh, John, Saint Cloud, Fl*
Wood, Craig, Dover, Fl*



Atchison, Myra, Lithonia, Ga
Azucena, Jasmine, Atlanta, Ga
Beemer, Pamela, Cumming, Ga*
Bermudez, Juliana, Atlanta, Ga
Coquillon, Joseph, McDonough, Ga*
Davis, Dafanie, Dawson, Ga*
Davis, Michael, Atlanta, Ga
Golden, Holly, Thomasville, Ga*
Goolsby, Kelly, Monticello, Ga*
Isom, Adrian, Stone Mountain, Ga
Lee, Chris, Lawrenceville, Ga*
Lindsey, Jacquetta, College Park, Ga

Logue, Sharon, Helena, Ga*
 Lowe, Brandon, Stockbridge, Ga
 Morgan, Saron, Atlanta, Ga
 Murphy, Celange, Lawrenceville, Ga
 Norbeck, Patricia, Warner Robins, Ga*
 Ortiz, Brandi, Savannah, Ga*
 Parks, Keneshia, Augusta, Ga
 Pittman, Keshna, Newnan, Ga*
 Puff, Nicholas, Atlanta, Ga
 Shan, Shi Huh, Atlanta, Ga
 Siyomvo, Cynthia, Atlanta, Ga
 Sloan, Timothy, Jesup, Ga*
 Vigil, Allegra, Athens, Ga*
 Yates, Sarah, Saint Simons Island, Ga*

Beaver, Ron, Hagatna, Gu*

H

Amuro, Scott, Honolulu, Hi*
 Gum, Gordon, Honolulu, Hi
 Liu, Y Nhi, Honolulu, Hi*
 Machado, Vanessa, Honolulu, Hi
 Maglasang, Kevin, Honolulu, Hi
 Ng, Kenneth, Pearl City, Hi*
 Thompson, Virginia, Waipahu, Hi

I

Newswander, Linda, Huxley, Ia*

Almugaiteeb, Saud, Boise, Id
 Alsheikh, Hana, Boise, Id
 Arehart, Brian, Boise, Id
 Awad, Ridwan, Boise, Id
 Coles, Anthony, Boise, Id
 Cunningham, Donald, Boise, Id
 Davidson, Benjamin, Meridian, Id
 Dubrusky, Jennifer, Boise, Id
 Falconer, Michelle, Boise, Id
 Francis, Kristin, Boise, Id
 Hikida, Lani, Boise, Id
 Jacobsen, Tiana, Rexburg, Id
 Martin, Curtis, Boise, Id
 Matthews, Whitney, Boise, Id
 Mugaiteeb, Saudal, Boise, Id
 Nguyen, Huong, Boise, Id
 Olson, Sheila, Boise, Id
 Ovitt, Lauri, Payette, Id
 Owen, Danielle, Rexburg, Id
 Peterson, Cara, Boise, Id
 Peterson, Donell, Meridian, Id
 Schellenberger, Jennifer, Middleton, Id
 Sirs, Kaira, Nampa, Id
 Smith, Carrie, Chubbuck, Id
 Starks, James, Boise, Id
 Taylor, Lisa, Meridian, Id
 Wright, Garrett, New Plymouth, Id
 Zenner, Shannon, Boise, Id

Acerenza, Nicole, Washington Heights, Il
 Alfaro, Veronica, Berwyn, Il
 Anderegg, Natalie, Summit Argo, Il
 Batarseh, Joseph, Chicago, Il
 Baumann, Kathryn, Schaumburg, Il*
 Bochenski, Grace, Naperville, Il
 Brass, Trent, Rockford, Il*
 Brogadir, Cindy, Buffalo Grove, Il*
 Broniszewski, Marie, Aurora, Il
 Day, Michelle, La Salle, Il*
 Dixon, Melinda, Johnston City, Il*
 Dwyer, Kristen, Plainfield, Il
 Flowers, Kim, Chicago, Il
 Frazier, Rebecca, Swansea, Il*
 Gebremichael, Genet, Chicago, Il
 George, Stacey, Hampshire, Il*

Hastings, Kathryn, Danville, Il*
 Heck, Joann, Columbia, Il
 Hernandez, Sheila, Montgomery, Il
 Hill, Khalil, Chicago, Il
 Hund, Veronica, New Baden, Il*
 Jaynes, Thomas, Naperville, Il
 Keith, Kalyn, Fisher, Il
 Konieczny, Jayme, Plainfield, Il
 Lamonica, Tim, Millstadt, Il*
 Leal, Justin, Bloomingdale, Il
 Mancera, Norina, Itasca, Il
 McCalla, Rebecca, Dowell, Il*
 McWeeney, Michael, Chicago, Il
 Michor, Amy, Peotone, Il*
 Poe, Tyra, Chicago, Il
 Prince, Kathleen, Chicago, Il
 Raimondi, Katie, Bartlett, Il
 Robinson, Tara, Gilberts, Il
 Sapigao, Jay, Chicago, Il*
 Shorner, Christian, Villa Park, Il
 Singh, Gagan, Chicago, Il
 Smurawski, Keiko, Oakbrook Terrace, Il*
 Tarr, Claudia, Moline, Il*
 Vertin, Wanda, Pecatonica, Il
 Warren, Jenna, Sugar Grove, Il
 Williams, Jeffrey, Darien, Il
 Wolyniec, Jurate, Darien, Il
 Yohnka, Rebecca, Kankakee, Il

Alexander, Jennifer, La Porte, In*
 Baker, Audra, Anderson, In
 Bush, Jill, Mooresville, In*
 Byrum, Vanessa, Winchester, In
 Fiega, Anthony, Knightstown, In
 Griffith, Debra, Carmel, In*
 Hartley, Josh, Muncie, In
 Hovel, Allison, Indianapolis, In
 Johnson, Jessica, Indianapolis, In*
 Johnson, Mitchell, Marion, In
 Kirchner-Banks, Donna, Anderson, In
 Korchin, Elena, Carmel, In*
 MacGilvray, Hannah, Anderson, In
 Melvin, William, Beech Grove, In
 Metcalf, Katherine, Liberty, In
 Peglow, Cheryl, Indianapolis, In*
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Unique Challenges of Pediatric Diagnostic Testing and Treatment
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October 6–8
Atlantic City, NJ
NJSRC Annual Shore Conference
Contact www.njsrc.org or Linda Birnbaum, (732) 713-6859, Lbirnbaum2@yahoo.com

October 7–8
Verona, NY
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October 13–15
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October 14–15
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October 14–15
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October 20
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October 24–30
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October 28
Newark, DE
17th Annual Trends in Respiratory Care Conference
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December 5
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December 6–9 (Monday–Thursday)
Las Vegas, NV
AARC International Respiratory Congress
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Other Meetings

November 18 (11–12 EST)
TechEd Live Pulmonary Function Webcast Series
Bronchial Challenge Testing Part 2 — Mannitol Challenge
Contact Susan Blonshine, (517) 676-7018, sblonshine@techedconsultants.com

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

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