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The Official Publication of the American Association for Respiratory Care
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Table of Contents

September 2011
Volume 35, Issue 9

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 AARC members online at www.aarc.org/members_area/resources/strategic.asp.

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AARC Times and Respiratory Care — the only official publications of the AARC

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Printed in USA

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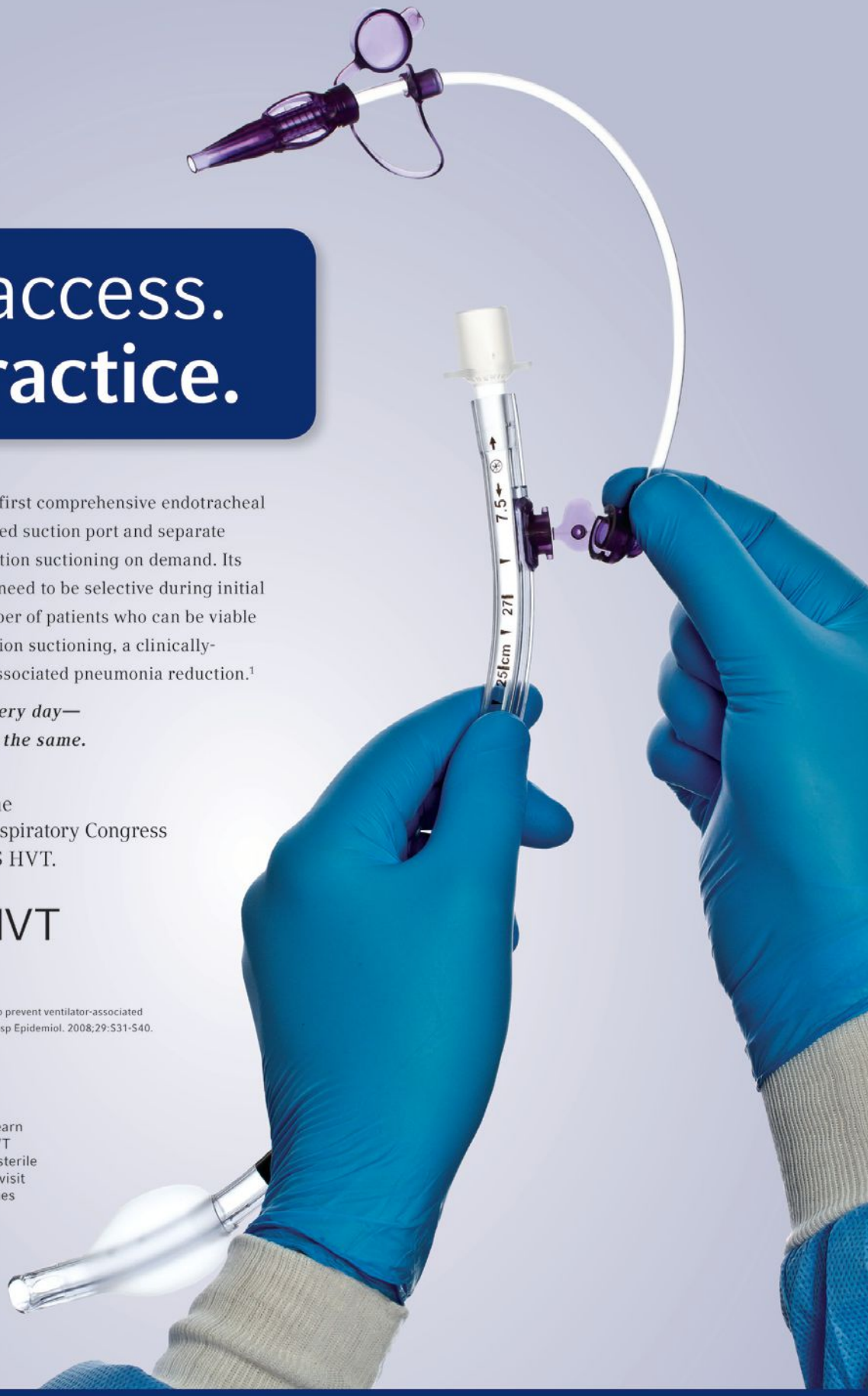

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AARC Times **(USPS 491-930)** (ISSN 0893-8520) is a monthly publication of Daedalus Enterprises, Inc., for the American Association for Respiratory Care.

Periodicals Postage: Paid at Irving, TX, and at additional mailing offices. POSTMASTER: Send form 3579 to *AARC Times*, Daedalus Enterprises, Inc., 9425 N. MacArthur Blvd., Suite 100, Irving, TX 75063-4706.

Change of Address: Six weeks' notice is required. AARC members should include their membership number when submitting an address change. Nonmember subscribers should provide old mailing label and new address. Send changes to *AARC Times*, Daedalus Enterprises, Inc., 9425 N. MacArthur Blvd., Suite 100, Irving, TX 75063-4706. Periodicals postage paid at Irving, TX.

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Chronic Disease Manager

Identifying Triggers in the Classroom and Workplace

by Diane Rhodes, BBA, RRT, AE-C

The department of environmental health in the North East Independent School District (NEISD) in San Antonio, TX, is responsible for constantly evaluating the impact the classroom environment has on our students' and staff's respiratory health. As a respiratory therapist and certified asthma educator, my focus is addressing the common triggers (allergens, irritants, infection) that can be found in the school/work setting. RTs in the clinical setting must be mindful of the environment when educating their asthma patients on environmental modification strategies. The home environment assessment is crucial when educating our patients in effective asthma management; however, there is also a need for additional education and evaluation concerning the patients' environment in which they may spend 8–10 hours of their day. It is very possible that the work/school environment could be a contributing factor to those who are not reaching their desired level of asthma control. Through proper asthma education and close monitoring of every environmental setting they encounter, we can empower our patients to advocate for the air that they, or their child, may be breathing.

Guidelines address environment

The National Heart, Lung, and Blood Institute's (NHLBI) "Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma" state: "Achieving and maintaining asthma control requires four components of care: assessment and monitoring, education for a partnership in care, control of environmental factors and comorbid conditions that affect asthma, and medications."[1] As RTs, we are challenged with the task of coordinating all these components together in a way our patients can understand. Effective asthma management includes not only a proper medication regimen and assessment of symptoms, risk, and impairment, but also effective efforts in education and environmental reduction/avoidance strategies of known triggers as part of that four-component approach. NHLBI's EPR 3 addresses the environmental component in its 2007 update:[1]

KEYPOINTS: Control of Environmental Factors and comorbid conditions that affect asthma

Exposure of patients who have asthma to allergens or irritants to which they are sensitive has been shown to increase asthma symptoms and precipitate asthma exacerbations.

Patients who have asthma at any level of severity should:

- *Reduce, if possible, exposure to allergens to which the patient is sensitized and exposed.*
- *Know that effective allergen avoidance requires a multifaceted, comprehensive approach; individual steps alone are generally ineffective.*

In its "Stepwise Approach to Managing Asthma Long Term," the guidelines specifically advise how to evaluate patient education, environmental control, and management of comorbidities at each step.

When exploring the causes of our patients' asthma symptoms, a proper environmental assessment is a critical step in asthma management. How many times do we hear from our asthma/allergy patients or their families: "I seem to be fine on the weekend, but come Monday morning my asthma seems to flare up." If you are like many therapists dealing with asthma management, you may have heard this frequently. Understanding the true impact the classroom or workplace environment can have on your patients' level of asthma control will make you a better asthma educator for your patients' families.

about the author...

Diane Rhodes, BBA, RRT, AE-C, is the director of the environmental health department for the North East Independent School District in San Antonio, TX.

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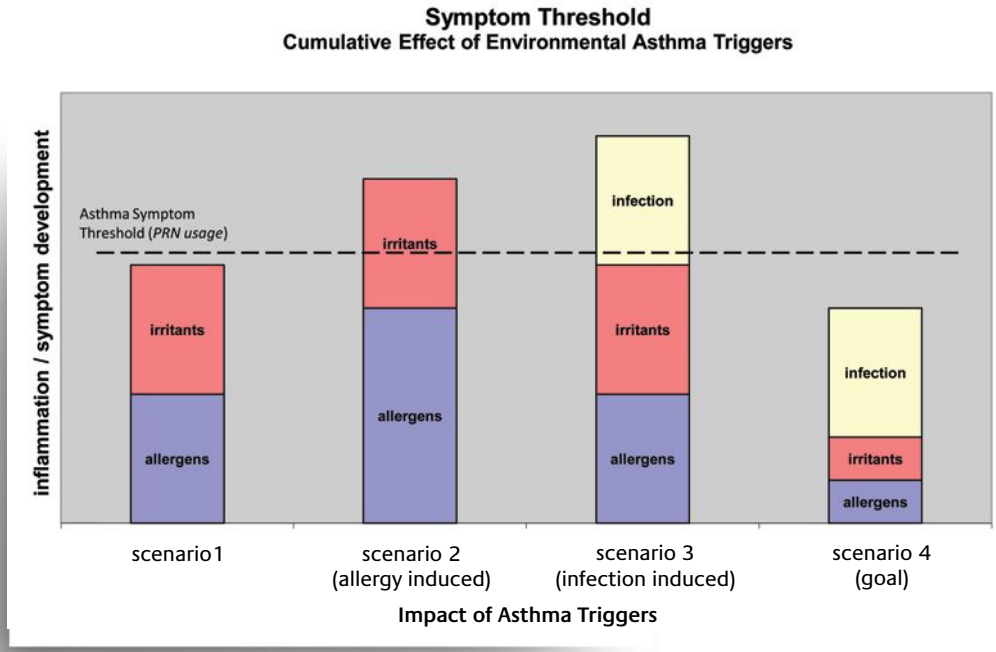
Figure 1. Symptom Threshold: Cumulative Effect of Environmental Asthma Triggers



Environment and airway response

Asthma triggers impact the airways in a cumulative effect; this requires one to look at all the variables that play into the course of a person's day. People spend 90% of their day indoors;[2] therefore, trigger and allergy education needs not only to include the home environment but also school, work, after school care and activities, family/friends homes, etc. Indoor air quality awareness needs to be included when educating families as we explain the cumulative effect of triggers on an asthmatic. Additionally, nasal allergy is a comorbid condition of asthma management that also needs to be included when addressing asthma control.

Asthma can be a complicated disease when troubleshooting and/or identifying environmental triggers and their relationship to symptoms. "The Asthma Educator's Handbook" cites a 1985 study by Metzger et al titled "Site of Airflow Obstruction during Early and Late Phase Asthmatic Responses to Allergen Bronchoprovocation" that significantly helped to advance our knowledge about pathogenesis of asthma and the allergy reaction. The dual asthmatic response to allergen consists of the "early asthmatic response" that is due to bronchoconstriction and the "late asthmatic response" caused primarily by inflammation.[3] It revealed that within minutes of inhaling a known allergen, lung function decreased, which could be relieved with a quick-relief medication or simply subside as quickly as it occurred. A few hours later, symptoms returned with a more dramatic effect on FEV_1 and more severe symptoms.

This late response showed the effect of the inflammatory process. Inflammation is a more complex process, involving infiltration of allergy cells into the bronchi, liquid (edema fluid) seeping into the bronchial walls, and stimulation of extra mucous production. It tends to evolve over hours to days and regresses, even with treatment, over a comparable period.[3] During that late phase of increased inflammation, the airways are more sensitive to irritants, pollution, and other triggers that, if not inflamed, would not trigger similar symptoms. The question now becomes: If we are not aware of the initial allergy exposure, how do we know what the real reason is for the symptoms when the environment is changing in the course of a day? Human tendency is to blame the trigger that caused the worst symptoms or the

last exposure as the one that caused the problem. However, given the time delay, as we understand the late response mentioned earlier, how do we explain this process to our patients when strategizing trigger management? When assessing the asthmatic's symptoms and evaluating their environment, how do we educate the asthmatic about this complicated process and guide them on how to reduce or avoid the causing agents?

Educating on environmental impact

As respiratory therapists, we want to be effective educators in asthma management for our patients; therefore, we need to be able to communicate the mechanism of airway response mentioned earlier in a way that asthmatics and their families can understand. At NEISD we use a "symptom threshold" graphic (see Figure 1) as a way to educate non-healthcare staff and parents on understanding how the environment affects an asthmatic. We do this by visually explaining different trigger (allergen, irritant, infection) exposure scenarios where a patient can reach their symptom threshold and how that ties to inflammation and the use of their reliever short-acting beta agonist (SABA) medication for symptoms. This universal concept works well since situations may vary depending on the allergy or cold/flu season. Individual allergies also vary and may be unknown. Scenario 2, for example, could involve a dust mite (non-vacuumed carpet) or cat dander (carried on another individual's clothing) exposure that graphically shows the bar graph nearing the asthma threshold as the increases in inflammation are shown on the left hand side. In this scenario, the graphic then shows exposure to an irritant (example: fragranced air freshener) in the classroom surpasses the symptom threshold line, which results in a PRN usage of the SABA. Scenario 3 is another example that depicts reaching the symptom threshold if no allergy/irritant reduction measures take place during cold/flu season.

NEISD's department of environmental health strives to reduce the cumulative exposure of allergens, irritants, and infection to our students and staff in order to prevent them from reaching their symptom threshold (see situation 4 in figure). By proactively reducing the common triggers within our school setting through environmental practices,[2] we can achieve our goal. These efforts have decreased PRN inhaler usage for our students. This leads to increased classroom instruction time and improved student performance. We have accomplished this by providing asthma-friendly education[4] and processes to staff members of the common allergens/irritants/infections that impact our asthma/allergy students and staff. We also have taken steps to improve the indoor air quality in all of our facilities.

Creating an asthma-friendly environment

Proper environmental education must incorporate the asthmatics' understanding of their known sensitivity to allergies and irritants. It also involves educating others so they can take steps to help reduce environmental triggers that can initiate an allergy and/or non-allergic (irritant) response. Some common allergens are:

- House dust mites (often found in mattresses, pillows, carpets, and upholstered furniture)
- Animal allergens (pet dander, urine, feces, saliva, feathers)
- Cockroach allergens (common in urban, inner-city environments or areas where food/trash may be stored)
- Indoor molds (found in buildings with dampness problems or water intrusion events)
- Outdoor allergens (tree, grass, weed pollen, and mold spores)

In addition to this allergic response, environmental pollutants (non-allergy response) such as tobacco smoke, cleaning agent fumes, volatile organic compounds (VOCs), perfumes, fragrances, smog/car exhaust, and poor air quality days can exacerbate or trigger asthma symptoms. Irritant gases and invisible particles make up a significant part of environmental pollutants that occur in school buildings/work places. VOCs and formaldehyde are the most prevalent and widely used indoor air pollutants that originate from products and building materials. Chemical emissions from common indoor air materials and finishes have a variety of adverse effects, including asthma symptoms, pulmonary infections, and allergic reactions.[5] Invisible particles can range from very small (0.002 µm to 10 µm) than can remain suspended in the air for a long time, up to relatively large (100 µm) that can quickly settle out of calm air. Inhaling particulates can cause eye, nose, and throat irritation and can increase the risk of respiratory infections.[5] Respiratory therapists should be concerned about the long-term effects of inhaling ultra fine particles (less than 2.5 µm) because they can travel deep into the lungs where they can remain embedded for years to be absorbed by the blood stream. Larger particles tend to be trapped by the nose and throat and are cleared by the respiratory tract. Controlling the level of particulates in the environment is beneficial to the asthmatic in helping control the inflammation process.

Most asthmatic triggers are inhaled and reach the bronchi directly via the air we breathe. As mentioned, some of these inhaled stimuli are simply irritants, chemicals, or particles that can cause cough or chest discomfort in anyone; but in a person with asthma, it may provoke the airway narrowing response described earlier. Particles can also be the means by which allergens can be carried and sustained in the air the asthmatic breathes, which then provides a mode of transportation into the airway. Other triggers are inhaled allergens that stimulate the allergy reaction only in those persons with a specific sensitivity to those particular allergens. Allergens can also be found in classroom dust as was determined in research by Dr. S. Abramson et al.[6] His results concluded that cat allergen, dust mite allergen, and cockroach allergen were found in classroom dust in different areas around the country. This points out the importance of realizing the possible exposure to these allergens in the school setting. It also reveals the importance of effective cleaning measures and filtration systems that need to be in place. When dealing with indoor air quality issues and the asthmatic, it is important to be aware of the level of particulates in the environment as a carrier for those airborne allergens or irritants to enter into the asthmatic's sensitive airways.

Maintaining a building's health

School district facilities are filled with young people whose airways are still developing. We strive to reduce the commonly known allergy and asthma triggers as much as possible, but we also strive for an indoor environment that is healthy for everyone. Although we certainly cannot eliminate all possible asthma triggers, there are strategies that when followed can significantly reduce exposure to all occupants and improve the indoor air quality in the campus/building setting.

Strategies for effectively improving the indoor environment for all occupants can be categorized by the Technical Solutions as part of the EPA's Tools for Schools Program.[2] Any facility that houses people, whether in work or a school setting, should focus on these technical aspects to building heath to ensure a healthy environment that not only impacts the asthmatic but all occupants.

- Quality **HVAC** — Includes proper ventilation to maintain proper CO_2 and relative humidity levels in the measured air. Proper filtration of particulates (MERV 8 or more).
- Control of **Moisture/Mold** — Maintain proper indoor relative humidity and address water intrusion events that affect mold growth and dust mite growth.
- Strong Integrated Pest Management (**IPM**) — Use non-irritant or non-aerosolized resources to control cockroach and rodent population.
- Effective **Cleaning & Maintenance** — Use effective, non-odor, or less harsh chemicals as cleaning products while still reducing infection exposure as well as using damp cloth dusting practices and using HEPA vacuums.
- Smart **Materials Selection** — Use products that emit no or low levels of pollutants or irritants. Reduce volatile organic compound emissions.
- Aggressive **Source Control** — Eliminate sources of pollution/emissions, reduce allergy reservoirs, establish smoke free policies, and incorporate chemical management plan.

When assessing the environmental component for the asthmatic, the common triggers are obvious talking points; however, the sources or reservoirs for these common triggers need to be assessed as well. Source control is the only completely effective way to remove pollutants/allergens from indoor environments. Total eradication of indoor air pollutants is often not feasible or practical. A more realistic goal is to establish proactive maintenance practices as well as use building materials, furnishings, finishes, office equipment, cleaning supplies, and processes that create a healthy environment for all occupants, not just the asthmatic. As respiratory therapists, we commonly teach our patients the known asthma triggers; but teaching them and their families the why and the how is just as important if we want to self empower our patients toward better asthma management skills. ■

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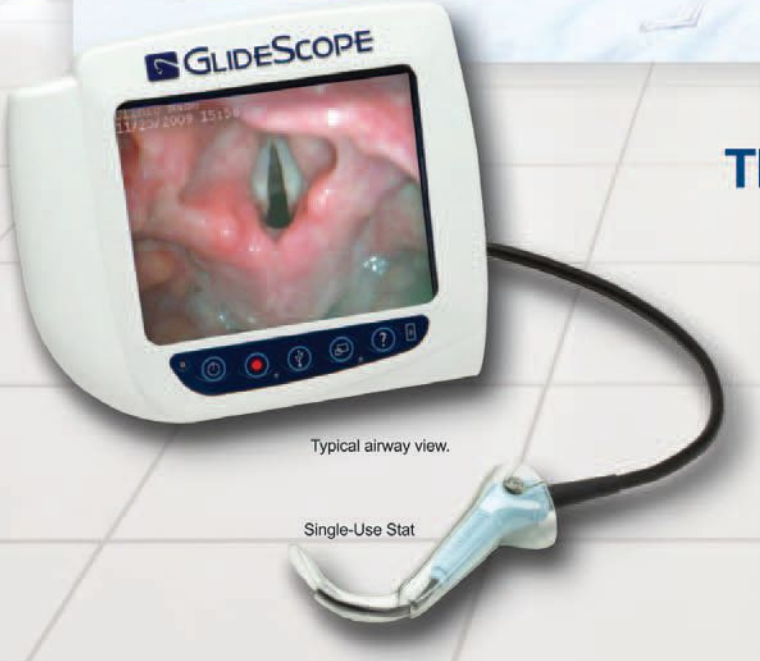

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Running Hot — To Do, or Not?

by Anthony L. DeWitt, JD, RRT, FAARC

On my second day on the job as a paramedic in a small town in Missouri, we received an ambulance call for a woman down and were dispatched "Code 3" to the scene of the accident. I got into the ambulance and buckled my seat belt and separate shoulder harness. The driver, a basic-level emergency medical technician (EMT) but many years my senior, hit the lights and siren, and we rocketed out of the parking lot spraying pine cones, rocks, and dust for 30 feet.

For that first 45 seconds, it was what I dreamed that being a paramedic would be like: rushing to the scene of a medical emergency, the siren bleating, and cars pulling over to let us pass. It was the 46th second that made me realize that red lights and sirens are not force fields that guarantee a caregiver's survival. A serious dip in the road caused the nose of the ambulance to fall; and we were thrown upwards, the back wheels hitting the same dip a second or two later. I tried to brace and sprained a wrist. My neck was sore for weeks because the effect was a little like being a stick of butter in a Mixmaster! Somehow we made it to the scene of the medical emergency (which was not, in fact, an emergency), and I survived my first Code 3 run in spite of my co-worker's best efforts. I never rode with that driver again.

Shannon Ball, RRT-NPS, RPFT, AE-C, of the AARC Transport Section, had me fondly recalling those days when she asked me to address the issue of when it is proper to use lights and siren in a transport of a critically ill infant, indicating that some preferred to always use warning lights and sirens, while others did not. The question is a good one, even if the answer will undoubtedly not be pleasing to some. And to get there, we need to review the law of negligence.

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.

The law of negligence

Negligence is breaching a duty of care to an identified person, normally a patient. The duty of care requires a professional to behave in the same manner as any other reasonable and prudent professional would behave under the circumstances. Negligence occurs when that duty is breached and if a professional is reckless in the breach of that duty, that may cause a jury to award punitive damages. The risk to professionals is significant.

To evaluate the level of emergency response in neonatal transport, it is important to keep in mind the purpose of such a transport: Get the infant to a tertiary care center where the best care possible can be rendered. Most transports originate at the tertiary care facility and bring all the equipment and drugs necessary for the patient to the outlying hospital by ground ambulance. A physician, nurse, and therapist round out the patient care team, with driving handled by EMTs. The team stabilizes the infant at the originating hospital before transport so that transport can be safe and orderly. There is frequently no need for speed in transport, and a smooth and quiet ride are often more helpful to the infant than the 10 minutes gained by the deployment of lights and sirens.[1]

Ideally, a transport should be as speedy as conditions allow, all other things being equal. On a clear day, without inclement weather, and on a four-lane highway, the use of lights to let the ambulance reach a safe highway speed (within the posted maximum) is reasonable under most conditions. The warning lights tend to let drivers know of the approaching ambulance and to take care to avoid it. Note, however, that even the use of lights carries with it some risk of "wake effect" accidents, as reported by Clawson et al.[2] The intermittent use of the siren to clear a vehicle may be appropriate where the patient's condition deteriorates or when some medical

cause requires that the transport reach the hospital more quickly. However, it is worth noting that at least one study shows that a Code 3 response with lights and siren improves arrival time at the ER by a mere 43 seconds. While statistically significant, it certainly is not clinically significant; and whatever benefit may be provided should be weighed against the risks.[3]

However, the routine use of warning lights and sirens may have detrimental effects as well.[4] In one study, the second leading cause of fatal injury for firefighters was vehicle collisions. In 2001 alone, 23 firefighters died while responding to or returning from emergency incidents. Most of those accidents occur at intersections where drivers oblivious to the warning lights and siren collide with the ambulance. While the patient and the drivers may well be belted in such situations, often the attending medical personnel are not. And neonates are exceptionally difficult to secure in a vehicle. Ambulances carry oxygen tanks and are powered by gasoline or diesel fuel, and fires in such situations are frequently rapid and intense. Studies have suggested that vehicle collisions are a far more common cause of ambulance liability than is professional negligence.[5]

In most situations and under most weather conditions, it would be perfectly reasonable to transport an infant "Code 1" — meaning without any lights or siren, respecting all traffic laws, and relying on the medical team in the back to ensure the patient's safety. Where rain, snow, or other factors complicate a transport, a "Code 2" response with lights alone may provide an extra margin of safety even when the ambulance does not attempt to proceed through intersections. Even in bad weather, the operating lights tend to attract the attention of most drivers.

Code 3 transports should be reserved for those true emergency situations where, because of some developing medical crisis (e.g., pneumothorax, falling saturations, etc.) the need for definitive care at a hospital is paramount and will be lifesaving. Even then, the driver should be assisted by a passenger-side attendant who can clear the vehicle through intersections, work the light array, and manipulate the various sound patterns for audible warnings. The driver should only be doing the driving. The siren should be used with care in view of its hazardous effect on neonatal health.[1]

The decision is a medical one

The decision about how the transport should proceed (i.e., at what speed and within what degree of risk to the patient and the transporters) is a medical one. The senior attending physician on the transport should make that call. It should not be left to the people driving the ambulance who may not have the clinical knowledge necessary to determine the level of risk. And neonatal transports should only be driven by EMTs with experience in neonatal transport if at all possible. The National Association of EMS Physicians has published a position statement, and it provides excellent guidance in this area.[6] ■

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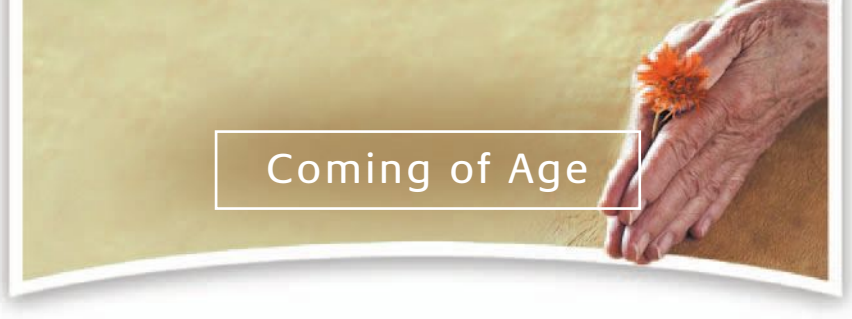
For that first 45 seconds, it was what I dreamed that being a paramedic would be like: rushing to the scene of a medical emergency, the siren bleating, and cars pulling over to let us pass. It was the 46th second that made me realize that red lights and sirens are not force fields that guarantee a caregiver's survival.



Patient Use of Oximetry in Home Care: Where's the Evidence?

by Louis M. Kaufman, RRT-NPS, AE-C, FAARC

Pulse oximetry provides noninvasive assessment of oxygen saturation of hemoglobin (SpO_2)[1] and is considered by many to be the fifth vital sign, along with blood pressure, pulse, heart rate, and temperature. Pulse oximetry is performed in all types of health care and alternative care settings for monitoring or diagnostic testing. However, its use in the home remains limited, in large measure due to reimbursement constraints. In many cases reimbursement policies have been allowed to supersede physician decisions of medical necessity.

A December 1989 conference titled Noninvasive Monitoring in Respiratory Care concluded: "The subject of continuous and periodic monitoring in the home is filled with controversy, but lacks data or guidelines to clearly establish indications. Respiratory care would greatly benefit from a consensus conference to clearly define the Who, Hows, and Whens of patient monitoring in the home."[2] Consensus conferences analyze evidence; but because there is scant evidence, there has been no conference. We continue to monitor, and in many cases provide therapy, in the home based on anecdotal and what we believe to be "best practice."

The AARC Clinical Practice Guideline (CPG) titled "Pulse Oximetry" published in 1992 is based on recommendations by an expert panel and references that are more than 20 years old.[3] Many question to what extent pulse oximetry can and should be applied given limited health care resources. Although the CPG lists use in the home setting, the stated limitations on device and personnel preclude direct use of pulse oximetry by the patient or caregiver in the home.

My first exposure to pulse oximetry in about 1974 was the Hewlett-Packard model 47201A ear oximeter. It was about the size of a desktop computer tower, weighed 35 pounds, cost $10,000, and used a bulky, clumsy earpiece. Oximeters today are small, weigh only a few ounces, and are designed to fit the fingers. Devices with U.S. Food and Drug Administration 510(k) clearance and requiring a prescription for medical use are available for less than $100.

Portable pulse oximeters are available as stand-alone, hand-held, and finger clip. The stand-alone and hand-held devices may include memory and/or alarms to monitor high- and low-oxygen saturation and/or heart rate.

about the author...

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Continuous monitoring

Use of pulse oximetry at home in the early 1990s focused on continuous monitoring of patients using mechanical ventilation. By definition, the patients are stable; and most insurers do not cover continuous home pulse oximetry or the use of a pulse oximetry device in the home to monitor a stable respiratory condition due to lack of medical necessity.

Today oximetry monitoring and alarm notification in the home is used primarily for infants and children. Basic home cardiorespiratory monitors do not provide oxygenation status or critical value alarms. The addition of pulse oximetry alerts parents to potentially dangerous events[4,5] and is supported by the reimbursement policy of several major insurers.[6-8]

Oxygen qualification testing

The Centers for Medicare and Medicaid Services (CMS) does allow beneficiaries to self-administer home-based overnight oximetry tests to establish qualification for reimbursement of nocturnal oxygen. The test must be performed under the direction of a Medicare-enrolled

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Independent Diagnostic Testing Facility (IDTF). The test unit must be sealed and tamper-proof so that test results cannot be accessed by anyone other than the IDTF that is responsible for transmitting the test report to the treating physician. This is the only CMS-reimbursable use of pulse oximetry. No test performed while the beneficiary is awake, either at rest or with exercise, may be used for purposes of qualifying the beneficiary for home oxygen therapy.

Sleep titration

Global Initiative for Chronic Obstructive Lung Disease and American Thoracic Society guidelines indicate that long-term oxygen therapy (LTOT) patients should either be titrated to an SpO_2 of ≥90% or have oxygen flow increased by 1 L/min during sleep.[9,10] Due to night-to-night variability, a single night home oximetry recording may be insufficient for accurate titration.[11] A study published in 2000 concluded about half of COPD patients undergoing LTOT needed increased flow during sleep.[12] However, nocturnal oxygen titrations are rarely performed at home due to lack of patient compliance for multiple night studies coupled with minimal insurance coverage for the tests.

Oxygen titration for life and living

How about long-term oxygen patients? LTOT patients are stable, but oxygen saturation varies with changes in activity. In a 1994 study, 85% of patients studied had marked decreases in oxygen saturation using their prescribed oxygen flow during daily living.[13] Thomas Petty, MD, instructed patients to "titrate when you migrate" or "measure when you pleasure."[14] Patients with diabetes monitor their blood glucose and adjust insulin dose; LTOT patients should be able to monitor their oxygen saturation and adjust their oxygen dose as well.

Currently available "wearable" (less than five pounds) portable oxygen devices utilize conserving regulators in which the settings are not equivalent to flow rates. The Sixth Consensus Conference on LTOT states: "All patients who are provided an intermittent-flow device must be clinically evaluated and titrated to the intermittent flow required by the specific device employed in order to ensure optimal oxygen delivery for that individual patient during rest and during routine activities of daily living."[15] Titrating the setting to maintain adequate oxygen saturation during activities of daily living — including travel to altitude and by air — requires the use of a pulse oximeter.

The future

At a 2010 conference of the National Association for Medical Direction of Respiratory Care, the science of LTOT was discussed, along with issues that impact effective oxygen therapy in the home. Recommendations from this and other expert groups may indicate the need for change in how oxygen is prescribed, from the current "2 L/min" to "maintain oxygen saturation ≥90%." Until a change is implemented, insurance companies' reimbursement policies for pulse oximeters will continue to influence the provision of LTOT. We anxiously await further studies and evidence to support the benefit and medical necessity of pulse oximetry. ■

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A Primer on How To Manage a Bill Through Your Legislature

by Gary Wickman, BA, RRT, FAARC

Advocacy is an important tool that respiratory therapists (RTs) need to utilize to ensure that our patients are provided safe care and that the RTs caring for them are permitted to do so through a current scope of practice. Over the last 25 years, RTs and their state societies have worked with their legislators to enact respiratory care practitioner or respiratory therapist licensure. In Washington State, we did this in the late 1980s through a certification law and in the early 1990s advanced to a licensure law. We also realized the perils of opening up our licensure laws to make changes unless it was absolutely necessary. However, not updating a decades-old licensure law can create problems because as medical practice evolves, our scope of practice can change as well. If we do not keep our scope of practice up to date, then we can run into circumstances where a new procedure is now "current practice" but the law does not cover RTs for that "current practice."

This situation happened to RTs in Washington State. Three years ago we realized that in "current practice" what was actually happening (and permitted by a facilities' policy and procedure) was that RTs were taking medical orders from not only physicians but licensed independent practitioners (LIPs), e.g., physician assistants and nurse practitioners. This was a standard practice in many areas of the hospital, including the neonatal ICU, emergency department, and post surgical units. Our law dating from the 1980s covered RTs only taking medical orders from physicians. It did refer to nurse practitioners but not in relation to taking medical orders. The Legislative Committee from the Respiratory Care Society of Washington (RCSW) realized that RTs were at risk in our state because what was happening under "current practice" was actually outside our legal scope of practice.

In Washington State there are several ways to address issues like this in relation to a law. Many states have formal licensure boards that are made up of RTs and others and work with the Department of Health (DOH) or some other state agency within the state to manage "scope of practice" issues as well as other matters that pertain to the licensure law. In Washington State, our state Respiratory Care Practitioner Licensure Board was dissolved many years ago along with most other professional licensure boards. We now have an "ad hoc" relationship with our DOH. This relationship is driven by the RCSW because we realize the need to provide input to the agency that makes decisions about our scope of practice and other issues concerning our license. The RCSW appoints RTs through our Legislative Committee to work on the Ad Hoc board. RTs meet with our DOH regularly and provide input on matters affecting our licensure law. However, our recommendations are just that and are not binding to the DOH. The agency can take our input and do what they think is the right thing for the Washington State public. When we realized that our law needed to be updated to include taking orders from all LIPS, we went to the DOH for help.

about the author...

Gary Wickman, BA, RRT, FAARC, is director of respiratory care services at Providence Regional Medical Center Everett in Everett, WA. He also serves as chair of the AARC's Bylaws Committee.

Options available to make changes to your bill

One option we have to adjust our law is to create a new regulation — or as we call it in Washington State, a Rule — as a way to interpret or set guidelines for a law.

This is an involved process and can take at least a year to actually complete. The process involves applying to the DOH to create a Rule, writing the Rule, holding public forums, and gathering public input. After this process is complete, the proposed Rule is then sent to the State Attorney General's Office and evaluated for action. We tried this route but were told by the DOH that the wording of our current law was too specific to allow us to create a Rule that would allow RTs to take medical orders from LIPs. We would have to amend our law to include other LIPs, in addition to physicians, in the provisions that refer from whom RTs can take medical orders. We asked the DOH to help us and to support this revision to our licensure law. Agency staff were willing to help with the wording of the revision but would not take it to the legislature on our behalf.

The Respiratory Care Society of Washington does contract with a paid outside lobbyist, so we went to him for help with this process. It seemed to us that this would be a fairly easy thing to do because we had no opposition, the bill was revenue neutral, and we had support from the other LIP organizations. We were able to get sponsorships and support from both our House and Senate. The DOH reviewed the wording and approved it. We were ready for the 2010 legislative session, which was a short session that year lasting only three months. At this point everything seemed to be moving well. In Washington State, like many other states, our bill had to be reviewed by the Health Care Committees of both the House and the Senate. These meetings where the committees discuss the legislation are scheduled without much advance notice, sometimes just the day before the meeting, so you have to be prepared. We were ready, and RT volunteers agreed to attend the committee meetings. First up was the House Health Care Committee. The testimony went well, the committee passed the bill out of committee unanimously, and then it went to the Rules Committee. It sat there until the last possible day the House could take action on the bill. Our legislation was finally moved to the floor and voted on by the House where it passed unanimously. It was then sent to the Senate. We went through the same process on the Senate side: We testified at committee, the bill was passed unanimously out of committee, and then it was sent to the Senate Rules Committee.

It looked as if our bill was going to pass the Senate; but just like the House, they seemed to be waiting until the last possible moment to act on the bill. I went to the 2010 PACT meeting in the "other Washington" (DC); and while I was there, I got an email saying that our bill had "died" because the Senate had failed to take final action. I could not believe this had happened. We had no opposition to our bill, it was revenue neutral, it was the best thing for our patients, and we had a lobbyist helping to shepherd the bill through the process. I immediately called our lobbyist and my senator to see what could be done. I thought, at the worst, we could tag it onto another bill that the Senate would be voting on. I found out that our state does not permit legislation to be attached to other bills and that each bill has to be passed on its own. The session was extended that year, and our lobbyist worked to get the bill revived during the "special session" but was unable to do so.

The lesson we learned was not to take the process for granted. Our state was embroiled in other issues that seemed more pressing to our legislators; and many of these "smaller" bills, viewed as technical bills, did not make it through even though there was no opposition and it made sense to take action on them. To complicate matters, during 2010 as we were trying to pass our legislation, there were several RTs who were brought up on charges that they were working outside of their scope of practice because they were taking orders from LIPS other than physicians. The DOH, knowing that this was "current practice" and that we were working to amend our bill to reflect current practice, did not take action against these particular RTs.

Next steps in the process

We were back to square one and had to bring the bill back to our legislature in 2011. Our original sponsors were not as willing to bring this bill forward because of the more pressing budgetary issues that most of us have seen over the last several years. We did have the chair of the House Health Care Committee, Rep. Tami Green, step forward and sponsor the bill from the House side. After the failure in 2010, we had a "discussion" with our lobbyist who since then has been very involved with the RCSW's legislative work. I was also not going to lose sight of the process this year.

We repeated the same steps we took the year before: testifying at health care committees, working our RT membership to urge their own legislators to support the bill, going to the state capital in Olympia to meet directly with key legislators and staff involved in the process, and calling or emailing our lobbyist every day of the session. It sailed through the House and went through the Senate and on to the Senate Rules Committee. It felt like "déjà vu all over again." We got down to the wire yet again — that is, right to the last week before all bills that were in the Senate Rules Committee had to be acted on or else they would "die." We rallied the RT membership one last time

and were ready to take a contingent of RTs to the capital if needed. Late Friday afternoon (the session was to end the following Tuesday) we received a message from our lobbyist saying that our bill was scheduled to come out of the Senate Rules Committee and go before the full Senate for a vote. He actually sent us a link that we could pull up and watch the process live online. I had tuned in on my smartphone so I could listen on my drive home that afternoon. I listened for about 30 minutes to all kinds of legislation unrelated to respiratory care. When our bill was finally announced, I hit an area where I lost connectivity and missed the vote. So much for technology! This time when the bill was put before the Senate, it passed.

Lessons learned

Then it was on to the governor's office to officially be signed into law by Gov. Christine Gregoire. After all this work, a number of RTs were determined to be there for the bill signing, myself included. At one point Gov. Gregoire leaned over to me and asked, "How long did it take to get this bill through?" I laughed and said two years. The lessons we learned are:

1. Never take anything for granted; always follow the process until it is finished.
2. Never underestimate the power of the RT membership and what can be accomplished with letter-writing, emails, and calls to your legislators.
3. Lobbyists are good advocates but make sure they stay on task for your issues; they do work for you, and you are paying them for that service.
4. If the cause is just and it is the best thing for our patients, never give up. It may take years of work, but it is worth it in the end. ■

TANSTAAFL

by Sam P. Giordano, MBA, RRT, FAARC

Perhaps some of you have never seen the acronym that makes up the title of this column this month. It's not a big mystery — it's just shorthand for the famous old saying: "There ain't no such thing as a free lunch." Yet, the idea that things exist in society absolutely free persists throughout the world.

It's a human thing. We want to believe that there are free things in this world. Actually, we see examples almost every day of activities, missions, and relief efforts that seek to heal the sick, feed the hungry, and improve the quality of life of many people who can ill afford to do so themselves. Free is a matter of perspective; or should I say, it's a matter of who pays for the "free" food or service.

Over the past 12 months we've seen humanitarian efforts in Japan and Haiti, just to name two. Both missions are continuing, and much of the work is being done by what we will call unpaid volunteers. Yet, in a way, these volunteers are paid. They may not take a nickel to help their fellow world citizens; but that means that they chose to compensate themselves for their time, and that compensation did not necessarily take the form of money, of course. When our Navy works off the coast of Japan to accommodate the sick and injured from the tsunami disaster or to provide potable water to thousands, it did not present Japan with a bill for services. No, we don't do business that way. It is us, the taxpayers, who pay for that humanitarian effort. So, what may have been free to the Japanese was not free in the purest sense of the word.

Of course, the same thing has and continues to occur in Haiti. We, and other countries around the world, send volunteers; and they use a great deal of equipment and supplies. Many of the supplies are donated, while others are provided (and paid for) by international relief agencies and charities. In each and every instance, what is given to Haiti is not free but has been paid for from other sources — equipment manufacturers, relief organizations, charitable donations, and governments for the most part.

about the author…

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

So what's with "free"?

Recently I received a call from a physician colleague, a medical director of one of our best respiratory care services departments. He had indicated that his hospital, in anticipation of projected cuts and reimbursement, has employed a consulting firm that is now in the process of recommending consideration of ways to downsize the hospital staff. This has been a fairly traditional approach among consultants for decades, but it's wearing thin and it's flawed. Perhaps 30 or 40 years ago providers of health care services were not sophisticated enough, from a business standpoint, to tease out all of our cost components related to the services we render. Nowadays we can account for every nickel we must spend on our staff to assure that: care is given in a safe and effective manner, equipment is accounted for, physician orders are followed, and the equipment-patient interface is working properly and moving toward therapeutic objectives.

There is nothing that today's 21st century hospital staff does that is "free." All activities are directly or indirectly related to the full menu of procedures and services made available by that department. If you or your managers are unaware of the cost components associated

(continued on page 182)

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The Importance of Complying with an NBRC CCP Audit

by Lori M. Tinkler, MBA

What is the CCP?

Since the introduction of the Continuing Competency Program (CCP), the NBRC has received many questions from credentialed practitioners about how the program applies to them. ***If you earned your credential on or after July 1, 2002, the CCP applies to you.*** The NBRC sends reminder notifications to all credentialed individuals, asking them to update contact information with the NBRC as well as providing detailed instructions about the CCP compliance requirements. While many credentialed practitioners have earned more than one credential, it is possible that only one of their credentials is subject to the CCP.

If you have earned at least one credential that is subject to fulfilling the conditions of the CCP, you may meet these requirements by:

1. submitting proof online of completion of continuing education units, or
2. retaking and passing the respective examination(s) for the highest credential held subject to the CCP, or
3. passing an NBRC credentialing examination not previously completed.

While some practitioners opt to take a new or higher level examination, most credentialed practitioners subject to the CCP choose to comply by CEU submission. This is an online-only process and must be completed before the credential(s) expire.

The table of required CEUs reflects the requirements for each credential subject to the CCP. It is important to note that the NBRC defers to each practitioner to determine how their continuing education best meets the requirement type. A question that often arises is how to determine whether a course meets either a general respiratory or specialty requirement. If you are able to provide information and support your claim that a course covers more than one requirement type (e.g., neonatal/pediatric vs. general respiratory), you may submit this online entry accordingly. If you are selected for audit, you will be asked to provide this information for verification. See Table 1 for a breakdown of continuing education requirements.

What happens if I've been selected for audit?

Accuracy of the submission of CEU information is the responsibility of the credentialed practitioner. You may be randomly selected for audit. When this happens, the completion of the online recertification process is temporarily interrupted and a message will appear on the screen providing instructions on the next steps for participation in the audit. This message will instruct you to submit a copy of your CEU documentation to the NBRC Executive Office for further review. To meet the requirements of the CCP audit, each continuing education course completed must either be accepted by your state licensure agency for purposes of maintaining your respiratory care license or must be approved by the American Association for Respiratory Care (AARC). When selected for audit, you will be required to provide a copy of your CEU certificate for each course completed or a printout of your CRCE transcript from the AARC providing matching documentation for each entry submitted during the CCP online process.

Each AARC continuing education course provider should be able to confirm approval by the AARC by providing a certificate with an AARC course number. These course numbers can be confirmed by the AARC, either by

about the author...

Lori M. Tinkler, MBA, is the associate executive director of the National Board for Respiratory Care in Olathe, KS.

Table 1. NBRC Continuing Education Requirements

Credential(s) Held with an Expiration Date	Composition of CEUs Required
CRT only	30 hours general respiratory care subjects
RRT (including CRT)	30 hours general respiratory care subjects
CPFT only	30 hours pulmonary function or pulmonary diagnostic technology subjects
RPFT (including CPFT)	30 hours pulmonary function or pulmonary diagnostic technology subjects
CRT-NPS or RRT-NPS	15 hours general respiratory care subjects and 15 hours neonatal/pediatric subjects
CRT-SDS or RRT-SDS	15 hours general respiratory care subjects and 15 hours sleep disorders testing and therapeutic intervention subjects
CRT or RRT *and* CPFT or RPFT	15 hours general respiratory care subjects and 15 hours pulmonary function or pulmonary diagnostic technology subjects
CRT-NPS or RRT-NPS *and* CPFT or RPFT	10 hours general respiratory care subjects, 10 hours neonatal/pediatric subjects, and 10 hours pulmonary function or pulmonary diagnostic technology subjects
CRT-SDS or RRT-SDS *and* CPFT or RPFT	10 hours general respiratory care subjects, 10 hours sleep disorders testing and therapeutic intervention subjects, and 10 hours pulmonary function or pulmonary diagnostic technology subjects
CRT-NPS or RRT-NPS *and* CRT-SDS or RRT-SDS	10 hours general respiratory care subjects, 10 hours neonatal/pediatric subjects, and 10 hours sleep disorders testing and therapeutic intervention subjects
CRT-NPS or RRT-NPS *and* CRT-SDS or RRT-SDS *and* CPFT or RPFT	15 hours general respiratory care subjects, 5 hours neonatal/pediatric subjects, 5 hours of sleep disorders testing and therapeutic intervention subjects, and 5 hours pulmonary function or pulmonary diagnostic technology subjects

AARC practitioners logging into their account and verifying the course approval, or by non-AARC practitioners contacting the AARC directly at (972) 243-2272 or crce@aarc.org. Additionally, being a member of the AARC allows the tracking of AARC-approved continuing education. While the NBRC does not retain and track continuing education data, AARC members will be able to maintain and track all AARC-approved continuing education coursework through their system.

Most state licensure boards will accept continuing education approved by the AARC, in addition to other profession-related continuing education. Because each state has its own requirements for licensed practitioners maintaining their respiratory care license, it is important to verify with your state that any continuing education courses you are considering meet their requirements. If you hold a license in more than one state, the NBRC will accept continuing education that is accepted by *any* state

in which you hold a license. The NBRC does not exchange continuing education information with the AARC or the state licensure boards. It is critical that your CEU documentation be retained for your entire credential period.

If you are an AARC member and have all your AARC continuing education tracked within your AARC CRCE transcript, you may send this transcript in lieu of course certificates. With this documentation it is also important to include information confirming which states you hold a respiratory therapy license in, as well as complete and up-to-date contact information in case the Board has questions arising from the audit.

> If you earned your credential on or after July 1, 2002, the Continuing Competency Program applies to you.

Once all continuing education documents are submitted for audit review, each course is verified. Notification of pass/failure of the audit will be mailed within two weeks of submission. If a practitioner fails an audit, notification will be sent. If the credential term has already expired, the practitioner's credential(s) will lapse. If the credential term has not lapsed, the practitioner has the opportunity to submit additional documentation to the NBRC to prevent credential expiration.

Why do I need to comply?

Once the audit process is completed, you will be notified of the results by mail. If any issues arise with the audit process and a practitioner fails to meet the audit requirements, credentials subject to the audit will not be recertified. Once credentials expire, they can no longer be used because they are federally registered trademarks that are reserved for the use by those individuals who successfully complete the examination(s) and participate in the mandatory Continuing Competency Program. This means that any use of this credential designation, whether using it to sign a patient chart or medical document, applying for a state license as an individual holding the credential, or seeking employment as a therapist with the credential, violates the NBRC's Judicial and Ethics Policies and can result in disciplinary action by the Board.

Additionally, if the CRT and/or RRT credentials are not successfully recertified and remain expired, this may affect the status of a state license to practice or the term of a practitioner's employment. A directory of state licensure agencies can be found on the NBRC website, www.nbrc.org.

What if I still have questions?

Although the NBRC Continuing Competency Program was implemented for all credentials earned as of July 1, 2002, many practitioners still have questions regarding the compliance process. The NBRC website "Frequently Asked Questions" section has general information regarding this program, as well as an online brochure that outlines the policy. The process of properly maintaining your credential is a simple one, and entries can be made online throughout the five-year credential period as CEUs are earned.

The NBRC Board of Trustees and its committees are interested in your questions, comments, and concerns regarding the Continuing Competency Program compliance process. You may contact the NBRC at 18000 W. 105th St., Olathe, KS 66061-7543, email us at nbrc-info@nbrc.org, call us at (913) 895-4900, or visit us at www.nbrc.org. ■

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Ventilator with Intelligent Control System featuring FlexCycle™

Newport's Intelligent Control System adds more efficiency to everyday operation for greater patient-ventilator sychrony with these expanded features:

- ***FlexCycle***™ **- automated expiratory threshold management**
  FlexCycle is Newport's patented feature that actively manages cycling off timing, breath by breath, so you don't have to.
- **Automatic Leak Compensation**
- **Dual Control Adaptive Breath Management**

ics intelligent control system

See Us at AARC Booth 519

e360T – Compact, cost effective and so much more.

Visit AARC booth 519 in Tampa

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Newport MEDICAL

Breathing care into all we do.

The Respiratory Catalog

Official RC Week 2011 T-Shirt

ITEM AP0038
Nonmember Price $16.95
Member Price $11.95
Prices slightly higher for XX and XXX.
Member Savings $5.00!

Display pride in your profession when you wear this t-shirt. Gray short-sleeved T-shirt is 100% cotton preshrunk with ribbed neckline and double-stitched seams. Sizes Medium through XXX.

Celebrate Respiratory Care Week

OCT. 23-29, 2011

The American Association for Respiratory Care is your official headquarters for Respiratory Care Week.

Find inspiration for planning your celebration at www.AARC.org/rcweek. The site is loaded with brand new ideas, tips for planners, e-cards, easy-to-use resources, and more.

RESPIRATORY CARE WEEK IS OCTOBER 23-29, 2011.

Shop with the AARC for Official Respiratory Care Week posters, banners, t-shirts and more.

Official RC Week 2011 Banner

ITEM RC0035
Nonmember Price $17.00
Member Price $12.00
Member Savings $5.00!

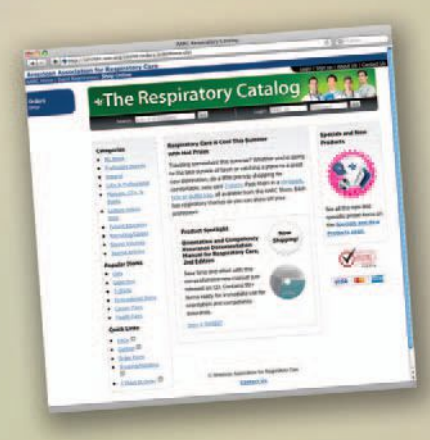
Use the official banner with all your events for Respiratory Care Week 2011. It is also a perfect complement to health fairs and community activities throughout the year since the RC Week reference can easily be cut off the bottom of the banner. Vinyl banner with metal grommets for securing in place. Dimensions are 14 inches x 4 feet.

The AARC Respiratory Catalog is your online store for RC Week products and more from the AARC.
www.AARC.org/store.cfm

Retractable Badgeholder

ITEM GT0067
Nonmember Price $3.25
Member Price $2.25
Member Savings $1.00!

Translucent green badgeholder displays a modern, colorful RT image. Clip-on back for secure attachment and a snap-style clasp to fasten your badge or security card. Extends up to 30" for quick and convenient access. Square 1¼".



Details on all these items and many more can be viewed online at www.AARC.org/store.cfm

Browse all the selections available for current promotional and educational products from the AARC. Order online with your credit card or shop online and order through customer service. For more information on ordering, see the next page or the website.

AARC MEMBERS
SAVE 30% OR MORE

The Respiratory Catalog

Official RC Week 2011 Poster

ITEM RC0034

Nonmember Price $10.75

Member Price $6.75

Member Savings $4.00

The official Respiratory Care Week poster is a colorful reminder of the importance of Respiratory Care Week in honoring respiratory therapists. Display the RC Week poster side during October - and reverse it for a 16-month calendar displaying dates for key events from September 2011 through December 2012. Poster measures 16" x 24".

Order online
with your Visa®, MasterCard® or American Express®

Shop online and then order by fax, mail or phone
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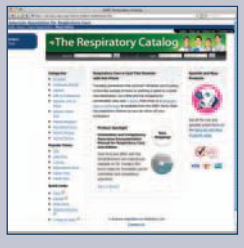

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*Hard copy or fax is required for purchase orders.

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$40.01 – $60	$9.00
$60.01 – $80	$10.00
$80.01 – $100	$11.00
Over $100	See website

- For shipments to AK, HI, PR and international locations, check the details online at www.AARC.org/store.cfm
- For shipments to Texas locations, add sales tax of 8.25% to purchase amount.

Be sure to include your AARC Member Number to receive the discounted prices!

RT Lapel Pin 2011

9th in the series

ITEM GT0066

Nonmember Price $6.75

Member Price $4.75

Member Savings $2.00!

The 2011 collectible lapel pin offers a beautiful, unique lung and RT design to represent your profession. The limited-edition pin is the 9th in the RT Lapel Pin Series. Sized at approximately 3/4". Hard enamel on gold metal. Standard military clutch back. Year 2011 is engraved on back.

Many other educational items are available.
Check the online store for more details.
Visit www.AARC.org/store.cfm

Lunch Cooler

ITEM GT0068

Nonmember Price $12.50

Member Price $8.50

Member Savings $4.00!

Lunch-size cooler in hunter green with black trim. Fully insulated, zippered front pocket, webbed pocket on the back, and adjustable shoulder strap (up to 32"). Microfiber with 1600D polyester. Size is 8-1/2" x 8" x 6".

Orientation and Competency Assurance Documentation Manual

ITEM SW0027

Nonmember Price $159.00

Member Price $119.00

Member Savings $40.00!

Contains the current information, tools, assessment forms and models that you need to document compliance in an easy-to-use digital format on CD. Includes guidelines and over 90 detailed competency documentation forms. It's truly an "off the shelf" system that you can begin using right away. Copyright 2011.

RESPIRATORY CARE WEEK IS OCTOBER 23-29, 2011.

Shop with the AARC for Official Respiratory Care Week posters, banners, t-shirts and more.

Cast Your Ballot for the 23rd Annual AARC Zenith Awards

The 2010 AARC Zenith Awards went to:

CareFusion — Anthony López

Covidien — David Giarracco and James E. Willett

How do you say "thank you" to your favorite industry team members... the companies who research and develop new products and enhancements to make life better for patients, who are just a phone call or email away when you need help, who stand behind their products — and their promises? One sure way is to vote for them to receive the AARC Zenith Award.

The AARC presents five Zenith awards annually to the top corporations in the respiratory care industry at our annual International Respiratory Convention & Exhibition. 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.

The AARC will present the 2011 Zenith Awards to executives representing the five winning companies when the Association convenes AARC Congress 2011 in Tampa, FL, on Saturday, Nov. 5. 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 22nd 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, Kimberly-Clark, 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 Sept. 19.

Draeger Medical — Sebastian Kaessner and Arno Wolters

Kimberly-Clark — David Rawlings

Masimo Corporation — Joe Kiani

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
- Accessibility and helpfulness of sales personnel
- Responsiveness
- 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 Sept. 19 to qualify as an official Zenith Award ballot. ■

Empowering clinicians with advanced modes to deliver care to their smallest patients.

The AVEA® ventilator offers Volume Guarantee to help ensure consistent tidal volume delivery, protecting patients when they need it most. Nasal IMV incorporates superior technology that enables patients to be weaned from invasive to noninvasive on one ventilator.

carefusion.com/avea

Visit AARC booth 1023 in Tampa

CareFusion

Cast Your Ballot for the
23rd Annual Zenith Awards

2011 Zenith Award Nominees

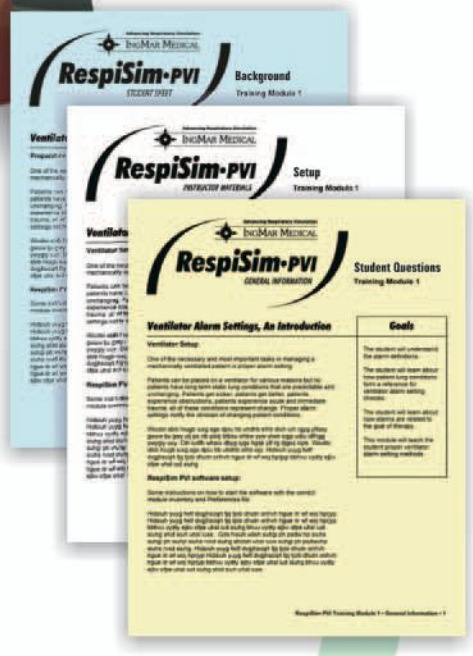
You may vote for up to 15 companies by circling your choices on the ballot card. Your response must be postmarked by Sept. 19 to qualify as an official Zenith Award ballot.

1. 3M Pharmaceuticals
2. A Plus Medical
3. Abbott Point of Care
4. AccuTest
5. Advanced Aeromedical Inc.
6. Advantage Medical Systems
7. Aerocrine Inc.
8. Aerogen
9. Afton Medical LLC
10. AG Industries
11. Air Lift Oxygen Carriers
12. Air Liquide Healthcare America Corp
13. Air Products
14. Airborne Life Support Systems
15. Airgas Puritan Medical
16. AirGuard Medical Products Co.
17. Airon Corporation
18. AirSep Corporation
19. Airsonett Inc.
20. Airtraq
21. Alconox Inc.
22. Alen Corporation
23. Alere
24. Alliance Tech Medical Inc.
25. Allied Healthcare Products Inc.
26. Altera A.S.
27. A-M Systems
28. Ambu Inc.
29. Ambu Sleepmate
30. Ambulatory Monitoring Inc.
31. American Innovative Research Corp.
32. Amvex
33. ARC Medical Inc.
34. Arlen Medical Education Products
35. Armstrong Medical Industries Inc
36. AstraZeneca Pharmaceuticals LP
37. Atlatean
38. Austin Air Systems
39. Automated Control Systems
40. Avalon Aire Inc.
41. Avery Biomedical Devices Inc.
42. Axcan Pharma Inc.
43. B&B Medical Technologies
44. B. F. Ascher & Co. Inc.
45. Baeta Corp.
46. Baxter
47. Bay Corporation
48. BC Decker Inc.
49. Beevers Mfg & Supply Inc.
50. Beijing Vanbonmed Co. Ltd.
51. Bemes Inc.
52. Beta Biomed Services Inc.
53. Biological Controls Inc.
54. Bio-Med Devices Inc.
55. Bio-Medical Devices International
56. Biosense Inc.
57. BirdSong Medical Devices Inc.
58. Birthways Inc
59. Boehringer Ingelheim Pharmaceuticals Inc.
60. Boehringer Laboratories Inc.
61. BOMImed
62. Boston Medical Products Inc.
63. Braebon Medical
64. Breas Medical Inc
65. Breathe E-Z Systems Inc.
66. Breathe Healthy
67. Bridge-Tech Medical Inc.
68. Bullard
69. Bunnell Incorporated
70. Business Management Systems
71. Cadwell Laboratories Inc.
72. Caire Inc.
73. Cann-Ease Co.
74. Cardiac Science
75. Cardionics Inc.
76. Cardiopulmonary Corp.
77. CareFore Medical
78. CareFusion (formerly VIASYS Healthcare and Cardinal Health)
79. CASMED
80. Cavagna North America Inc.
81. CEA Instruments Inc.
82. Cenorin
83. Ceodeux Inc.
84. CHAD Therapeutics
85. Clement Clarke International Ltd.
86. CleveMed
87. Clinical Guard
88. Clippard Instrument Laboratory Inc
89. CME America LLC
90. Compumedics Ltd.
91. ConMed Corporation
92. Cook Critical Care
93. CooperSurgical
94. Cornerstone Therapeutics
95. COSMED SRL
96. Covidien
97. Covidien (Massachusetts)
98. Cowman & Associates Inc.
99. CPR Medical Devices Inc.
100. Cramer Decker Medical
101. Creative BioTech Inc.
102. Creative Health Products
103. Criticare Systems Inc.
104. Dale Medical Products Inc.
105. Defibtech LLC
106. Delmar Learning
107. DeVilbiss Healthcare
108. Devon Medical Products
109. Dey L.P.
110. Discover Medical Devices
111. Discovery Laboratories Inc.
112. Dixtal Medical Inc.
113. DME Data Solutions
114. Draeger Medical Inc.
115. Dymedix Corporation
116. Dymedso
117. Dynamic MT
118. ECO Physics Inc.
119. Electromed Inc.
120. Embla
121. Emergent Respiratory Products Inc.
122. Engineered Medical Systems Inc.

2011 Zenith Award Nominees *continued*

123. EPER Ltd.
124. Epiphany Cardiography
125. Epocal Inc.
126. Equilibrated Bio Systems Inc
127. ErgoMed Inc.
128. Erie Medical
129. ETC - BioMedical Systems Group
130. Ethox International Inc.
131. eVent Medical
132. evo Medical Solutions
133. F. A. Davis Company
134. Faith Medical Inc.
135. Fisher & Paykel Healthcare Inc.
136. Flexicare Inc
137. Flight Medical Innovations
138. Flotec Inc.
139. Fluke Biomedical
140. Forest Pharmaceuticals Inc.
141. Freedom Medical
142. Freedom Vent Systems
143. Fukuda Denshi
144. Futuremed
145. FWF Medical Products
146. GaleMed Corporation
147. Ganesco Inc.
148. GCX Corporation
149. GE Analytical Instruments
150. GE Healthcare
151. Genentech Inc.
152. General Biomedical Service Inc.
153. General Physiotherapy Inc.
154. Genstar Technologies Co. Inc. (GENTEC)
155. GF Health Products Inc.
156. Glenn Medical Systems Inc.
157. Goldstar Medical Instruments
158. Grass Technologies, an Astro-Med Inc. Subsidiary
159. Great Lakes Orthodontics
160. Group Dekko
161. Hamilton Medical Inc.
162. Hans Rudolph inc.
163. Health Educator Publications Inc.
164. Healthline Medical Inc.
165. Heart Hugger Sternum Support Harness
166. Hill-Rom
167. Hi-Tech Medical
168. Hi-Tech Software Solutions
169. Hollister Incorporated
170. Hospira
171. Hsiner Co. Ltd.
172. Hydrate Inc.
173. Hy-Tape International
174. I Can Breathe! Inc.
175. I.V. League Medical
176. IDEM
177. Ikaria
178. Impact Instrumentation Inc.
179. ImThera Medical Inc.
180. Infasurf
181. Ingen Technologies Inc.
182. Ingenium Business Solutions
183. IngMar Medical Ltd.
184. INMABU
185. Innomed Technologies Inc.
186. Innovative Medical Marketing of Virginia
187. Inogen Inc.
188. Inova Labs LLC
189. Inspired Technologies
190. Instrumentation Industries Inc.
191. Instrumentation Laboratory
192. International Medical Inc. (IMI)
193. Intersurgical Inc
194. Invacare Corporation
195. Invivo
196. IPI Medical
197. IQ Valves
198. ITC
199. Jones & Bartlett Learning
200. Jones Medical Instrument Company
201. Kai Medical
202. Karger Medical and Scientific Publishers
203. Karl Storz Endoscopy America Inc.
204. KarmelSonix
205. Kentec Medical Inc.
206. Kimberly-Clark Health Care
207. Kinetic Concepts Inc. (KCI)
208. King Systems Corporation
209. Kobu LLC
210. Kol Bio-Medical Instruments Inc
211. Koo Americas Inc.
212. KPMD IT Solutions Ltd.
213. La Mont Medical Inc.
214. Laboratory Data Systems
215. Lamtic Inc.
216. Lazarus Medical LLC
217. LeMans Industries
218. LifeWatch
219. Lippincott Williams & Wilkins
220. LM Software
221. LMA North America Inc
222. Lotus Medical
223. Louroe Electronics
224. LouSal Enterprises Inc.
225. Luxfer Gas Cylinders
226. Mada Medical Products
227. MAQUET Inc
228. MarCal Medical Inc.
229. Maril Products Inc.
230. Marpac Inc.
231. Martab Medical
232. Masimo Corporation
233. Mavidon Medical Products
234. Maxair by BMDI
235. Maxlare
236. Maxtec
237. Medela Inc.
238. Medgraphics
239. Mediaid Inc.
240. Medica Corporation
241. Medical Acoustics LLC
242. Medical Graphics Corporation
243. Medical Instrumentation Repair Inc.
244. Medical Support Products Inc.
245. MediServe
246. Meditel Ingeniería Médica S.L.
247. Meditrack Products
248. Medline Industries Inc.
249. MedLox Group
250. Mercury Medical
251. MES Inc.
252. Methapharm Inc.
253. Michigan Instruments Inc.
254. Micro Direct Inc.
255. Midmark
256. Mindray Co. Ltd.
257. MIR Medical International Research
258. MMS Sales Corporation
259. Mobile Medical Maintenance Co.
260. Modern Medical Systems Co.
261. Monaghan Medical Corporation
262. Morgan Scientific Inc
263. Mosby/Saunders-Elsevier
264. Nasorcap Medical Inc.
265. Natus Medical Incorporated
266. ndd Medical Technologies Inc.
267. NeilMed Pharmaceuticals Inc.
268. NeoForce
269. Neotech Products Inc.
270. Nephron Pharmaceuticals Corporation
271. New Technology Publishing Inc.

FIRSTsystem
Fully Interactive Respiratory Simulation Technology



The RespiSim-PVI uses real ventilators with our ASL 5000 Breathing Simulator. Training modules guide the instructor through ventilator management scenarios.

RespiSim-PVI Option for the ASL 5000 Breathing Simulator

Ventilator Management Training Redefined

Ventilator management is a critical responsibility that demands sophisticated skills. According to the 46th Respiratory Care Journal Conference on Patient-Ventilator Interaction (PVI), patient ventilator asynchrony is extremely common and frequently unrecognized, with potentially serious adverse consequences for the patient. Optimizing PVI is challenging, and not necessarily made easier by the complexity of today's ventilators and the plethora of ventilation modes.

The RespiSim-PVI for the ASL 5000 Breathing Simulator is a new tool for interactive ventilator management training. With the RespiSim-PVI you can see both "patient" (ASL 5000) and ventilator data simultaneously, together with alarm events and instructor notes. The effects of adjusting ventilator settings and changes in patient condition become visible with an immediacy not previously possible. Entire training sessions, including waveforms and ventilator data, are recorded and can be played back for powerful debriefing.

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2011 Zenith Award Nominees *continued*

272. Newport Medical Instruments Inc.
273. Nidek Medical Products Inc.
274. Nightingale-Alan Medical Inc
275. Nihon Kohden America
276. Nonin Medical Inc.
277. Northern Pacific Medical LLC
278. Nouvag AG
279. Nova Biomedical
280. Novartis Pharmaceuticals Corporation
281. nSpire Health
282. NuMask Inc.
283. Ocean Optics Inc
284. Ocelco Inc. Patient Aid Equipment and Parts
285. Ohio Medical Corporation
286. Olympus Surgical & Industrial America Inc
287. Omega Medical Products Corp.
288. Omneotech
289. Omron Healthcare Inc.
290. OPTI Medical Systems Inc.
291. Oridion Medical Ltd.
292. Oxigraf Inc.
293. OxyCare GmbH
294. OxySure Systems Inc.
295. Pall Medical
296. PARI Respiratory Equipment Inc.
297. Parker Hannifin Corporation
298. Parker Medical
299. Passy-Muir Inc.
300. Patient Shield Concepts LLC
301. Pedipress Inc.
302. Pentair
303. Pepper Medical Inc
304. Percussionaire Corp.
305. Perma Pure LLC
306. Perry Baromedical Corporation
307. Pfizer Inc.
308. Pharmaxis
309. Philips
310. Philips Healthcare
311. Philips Respironics
312. Physio-Control Inc., a division of Medtronic Inc.
313. Porous Media Corporation
314. Posey Company
315. Praxair Healthcare Services
316. Precision Diagnostic Services Inc.
317. Precision Medical Inc.
318. Product Technologies Design LLC
319. Pro-Tech Services Inc.
320. Pulmodyne
321. Queset Medical
322. R1 Technologies
323. Rabbit Air
324. Radiometer America Inc.
325. RAM Scientific
326. Ren-Lor Medical
327. ResMed Corp
328. RespCare
329. Respiratory Delivery Systems
330. RespirTech
331. Respitech Medical Inc.
332. Responsive Respiratory Inc.
333. RMS Medical Products
334. RNA Medical, Division of Bionostics Inc.
335. Robbins Instruments Inc
336. Roche Diagnostics
337. Rochester Medical Inc.
338. RoMedLLC
339. Sage Products Inc.
340. Salmon Medical Innovations LLC
341. Salter Labs
342. Sceti K.K.
343. Schiller America Inc
344. SDI Diagnostics
345. Sechrist Industries Inc.
346. Sensidyne LP
347. SenTec AG
348. SeQual Technologies Inc.
349. Sibel S.A.
350. Siemens Healthcare Diagnostics
351. Silicon Microstructures
352. Simplicity Vacuums
353. Sleep Multimedia Inc.
354. Sleep Services of America Inc.
355. Sleepnet Corporation
356. SleepTech LLC
357. SLP Inc.
358. Smart Tap inc
359. Smiths Medical North America
360. Smooth-Bor Plastics
361. SomnarMed Inc.
362. SOMNOmedics America Inc.
363. Southmedic Inc
364. Spacelabs Healthcare
365. Specialized Medical Services
366. Spiracle Technology
367. Spiration Inc.
368. Spirometrics Medical Equipment Co.
369. SPO Medical Equipment Ltd.
370. Sporicidin by Contec Inc.
371. Stellate Systems
372. Sterling Respiratory Distributors
373. Strapparatus Corporation
374. Sunovion Pharmaceuticals Inc.
375. SunTech Medical
376. TaiDoc Technology Corporation
377. Talecris Biotherapeutics
378. Tarpaw LLC
379. TeleDiagnostic Systems
380. Teledyne Analytical Instruments
381. Teleflex Medical
382. Tenacore Holdings Inc.
383. Thayer Medical
384. The Lee Company
385. The Nagel Network Inc.
386. The Remi Group
387. The ScottCare Corporation
388. TheraSnore By Distar
389. Thermocable
390. Thoracic Medical Systems Inc.
391. Thought Technology
392. Transtracheal Systems
393. TRG Inc.
394. Tri-anim
395. TSI Incorporated
396. Ultra Pure Products
397. UltraScope Inc.
398. Unimed Medical Supplies Co. Ltd
399. United Hayek Medical
400. VacuMed
401. Vapotherm Inc.
402. Ventus Medical Inc.
403. Verathon Medical
404. VIA Medical
405. Vision-Sciences Inc.
406. Vital Signs, a GE Healthcare Company
407. Vital Technologies Inc.
408. VitaLine Inc.
409. Vitalograph Inc.
410. Vortran Medical Technology 1 Inc.
411. W.A. Baum Co. Inc.
412. W.T. Farley Inc.
413. Walgreens Health Services
414. Western Medica
415. Westmed Inc.
416. Wolfe Tory Medical Inc.
417. Wright Solutions LLC
418. Zoe Medical Inc.
419. Zoll Medical Corporation

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The View From Here

This One I Took Home with Me

by James C. Woods III, RRT

I have often wondered where they go, the things that we as health care workers see, hear, witness, and experience.

There I was again at her bedside, 8 a.m. sharp, for the beginning of day three of "every two-hour chest physiotherapy and cough-assist" on a five-month-old spinal muscle atrophy patient. They said she would die soon from her illness, and many were surprised she had lived this long.

The room was dark as I walked in. Mom, asleep on the small couch, didn't move. I turned on the light that was directly above the bed. It had a dimmer switch that I slowly increased until it looked like morning sunlight shining down on her. She was asleep, with her back to me. I didn't like to wake her, but it was what needed to be done. I uncovered and repositioned her from her left side to flat on her back. I spoke to her softly to let her know I was back. As I was straightening her clothes and getting ready to begin, she opened her eyes and looked right at me… and smiled.

This was new

What I usually got was a grimace and a frown. She held my astonished gaze with her big dark brown eyes and lifted her eyebrows and smiled an even bigger smile.

It was amazing… this simple act stopped me in my tracks. I smiled back. I stood there basking in the fact that this little being who had lived so little of life was looking at me with pure joy in her eyes. She was happy to see me. I leaned in close. She looked at my face from top to bottom and side to side. She made quiet sounds.

This, too, was new for me. In her weakened state, all she usually managed were grunts; but this morning she was trying to talk to me. She continued to smile, hold eye contact, and chatter. Mom remained asleep, and the two of us had our own special experience.

It is said that the eyes are the windows to your soul. This soul seemed so very happy. Just five months old, no idea that her future was limited, her smile more genuine than I had been greeted with in a while.

Throughout her morning therapies, this special connection remained. For once there were no interruptions, nothing else to distract. I completed all of her assigned treatments and lingered for a few minutes, enjoying her attention. I repositioned her so she could see out her door, thinking the visual stimulus would do her good. For one more second I looked at her and said "see ya," rubbed her head, and she smiled at me.

This was a great way to begin my day. I would see her again in two hours.

Where they go

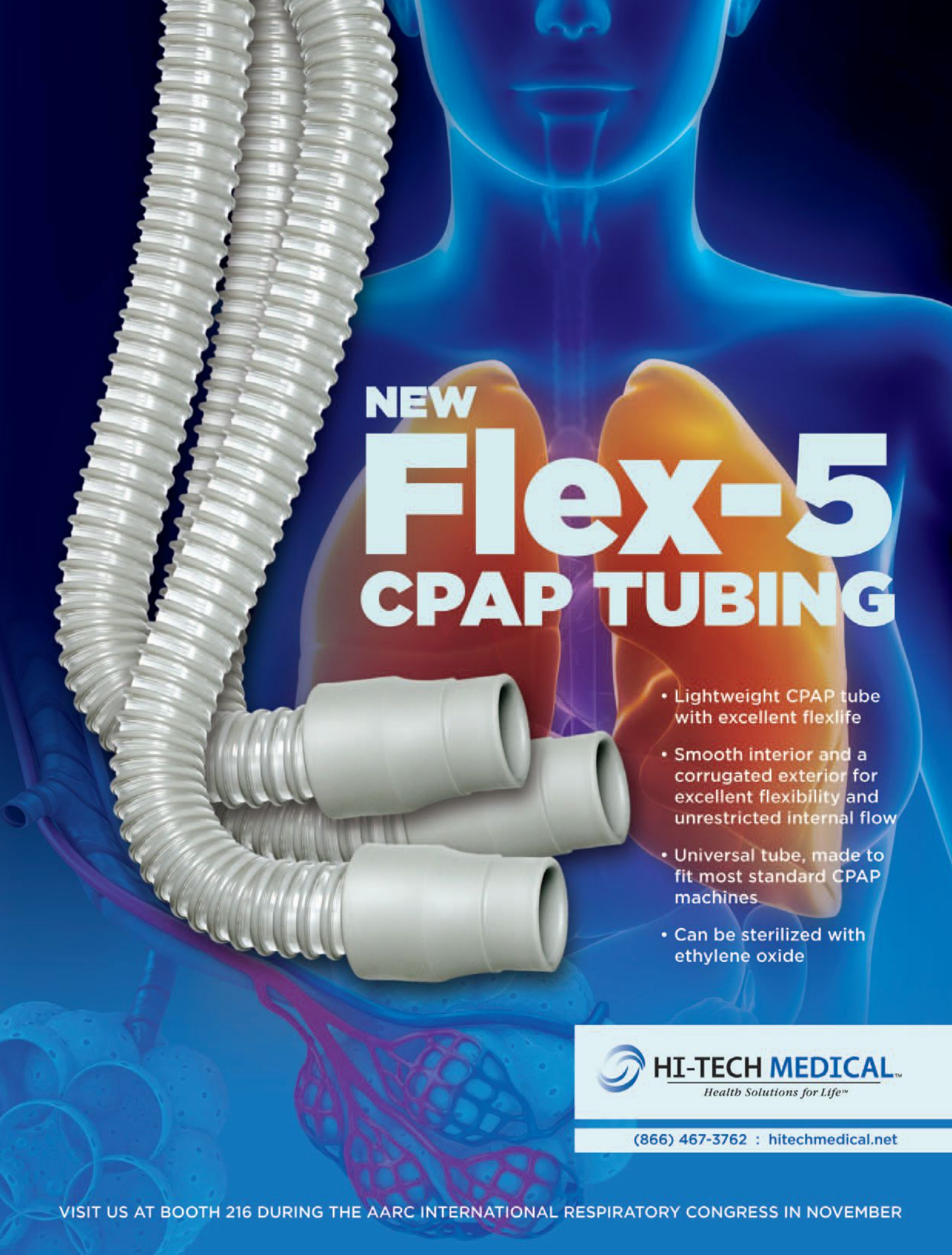
When I returned two hours later, the shades were open and the room was bright. She was still positioned on her right side. Mom was out for coffee I suppose. My patient was sleeping; and when I started to reposition her she frowned and looked at me, no more smiles, no more conversation, just increased work of breathing. For the rest of my day she remained as she was the day before: distant and fussy.

I went home that night, returning the next evening into our pediatric ICU. She passed away just a couple of hours later.

I have often wondered where they go, the things that we as health care workers see and hear, witness, and experience. This one I took home with me. ■

about the author…

James C. Woods III, RRT, is a respiratory therapist in the pulmonary unit and also vice chairperson of the Interdisciplinary Forum at Nationwide Children's Hospital in Columbus, OH.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Home Safe: Protecting Long-term Oxygen Therapy Patients from Smoking-related Oxygen Fires

by David Gourley, MHA, RRT, FAARC

Patient safety in the hospital setting is well documented, thanks in large part to the 1999 Institute of Medicine (IOM) report, "To Err Is Human." That landmark paper estimated that between 44,000 and 98,000 deaths occur every year in the United States due to medical errors — a figure akin to one commercial jet crash every day. The IOM report also noted that patient safety is based on system issues rather than individual issues. Organizational cultures and workplace factors — not people — are usually to blame.

Patient safety drivers in the home

Patient safety in the home environment has been less well studied, but several common themes have emerged.

Relationships and communication: Certainly there's a relationship that builds up between a home care practitioner and a patient and his/her family; and that relationship is key to getting the patient to trust us, believe us, and comply with instructions. Communication is also essential. Any time there's a sentinel event, or serious event or incident of any sort, communication is one of the root causes or contributing factors.

Uncontrolled setting: The hospital is obviously a very controlled environment. Patients come in a little intimidated and depend on us to tell them what to do. But when patients go home, they're on their own. They're very comfortable in their own homes, and home care providers who come to visit are only guests. That uncontrolled setting leads to risks. The autonomy and isolation can lead to lower levels of compliance with their care plan. Often they continue (or go back to) smoking, even though they were told this would be counterproductive to their therapy. Tobacco-dependence treatment needs to be reinforced.

Multidimensional limitations (physical, emotional, social, functional): Every patient we take care of has some physical and functional limitations that are going to lead to some patient safety issues. Many patients also face difficult emotional and social issues.

Decreased focus on prevention: When we take care of patients at home, we are focused on treatment. Often we don't identify potential safety risks.

Human resource/reimbursement challenges: When I first got into home medical equipment years ago, we sent therapists out monthly to visit nebulizer patients and take vital signs and breath sounds because reimbursement allowed it and companies used clinical services for a competitive edge with physicians. Therefore, a clinician was seeing that patient frequently. Today, reimbursement does not allow this type of service; and many services previously performed by respiratory therapists are being conducted by non-licensed technicians, or not at all. Reimbursement cuts have led to human resource allocation issues that affect patient safety in the home.

Maintenance of caregiver competency: When we set up equipment in the patient's home, the caregiver (whether it be the spouse or son or daughter of the patient, or a non-licensed or non-professional paid worker) has an integral role in making sure the patient uses the equipment properly. Over time, that caregiver's competency may

about the author...

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diminish. Sometimes it's just because they forget what they're supposed to do. When the caregiver is the spouse, sometimes it's because he or she also gets sick and can no longer adequately serve as the patient's caretaker.

Oxygen safety tops the list

Common safety risks for home respiratory patients include equipment failures, electrical safety, bathroom safety, falls, and infection control. Topping the list is oxygen safety, particularly smoking while wearing oxygen. Statistics show smoking with oxygen on is a major cause of home care fires in America, causing an estimated 200 fires yearly. Approximately one patient dies every single week as a result of smoking with their oxygen on, and more than 1,000 receive thermal burns.

After The Joint Commission released its Sentinel Event Alert on home oxygen fires in March of 2001, serious injuries or death from home oxygen fires reported to The Joint Commission initially decreased. However, since then, the numbers have grown. In 2005 eight incidents were reported to the accrediting agency, and in 2008 there were 13. It is important to note that these are only the events that were voluntarily reported; as indicated earlier, the actual number of fires resulting in injury or death is far greater.

An article published in the Nov. 11, 2010, issue of the *Sanford News* (out of Maine) illustrates the problem. Two men on oxygen were seriously injured in York County in two separate incidents on the same day. In one case a 62-year-old was sitting on his couch when his cigarette ignited his oxygen source. In the other, a 64-year-old reportedly lit a cigarette while in bed, destroying the two-family building in which he was living.

Another article in the Aug. 27, 2010, issue of the *Springfield News-Sun* (of Springfield, OH) reported on an apartment fire allegedly started by a 60-year-old woman who was smoking while wearing her oxygen — it was the second time firefighters had been called to her residence for a smoking-related oxygen fire. This time she had to be transported by helicopter to a hospital in Dayton, OH, for treatment of severe burns on her face and chest.

Certainly, smoking isn't the only risk factor for home oxygen fires, but statistics show smoking material is the heat source for oxygen-related burns nearly 75% of the time. So even though home care providers must be concerned with other open-flame issues in the home (e.g., fireplaces and stoves), smoking is by far the main risk factor.

When they're in the hospital, patients are under our control. But once they go home, it's a different story. For patients on home oxygen, the biggest risk is lighting up while wearing their oxygen.

Other Patient Safety Issues in the Home

Smoking with the oxygen on is a major patient safety risk in the home, but patients on home respiratory care face other risks as well. Here are some safety tips home care RTs can use to ensure patients are protected.

Oxygen safety

- Instruct your patients to store cylinders in well-ventilated areas and guard against free-standing cylinders.
- Instruct your patients to secure cylinders in vehicles, and don't transport them in the trunk of a car.
- Instruct your patients to avoid petroleum-based products when using oxygen.
- Instruct your patients to use extreme caution when transfilling liquid oxygen.
- Don't use liquid oxygen around open flames.
- Instruct your patients to store the portable unit in an upright position.

Equipment safety

- Be sure to provide battery backup, and back up equipment for all life-support equipment and ensure the patient/family has a self-inflating resuscitation bag and spare ventilator circuit to use in the event of an emergency.
- Make sure all equipment is in good working order to guard against medical complications that may result from inoperable equipment.
- Ensure patients/families have an adequate backup oxygen supply. A good rule of thumb is to take the response time you advertise to the patient and then provide oxygen backup supplies to cover three times that amount of time. In other words, if your response time is two hours, your patient should have at least six hours of oxygen backup in his home at all times.

Electrical safety

- Check out the home for damaged or frayed electrical cords, overloading outlets, extension cords, ungrounded outlets, and damaged faceplates and exposed wires.
- Make sure the patient is keeping all electrical devices away from water.

Bathroom safety

- Assess the patient for ambulation to the bathroom while using oxygen, and recommend the appropriate devices to allow easy access, such as a raised toilet seat, grab bars, and shower safety devices. ■

Taking action

Patients are at higher risk for home care fires if they live alone, don't have working smoke detectors, have a history of cognitive impairment, wear flammable clothing, or have a history of smoking while using oxygen. How can respiratory home care providers help minimize the chances of an oxygen-related home fire? Teach patients the essential elements for fire-risk prevention and perform risk assessments when going on home care visits:

- **Presence and functionality of smoke detectors:** Ensure these life-saving devices work and the patient/family knows when to change the batteries. Recommendations call for batteries to be replaced twice a year, when the time changes to and from daylight-saving time.
- **Presence and knowledge of fire extinguishers:** The home should be equipped with a working fire extinguisher, and the patient/family/caregivers should know how to operate it.
- **Fire safety plan:** The caregiver needs to know how to evacuate the patient out of the house in case of a fire, and the fire prevention plan should involve everyone living or working in the patient's home.
- **Reporting concerns:** If, as the RT coming to the home, you feel that the patient is at risk for an oxygen-related fire and you have reeducated on the risks and hazards of smoking with oxygen on and not had any success, report your concerns to the patient's physician.

> When they're in the hospital, patients are under our control. But once they go home, it's a different story. For patients on home oxygen, the biggest risk is lighting up while wearing their oxygen.

In particular, the Joint Commission's Patient Safety Goal 15 specifically addresses this issue, which calls for employees of the home care organization to:

- Conduct a home oxygen safety risk assessment to determine whether there are smoking materials in the home, if other fire-safety risks are present (e.g., open flames), and whether the home has functioning smoke detectors.
- Inform the patient of the findings of your assessment.
- Determine the patient's/caretaker's level of comprehension and compliance with your findings and recommendations.

This patient safety goal applies to both home medical equipment and clinical respiratory services.

This is a *high* priority

Keeping our home care patients safe is a top concern of all respiratory therapists working in the home care setting and should be addressed with urgency. Since smoking-related oxygen fires make up most of the home care patient and caretaker's risk, it is a high priority for home care providers to educate them about the dire effects of smoking while using their oxygen. ■

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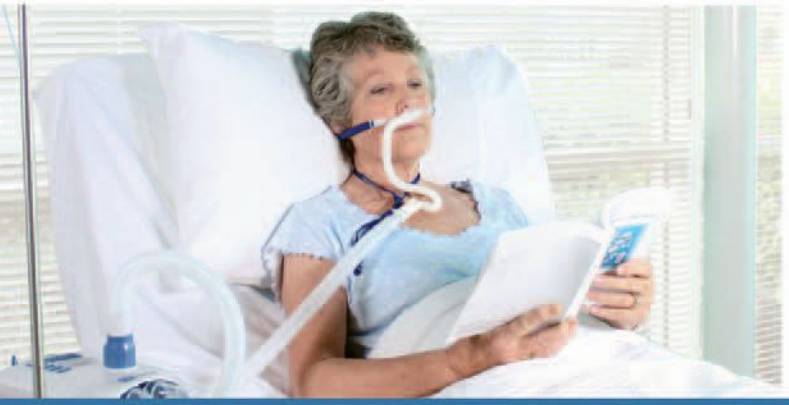

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Reduced COPD exacerbations and improved quality of life

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Fighting Flu: Protecting Vulnerable Populations

by Bill Pruitt, MBA, RRT, AE-C

Influenza cases flare up around the world as the flu season rolls through the population every year. History tells us that influenza has been around for at least 300 years, and descriptions of suspected influenza disease push this estimate back probably much longer. (It is possible that the Greeks wrote about the flu in 412 BC.) As the virus mutates, the population is at increased risk from the changed virus. Thus we find annual epidemics; and in cycles running every 10–50 years, we see a pandemic.[1] Some who get the flu will suffer from many symptoms but will not be totally incapacitated by the illness. Others will have a very hard time dealing with this disease and will have to be hospitalized. Patients with COPD or asthma have a higher risk for serious illness from flu due to having chronic illness with compromised pulmonary and immune systems. In the worst cases, people with the flu suffer from severe symptoms, including acute respiratory failure, and serious complications can occur. Some will have such a severe case of the flu that it causes their death.

Each year the World Health Organization and other national health organizations, including the Centers for Disease Control and Prevention (CDC) in Atlanta, GA, study the influenza outbreaks and publish recommendations and guidelines for dealing with the most current flu issues. Since the flu virus changes over time, the recommendations respond to the changes and try to forecast the best approach for the next season. This article will examine flu and discuss how to protect those who are most vulnerable.

about the author...

Bill Pruitt, MBA, RRT, AE-C, is a senior instructor and director of clinical education in cardiorespiratory sciences at the College of Allied Health Sciences, University of South Alabama in Mobile, and a PRN therapist at Springhill Medical Center and Mobile Infirmary Medical Center in Mobile, AL.

Transmission and diagnosis of flu

Flu virus is spread by droplet transmission, often generated by a cough or sneeze. People in close contact with an infected person are at risk of acquiring the disease by exposure to the airborne droplets or coming into contact with droplets on a contaminated surface. The incubation period ranges one-four days, and the virus is shed from *the day before* symptoms begin and continues to be shed through five to 10 days after the symptoms appear. Thus, a person who seems well but gets sick over the course of 24 hours can potentially infect many the day before symptoms appear.

Symptoms appear suddenly and include fever, pain, headache, malaise (extreme fatigue), a nonproductive cough, sore throat, and rhinitis. The illness can resolve after three to seven days in most people if the case is uncomplicated; however, the cough and malaise may be present for up to two weeks. Rapid influenza diagnostic tests (RIDTs) can quickly give diagnostic results — often within 15 minutes — from samples obtained by nasal swab, nasopharyngeal swab, bronchial wash, or endotracheal aspirate. Some RIDTs are approved for use in an office or at bedside and can distinguish between influenza A or B virus, but none are able to distinguish the influenza A subtypes such as H1N1, the strain that caused the 2009 pandemic.[2]

Flu can bring added complications like pneumonia, which results in a higher acuity level and increased risk of death. Moreover, the flu can make comorbid conditions worse, as seen in those people listed below, who get the flu. Both COPD and asthma patients are in the high-

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risk categories for getting the flu if infected. These patients often have a worse case of flu and their comorbid disease may exacerbate. The typical flu season begins around November in the United States with the number of cases climbing each month until a spike around February. Most seasons will have all 50 states reporting cases of flu by the high point of the illness. Following the spike in cases, March, April, and May reflect a tapering back of cases to a low level similar to November.[3]

Step 1 in prevention: Vaccination

Prevention is the first step in fighting flu. Vaccination offers protection from getting flu (although it is not a 100% guaranteed protection). Vaccination should take place in the fall (the CDC recommends September). Both the EPR-3 and the GOLD Guidelines recommend that patients with asthma and COPD be vaccinated to reduce their risk of infection. Both guidelines give this recommendation the highest strength for being evidence-based. Certain groups of people are considered to be especially vulnerable for getting the flu and should have priority for being vaccinated unless it is contraindicated. According to the CDC, these groups fall into five categories:[4,5]

> Two anti-viral drugs are available for treating flu: oseltamivir and zanamivir and can help prevent serious flu complications.

1. Pregnant women
2. Children under five years old, and especially those less than two years old
3. Adults who are 65 and older
4. American Indians and Alaskan natives (based on the 2010–2011 flu season)
5. People who have certain medical conditions including asthma, COPD, cystic fibrosis, heart disease, kidney or liver disorders, diabetes mellitus, neurological conditions, sickle cell disease, morbid obesity (body mass index ≥40), and those with a compromised immune system (including those with HIV/AIDS, cancer, or who are taking steroids on a chronic basis).

This is not a complete list of people vulnerable to the flu, so see the CDC website related to flu for more details.[4]

The CDC recommends that everyone six months and older receive the flu vaccine but adds that those in the high-risk categories listed above or anyone who lives with or takes care of people in these high-risk categories should receive a high priority to be vaccinated against the flu. Health care workers (HCWs) are in the high-risk category as caregivers. As such, they often have frequent exposure to patients with the virus, which increases their risk of infection. If infected, HCWs can shed the virus to many patients in a short time. In addition, HCWs suffering from the flu miss work, which impacts staffing and creates serious issues with coverage in health care facilities.

Certain people should avoid getting the vaccine or consult with a physician allergist or other health care provider before being vaccinated. This includes people who have severe allergy to chicken eggs (the process of vaccine preparation uses chicken eggs and may trigger an allergic response), those who have had a severe reaction to previous vaccination, those who developed Guillain-Barré syndrome within six weeks of receiving a previous vaccination, and children less than six months of age. People who are sick (described as moderate or severe) and have a fever should wait until their illness has resolved before getting vaccinated.[4,5]

Other steps in prevention

Beyond vaccination, the CDC gives strategies for preventing transmission of flu for specific areas, including health care and childcare settings, institutions, and peri- and post-partum areas. Overall, these strategies include the use of respiratory hygiene and cough etiquette, infection-control policies, and environmental and engineering infection control measures.[4] Since the virus is transmitted by droplet, people should practice respiratory hygiene and cough etiquette. Signs should be posted in public areas to encourage everyone to follow these recommendations. Actions include covering the mouth and nose when coughing or sneezing by using a tissue. Used tissues should be immediately placed into a wastebasket. In the care of infected patients, the CDC recommends standard precautions, plus droplet precautions and hand hygiene. Washing hands with soap and water is the preferred means. If soap and water are not available and hands are not visibly soiled, using an alcohol-based hand sanitizer with a minimum alcohol content of 60% is effective but does not eliminate all types of germs.[8]

Droplet precautions encourage anyone who is coughing to wear a mask to contain the respiratory droplets. Caregivers, family members, and visitors for those with flu should use personal protective equipment (PPE) such

as gloves, gowns, and mask while in the patient's room and properly dispose of the PPE when leaving. (Signs should also be posted to explain the details on using and disposing of PPE.) Patients with symptoms or known infection should be in a private room or area; or if waiting for care, they should be as far away as possible from others.

When performing aerosol-producing procedures on patients who are suspected or confirmed of having flu, the CDC recommends additional precautions. Such procedures include bronchoscopy, sputum induction, intubation and extubation, cardiopulmonary resuscitation, and open suctioning of the airways. The precautions include limiting the number of health care workers (HCWs) to be present in the area, using an isolation room that is equipped for handling airborne infections, considering use of a portable high-efficiency particulate air (HEPA) filtration unit, using an N95 filtering facepiece respirator, and preventing unprotected HCWs from entering a room where these procedures have been performed until sufficient time has passed to clear the room air of potentially infectious particles.[6]

Treatment

Two antiviral drugs are available for treating the flu: oseltamivir and zanamivir. These medications can reduce the duration of flu symptoms by one or two days and can also help prevent serious flu complications. Oseltamivir is approved for use in children one year of age or older. Zanamivir is approved for use in children seven or older but should not be used with people who have heart disease, obstructive lung disease such as asthma or COPD, or are unable to inhale the drug properly (it is administered by a dry-powder inhaler and may increase the risk of bronchospasm).

Other treatment options are supportive, such as giving medications to reduce fever and pain, supplemental oxygen for hypoxemia, nutritional and fluid support, and mechanical ventilation for patients in acute respiratory failure.

RTs on the front lines

We need to be aware of patients with COPD, asthma, and others in high-risk groups who may get the flu, and protect them from exposure. Flu is a difficult and serious infection in these groups; and despite our best efforts, some of those who get this infection will not survive. Flu has been with us for many years, and we are getting better at dealing with the problem; but the virus changes, and the experts all agree that we are probably going to have another serious pandemic in the near future.

Respiratory therapists, nurses, and physicians are in the front lines, providing professional care for those with flu, so we should continue to learn about the guidelines and strategies to provide the best evidence-based patient care. ■

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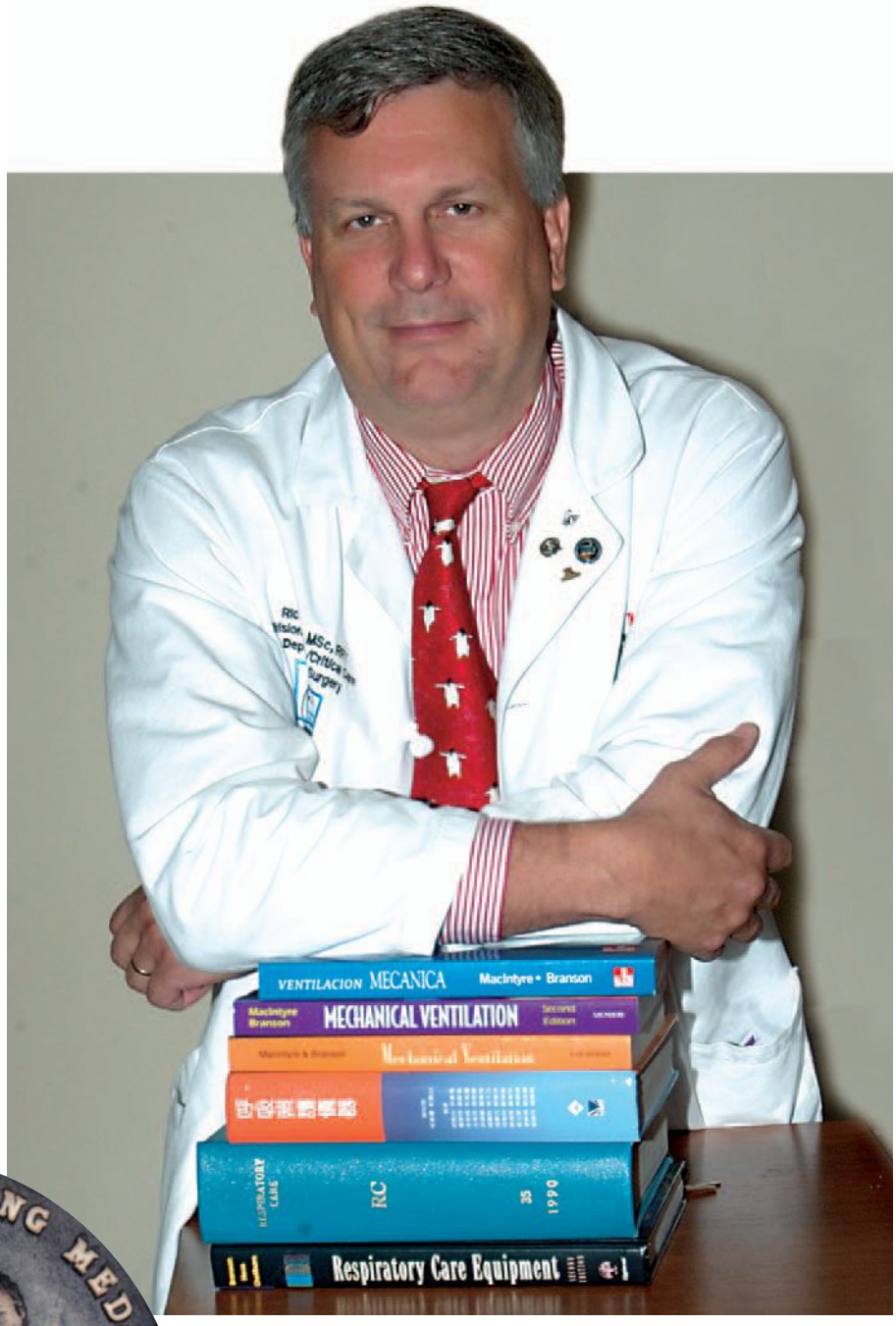
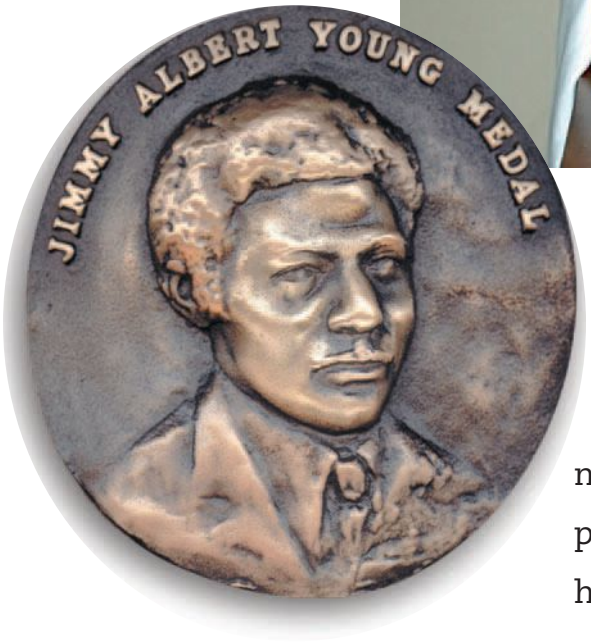
Respiratory Care Researcher Receives Association's Highest Honor

by Debbie Bunch





2011 Jimmy A. Young Medalist

This year's Jimmy A. Young Medalist may not have fulfilled childhood dreams of playing football or battling the enemy, but he has still tackled some of the toughest opponents around with his scientific investigations.

Few people can really say the world is better off because of something they did. Rich Branson can. Thanks to his contributions to mechanical ventilation of the wounded warrior and the care of respiratory failure in mass casualty incidents, we really are better prepared for anything that may come our way.

Back when Richard Branson, MSc, RRT, FAARC, was growing up in the South Carolina low country near the Marine base where his father was stationed, his primary passions were sports, the outdoors, and literature.

"My father taught me to be competitive in everything from checkers to football, and my mother taught me to love reading," says this year's recipient of the AARC's highest honor, the Jimmy A. Young Medal. "Vince Lombardi, 'Chesty' Puller*, and Rudyard Kipling were all held in regard at my house." When he wasn't catching passes or spending the day with his nose in a book, you could most likely find him throwing a cast net into tidal creeks in search of shrimp and bait, thinking about a future in the Marines and Vietnam — or on the college football field.

"Neither, it turns out, was anything but a dream," he says now. Vietnam ended before he became of draft age; and by late high school he was living in Ohio, where his mom worked as a nurse at Clermont County Hospital in Batavia. She helped him get a job as an orderly in the emergency department when he was 16, and his duties ran the gamut from cleaning wounds and emptying the trash to shaving the male patients scheduled for surgery.

He left high school at 17 and enrolled at the College of Mount St. Joseph in Cincinnati, but continued to work evenings and nights at the hospital, gathering the experiences that put him on the path to the scientific inquiry that would shape his career in respiratory care.

"During the off hours in a small hospital, there were always opportunities," says Branson. He learned to do a CBC by identifying white blood cells through the microscope and counting the varieties per high power field. He learned to process x-rays back when they were still on film. And when someone in the respiratory therapy department showed him how to disassemble and clean the PR-2s and other respiratory equipment, he got his first taste of respiratory care. "Understanding the equipment was what really got me interested in being a respiratory therapist," he says. "The decision was easy from there."

* "Chesty" Puller was the most decorated Marine in history and Branson's dad's colonel in Korea.

Every year the American Association for Respiratory Care 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.

Moving up the ranks

Branson enrolled in the Christ Hospital School of Respiratory Therapy, which was associated with the College of Mount St. Joseph; and by the time he was 19, he was working as a staff therapist in the neonatal ICU at Cincinnati Children's Medical Center, where the $4.11 per hour pay was more than double the $2 per hour he had been earning as an orderly. "Times were different, and there were not a lot of RRTs yet, so it was not unusual for the second-year respiratory therapy students to staff the neonatal ICU all three shifts Friday to Monday," he explains. The experience was a real eye opener for one so young. "Learning to communicate effectively and deal with the emotions of the parents and families was very difficult," he says now. "In fact, I am sure I made a number of missteps by allowing my desire to learn and do more blind me to the needs of others."

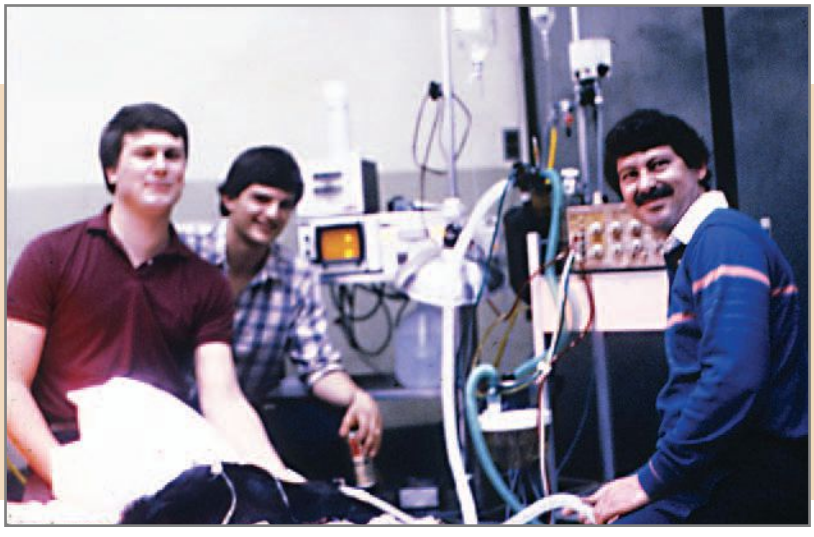
Any deficiencies in that regard, however, didn't keep him from moving up the ranks. By 1981 he was the night-shift supervisor at the General Hospital, working two shifts every other Friday. That gave him plenty of free time during the week, which he spent partly taking care of his young children while his wife Patty worked days as an RT at Children's, and partly taking classes at the University of Cincinnati (UC) to further his education. He went on to earn his bachelor's degree from the College of Mount St. Joseph in 2000 and a master's degree from George Washington University in Washington, DC, in 2003.

Driven by necessity

Branson traces his interest in respiratory research back to his days as an orderly, when scientific curiosity led him to get the nurses to put a nasal catheter into the back of his oropharynx and connect it to an old paramagnetic oxygen analyzer. "I put on different oxygen appliances — cannula, mask, etc. — and measured the FIO_2 while keeping a constant respiratory rate by using a metronome," he says. The results did little more than highlight his lack of knowledge about the devices he was studying. "What I really learned is that I didn't know much," Branson admits.

That all began to change for the better in 1984, thanks to a job offer from Jim Hurst, MD, chief of trauma at the University of Cincinnati Medical Center, who asked Branson to serve as his research assistant. "I am forever grateful for that chance," says the therapist. He started out collecting data for other investigators and learning basic research concepts, then worked in the animal lab before eventually starting a small lab of his own to study equipment.

"I learned through trial and lots of error how and how not to do research," says Branson, emphasizing that most of his early work was undertaken not because he had a grand idea for a study but because of something he was exposed to on the job. For example, some of his first studies resulted from the fact that the department of surgery, which was well known for nutritional support, received a metabolic cart as a gift. "I think the device showed up and



Rich Branson (left) in Lexington, KY, where he helped put newborn foals with botulism poisoning on the VDR ventilator. "I suspect this is something I have done that not many others have had the opportunity to do," notes this year's Jimmy A. Young Medalist.

one of the fellows opened the side door, saw O_2 and CO_2 analyzers and a flow transducer, and said, 'somebody call Rich — he can figure it out.' That turned into several years of studying the device, how to interface with the ventilators, and how to utilize the results."

His well-known work on heat and moisture exchangers also derived from the pressing needs of others. "The introduction of heat and moisture exchangers to replace heated humidification resulted in so much controversy — therapists could not believe that such a device could replace one which included water and electricity — that investigation in the operation and use seemed absolutely necessary."

CCATT born here

Branson's reputation among the physicians, residents, and fellows began to grow, and he was soon teaching them about respiratory care. "I distinctly remember my first interaction with Rich Branson," says Jay Johannigman, MD, who is now chief of the division of trauma and critical care at UC. "It was back in my second year as a surgical resident at the University of Cincinnati Medical Center." They were both working under Dr. Hurst at the time, who was extremely interested in novel ventilatory therapies, including the use of the Bird VDR® for salvage therapy of critically ill ventilated patients. "Rich, from the moment I met him, began to teach me; and I am fortunate to say that I continue to this day to be the welcome recipient of his expertise."

"I have spent 25 years looking at portable ventilators as part of my association with the military," says Branson. "This was an area few others were working in, and our work defining requirements and evaluating battery life, gas consumption, and ventilator performance in these ventilators is, in my opinion, our greatest contribution."

Dr. Hurst drew both Branson and Dr. Johannigman into his work, taking them along during ambulance rides to outside hospitals to bring critically ill patients back to the medical center for treatment. "Rich and I would spend many occasions in the back of the ambulances and other transport vehicles, moving patients on ventilatory care from one location to another," recalls the physician.

Those experiences served Dr. Johannigman well during his subsequent years in the U.S. Air Force (USAF), where he took the lessons they had learned at the medical center and applied them to a process that eventually became the USAF's Critical Care Air Transport Team (CCATT). "Our transport team consisting of an ICU physician, an intensive care nurse, and a respiratory therapist was modeled after my experience with Rich Branson and Jim Hurst," says Dr. Johannigman. "The skill and expertise of a respiratory therapist is fundamental to the success of the Air Force's critical care aeromedical transport team, and literally thousands of lives have been saved as a result of the examples and innovations pioneered by Rich Branson."

A 25-year mission

By 1989, Branson was a full-fledged researcher at UC and also received a faculty appointment to teach residents and fellows. He has since been promoted to professor in the department of surgery and has appointments in both the College of Pharmacy and the USAF School of Aerospace Medicine. His primary research interests have focused on mechanical ventilation and, in particular, ventilation in military and/or disaster situations. Along with his studies on home medical equipment (HME) devices, he cites his work on mass casualty ventilation and mechanical ventilation in care of the wounded warrior as his most important contributions to the scientific record.

"I have spent 25 years looking at portable ventilators as part of my association with the military," says Branson. "This was an area few others were working in, and our work defining requirements and evaluating battery life, gas consumption, and ventilator performance in these ventilators is, in my opinion, our greatest contribution."

The therapist emphasizes that the great strides made in this area have definitely been a collaborative effort, and he is quick to give credit to his many colleagues, including Dr. Johannigman; Bob Campbell, RRT; Paul Austin, PhD; Chief MSgt. Dario Rodriquez, BS, RRT, RPFT; and Chris Blakeman, RRT. "The work Chief MSgt. Rodriquez and others did on performance of ventilators at altitude is unique," says Branson. "And Chris Blakeman's recent paper on the use of portable ventilators in hazardous environments has led to understandings of patient protection during mechanical ventilation that were not previously appreciated."

Searching for a simple approach to mass respiratory failure

Another colleague who has figured markedly into his work in mass casualty care is Lewis Rubinson, MD, PhD, FCCP, a commander in the U.S. Public Health Service, deputy chief medical officer for the National Disaster Medical System, and internal medicine physician who practices at Maryland Shock Trauma. "Rich and I started working together around 2003 or 2004," says the physi-

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cian. "We have been partners in crime at trying to use sound physiologic understanding to inform smart but simple approaches to mass respiratory failure."

Branson says his interest in mass casualty care was spurred by his observation that many groups were making bad choices on mass casualty ventilation simply because they lacked information. "I have tried to assist in the development of guidelines that I hope never have to be tested." He's most proud of the role he played in the AARC's National Ventilator Survey, an initiative conducted on behalf of the Department of Health and Human Services and spearheaded by Dr. Rubinson, who Branson says deserves "the lion's share of credit for this project."[1]

"The work provided data not previously available, helping the federal government triage priorities," says the therapist. The survey also put the AARC in a positive light, demonstrating the Association's ability to make things happen.

Dr. Rubinson says he and Branson have collaborated on numerous efforts in this area, including the mass ventilation programs and projects supported by the AARC, and have co-authored several manuscripts and lectured together at a number of conferences. "Rich has been able to ask the key questions and to rationally use respiratory bench, in vivo, and human studies to rigorously answer those questions," he says. "I have learned more from Rich than just about anyone else who mechanically ventilates patients. I owe him dearly and feel very lucky to work with him."

Long association with the Journal

Rich Branson joined the AARC in 1977 as a student member and attended his first AARC Congress in Phoenix, AZ, in 1984. That marked the beginning of a career-long relationship that's put him in the middle of some of the AARC's most significant achievements. In addition to the essential role he played in the Association's National Ventilator Survey and mass casualty ventilator guidelines, he cites his long association with Respiratory Care, where he now serves as deputy editor.

"I am very proud of the success of Respiratory Care," he says. "For years, it seemed like a dozen or so of us propped up the Journal in our quest to achieve greater things. Now, the quality and volume of manuscripts are amazing. I am glad to have been a part of the board under Phil Kittredge, RRT; Pat Brougher, RRT, FAARC; David Pierson, MD, FAARC; and now Dean Hess, PhD, RRT, FAARC."

"I first met Rich about 1985," says Dr. Hess. "He was working on a book and asked me to contribute. As it turns out, I ended up as a co-editor." The two have collaborated on many projects since then and have served as faculty on numerous Respiratory Care Journal Conferences. "When I became editor-in-chief, I appointed him my deputy editor. He is now an integral member of the Journal's leadership team, and I value very much his contribution."

Fellow editorial board member Robert Chatburn, MHHS, RRT-NPS, FAARC, remembers meeting Branson for the first time at a board meeting back in the 1980s and says they became fast friends over their interest in studying mechanical ventilation. After co-authoring a book and several articles over the years, he says he's developed nothing but the highest respect for his colleague.

"Rich has made great contributions to the science of device evaluations, particularly in the area of mechanical ventilation and humidity… he is arguably the most skilled and experienced researcher in our profession," says Chatburn. "But perhaps his most significant contribution is the people he has mentored. They will carry on the tradition of excellence that we depend on for our continued existence as an academically oriented health care profession."

The whole world says "thanks"

When Rich Branson steps onto the stage to accept the Jimmy A. Young Medal in Tampa, FL, on Nov. 5, he says he'll be most happy to accept the award on behalf of his wife, Patty, and four kids, Carolynn, Chris, Lauren, and Rich. "They make my life what it is and have supported and loved me in spite of myself." But he'll also be honoring the role he believes the AARC has played in his accomplishments. "The AARC has been instrumental in my success. I have been assigned to task forces with other societies where I have met with leaders in critical care. The invitations to speak at meetings elevated my status and helped me gain credibility. I could not have been half as successful without the support of the AARC."

For its part, the AARC will be pleased to return the compliment. Without Rich Branson's groundbreaking work in so many areas — from his early studies on HME devices to guidelines on mass casualty care and mechanical ventilation for wounded warriors — the profession (and we think it is safe to say the entire world) would not be where it is today in terms of ensuring high-quality treatment for people in need of respiratory care. ■

REFERENCE

1. Bunch D. National ventilator survey: counting ventilators. AARC Times 2010; 34(3):44-48.

Your "Patient" Is Waiting in Room 1

Simulation centers offer state-of-the-art training experiences for RTs

by Debbie Bunch

You know what they say about "practice makes perfect." But when it comes to health care, practicing new skills on real, live patients is problematic. These days, educational institutions and health care facilities alike are turning to medical simulation to get the job done. If the four simulation centers you'll read more about here are any indication, this new way of teaching not only accomplishes the goal but also greatly improves on the old-fashioned method that came before it.

Students Ask for More

NAME: Collin College Simulation Lab

PLACE: Collin College

LOCATION: Plano, TX

INVENTORY: METI Human Patient Simulator, METI-Man, METI pediatric, METI infant, Gaumard Noelle birthing manikin with babies, Laerdal SimMan, ALS manikin

Collin College first embarked on the wonderful world of medical simulation back in 2007, setting up a simulation lab to accommodate a wide variety of health care students, says AARC member Abe Johnson, ThM, RRT, dean of academic affairs for Health & Emergency Services. For the respiratory therapy program, involvement was spurred by the growing amount of critical thinking RTs were being required to do every day on the job. "I wanted Collin students to be prepared for that while they were still in school."

The respiratory therapy program played a vital role in getting the program to be more multidisciplinary and has grown with it over the past four years. "Respiratory therapy is a member of the simulation task force and actively involved in needs assessment," says Johnson. "Our simulation schedule has increased exponentially, and the students always ask for more experience." Along with simulation department director Jackie Langford, BFA, FF, LP, he also had the opportunity to contribute to METI's respiratory care module of prepared scenarios; and he and Langford have presented a "Mechanical Ventilation in ARDS" scenario at a national simulation conference.

Just like the hospital

Today the school boasts a nine-bed simulation unit that's set up much like a unit students would see in the average hospital. Training includes both single discipline exercises and multidisciplinary sessions mimicking EMS/paramedic, transport, RT, RN, and operating room with surgical technology scenarios. "Students are given a scenario and report at the beginning," explains Johnson. "Then they are expected to manage the patient based on varying clinical and physiological conditions." Actors from the Collin drama department portray family members; and if one of the medical directors is not

available, a faculty member plays the part of the physician. "Students can call and check for lab results or radiology results from the patient's room. The manikin is prepped with moulage to suit the scenario."

The whole idea, explains the educator, is for students to sink or swim in a safe environment, so the scenarios are allowed to unfold without instructor interference. "The entire simulation is recorded, and then the students are debriefed in the debriefing room where they can analyze themselves as to how they did as they watch it on a high-resolution monitor," he says. "Instructors use the debriefing time to correct, teach, and encourage the students." Faculty members ensure effectiveness with a feedback evaluation tool that provides them with the input they need to constantly improve on the simulation experience.

Open lab simulation days and simulation on demand give students a chance to hone their skills beyond the scheduled class time, and several times a year the program hosts "Code Fridays" that allow students to participate in BLS and ACLS simulation training. Next up for the program: a fully functioning electronic medical record (EMR) that will require students to chart using the EMR.

Higher scores tell the story

Johnson says simulation training has improved his students' critical thinking abilities — as evidenced by higher scores on the NBRC's clinical simulation exam — and he's also seen an improvement in prehospital clinic readiness, noting comments to that effect heard during Advisory Committee meetings. He even believes medical simulation could one day reduce the need for clinical training for health care students, including those studying respiratory therapy.

"With diminishing clinical sites, eventually CoARC should look into substituting high-fidelity medical simulation for some clinical experience," says the educator. "Sufficient research has been done in this area in nursing and medical school education, and data seems to support increased use of simulation in educational programs." ■

A Collaborative Effort

NAME: Boise State Simulation Center

PLACE: Boise State University

LOCATION: Boise, ID

INVENTORY: The Gaumard mannequins HAL, Noelle, Susie, Pediatric HAL, and Newborn HAL

The RC program at Boise State first tried medical simulations back in 2005, although RC professor Lutana Haan, MHS, RRT, RPSGT, says their initial experience was anything but cutting edge. "I was teaching in a 100-level interdisciplinary patient care skills course that involved the nursing, radiology, and respiratory care departments," recalls the educator. "The college received a grant to get the Laerdal 'Vital Sim' mannequin out of the box, write some simulations, and retrofit an existing lab. At the time, I thought it would be a fun way to help the students without bedside experience to incorporate newly learned skills."

Simulation training got a big boost in 2010 when the School of Nursing opened a new building with a state-of-the-art, six-room simulation center equipped with the latest high-fidelity mannequins. Haan explains the center is a collaborative effort between three disciplines — nursing, respiratory care, and radiology — with each taking part in demonstrations from different mannequin companies to assess the equipment. While respiratory therapists advocated for a mannequin that had more capabilities, such as altering airway resistance and lung compliance, budgetary concerns led to the purchase of the Gaumard family of simulators. Haan says they still allow for a good variety of respiratory simulations.

In the driver's seat

Faculty members attempt to make the training sessions seem as real as possible for the students. "The students wear their scrubs, and they are expected to treat the patients and scenarios with thoughtful consideration," says Haan. Faculty are up front about equipment limitations, but they do not let students use that as an excuse for poor performance.

A big benefit is the fact that the simulations put students in the driver's seat when it comes to making decisions — unlike traditional clinicals, no therapists are on hand to guide them through the delivery of care. "For example," says Haan, "students are faced with a patient presenting with shortness of breath and a doctor's order that reads 'oxygen therapy per protocol.' Our teaching scenarios offer protocols outlined by the AARC Clinical Practice Guidelines, and the students must select a proper oxygen delivery device for the situation." During the simulations, students get to perform more as autonomous therapists than as students. The instructor believes that practice will definitely pay off for them as they begin their careers. She also touts simulation's ability to teach skills that may or may not be encountered during the students' clinical rotations, giving them a safe place to make mistakes. "For instance, the simulation that tends to impact our students most is when they need to set up a T-piece trach mist and then suction an intubated patient," says Haan. "Likewise, we have designed a simulation involving a COPD exacerbation that goes from applying oxygen to giving a neb to determining the need for NPPV." In traditional clinical training, these types of situations may be hit or miss, leaving many students without any hands-on experience.

Worth it

Simulations are video recorded to allow the students to witness their own performance. "Most students get nervous about being on video and having their peers watch," continues the AARC member. "However, we try to reinforce that it is normal to feel some stress in any critical, clinical situation, and we all need to learn to make objective decisions in health care, even when we are nervous or stressed." The true value comes in the debriefing that occurs after the scenario draws to a close. "Immediately after the simulation, we talk as a group about what went well, what did not go well, and what can be done differently next time. If needed, the group returns to the patient room and demonstrates proper techniques to let them all physically review procedures," she explains.

Haan admits medical simulation is costly, and Boise State is hoping to mitigate those costs by partnering with hospitals in the community to facilitate training experiences for their staff. But despite the expense, she believes it's here to stay. "Overall, simulation will continue to play a role in respiratory care to help improve our skills as therapists both individually and as team members within our hospitals." ■

"Practicing on Plastic"

NAME: Johns Hopkins Medicine Simulation Center

PLACE: Johns Hopkins University/Johns Hopkins Hospital

LOCATION: Baltimore, MD

INVENTORY: Partial task trainers such as intubation heads, arterial blood gas wrists, IV arms, central line models; Laerdal and Gaumard mannequins; computer-assisted simulation; virtual reality simulators, including those for bronchoscopy and vascular access

As the simulation educator at the Johns Hopkins Medicine Simulation Center, Julianne S. Perretta, MSEd, RRT-NPS, works with faculty in the school of medicine, hospital educators, and other content experts helping them refine their simulation curriculums, build their educational objectives, and choose a simulator that will lead to their desired outcomes. "The majority of my users provide simulation for health care professionals, so it is used for competency assessment as well as training for new equipment, procedures, protocols, etc.," says the AARC member.

Respiratory therapists are often involved in these "practice on plastic" training exercises and learn side-by-side with other team members during both residency and interdisciplinary team training activities. The RC department played a key role in getting the center off the ground and continues to provide advice on new equipment purchases. "The respiratory department was involved during the planning stages of the physical simulation space and began simulations with their staff in February 2009," says Perretta. "Any time we consider purchasing new simulation equipment, we ask our users to give us feedback on how the new equipment will help them better meet their educational objectives."

Patient feedback included

Perretta says one of the most useful aspects of simulation training is the fact that it removes the time constraint seen with training that takes place during clinical care. That makes it easier to cover all the bases, including those involving the psychosocial aspects of care. She recalls her own first experience drawing an arterial blood gas as an example. "In the classroom I had gone through the techniques of reviewing my order, checking my patient's

Want to be part of the medical simulation discussion? Then join our Simulation Roundtable on AARConnect. It's a great way to learn more about what's going on in this exciting new area of respiratory care — and membership is free to all AARC members.

PT/PTT, and gathering the necessary equipment. Then I practiced the psychomotor steps on an arterial arm," she says. But when confronted with her first live patient — a young man who was both conscious at the time and anxious about the procedure — she was unprepared to describe the procedure to him and ended up becoming so flustered that she stuck him without proper warning, causing him to scream and take a swing at her.

Perretta notes, "Simulation can incorporate patient feedback and discussion, and prevent other ABG novices from having the same experience. I can now include a patient monitor, a standardized patient, and an ABG wrist together in one simulation and recreate the experience I had for students." That gives them the chance to practice their communication skills along with their new hands-on skills, ultimately making it easier for them to deal with patients who are anxious during the procedure or situations where they are not successful with the draw the first time around.

Breaking out of silos

Perretta stresses that simulation training not only augments initial education in a skill, it helps to guide future training sessions based on trends in simulation outcomes. "Adults learn by doing, and it is responsible patient care to allow respiratory students and clinicians a place separate from patient care to have an experience and reflect on it without putting patients at risk."

It also provides a great way for teams to practice techniques and procedures and discuss changes in decision making and/or team dynamics that could improve patient care. "Rather than providers learning in silos — RTs with RTs, RNs with RNs, physicians with other physicians — health care workers care for simulated patients the same way they care for real patients: in interdisciplinary teams." ■

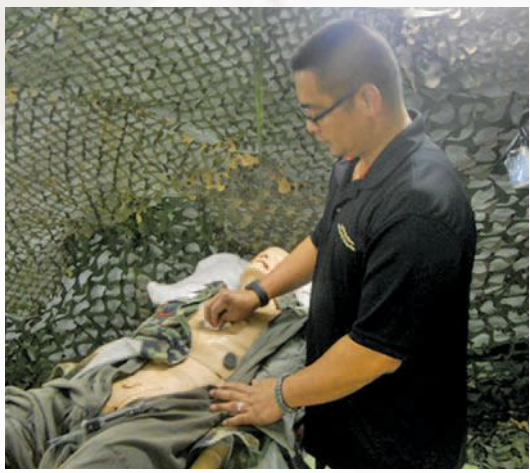
War Games

NAME: Medical Readiness Training Center

PLACE: U.S. Air Force

LOCATION: 882nd Training Support Squadron, Camp Bullis, TX

INVENTORY: Trauma FX AirwayPlus Upper Torso Trainers, Trauma FX Multiple Amputation Trauma Trainer (a ruggedized, tetherless, remote-controlled medical training manikin that delivers high-fidelity simulations of lower body blast injuries commonly caused by IEDs and other sources), METI iStans Simulators, METIman PreHospital Simulators, METIman Nursing Simulators, SimMan 3G



When AARC member Scott "Woody" Woodcox, MPH, BSRC, RRT, enlisted in the Air Force back in the mid-1980s, he fully intended to train as a medic and serve in the emergency room as an EMT. But working with respiratory therapists quickly changed that career path, and he cross-trained into the cardiopulmonary laboratory field as soon as he had the chance. During his final assignment before retirement in 2008, he served as an instructor for the Air Force's Critical Care Air Transport Team (CCATT) course at the USAF School of Aerospace Medicine at Brooks City-Base in Texas, which uses medical simulation to train the medical teams on the intricacies of in-flight patient care.

That experience helped Woodcox move into medical simulation training offered to Air Force medical personnel through ICF International, a global firm that partners with government and commercial clients to deliver professional services and technology solutions to multiple markets, including health, homeland security, and defense. Today he's a key member of the staff at the Air Force Medical Readiness Training Center, a new facility that includes six classrooms, four dormitories, three multipurpose buildings, a dining facility, a 10,000-square-foot warehouse, and 10 training pads. It also includes five air frames that have been moved to the site to infuse realism into aeromedical evacuation training.

The medical simulation staff at the USAF Medical Readiness Training Center includes (from left) Tyrone Scott, Luis Velasquez, Ray Machacon, and Jerry Gomez. Scott "Woody" Woodcox is kneeling in front.

"While in a critical care environment, under orders of a physician, Air Force RTs administer respiratory care, such as oxygen and aerosol therapy, mechanical ventilator management, and respiratory medications," explains Woodcox. "The RTs also assist with intubation and extubation procedures, perform endotracheal tube care, maintain the patient's airway, assess patient and equipment functionality, change equipment, and perform cardiopulmonary resuscitation. Without medical simulators, this training would be extremely difficult."

Combat-related care

Using many of the same sophisticated simulators seen in the civilian world, plus some customized equipment designed especially to teach medical personnel to handle injuries resulting from IEDs (improvised explosive devices) and other explosive devices encountered in the field, Woodcox and his colleagues help prepare RTs and other medical personnel for the reality of combat-related health care. The training center supports two five-day courses to deliver this training: the Aeromedical Evacuation Contingency Operations Training program takes place under field conditions and provides scenario-based training that demonstrates a broad spectrum of casualty movement, highlighting the role and responsibilities of the Theater Aeromedical Evacuation System support units and supporting elements.

The Expeditionary Medical Support (EMEDS) program is a train-the-trainer course that combines a didactic lecture series with hands-on exercises. Officers and enlisted instructors from a variety of medical specialties take part in team-based training to learn how to deliver, set up, operate, pack out, and tear down an EMEDS contingency hospital. "The medical staff and RTs use simulation as a powerful tool to allow students to test and hone their abilities in scenarios ranging from routine documentation to medical emergencies," says Woodcox. "Medical simulation at our site improves the enactment, observation, and debriefing of a medical event used specifically to educate and improve a health care provider's ability to handle critical situations, including Air Force operations."

Now he and his colleagues are getting ready to incorporate some new equipment into these sessions, including a Wide Area Virtual Environment (WAVE), a system that uses three vertical screens to immerse users in a 3-D environment. Essentially, participants stand in an enclosed space, wearing lightweight polarized glasses to view a scene in stereo.

"To handle very complex scenes at interactive frame rates, we adopt a scalable hardware configuration," explains Woodcox. "Each projector is driven by a PC with hardware-accelerated graphics boards. Additional improvements in display resolution and rendering capability can be obtained by tiling the display to increase the number of rendering computers used." By placing simulators in different environments via the WAVE system, he says the center will be able to complement its critical care training scenarios.

The next best thing

Woodcox knows simulation training exercises will never be able to match the situations military health care professionals will find once their boots are on the ground, but like the "war games" long held to prepare soldiers for battle, he feels they are the next best thing.

"Although no simulation technology can fully recreate the experiences of the battlefield at this time, the ability to train in a close-to-reality field environment with the actual equipment they will use when they deploy is vital to our customers," says the AARC member. "Given the speed at which technology and medicine are changing today, we should never forget that our military members are our greatest asset; and by developing and implementing advanced, creative learning at Camp Bullis, we are able to build a solid and secure 'Center of Excellence' for the AF Medical Modeling and Simulation Training program." ■

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ARCF Vent 5Ks

Underway Now Across the Country

by Debbie Bunch

The American Respiratory Care Foundation's (ARCF) annual Ventilator 5K competition is underway now, and teams from coast to coast are busy working toward a grand prize to be awarded to the top team at the 57th International Respiratory Convention and Exhibition in Tampa, FL, Nov. 5–8. To get everyone into the spirit, we thought it would be fun to review the experiences of four groups that went above and beyond to host great Vent 5Ks in 2010.

IN NEBRASKA…

Participation doubled

RTs from Lincoln, NE, held their first Vent 5K in 2009, and everyone had so much fun that they decided to repeat the experience last year. The fact that a local pulmonary patient benefited from the money they raised was the icing on the cake.

"A local pulmonary rehab program was able to enroll a patient in their program because of financial support from the ARCF grant, adding to the enthusiasm knowing that the grant process works," says Kathy Geier, BS, RRT, an instructor at Southeast Community College.

The 2010 competition included teams from two hospitals, one pulmonologist clinic, one RT student group, and one home care company. Themes ranged from "Greased Lightning" to "Up Your PEEP," to "Weaners." The latter group came from Lincoln Pulmonary & Critical Care and featured a pulmonologist who dressed up as a hot dog, with his children serving as the condiments (along with Geier, who took on the role of ketchup). Participation in the event doubled over that of 2009, with more non-RTs getting in on the fun.

Geier says she would recommend the Vent 5K to any group of RTs who want to raise funds for local lung health issues and promote the respiratory care profession at the same time. "The events are easy to plan — the ARCF has most everything already organized for you," says the AARC member. "Make a few phone calls to local RC departments, schools, and home vendors; find a date, time, and place; and throw in a little creativity for themes and that's it." She says the ultimate pay off is "knowing you are contributing to raising money that goes directly to patients who otherwise would not be able to afford medication or services." ■

AT WEBER STATE IN UTAH…

Eyes on the students

Vent 5K veterans from Weber State University in Ogden, UT — they've been hosting the event since it was launched in 2007 and have won the big prize three times — went all out again last year. They sponsored not only the ventilator race between their entry- and advanced-level students but also got the local running community involved. Faculty organizer Janelle Gardiner, MS, RRT, says 107 runners signed up for the event and took home some nice prizes, thanks to the generous support of local businesses.

See "More of the Story" in *AARC Times* online to watch the Weber State event in action

Everyone in attendance, however, had their eyes on the students and the outlandish costumes they came up with for their vents. "The advanced level students went with a laptop ventilator — a previous Vent 5K first-place prize — and decorated it like a dinosaur, giving him the name of 'Bronchiosaurus,'" says Gardiner. "The entry-level students chose to decorate their vent like a turtle."

The event took place at a local park and raised $2,800 for the ARCF. The students got some great news coverage in the college newspaper, *The Signpost*, and Gardiner says everyone had a wonderful time. "We enjoy the opportunity to promote the profession of respiratory therapy, increase awareness, and raise money for the ARCF." ■

PLAN Your Own Vent 5K Today

If you have yet to plan your 2011 Vent 5K event, it's not too late to get in on the fun. You'll find everything you need on www.arcfoundation.org. Once you have your Vent 5K event, be sure to take lots of pictures! ■

AND IN MINNESOTA...

Breathing life into local lung health

Up in Minnesota, respiratory therapists from Saint Paul College and the University of Minnesota-Mayo School of Health Sciences (U of M-MSHS) decided to go head to head in a joint Vent 5K event to raise money for local lung health initiatives. "Mechanical ventilators literally breathe life back into people who cannot breathe on their own," says Bryan Wattier, BA, RRT, director of clinical education for the U of M-MSHS program. "So we thought, what better machine to use in a fundraising event aimed at breathing new life into important projects to improve lung health?"

The event took place at the Mayo Civic Center in Rochester in conjunction with the spring North Region Respiratory Care Conference. Students decked their ventilators out in costumes — U of M-MSHS students went with a "Thunderbirds" theme, while Saint Paul students opted to parody the hit movie "Avatar" with an "Aventar" theme. Together, they raised $1,807 for the American Respiratory Care Foundation.

U of M-MSHS students came out on top in the friendly competition to see which team could raise the most money, but Wattier says the Vent 5K was really a win-win situation for everyone involved because it not only infused funds into local lung health programs but also raised awareness of the respiratory care profession in their state. ■

See "More of the Story" in *AARC Times* online to watch the UMMC event in action.

THE UNIVERSITY OF MARYLAND SUCCEEDS

And the winner is…

AARC members from the University of Maryland Medical Center (UMMC) decided to add some fun and excitement to their annual National Respiratory Care Week activities last year by hosting their first-ever Vent 5K. Little did they know that just a couple of months later they'd be in the winner's circle at the AARC Congress in Las Vegas, accepting an oversized check from Dräger for a brand new ventilator for coming out on top in the national rankings.

Organized by UMMC RTs Jeff Ford, MHA, RRT, and Maria Madden, BS, RRT, the winning Vent 5K group included teams of respiratory therapists from Upper Chesapeake Medical Center and Frederick Memorial Hospital, along with two UMMC teams. The event took place on an indoor track, with the teams pushing their vents (all of which were donated by various vendors and were either demos and/or inoperable) at top speed while spectators cheered them on.

The teams from Upper Chesapeake and Frederick decked out their ventilators in great costumes too, with a "Big Chicken" and "Wizard of Oz" theme, respectively.

"After the race, prizes were awarded to the participating teams for first, second, and third place, as well as 'Best Dressed' ventilator," says Madden, who works as the trauma clinical coordinator in UMMC respiratory care services. The "Big Chicken" ended up beating the "Wizard of Oz" by just a hair in the "Best Dressed" category. UMMC raised $1,800 for the ARCF through their event. ■

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In the National Spotlight

AARC members testify at U.S. Senate hearing

by Debbie Bunch

James Ginda, MA, RRT, AE-C, has been actively working for cleaner air in his home state of Rhode Island for a number of years now. He serves on the Rhode Island Public Policy Committee at the American Lung Association, he spoke at a diesel pollution summit at Brown University a few years ago, and he has lobbied for diesel pollution reduction initiatives at the state and local level. But late last May, he received an email about air quality from a staff member at the office of U.S. Sen. Sheldon Whitehouse (D-RI) that he definitely never expected to receive.

James Ginda, MA, RRT, AE-C, and Patricia Resnik, MBA, RRT-NPS, FACHE, traveled to the nation's capital in June to deliver the RT's perspective on air quality and children's health.

"Kate Konschnik is Sen. Whitehouse's environmental counsel, and she contacted me on May 31," he explains. "She had just heard from the Senate Environment and Public Works Committee that they may be looking for a Rhode Island witness for a joint subcommittee hearing scheduled in DC for the next Wednesday, June 8, about air pollution and its impact on children's health." Konschnik said they expected to convene a panel of five witnesses, and the senator would be honored to have him testify on behalf of Rhode Island.

James Ginda, MA, RRT, AE-C

Patricia Resnik, MBA, RRT-NPS, FACHE

Ginda said yes, of course — and then the scrambling began. He had just under a week to not only prepare his five-minute oral testimony but also to make his travel plans and arrange for time off from his job as a respiratory care supervisor at Kent Hospital in Warwick. "I contacted the AARC Executive Office first, because they have been so supportive and I wanted to ask about including my recent *AARC Times* **diesel article** in my written testimony," says Ginda. "Not only did they say 'absolutely,' but they overnighted a dozen copies of the magazine to my home for the senators."

The Executive Office staff helped Ginda gather material for his testimony, and he also relied heavily on his contacts in Rhode Island. "Asthma control is such a team effort in Rhode Island, so I contacted other key colleagues in my state," he says. Nancy Sutton, Asthma Control Program coordinator at the Health Department; Karen Daigle, MD, a pediatric pulmonologist at Hasbro Children's Hospital in Providence; Molly Clark from the American Lung Association; and Nicole Poepping from Clean Water Action all pitched in to help.

Not one RT, but two!

While Ginda was busy preparing for his testimony up in Rhode Island, a similar story was playing out in Delaware, where another AARC member, Patricia Resnik, MBA, RRT-NPS, FACHE, had been tapped by Sen. Tom Carper (D-DE) to testify as well. "I first learned about the hearing on air quality and children's health when I received a call from a representative of the American Lung Association of the Mid-Atlantic the week prior to the hearing," says the corporate director of performance improvement and utilization management at Christiana Care Health System in Newark. "Shortly thereafter I was contacted by a staff person from Sen. Carper's office; and after discussing my educational and professional experiences, I was asked to offer testimony at the hearing."

Like her colleague up in Rhode Island, she turned to the AARC for help in formulating her remarks. "After speaking with the senator's staff member, I placed a call to the AARC Executive Office, which really started things rolling at the AARC," she says. As they did for James Ginda, the staff provided Resnik with references and resources to consider for her testimony and also let

her know she'd have a fellow RT at the witness table. "Being able to pick up the phone and call the AARC for help is a valuable service," she says. "I am truly grateful to the Executive Office for their assistance."

Resnik also got a lot of help from her contacts at the ALA of the Mid-Atlantic, who she says provided relevant information from the Clean Air Act and other pertinent reference material for her to consider. "The ALA was very supportive and responded to all my questions very promptly. I felt well prepared when providing my testimony."

Sense of enormity

Ginda and Resnik arrived in DC to find the nation's capital in the middle of a heat wave — temperatures had soared well into the 90s — but that didn't melt their enthusiasm for what they were about to experience. "When I walked out of Union Station, I caught a glimpse of the dome of the Capitol, which was awesome when I reflected on where I was and the nature of our government," says Ginda. He made his way to the Dirksen Senate Office Building where the hearing would take place and soon found himself in the same kind of security line you would find at the airport. "There were many Capitol police officers at the entrance; and when I stepped away from my bag to take advantage of an air conditioning duct in the ceiling, I was warned to stay with my bag, so security was tight," he recalls. "Right after that, a group came through and there was a Secret Service agent with them with the coiled ear piece and lapel pin and weapon under his suit jacket. I realized he was with someone very important, and I had a sense of the enormity of the setting I was standing in at the moment."

Five minutes and counting

Resnik says she arrived in the hearing room about an hour before the session was scheduled to kick off; and as the senators made their way into the room, she found them all to be warm and friendly. "I had the opportunity to briefly meet some of the senators just prior to the hearing. Each of them made me feel very welcomed and relaxed."

Senate staff members made sure she was comfortable and also spent a few minutes going over the procedure for the meeting. "They reviewed the hearing process with me so I would have an idea of what to expect," she says. "For instance, at the table is a box with a timer and a green, yellow, and red light." The staff members explained that the five-minute limit on testimony would be strictly enforced for all the witnesses. To that end, she was instructed to push the "talk" button on the timer when it was her turn to speak. The timer would begin at five minutes and then count down to zero. "When you have about a minute left the light changes from green to yellow, and then to red when the time is up," she says.

Hearing Spurred by Upcoming Changes in Policy

The joint hearing on "Air Quality and Children's Health" convened by the Senate Subcommittee on Clean Air and Nuclear Safety and Subcommittee on Children's Health and Environmental Responsibility was spurred by ongoing debate in Congress on upcoming revisions to current pollution-control standards. Under requirements of the Clean Air Act of 1990, the Environmental Protection Agency will be updating air pollution standards for mercury, ground level ozone, and other pollutants over the next couple of years. The senators wanted to gather information on how the changes could potentially impact the health of children, particularly those with respiratory conditions such as asthma. ■

The joint subcommittee hearing of the Senate Environment and Public Works Committee was held to discuss air pollution and it's impact on children's health.

After he made it through security, Ginda was escorted up to the hearing room by Kate Konschnik and was struck by how much the space reminded him of a courtroom, with a high semi-circular bench in the front where the senators sat in high-backed chairs, then a witness table facing the bench. Video equipment was set up in front of the table to record the proceedings. "The overall atmosphere was very formal and prepared, yet I felt relaxed because people were introducing themselves and made us feel comfortable," he says. "They also said if we didn't know the answer to a particular question that we could say so and offer to respond in writing after the hearing. This, I think, took some of the pressure off as well."

Shortly after Ginda arrived, people began filling the seats in the audience section behind the witness table. News accounts of the hearing reported a packed house, but Resnik says she was so focused on her upcoming testimony that she didn't realize how many people were present to hear what she and the other witnesses would have to say. "Just before the start of the meeting the room opened up to allow the public to enter and sit down; but because they were seated behind me, I was unaware of how many people were truly in the room. It seemed as though it was just the panel members and the senators," she says. "The reality of the entire experience was very exciting and beyond my expectations."

Let the testimony begin

Ginda was the second of the five witnesses to deliver his testimony. "I actually was fairly relaxed at that point because I liked the script that I wrote and had practiced it," he says. "I believed in what I was saying and knew as an experienced respiratory care professional I had credibility even if there were differences of opinion among the witnesses. I knew if I delivered my testimony as planned I could make a strong argument for this cause." He specifically addressed airborne toxins and how they impact the respiratory system, noting that particulate matter is composed in part of black carbon fine particles, which can make their way past the upper airway lung defenses even in healthy individuals.

"The black carbon in particulate matter has been shown to be a formidable opponent for alveolar macrophages, which are important for infection protection and a last line of lung defense," he told the senators. "Chronic inflammation that is uncontrolled can lead to airway remodeling and a fixed degree of airflow obstruction. Both the fine particle and gaseous components of air pollution are triggers in asthma and can affect children even at levels below the National Ambient Air Quality Standards." He also shared information about the impact of a law passed in his state to protect the public from diesel pollution, which he says is a "shining exam-

ple of cooperative effort among concerned legislators, state agencies, environmental groups, industry representatives, and health advocates."

Resnik spoke about the costs related to pediatric asthma care and shared specific information on air quality in her own state. "What we see in our facilities reflects what the American Lung Association's 2011 'State of the Air Report' showed: that every county in Delaware received failing grades for ozone," she told the senators. "In fact, New Castle County, the most populated county as part of the Philadelphia metropolitan area, is among the top 25 most polluted areas for ozone and both year-round and short-term levels of particles. Until air pollution levels improve as a whole, the public's health will continue to be at risk." Squeezing everything she wanted to say into just five minutes was a challenge, but Resnik believes she was able to hit the high points fairly well. "Delivering my testimony was an exciting experience and a professional opportunity of a lifetime," she says. "I was very focused on making sure I included the important highlights from my written statement while not exceeding the established time limit. Fortunately, I was also able to hand in a written statement that included additional details."

One fantastic question

Following the oral testimony, the senators embarked on two rounds of questioning; and thanks to a question posed by Sen. Carper about what RTs do, Ginda and Resnik also found themselves in the welcomed position of being able to speak directly about the profession of respiratory care. "That was a great question by Sen. Carper and a great opportunity to educate them as to the role therapists play in the care of children with respiratory diseases," says Ginda. "I mentioned asthma and cystic fibrosis as examples and then kind of focused on a child with asthma coming to the emergency department, given the nature of the hearing."

Resnik finished out the response, zeroing in on the important role RTs play in patient education and transition planning. "Jim did a great job detailing how a therapist cares for a patient, and I was able to add supporting detail on the role of the RT in educating patients and identifying potential reasons why the patient's asthma may not be well controlled," she says.

"I do think we were able to effectively educate the senators about the role the respiratory therapist plays in the care of a child with asthma; and it felt good to, along with Patty, show the value of our profession," says Ginda.

> Chronic inflammation that is uncontrolled can lead to airway remodeling and a fixed degree of airflow obstruction.

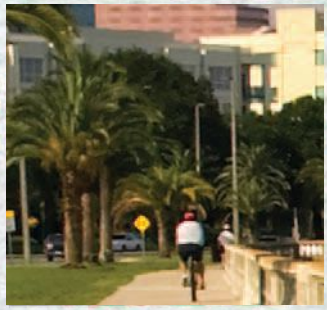
A tremendous privilege

After the hearing was over, Ginda got the chance to meet with Sen. Whitehouse in his office, where they continued the discussion begun that morning in the hearing room. "He was so genuinely warm and friendly and concerned about this issue," says the therapist. He had lunch with Kate Konschnik after that and got to meet the rest of the senator's staff. The day ended with a tour of the Capitol Building, which was arranged especially for him by the senator's office. "Being in the Capitol Rotunda and seeing the spot where U.S. presidents from Abraham Lincoln to Gerald Ford have lain in state was incredible."

Resnik says she felt honored to be chosen for the testimony by Sen. Carper and appreciated the chance it gave her to turn the national spotlight on the respiratory care profession. "It was a tremendous privilege for me to be able to sit with the other panel members, especially Jim Ginda, to discuss this important health issue and the important role of the RT in caring for people, particularly children, with the senators."

The testimony given by Ginda and Resnik is just one more example of the inroads our profession is making in our nation's capital and reflects the many years of work the AARC has invested in networking with our elected officials through our government affairs staff and our annual PACT Lobby Day. ■

CONGRESS PREVIEW:



Speakers preview their AARC Congress **2011 presentations**

The 57th International Respiratory Convention and Exhibition in Tampa, FL, this Nov. 5–8 (Saturday–Tuesday) promises to deliver the latest information in respiratory care from the biggest names in the profession. Here's a look at five sessions you definitely won't want to miss.

Lung Protective Ventilation – **the Importance of PEEP**

Who: **Dean Hess, PhD, RRT, FAARC**
What: **Assistant Director of Respiratory Care**
Where: **Massachusetts General Hospital, Boston, MA**

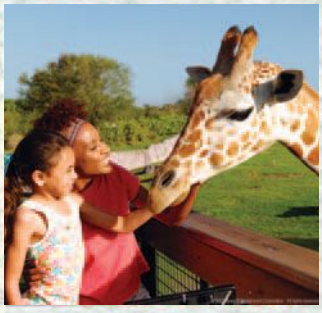
One of the most controversial subjects related to mechanical ventilation is the selection of positive end-expiratory pressure (PEEP). Although few argue that PEEP is an important part of a lung-protective ventilatory strategy, the precise level of PEEP used and the method for arriving at that level are hotly contested both at the bedside and academically.

The level of PEEP, either too high or too low, has the potential for either benefit or harm. Several randomized controlled trials comparing higher versus lower levels of PEEP have been reported, and there are now several published meta-analyses of those trials.

In this lecture, I will review the evidence related to PEEP titration and approaches to selecting the level of PEEP for an individual patient. The emphasis of the lecture will be transfer of knowledge from the clinical trials to bedside application. ■

5 Sessions Not To Be Missed





How To Set Up an **Effective Noninvasive Ventilation Program**

Who: John Davies, MA, RRT, FAARC
What: Clinical Research Coordinator
Where: Duke University Medical Center, Durham, NC

The use of noninvasive ventilation (NIV) has increased dramatically over the last 10–15 years. In those early days we referred to NIV as "BiPAP," and we used it mainly to prevent intubation. Since, at that point in time, it was pretty much based on trial and error, it was referred to as "Tripap" in our institution.

We've come a long way since that time. NIV is now the accepted standard treatment for COPD, acute cardiogenic pulmonary edema, some forms of hypoxic respiratory failure, to facilitate weaning in selected patients, and to prevent extubation failure in high-risk patients.

However, the success of NIV hinges on our ability to set up an effective program to transcend the "trial and error" phase and make NIV a standard therapy. In my talk, I will review the elements of an effective program, including an in-depth needs assessment, institutional buy-in, and the set up of a group to oversee program requirements. I'll also explain how to determine the type and amount of NIV equipment you'll need and cover the development of therapist-driven protocols to help standardize NIV therapy as well as education.

With technological advances, the scope of NIV will continue to grow. We can do more with the ventilator itself, and the masks are much more comfortable, which promote optimal patient compliance. A thorough, systematic approach to setting up an institutional program is vital to optimizing the use of NIV. ■

THE BEST OF TAMPA

AARC members provide an inside look at our AARC Congress 2011 city

Nobody knows a city like the people who live there, so we asked AARC members from Tampa to weigh in with their favorite places. Here's what one local, Mary Martinasek, PhD, RRT, had to say about our 2011 Congress site.

Channelside is a cool place to walk outside, dance, find a neat restaurant, or hit a movie. The aquarium is also nearby, and not far away is Ybor City night life, which starts about 11 p.m. and is for the 20–30 something crowd.

But don't tie yourself to Tampa. Pinellas County is only 30 minutes away, and you will see the most beautiful sunsets. For upscale restaurants I recommend the Lobster Pot (Clearwater Beach and Redington Shores) and Salt Rock Grill (Indian Shores).

(continued on next page)

Sessions Not

Prevention of VAP and **Its Implications for the Health Care System**

Who: Patrick Dunne, MEd, RRT, FAARC
What: Clinical Application Specialist
Where: HealthCare Productions, Inc., Fullerton, CA

In those patients receiving mechanical ventilation via an endotracheal tube, the risk for ventilator-associated pneumonia (VAP) is huge. Not only is VAP associated with increased mortality and morbidity, but its occurrence significantly extracts a huge economic toll as well.

Under the emerging value-based reimbursement methodology for acute care hospitals in the United States, all iatrogenic complications compromising patient safety will have an adverse impact on payments hospitals receive for care and services provided. VAP prevention will therefore become even more important in this highly visible and vulnerable patient population.

Fortunately, there is now compelling evidence that VAP is largely preventable. However, to be successful, VAP prevention strategies require a diligent, multidisciplinary effort that must be in place 100% of the time on a 24/7 basis.

In this presentation, I will review the emerging national patient safety initiatives and explain why VAP prevention has become an important part of these efforts. I hope to convince those attending that VAP prevention is a logical extension of our lung-protective ventilatory strategy and, therefore, an essential part of every respiratory therapist's daily domain. ■

Do Respiratory Therapists **Make a Difference?**

Who: Garry W. Kauffman, MPA, RRT, FAARC
What: CEO, Select Specialty Hospital
Where: York, PA

As our field has matured from that of a purely vocational/technical focus to that of a professional physician extender, the demands placed upon us have increased concomitantly. This presentation will address the changing health care system, with attention to the current and forecasted demands on health care professionals and professional opportunities

More of The Best of Tampa

(continued from page 77)

If you want a beach view at a casual outdoor/indoor restaurant, I would go to The Hurricane restaurant on St. Pete Beach. I also recommend Tampa's International Plaza, which is a shopping center, but one side is home to pubs, outdoor/indoor eateries, and places to just chill.

To Be Missed at Congress 2011





within the evolving health care system. I will review a variety of examples from the peer-reviewed literature and anecdotal evidence that respiratory therapists add value in terms of quality, cost, and service.

To accommodate the demands placed upon us and, more importantly, to proactively respond to these demands, my presentation will address those characteristics, qualities, skill competencies, and leadership competencies requisite of thriving in the constantly evolving health care delivery system. In addition to the specific knowledge and competencies required, the presentation will also provide recommendations on projecting a professional image, marketing our profession, and communicating measurable outcomes resulting from our patient care activities.

For the kids, Lowry Park Zoo is reasonable, and Busch Gardens is an all-day event.

Cevíche restaurant in South Tampa has great food and atmosphere. Acropolis Greek Taverna in Ybor City also has great food and sometimes music and entertainers.

Skipper's Smokehouse is a great hole-in-the-wall place to enjoy a beverage and listen to a band outdoors. Log on to www.skipperssmokehouse.com to see who is playing each night. ■

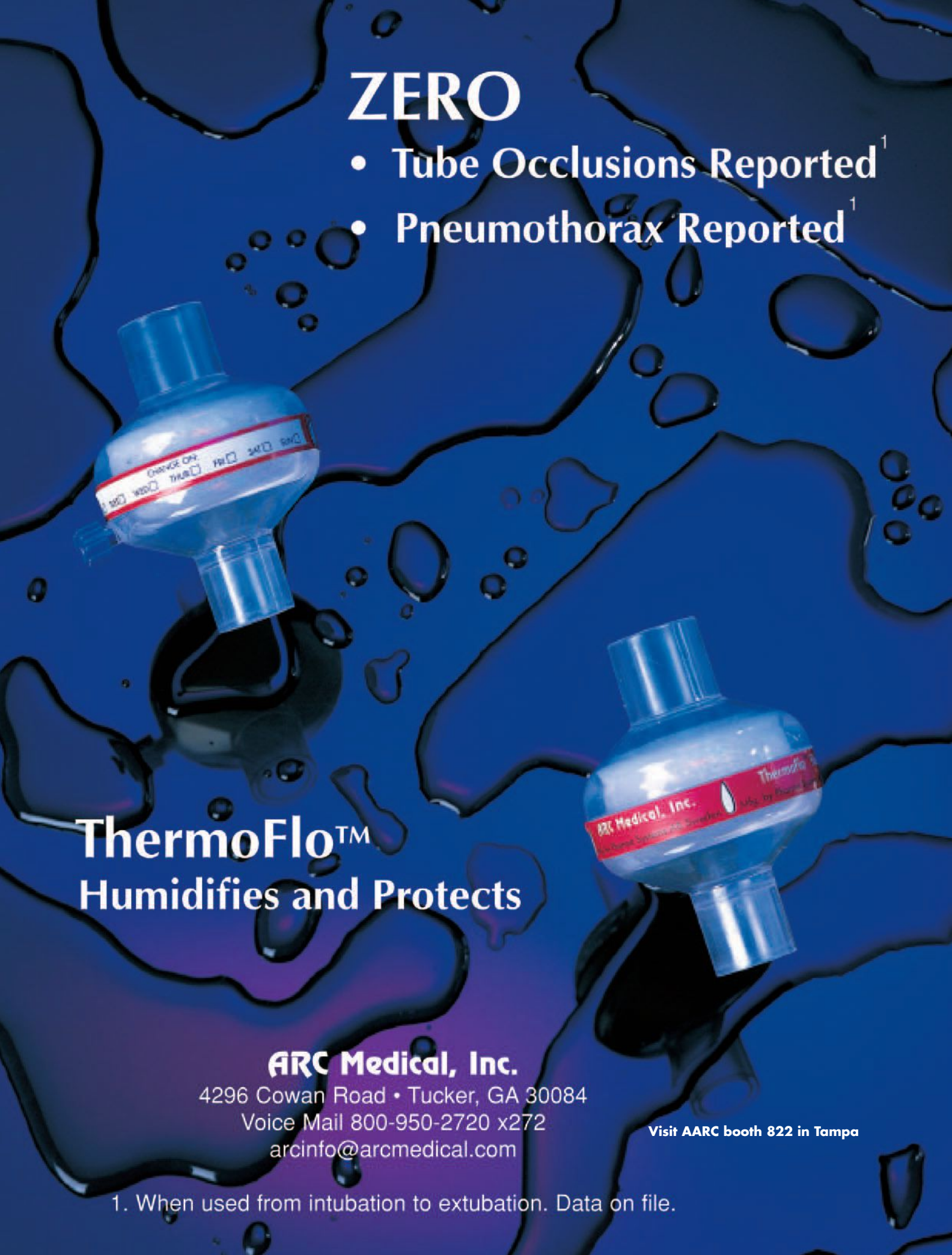
What Hospital RTs Need To Know **About the Variability Between Ambulatory LTOT Systems**

Who: Robert W. McCoy, BS, RRT, FAARC
What: Owner
Where: Valley Inspired Products, Inc., Apple Valley, MN

The Patient Protection and Affordable Care Act has mandated penalties for hospital readmissions in less than 30 days. COPD is in the top five categories responsible for less than 30-day hospital readmission. The lack of coordination between the hospital and home related to effective long-term oxygen therapy (LTOT) is a major factor contributing to these readmissions.

Hospitals need to assess, educate, and transfer patients to home respiratory service providers who will continue to accomplish clinical objectives, encourage patients to take charge of their therapy, and prevent complications or exacerbations. Hospital therapists need to understand the clinical capabilities of a variety of home oxygen products to educate patients on why they need to stay oxygenated and be as active as possible. This talk will discuss therapy objectives and how critical thinking skills are necessary to successfully provide LTOT. Attendees should be able to understand the capabilities, limitations, and applications of home oxygen systems so that the right system can be provided to the patient to maintain adequate oxygenation at all activity levels.

It is time for hospitals to realize that LTOT is far more that just green tanks; it is the delivery of a therapeutic drug that has proven capabilities to prevent complications, reduce hospitalizations, and extend the quality and quantity of life. ■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1. When used from intubation to extubation. Data on file.

AARC CONGRESS 2011

The 57th International Respiratory Convention & Exhibition

CONGRESS 2011

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November 5–8, 2011 in Tampa, Florida

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AARC Congress
The 57th

Welcome

Game Changer . . . That's how 2011 will be remembered. A year in which healthcare will forever be changed. AARC Congress 2011 is where the science of our past collides with the changes of our present to create the vision for our future. Don't miss out on this opportunity to attend the world's premier respiratory meeting where the profession's thought leaders come together to present, network and learn about emerging technologies and advances in practice. Serve your patients, share your mission, and advance your career at AARC Congress 2011… *it too is a Game Changer!*

Unless specified differently, all Congress events will be held at the Tampa Convention Center.

On behalf of AARC President Karen Stewart and the Board of Directors, we invite you to attend the largest respiratory care meeting in the world. At AARC Congress 2011 in Tampa, the AARC Specialty Sections and the Program Committee will offer more of everything that matters to you and what influences patient care under your responsibility. You may attend other educational meetings, but none offer you all of the following . . .

- Receive the latest information on health care reform and how it will affect the job you do for your patients and your employer.
- Learn, see and touch the latest advancements in patient care and technology than at the AARC Exhibit Hall with all the manufacturers in the industry showing their unique products.
- Experience the results of research presented to you by your peers in 20 Open Forums over the four days of the Congress.

2011 International Respiratory Convention & Exhibition

CONGRESS 2011

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300+ original research projects

170+ speakers

250+ sessions on current respiratory care topics

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3 days of exhibits of all companies in the industry

25+ CRCE credits

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

- Receive all the continuing education credit (CRCE) you need to maintain your state license.
* Participate in programs in *all* areas of respiratory care: 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.

And much, much more. Read through this Advance Program and very rapidly you will realize why you must come to Tampa and be part of the largest and most comprehensive respiratory care meeting anywhere, AARC Congress 2011. See you there!

Saturday, Nov 5

8:30 am – 10:55 am

Opening Session

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

8:00 am – 6:00 pm

34th National Competition Sputum Bowl® Preliminaries

Deborah J Hendrickson RRT/*Presiding*

Sponsored by COVIDIEN

Teams from the AARC State Societies compete in the preliminary competitions. The top four teams will advance to the Finals on Monday evening, Nov. 7 along with the Student Sputum Bowl finalists.

11:00 am

Opening of Exhibit Hall

Karen J Stewart MS RRT FAARC/Presiding

The 2011 AARC President opens the Exhibit Hall. As the "Gold Standard" of all respiratory care meetings, the AARC Congress 2011 presents to you 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 Saturday through Monday, Nov 5-7.

AARC CONGRESS 2011

The 57th International Respiratory Convention & Exhibition

11:05 am – 11:45 am

Presenting an Open Forum® Abstract

Teresa A Volsko MHHS RRT FAARC, Youngstown OH

The purpose of this presentation is to introduce the neophyte research presenter to the customs, roles and experience of presenting 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 presenting at the podium and participating in moderated audience discussion of the research.

11:05 am – 11:50 am

Orientation for First-time Attendees

Presented by the AARC Program Committee

Are you a first-time attendee with unanswered questions about who to see, where to go, and what to expect from the meeting? If so, then attendance at this presentation is a MUST for you! This presentation provides first-time attendees with an overview of the entire AARC Congress and includes suggestions on how to maximize your time not only at the educational session, but also at the exhibits and peripheral activities as well.

Exhibit Hours at The Buying Show: Saturday - Monday, Nov 5 - 7, 11:00 am - 4:00 pm

Saturday, Nov 5

12:30 pm – 2:25 pm
Open Forums #1 and #2
Sponsored by
monaghan™
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.

1:00 pm – 1:30 pm
The Financial Advantages of a Pulmonary Rehabilitation Program
Fran Ahel RRT RCP AE-C, Euless TX
This presentation will demonstrate how pulmonary rehab programs can positively impact the financial bottom line for both hospitals and physician practices. A well-run PR program can generate increased referrals and contribute to patient loyalty to the organization. If you're looking for another value-added service line to include in your organization's portfolio, then look no further than pulmonary rehabilitation. Attend this lecture to identify which metrics should be included in any ROI business plan, how to measure them, and how they'll impact your organization's bottom line.

RESPIRATORY CARE

Open Forum® Symposia

Sponsored by monaghan™

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. Twenty Open Forum Symposia will be presented during the four days of AARC Congress 2011. See pages 106–119 for symposium sessions, abstracts titles and authors.

1:00 pm – 2:05 pm
CPR: New and Improved

1:00 pm – 1:30 pm
Review of New CPR Guidelines
Brian K Walsh MBA RRT, Dallas TX
Respiratory therapists always take great pride in knowing the "A" in the "ABCs" of cardiac resuscitation stands for "airway." Is it a fallacy that the airway is most important? What role does ventilation play in the new AHA guidelines? Attend this lecture and learn what recent changes have taken place in the new AHA guidelines and how these changes will impact the respiratory therapist. The presenter will also review the evidence that supports the new changes to ventilation to compression ratios during CPR and the new "hands only" approach.

1:35 pm – 2:05 pm
Impact of Using a Threshold Impedance Device during Cardiac Resuscitation on Neurological Outcomes
Kenneth Thigpen RRT FAARC, Jackson MS
Evidence is strong in the pre-hospital settings that the impedance threshold device (ITD) improves cardiac output, thus enhancing the effectiveness of chest compressions, and improving survival rates. This presentation will discuss whether or not the evidence translates into the inpatient hospital environment. Attendees will leave with a better understanding of the function, and physiology of how the device works, as well as the pros & cons of this technology. Presenter will also share the evidence-based grade the ITD received in the new AHA guidelines and their recommended role for the device during cardiac resuscitation.

1:00 pm – 2:05 pm
The Successful Sleep Center: Differentiating Your Product

1:00 pm – 1:30 pm
Central Sleep Apnea and Complex Sleep Apnea – Diagnosis and Treatment
Antonio Stigall MBA RRT RPSGT, Melbourne FL
Sleep centers don't just treat patients with OSA. Understanding the complexity, diagnosis and treatment of central sleep apnea is a great way to differentiate your sleep center from your competitors. This presentation will discuss characteristics, causes, and diagnostic procedures to identify central sleep apnea and complex sleep apnea. Potential consequences of non-treatment and available surgical and non surgical treatment options will be reviewed. Sleep specialists are invited to attend this presentation and review diagnostic and treatment options for these two uncommon, yet significant sleep disorders.

1:35 pm – 2:05 pm

Identifying Best Practices of Successful Sleep Centers

Antonio Stigall MBA RRT RPSFT

This presentation will discuss best practices of successful sleep disorder centers. Key areas to be discussed will be the successful selection of a medical director and staff. Is it necessary for your sleep center to be accredited? What credentials should your sleep specialists carry? These questions, along with the understanding of state licensure, and CMS requirements will be discussed. Strategies for quality assurance and marketing your program to increase patient volume will also be explored.

1:00 pm – 2:15 pm

Looking into the Crystal Ball: What Does the Future Hold for Pediatric Respiratory Care?

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

The presenters have returned again this year to continue their discussion and debate of pertinent and controversial issues in the field of pediatric respiratory care. This session will focus on the anticipated future of this important field. Will definitive data be obtained to help clinicians manage pediatric acute lung injury? What new therapies for pediatric acute lung injury are on the horizon? What new problems will we face in the coming years? The presenters will attempt to answer these questions with input from the audience using an interactive response system.

1:00 pm – 2:25 pm

The RT as an Educator: Teaching in the Department and at the Bedside

1:00 pm – 1:40 pm

Making the Grade! Do You Have a Respiratory Department Clinical Educator?

Janet Fantazia RRT BSHS AE-C, Modesto CA

Presenter will explain the importance of having a respiratory care department clinical educator even in a tough economy. The presentation will explain how this position can aid with Joint Commission requirements, competency assessments and more. Need help with continuing education programs, orientation of new employees, in-service programs, or policy and procedure manuals? Attend this lecture and identify how clinical educators can aid with all of them. Most importantly, enhance the likelihood of securing this value-added position by learning how to construct a business plan to present to your hospital administrator.

1:45 pm – 2:25 pm

Do We Really Want Educated Patients?

Janet Fantazia RRT BSHS AE-C

In today's environment of hospital readmissions, everyone wants educated patients, as they're more likely to better care for themselves outside the hospital. Why is it then that hospitals are reluctant to invest more money in patient education? With limited resources, the presenter will review why everyone in the healthcare continuum is responsible to teach. Additionally, creative strategies to better educate patients will be discussed along with a step-by-step plan on how to create your own disease specific flipchart for RTs to teach from that offers standardization and consistency for patients.

1:00 pm – 2:55 pm

2011 Update on Non-Invasive Ventilation

1:00 pm – 1:25 pm

Choosing the Right Device: Dedicated Device versus All-in-One Ventilator

Robert M Kacmarek PhD RRT FAARC, Boston MA

This presentation will describe the required characteristics that should be present with all equipment when delivering NIV. Benefits and limitations of various NIV devices will be illustrated with respect to set-up, triggering, work of breathing, patient comfort, and leak compensation. Is it necessary to purchase a dedicated NIV delivery system, or is a full-scale, all-in-one ventilator a suitable substitute? Attend this lecture to find out the answer!

1:30 pm – 1:55 pm

Choosing the Right Interface: Matching Mask and Patient

Stefano Nava MD, Pavia Italy

This presentation will describe the indications, contraindications, benefits and limitations of various interface options. Presenter will discuss newer mask designs aimed at improving patient tolerance as well as various circuit configurations to ensure adequate exhalation. What role if any does humidification play, and how important is it to deliver inhaled medication through the mask? What are the indications and benefits of full-face masks versus nasal masks? Do exhalation ports make a difference? These answers and much more will be revealed by this international NIV expert from Pavia, Italy.

Saturday, Nov 5

2:00 pm – 2:25 pm
Choosing the Right Patient and the Right Time: Indications for NIV
Michelle Chatwin PhD, London United Kingdom
This presentation will review the indications and contraindications for NIV from physiologic disease states to specific patient characteristics. A systematic review of the initiation of NIV with respect to timing and venue will also be discussed. Attendees will leave this presentation with a clear understanding of the role that NIV has in different care settings; from early intervention in pre-hospital or emergency department, to ICU/Step-down. Most importantly, gain insight from this physician expert on the benefits and consequences of late-stage initiation due to extubation failure or end-of-life application.

2:30 pm – 2:55 pm
How to Set Up an Effective Non-Invasive Ventilation Program
John D Davies MA RRT FAARC, Durham NC
Do you know what your average ventilator stay is, self-extubation rates, and subsequent reintubation rates? Do you know your NIV patient volume and billable days? What about NIV volume as a percent of ventilator volume? This presentation will discuss the importance of these metrics in relation to the established need for an NIV program in your department. Identify the required elements of successful NIV programs as well as what steps need to be taken for a department to achieve appropriate and standardized service.

1:00 pm – 3:10 pm
Resuscitating Respiratory Services – Data-Driven Best Practice

1:00 pm – 1:40 pm
I'm in the 25th Percentile – Now What?
Richard M Ford RRT FAARC, San Diego CA
All too often the RC manager is made aware that corporate consultants have utilized benchmarking to determine a budget reduction target. The presenter will provide an overview of benchmarking, identification of metrics, and differences between AARC and commercial products. Both managers and staff will learn best practices that can improve their benchmark ranking and justify resources needed to provide safe and effective care.

1:45 pm – 2:25 pm
What Are Your Department's Vital Signs?
Stan Holland MS RRT, Harrisonburg VA
To thrive in challenging times, department managers need to assess how they stack up and apply a data-driven approach to assess operational performance and identify opportunities for improvement. This presentation will provide real life applications of AARC benchmarking. Several successful performance improvement methods and case studies will be presented.

2:30 pm – 3:10 pm
How Many RCPs Are Needed – Getting It Right
Richard M Ford RRT FAARC
Managers and respiratory care practitioners need to be well-equipped to define and justify the resources needed to support quality care and minimize risk of harm. There is, perhaps, no greater challenge in managing respiratory care than ensuring there is enough staff to do the right things right. This presentation will place you in the CEO's office with a mandate to reduce staff. Find out how to apply your data in the C-suite.

1:00 pm – 4:20 pm
Obligations of Being a Professional: The Student Transition from Classroom to Clinical Practice

1:00 pm – 1:40 pm
Becoming a Professional
Toni L Rodriguez EdD RRT, Phoenix AZ
This lecture 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.

1:45 pm – 2:25 pm
Getting Credentialed: Part I – the Written Exams
Bill Galvin MSEd RRT CPFT AE-C FAARC, Gwynedd Valley PA
The presentation will address the factors that lead to 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. Attendees will also learn that there is a distinct difference between becoming credentialed and becoming licensed.

2:30 pm – 3:10 pm
Getting Credentialed: Part II – the Clinical Simulation Exam
Bill Galvin MSEd RRT CPFT AE-C FAARC
The presentation will be a sequel to the previous presentation and will address the factors that make for success on the Clinical Simulation Examination. It will cover such issues as exam content, structure, and unique strategies for progressing through a branching logic type of exam. Attendees will also learn that there is a distinct difference between becoming credentialed and becoming licensed.

3:15 pm – 3:45 pm
Getting the Job
Colleen L Schabacker RRT FAARC, Cookeville TN
This presentation will provide an overview of the job selection process to include the resume and the interview process. This presentation will provide attendees with tips on how to construct a professional resume, how and where to include key "buzz" words, and the pitfalls to avoid in both the creation of a resume and the interview itself. You will learn how to secure meaningful and satisfying employment in a difficult job market by attending this lecture.

3:50 pm – 4:20 pm
Continuing Your Education
Lynda T Goodfellow EdD RRT FAARC, Atlanta GA
This presentation will provide 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.

1:35 pm – 2:40 pm
COPD and Pulmonary Rehabilitation: The Year in Review

1:35 pm – 2:05 pm
COPD: The Year in Review
Brian W Carlin MD FAARC, Pittsburgh PA
This presentation will be a discussion of the top five research papers published in the area of COPD in the past year.

2:10 pm – 2:40 pm
Pulmonary Rehabilitation: The Year in Review
Gerilynn Connors RRT FAACVPR, Falls Church VA
This presentation will be a discussion of the top five research papers published in the field of pulmonary rehabilitation in the past year.

2:10 pm – 3:05 pm
Treatment of the Sleep Apnea Patient: An Inpatient Perspective
John Basile RRT, Hayward CA
All hospitals care for patients who suffer from sleep apnea. But, does your hospital have a program in place to standardize treatment to these patients? This presentation will be a discussion of the indications and need for a program. Sample policies and procedures as well as protocols will be offered for consideration. Discussion will also be had in identifying key performance metrics and other CQI/PI initiatives. Advantages will also be highlighted on how such a program can feed a hospital-based sleep lab.

Saturday, Nov 5

2:10 pm – 4:20 pm

Quality Assurance & Pulmonary Function

2:10 pm – 2:50 pm

Quality Assurance in the Pulmonary Lab

Cheryl A Hoerr MBA RRT CPFT FAARC, Rolla MO

The speaker will outline the differences between Quality Control and Quality Assurance and give examples of each. There will be a review of ATS standards for testing and methods that can be used to ensure accurate, reproducible data. The speaker will also discuss the importance of feedback loop in improving PFT lab quality.

2:55 pm – 3:35 pm

Quality Assurance for Pulmonary Function Testing Equipment

James Sullivan RPFT, New York NY

The key to managing and treating chronic respiratory diseases is initially achieved by establishing an accurate diagnosis, and then subsequent monitoring and assessment. With respiratory disease, the pulmonary diagnostic lab is the key. This lecture will go over current best practices methodology of assessing and improving equipment and technologist performance.

3:40 pm – 4:20 pm

Competency Assessments for the Pulmonary Lab

James Sullivan RPFT

Pulmonary function laboratories are an integral part of most respiratory therapy departments and often operate diffently and independently from the main RT department. This third lecture in the series discusses ways to ensure highly skilled staffing in the PFT lab. Is a specialty credential from the NBRC enough to ensure competency? Is there a need for competency assessment similar to the therapists that staff the RT department? This presentation presents an argument for requiring ongoing skills assessment for PFT staff and offers a blueprint for such a program.

Continuing Respiratory Care Education (CRCE)

AARC Congress 2011 is approved for all the credit hours you need to maintain your state license, more than 25 hours.

2:30 pm – 4:10 pm

Long Term Care: 2011 and Beyond

2:30 pm – 3:00 pm

Altering the Trajectories of Cost, Care and Outcomes for Prolonged Mechanical Ventilation

Gene Gantt RRT, Livingston TN

Current projections for the number of patients undergoing prolonged mechanical ventilation indicates that costs of care and resources are no longer sustainable. These projections will require that long-term care therapists will need to find methods to alter cost trajectories through innovative strategies. Attendees will gain insight on how to address these issues, not just in their own work environment, but across the continuum of care.

3:05 pm – 3:35 pm

Ambulation of the Long Term Ventilated Patient – Difficult But Well Worth the Effort

Max Eskelson MS RRT, Salt Lake City UT

Evidence clearly supports the benefits of ambulating patients on mechanical ventilation. This presentation will address the myths and common barriers that prevent the practice of ambulating ventilator patients, and provide the context for implementing this important rehabilitative practice.

3:40 pm – 4:10 pm

Health Care Sustainability – The Impact of Post-Acute Settings

Susan P Smith RN MSN DHA, Washington DC

The presenter will discuss the concept of the Iron Triangle and the impact on sustainability on the post-acute care needs of patients requiring specialized continuing care following discharge. She will also describe the differing levels of post-acute care discharge options for patients and the important role for the long-term acute-care setting in the new US health care delivery system.

2:30 pm – 4:25 pm

Pediatric Respiratory Care: How Do I?

2:30 pm – 2:55 pm

How Do I Manage ARDS?

Heidi Dalton MD, Phoenix AZ

In a small subset of critically ill pediatric patients, the management of the Acute Respiratory Distress Syndrome patient requires significant time and effort by bedside respiratory therapists. This presentation will discuss various strategies to manage pediatric ARDS. Available data will be presented along with a proposed algorithm for the management of this very challenging condition.

3:00 pm – 3:25 pm
How Do I Manage Life-Threatening Asthma?
Bruce K Rubin MD MEngr MBA FAARC, Richmond VA
Life-threatening asthma requires prompt and aggressive management to help ensure a positive outcome. An approach to the management of this complex condition varies between ICUs and often within an institution. This presentation will provide an overview to the various strategies to manage the child with status asthmaticus. The data will be presented along with a proposed algorithm for the management of this high-risk condition.

3:30 pm – 3:55 pm
How Do I Manage Sepsis?
Michael R Anderson MD, Cleveland OH
Despite international sepsis management campaigns, the mortality from sepsis remains excessive. Prompt and aggressive management are essential for a positive outcome. This presentation will provide an overview to the various strategies to manage the pediatric sepsis patient. A comprehensive approach to these complex patients will be discussed, including a review of the published sepsis guidelines.

4:00 pm – 4:25 pm
How Do I Choose the "Best" Ventilator Mode?
John W Salyer RRT-NPS FAARC, Seattle WA
This presentation will provide an overview of the various modes available to ventilate infants and children. Are there true advantages of one mode over another or is it all marketing propaganda? A review of the available literature will be reviewed in an attempt to answer the question: Does the mode really matter?

2:45 pm – 3:15 pm
With Age Comes Wisdom, But Sometimes ALS Comes Too!
De De Gardner MSHP RRT FAARC, San Antonio TX
The incidence of both acute and chronic diseases increases with age. Between 1977 and 1986, the mortality rate among men aged 85 and older with ALS increased 328%. With overall aging of the population, therapists are more likely to see ALS patients in their hospitals. This presentation will detail the interdisciplinary perspective of ALS care to include: diagnosis, monitoring, and new therapeutic interventions.

3:00 pm – 4:55 pm
Preventing ARDS: Tidal Volume and Beyond

3:00 pm – 3:25 pm
Lung Protective Ventilation – The Importance of Tidal Volume
Neil R MacIntyre MD FAARC, Durham NC
Should all patients be ventilated at 6cc/kg? Where does that number come from? This presentation will discuss the role tidal volume and plateau pressures have on VILI. A detailed review will also be conducted that evaluates the stress and strain that this places on the lung. Presenter will discuss the role of pressure ventilation versus volume ventilation in causing VILI and whether or not one delivery type has more advantages than the other.

3:30 pm – 3:55 pm
Lung Protective Ventilation – The Importance of PEEP
Dean R Hess PhD RRT FAARC, Boston MA
This presentation will discuss the role of PEEP in preventing VILI. A detailed review of high and low PEEP strategies will be evaluated and the relationships each have in contributing to and protecting against VILI.

4:00 pm – 4:25 pm
Bad Blood – Where Did We Go Wrong?
Jay Johannigman MD, Cincinnati OH
Dr. Johannigman will trace the history of blood transfusion, component therapy and current practices that guide the care of blood transfusion for the trauma patient undergoing massive transfusion. Particular attention will be directed to presenting an evidence-based review of significant changes made in current transfusion practices.

4:30 pm – 4:55 pm
Lung Protection: Fluid Therapy – Wet or Dry?
John J Marini MD, St Paul MN
The administration of supplemental IV fluids to patients with ALI/ARDS remains controversial. Are "dry lungs" really "happy lungs?" This presentation will discuss the use of IV fluids for maintaining blood pressure on the development of VILI; review the available clinical trial evidence.

3:00 pm – 4:55 pm
Open Forums #3 and #4
Sponsored by
monaghan™
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.

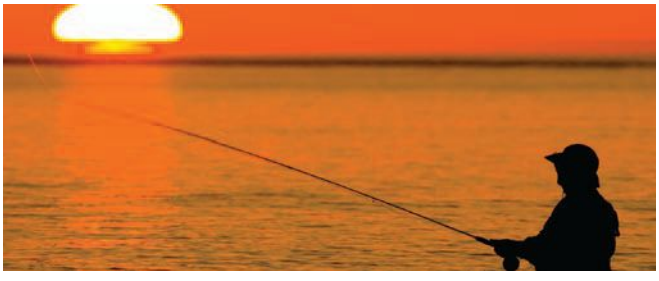
Saturday, Nov 5

3:10 pm – 4:15 pm
Sleep Disorders & Treatment Strategies

3:10 pm – 3:40 pm
Update on Treatment of Insomnia
James P Shaffer MD, Melbourne FL
There are many forms of insomnia. Do you know what they all are? This presentation will review defining features of the most common causes of insomnia, and pharmacologic treatments. Beyond pharmacologic treatments however, the speaker will also discuss behavioral and cognitive methods for treating the patient who can't sleep.

3:45 pm – 4:15 pm
Common Pitfalls of CPAP Therapy
James P Shaffer MD
This presentation will discuss indications for nocturnal positive airway pressure. The speaker will also review the most common reasons for CPAP failure as well as the most recent advances in noninvasive ventilation that may increase adherence to this "gold standard" for treatment. Presenter will highlight and discuss the AARC resource; "The Clinician's Guide to PAP Adherence."

3:20 pm – 4:05 pm
Pulmonary Management of the Spinal Cord Injury Patient
Rebecca Wills CRT CRT-NPS, Lincoln NE
According to the National Spinal Cord Injury Statistical Center, there are approximately 12,000 new spinal cord injuries (SCI) in the U.S. each year. Respiratory diseases are the #1 cause of death and the 3rd most common cause of re-hospitalization following a spinal cord injury. This lecture will identify the four primary pulmonary impairments of a spinal cord injury; demonstrate the role of the respiratory therapist in the prevention and/or treatment of these impairments, and explore the role of the respiratory therapist and the interdisciplinary team in promoting self-advocacy and lifetime health management for individuals with a spinal cord injury.



3:20 pm – 4:10 pm
Work Culture and Staff Performance
Jan Thalman MS RRT FAARC, Durham NC
Measuring work force satisfaction and engagement will identify areas for improvement in an organizational work culture. Leadership action plans to address improvement in work culture can be directly linked to staff performance. The success of a performance evaluation process and staff development can be further aligned with individual and supervisory accountability, thus leading to a high-performing department. Attendees will leave this presentation with step-by-step instructions on how to create, implement and follow through on leadership action plans for your entire management team. Unhappy with the satisfaction, engagement, or performance of your team? Then this is a presentation you can't miss!

4:15 pm – 4:45 pm
The RT's Role in Therapeutic Hypothermia
Keith Lamb RRT, Newark DE
Cooling patients after cardiac arrest has shown promise in improving survival and neurologic function outcomes. This presentation will provide an overview of therapeutic hypothermia, including the role of the respiratory therapist. The impact on gas exchange and ventilator/airway management will also be discussed.

4:15 pm – 5:00 pm
Reducing Hospital Readmissions: Evidence and Conjecture
Cheryl A Hoerr MBA RRT CPFT FAARC, Rolla MO
Presenter will share with the audience the data regarding readmissions to acute care hospitals and the financial impact avoidable readmissions have on the hospital's bottom line. Proven strategies and action plans will also be discussed on creating untraditional roles for the RT to help solve this problem. Increase the visibility of your department within the hospital and prove your value to those working in the C-suite by attending this lecture.

4:15 pm – 5:00 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 AARC resources to accomplish them. All Congress attendees, including section non-members are invited to attend and participate.

4:20 pm – 4:50 pm

Models for End-of-Life Care in Chronic Neuromuscular Respiratory Failure

Lee Guion MA RRT, San Francisco CA

This presentation will examine common end-of-life scenarios in ALS, including respiratory failure and palliative sedation, terminal weaning from mechanical ventilation, and acute onset of respiratory distress failure. There will be a brief review of new CMS guidelines for hospice referral. The role of the RCP in end-of-life care will also be discussed, as well as attitudes toward assisting in terminal weaning.

4:20 pm – 5:00 pm

Patient Education: Obstacles to Teaching… Barriers to Learning

Bill Galvin MSEd RRT CPFT AE-C FAARC, Gwynedd Valley PA

There should be little doubt that patient education is of central importance in the care and management of our pulmonary patients. The respiratory therapist is the non-physician expert at the bedside and the obvious person to assume this role. This presentation is designed to stress the criticalitly of patient education as well as identify the obstacles to teaching and the barriers to learning. After attending this session, attendees will be able to: appreciate the role of the RT as a primary patient educator, identify commonly cited barriers to teaching patients about their pulmonary condition, and understand the factors interfering with the patient's ability to learn.

4:30 pm – 5:00 pm

Diagnostic Section Membership Meeting

Matthew O'Brien MS RRT 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.

4:30 pm – 5:00 pm

Neonatal-Pediatrics Section Membership Meeting

Cynthia White BA 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.

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 intesest 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, which is essential 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 real or preceived conflict will be acknowledged at the onset of each presentation.

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 AARC Congress 2011.
- All sponsored sessions are identified by the program, handouts, and signage.
- The AARC accepts support only on the condition that the Program Committee be the sole organizer of all sessions, including selection of speakers and topics.

Sunday, Nov 6

8:30 am – 9:20 am

AARC Annual Business Meeting

Karen J Stewart MS RRT FAARC, AARC President/*Presiding*

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

9:30 am – 10:20 am

38th 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.

Jay Johannigman MD

Forged in the Fires of Battle: Advances in Medicine

Jay Johannigman MD, Cincinnati OH

The military conflict of the Global War on Terror (GWOT) has advanced the care of the injured patient. This is particularly true for the process of en-route care. Operations Iraqi Freedom and Enduring Freedom were the first to employ the widespread use of critical care transport teams and en-route care early during the casualty evacuation process. Practice guidelines, standards of care, and clinical management algorithms have all been significantly revised in light of many lessons learned during the GWOT. Dr. Johannigman will review the most significant changes in casualty care as well as highlight the current operational standards and innovations forwarded by the U.S. Air Force's Critical Care Aeromedical Transport Teams (CCATT).

CONGRESS 2011

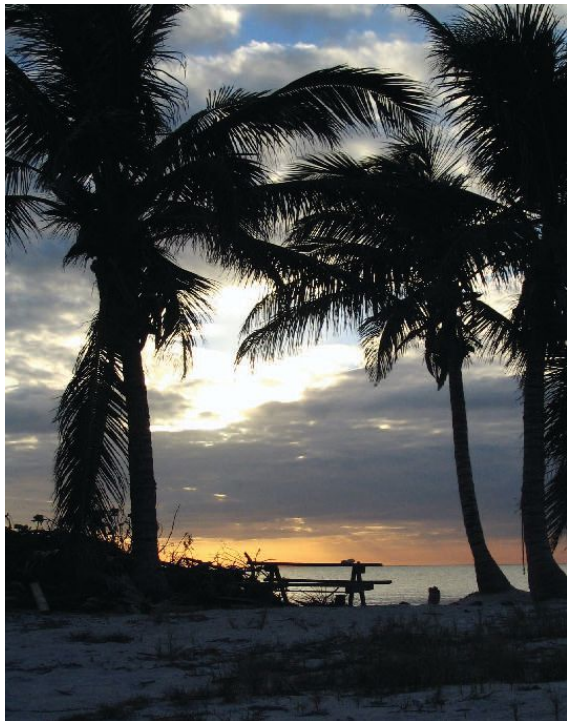
The 57th International Respiratory Convention & Exhibition

8:00 am – 6:00 pm

34TH National Competition Sputum Bowl® Preliminaries

Deborah J Hendrickson RRT/*Presiding*

Sponsored by COVIDIEN



Teams from AARC state societies compete in the preliminary competitions. The top four teams will advance to the Finals on Monday evening, Nov 7, along with the Student Sputum Bowl finalists.

Exhibit Hours at The Buying Show: Saturday - Monday, Nov 5 - 7, 11:00 am - 4:00 pm

Sunday, Nov 6

10:00 am – 11:55 am

Open Forums #5 and #6

Sponsored by monaghan

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.

10:30 am – 11:00 am

High-Flow Oxygen: Marketing Ploy or Effective Treatment for Hypoxemia?

Kenneth Miller MEd RRT-NPS, Allentown PA

Hospitals all over the country are using heated high-flow nasal cannulas for the treatment of hypoxemia and some use it as a device to deliver continuous positive airway pressure. Are these valid uses for this device? What are the indications and does the device work? This presentation will define the clinical indications and selection of patient population for high-flow oxygen. A review of the most current literature will be discussed as well as some clinical outcomes and case studies of patients who have successfully used heated high-flow nasal cannulas.

10:30 am – 11:15 am

Disease Management: A Creative Solution for Outpatient Education

Janet Lee RRT AE-C, Indianapolis IN

Health care reform is a driving force in encouraging health care professionals to find more cost-effective ways to manage patients with chronic pulmonary disease, and respiratory therapists are uniquely qualified to provide disease management to COPD and asthmatic patients. One organization is proactively providing these services to patients during visits to their primary care provider. The speaker will outline how her program helps the physician expedite patient care and empowers the therapist to use standing orders and protocols to efficiently treat patients at the time of their primary care visit.

RESPIRATORY CARE

Open Forum® Symposia

Sponsored by monaghan

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. Twenty Open Forum Symposia will be presented during the four days of AARC Congress 2011. See pages 106-119 for symposium sessions, abstracts titles and authors.

10:30 am – 11:30 am

Professor's Rounds: Improving Patient Safety

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

Presenter: **Lori D Conklin MD, Charlottesville VA**

"Patient safety" is no longer just a hot buzz word that floats around the hospital – it's a culture and a way of life. The importance of it is obvious for patients and their families, but it also affects reimbursement and the hospital's bottom line. The presentation is a case-based approach on how to develop strategies and implement systems to improve patient care and safety. Preoperative screening, medical risks, intraoperative management, and postoperative care will be discussed, a must-see presentation for clinicians and managers alike.

10:30 am – 11:35 am

Point of Care Lab Measurements: It's Not Just About Blood Gases

10:30 am – 11:00 am

Hemoglobin Alphabet Soup

Bill J Malley MS RRT CPFT FAARC, Pittsburgh PA

The importance and unique structure of the amazing normal adult hemoglobin molecule will be explored. The chemical properties responsible for its multiple and magnificent functions will be reviewed. The fetal hemoglobin molecule will then be differentiated from normal adult hemoglobin as it pertains to placental gas exchange. This will be followed by a review of the pathology and clinical significance of more common abnormal hemoglobin species. Sickle cell hemoglobin, carboxyhemoglobin, and methemoglobin will be discussed in reference to their properties, clinical consequences, and treatment.

11:05 am – 11:35 am
The Unending Search for the Holy Grail Marker of Hypoxia
Bill J Malley MS RRT CPFT FAARC
Tissue hypoxia has long been considered the ultimate cause of death of the organism. Throughout the past 30 years, clinicians have attempted to describe key hypoxic markers that could help identify disease severity, guide therapy, and potentially increase survival. Arterial and venous markers of oxygenation and oxygen delivery have been introduced and utilized with promise and later found to have significant limitations. More recently chemical markers such as lactate have been more widely used. This presentation will look at the evolution of these markers as well as the current evidence and general state of practice. Limitations on the use of any single marker will be emphasized.

10:30 am – 11:50 am
Neonatal-Pediatric Clinical Cases
Ira M Cheifetz MD FCCM, Durham NC and Timothy R Myers RRT-NPS, Avon OH
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 respiratory therapist perspectives. Come to learn and share your opinions with the presenters and your colleagues.

10:30 am – 11:55 am
Pulmonary Function Studies: There're Not Just for Adults Anymore

10:30 am – 11:10 am
Infant Pulmonary Function Test in the 21st Century
Karen McDowell MD, Cincinnati OH
Is it a realistic expectation to perform pulmonary function tests on infants? If so, how accurate is the data? This lecture will cover the technical components of performing pulmonary function testing on infants (obtaining the correct testing position of the infant, and gathering of the data) and describe the interpretation of resulting data. Attend this presentation and add an additional specialty service into your arsenal of revenue-generating procedures.

11:15 am – 11:55 am
Diagnostic Testing and the Pediatric Patient
Michael Tracy RRT-NPS RPFT, Cleveland OH
This presentation includes information on why testing a pediatric patient is different from testing adult patients and the rationale in utilizing validated predicted data sets specific to children. The speaker will highlight advances in PF software that incentivize pediatric patients to deliver reproducible results. Tips and tricks will also be discussed that maximize results and minimize your frustration.

10:30 am – 11:55 am
Rewiring Respiratory Care Education: eLearning for the Respiratory Therapist

10:30 am – 11:10 am
Using WiFi in Clinical Competency – the iPad Experiment
Douglas E Masini EdD RRT-NPS RPFT AE-C FAARC, Savannah GA
This presentation will compare WiFi clinical documentation (using the iPad) to traditional paper and pencil documentation. Presenter will list the benefits and problems encountered by clinical WiFi users, especially when using the iPad in clinicals. This presentation will conclude by identifying critical issues that will make the WiFi/iPad launch successful in your education program.

11:15 am – 11:55 am
Using iTunes and Vimeo To Produce Raw Streaming Video in Your Online Course Management Systems (CMS)
Douglas E Masini EdD RRT-NPS RPFT AE-C FAARC
This presentation will list how-to's and options when using iPod Nano mp4 or .mov files to create video streams in your course-management system. Presenter will identify the pitfalls encountered when creating and using raw extemporaneous lectures in your course-management system or iTunes. Additionally, attendees will learn how a repository such as Vimeo can store files and provide a source code for easy student access. Finally, the presenter will discuss student learning style preferences, monitoring feedback on iTunes, and audio/video lecture impact on teaching and learning respiratory therapy.

Sunday, Nov 6

10:30 am – 12:00 noon
Respiratory Home Care Successes

10:30 am – 10:55 am
Doing More with Less: Protocols for Home Care Visits
Nicholas MacMillan AGS RRT FAARC, Stevensville MD
In a perfect world, home respiratory patients would receive regular visits by qualified clinicians. However, as reimbursement pressures grow, respiratory patients are lucky to receive a visit at all. This presentation will provide an example of how a protocol can be used to prioritize home visits when faced with competing priorities of multiple patients.

11:00 am – 11:25 am
Oxygen Use in Stable CHF:
An Important Treatment Option
Joseph S Lewarski RRT FAARC, North Ridgeville OH
This presentation will review nocturnal hypoxemia and the role of low-flow oxygen therapy in management and treatment of Cheyne-Stokes Respiration (CSR) in stable CHF patients with no daytime hypoxemia. Attendees will learn how to identify high-risk patients; recognize oxygen therapy as a treatment option and understand the benefits of low-flow oxygen therapy with this patient population.

11:30 am – 12:00 noon
Impact of Respiratory Home Care:
What Our Patients Have To Say
Nicholas MacMillan AGS RRT FAARC
Over the course of the past year, a survey tool was developed and administered to over 10,000 respiratory home care patients. This presentation will review the results of the survey, including the most common oxygen modalities used in the home, the most common type of service personnel (clinical/non-clinical), and how such data correlates between outcomes.

11:05 am – 12:00 noon
Arterial / Access Lines: Insertion, Monitoring and Maintenance
Amy Bardin MS RRT VA-BC, Phoenix AZ
This lecture will review current access management delivery models to include the role of the respiratory therapist. Current practices include arterial and intravenous large and small bore access. Advancements in the use of ultrasound with access management and patient outcomes related to the collaborative work between traditional models and models using respiratory care teams will be discussed. Can RTs perform access management procedures as good as or better than their physician and nursing counterparts? Attend this presentation to find out?

11:20 am – 11:50 am
The Respiratory Therapist Perspective in an ALS Clinic
De De Gardner MSHP RRT FAARC, San Antonio TX
This presentation will describe the role of the respiratory therapist in and ALS clinic. As the respiratory therapist involved in this clinic, it is imperative that RTs realize that there are differences in caring for patients with ALS. The speaker will describe the tests used to determine the progress of the ALS patient and the therapies needed to effectively treat these patients.

11:35 am – 12:15 pm
The Role of Respiratory Therapy in an IMCF-MR
Roberta Edwardson LRCP CRTT CCVT, Beatrice NE
The respiratory therapist plays an important role in providing care required of individuals living in an IMCF. The skills and knowledge that a therapist can provide to PNM (Physical Nutrional Management) teams in preventing and treating aspiration pneumonia is invaluable. This presentation will review the role of the respiratory therapist working with spine and gait teams to assist individuals with kyphosis, neuromuscular disorders, etc in managing their respiratory needs. Presenter will also discuss how RTs can screen individuals for sleep disorders prior to referral to pulmonologist.

12:30 pm – 2:25 pm
Open Forums #7 and #8
Sponsored by
monaghan™
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.

1:00 pm – 1:35 pm

Interpreting Chest X-Rays: Don't Let That Gray Lead You Astray!

Garry W Kauffman MPA FACHE RRT FAARC, Elizabethtown PA

This presentation is designed for two audiences: 1) The recent RT graduate who most likely received training in CXR interpretation and utilization and 2) "Seasoned RTs" like the presenter who learned about chest x-rays on the job through osmosis rather than in the classroom. The presentation will provide an overview of the traditional x-ray techniques and projections that the RT routinely encounters in her/his daily work. After this overview, the audience will engage in an interactive case-review format with unknown chest x-rays to illustrate the uses of the various techniques and projections and have a little fun in the process.

1:00 pm – 1:50 pm

Mechanical Ventilation: Should Clinicians Apply Adult Data to Children?

Ira M Cheifetz MD FCCM, Durham NC

Randomized, controlled trials are readily available to assist clinicians in managing mechanically ventilated adults. However, similar data are scarce in the world of pediatrics. This presentation will discuss the applicability of the available adult data to infants and children as well as describe the inherent problems of obtaining definitive pediatric data.

1:00 pm – 2:40 pm

Transtracheal Oxygen Therapy (TTOT): What Have We Learned Over the Past 25 Years?

1:00 pm – 1:30 pm

TTOT: Where We Were, Where We Are, and Where We Are Headed

Kent Christopher MD RRT FAARC, Denver CO

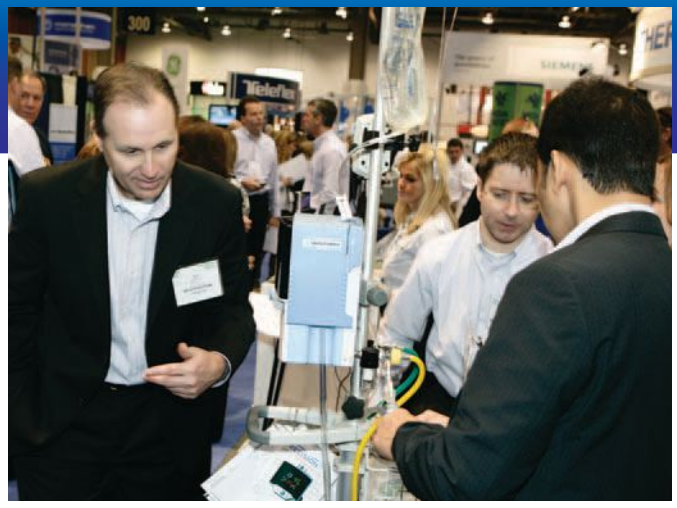
This presentation will review the historical development of TTOT, up to and including the current transtracheal program of care using the fast tract technique. Emphasis will be placed on proper patient selection for this minimally invasive approach to providing continuous long-term oxygen therapy.

1:35 pm – 2:05 pm

The TTOT Medical Director: Is TTOT the Best Kept Secret in Pulmonary Medicine?

Michael Schwartz MD, Denver CO

This presentation will describe the barriers that influence pulmonologists in the prescription of TTOT for their oxygen-dependent patients. After 25 years of exposure in the medical literature, the presenter will discuss realities of why this therapy is not more widely used as well as the perceptions of both physicians and patients alike.



2:10 pm – 2:40 pm

You've Heard from the Experts – Now What About the Patient?

Nick Jones, The Villages FL

This presentation will enable attendees to hear a first-hand perspective from a seasoned TTOT patient. The patient will describe the impact that different oxygen delivery devices have had on themselves and other family members, before and after TTOT. What better place to get all the information you need regarding TTOT than directly from the people that it impacts the most?

1:00 pm – 3:00 pm

Disaster Responses: How Can the Respiratory Therapist Help?

1:00 pm – 1:30 pm

Ventilators for MRCF – New Devices and Findings

Chris Blakeman MSc RRT, Cincinnati OH

We hear of disasters and mass casualty every day. From the earthquakes in Japan and Haiti, to the tsunami in Indonesia, to Hurricane Katrina, and most recently the tornadoes that ripped through Alabama. Today it's someone else, tomorrow it could be you. Are you ready? This presentation will discuss advancements in equipment designed for mass casualty care and will review the literature regarding evaluations of these devices. The presenter will also review recent research on portable ventilators and review requirements of MRCF ventilators.

1:35 pm – 2:05 pm

Air Transport Following MCRF – Complexity and Capability

CMSgt Dario Rodriquez RRT, Cincinnati OH

It's unlikely that patients involved in a mass casualty respiratory failure incident will be transported to emergency medical facilities by ground. This presentation will discuss the use of aeromedical transport to move patients from a MCRF incident to other care sites. Presenter will review capabilities and challenges in aeromedical transport in a mass casualty situation to ensure the safety of our most vulnerable patients.

Sunday, Nov 6

2:10 pm – 3:00 pm
Respiratory Therapists and Mass Casualty Care: Getting Involved
CDR Lewis Rubinson MD PhD FCCP (USPHS), Deputy Chief Medical Officer, National Disaster Medical System, HHS/ASPR/OPEO, Washington DC
It's a natural instinct for RTs to serve the public whether it's through community screenings or responding to disaster. Following a mass casualty event, how many times have you sensed the desire to get involved and be able to serve your fellow man? This presentation will review the needs of HHS regarding mass casualty respiratory failure and explain new ways for the RT to get involved. What are the responsibilities of the respiratory therapist serving in these roles? Attend this presentation to find out.

1:00 pm – 3:10 pm
Pulmonary Rehabilitation and The Impact on the Co-Morbid Patient

1:00 pm – 1:40 pm
Obstructive Sleep Apnea
Joy E Hargett RRT, Houston TX
The speaker will present current information about the diagnosis and treatment of OSA in the COPD patient. Discussion will detail how proper diagnosis and treatment of OSA can facilitate more effective pulmonary rehabilitation of COPD patients. While CPAP and NIV therapy are effective treatments for OSA, is there an indirect benefit for the lung function of the COPD patient in pulmonary rehab? Attend this lecture to find out.

1:45 pm – 2:25 pm
Heart Disease in the Pulmonary Patient
Neil R MacIntyre MD FAARC, Durham NC
It's rare that a patient enrolled into a pulmonary rehabilitation program suffers only from COPD. This presentation will examine the challenges faced by clinicians attempting to provide pulmonary rehabilitation to patients with COPD and heart disease. The discussion will detail how chronic heart failure can affect exercise training in chronic pulmonary patients, and what the RT can do to improve the situation.

2:30 pm – 3:10 pm
Lung Cancer in the Patient with Chronic Lung Disease
Bill Cohagen RRT FAARC, Phoenix AZ
The speaker will present current information about the diagnosis and recommended treatments for COPD patients with lung cancer. Is it a death sentence or a treatable condition that can improve the quality of life for the patient? Attendees will gain a greater understanding of how pulmonary function changes with surgical and/or radiation treatment and what RTs can do to address these changes during pulmonary rehab.

1:00 pm – 3:40 pm
Integration of Technology

1:00 pm – 1:50 pm
Assessing and Justifying the Need for New Technology
Cheryl A Hoerr MBA RRT CPFT FAARC, Rolla MO
This presentation will identify the role of the RT manager as they approach the assessment phase for new technology with respect to cost versus benefit. Attendees will learn what information to consider, what information to discard, and what information and key metrics should be used when justifying the equipment purchase to executives in the C-suite.

1:55 pm – 2:45 pm
Planning, Organizing, Staffing, and Controlling a Clinical Evaluation
Bill Lamb RRT CPFT FAARC, Wentzville MO
Has your capital budget been approved for the purchase of a new ventilator fleet? Are you considering a transition from one product to another? If so, then you can't miss this presentation in which the presenter will review the mechanics of conducting a successful clinical evaluation. Included in the presentation are strategies to prepare staff, establish how to set reasonable expectations for staff and suppliers, and utilize of assessment tools to objectively assess the technology and measure the outcome evaluation.

2:50 pm – 3:40 pm
Utilizing Clinical Specialist to Enhance Continuing Education & Staff
Ronda Bradley MS RRT, St Louis MO
How many times have you purchased new equipment or invested in new technology, and spent hundreds of hours in staff training only to hear complaints that there was inadequate education on the new product? This presentation will discuss how RT departments can utilize supplier/industry-based and department-based clinical specialists for the implementation of new technology. Ensure the proper competence of your staff by attending this presentation today!

1:00 pm – 3:55 pm

CoARC Workshop for New Program Personnel

1:00 pm – 1:40 pm

Don't Sleep on It! Does Your Polysomnography Program Meet Current Standards?

Thomas R 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.

1:45 pm – 2:25 pm

What Every New Director of Clinical Education Needs to Know

Kathy Rye EdD RRT FAARC, Little Rock AR

The presenter will cover issues relevant to the role and responsibilities of this key position within a respiratory therapy program. The speaker will discuss the job responsibilities of the DCE, the relationships they must build with local hospitals, evaluation skills required, and future planning they must account for as it relates to changes in curriculum. The DCE's responsibilities in the program re-accreditation process will also be discussed.

2:30 pm – 3:10 pm

Every New Program Director Needs to Know

Thomas Hill PhD RRT FAARC, Athens GA

The presenter will cover issues relevant to the role and responsibilities of this key personnel position with emphasis placed on accreditation requirements. The speaker will discuss the job responsibilities of the PD, all aspects of the program; including the management, administration, continuous review and analysis, planning, development and general effectiveness of the program. The PD's responsibilities in the program re-accreditation process will also be discussed.

3:15 pm – 3:55 pm

Methods for Improving Survey Return Rates and Result Reporting

Stephen P Mikles EdS RRT FAARC, Pinellas Park FL

The presenter will discuss methods for improving the return rates of the CoARC Graduate and Employer Surveys as well reporting of the results in the CoARC Report of Current Status. The presenter will also review methods for maintaining survey records and completing the survey worksheet section of the CoARC Report of Current Status Report. This presentation will be interactive with members of the audience sharing methods that have improved their survey return rates.

Continuing Respiratory Care Education (CRCE)

AARC Congress 2011 is approved for all the credit hours you need to maintain your state license, more than 25 hours.

Sunday, Nov 6

1:00 pm – 4:25 pm

AARC's 27th New Horizons in Respiratory Care Symposium:
The Ventilator Liberation Process; a Fresh Look at the Evidence

1:00 pm – 1:30 pm
The Role of Weaning Parameters in the Ventilator Discontinuation Process
Neil R MacIntyre MD FAARC, Durham NC
This presentation will review the weaning parameters that have been proposed over the years. What is the most current evidence to support these parameters? Should every patient be assessed with the rapid-shallow breathing index? The presenter will discuss when, if ever, weaning parameters should be used, and if so which ones.

1:35 pm – 2:05 pm
The Role of Noninvasive Ventilation in the Ventilator Discontinuation Process
Dean R Hess PhD RRT FAARC, Boston MA
Can noninvasive ventilation be used to shorten the course of invasive ventilation? Can noninvasive ventilation be used to prevent extubation failure? Attendees of this presentation will learn when (in the context of invasive ventilation) it is most appropriate to intervene with NIV, when it's safe to consider and when it should be avoided. Presenter will review the most current evidence on this subject.

2:10 pm – 2:40 pm
Role of Tracheostomy
Ulrich Schmidt MD PhD, Boston MA
What is the evidence for early tracheostomy? Can conversion from an endotracheal tube to a tracheostomy allow earlier ventilator liberation? What is the role of pen versus percutaneous tracheostomy? Is there a "gold standard" when patients should be considered for tracheostomy? These and many other questions will be answered in this presentation.

2:45 pm – 3:15 pm
Ventilator Modes To Facilitate Weaning
Richard D Branson MSc RRT FAARC, Cincinnati OH
What new ventilator modes have become available with the promise to facilitate the ventilator liberation process? How do they work? What is the evidence supporting their use? Is one mode better than another or is it all marketing? Presenter will answer all of these questions and provide his perspective on whether closed-loop weaning is superior to therapist-driven weaning.

3:20 pm – 3:50 pm
Ventilator Discontinuation Protocols
Carl F Haas MLS RRT AE-C FAARC, Ann Arbor MI
Ventilator discontinuation protocols have been widely promoted in North America. What is the evidence supporting their use? What are some practical tips for their successful implementation? How do strategies used in North America differ from those used elsewhere around the world? What role does the RT play? Can nurses and physicians perform equally as well?

3:55 pm – 4:25 pm
Early Mobility and the Ventilator Discontinuation Process
Pedro Alejandro Mendez-Tellez MD, Baltimore MD
Early mobility of mechanically ventilated patients has received much attention in recent years. How has this impacted the ventilator liberation process? What is the evidence? Attendees will learn practical tips for safe and early mobility of mechanically ventilated patients. This presentation may challenge conventional beliefs of how clinicians have traditionally viewed the mechanically ventilated patient.

1:40 pm – 2:40 pm

Stents, Pacers, and VADs: A User's Guide for the Respiratory Therapist

Lori D Conklin MD, Charlottesville VA

Invasive cardiovascular devices play a major role in the clinical course for critically ill patients. This presentation will review the clinical application of these devices and what the respiratory therapist must know. Is there a role at the bedside for RTs with these devices? What scope of practice issues should be considered? Presenter will share with attendees how to enhance their value with the physician community by becoming active in the management of these pieces of equipment.

2:00 pm – 3:00 pm

Neonatal Resuscitation 2011 and Beyond

Thomas E Wiswell MD, Orlando FL

Much attention is given to lung protective ventilatory measures in the neonatal intensive care unit, but lung protection must occur from the very first breath. This presentation will describe lung protective strategies in the delivery room with considerations of future techniques and strategies that may further improve neonatal outcomes.

2:45 pm – 3:50 pm

Respiratory Home Care Update

2:45 pm – 3:15 pm

Home Care RTs: Is Anybody Still There?

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

This presentation will discuss the impact of round one of competitive bidding on the delivery of clinical respiratory care services in the home care. The presenter will offer suggestions on how the important role of the home care RT can be maintained in an environment where DME companies are looking to make cuts. Attendees will leave this presentation with a better understanding of how they can maintain and enhance the value they bring to their company.

3:20 pm – 3:50 pm

What Can We Expect from Round Two?

Joseph S Lewarski RRT FAARC, North Ridgeville OH

Still trying to wrap your brain around round one of competitive bidding? Not sure what round two will bring? This presentation will describe the announced process of round two of the competitive bidding process. Presenter will discuss how the process for round two might be impacted by lessons learned from round one. A can't miss presentation for any DME owner or manager.

2:45 pm – 5:00 pm

The Lungs and Beyond

Sponsored by

COPD FOUNDATION

2:45 pm – 3:15 pm

COPD 101 for Practitioners

Scott Cerreta RRT, Tucson AZ

This presentation will provide the RT with a refresher on the basics of COPD with emphasis on pathology and exercise limitations. A 3D interactive video will be used to show the audience what happens to lung tissue during disease development. Attend this lecture and refine disease management skills on the anatomy and physiology of COPD…your patients will be glad you did.

3:20 pm – 3:50 pm

COPD Comorbidity

Robert Sandhaus MD, Bow Mar CO

RTs often develop tunnel vision and think of COPD in a vacuum. We sometimes forget that COPD patients can often present with co-morbid conditions that may or may not be a direct result of their lung dysfunction. COPD impacts more than just the pulmonary system. This presentation will identify and discuss other organ systems affected by COPD, and what considerations should be made by the RT when recommending treatment regimens for these patients.

3:55 pm – 4:25 pm

COPD Biomarkers: Is There Anything Better than Spirometry?

Stephen I Rennard MD, Omaha NE

Biomarkers are more than a simple smear of the chromosomes. It's genetic testing that allows for early recognition of patients at risk for COPD through no fault of their own. What data is included in the international database to help identify people earlier? Is it realistic for us to believe we can diagnose these patients before spirometric evidence suggests otherwise? Presenter will answer these and other questions. Expand your diagnostic skills by learning more about these fascinating indicators of COPD.

Sunday, Nov 6

4:30 pm – 5:00 pm
All COPD Is Not the Same – Moving Toward Individualized/Personalized Care
Byron Thomashow MD, New York City NY
Are we close to a "cure" for COPD? If so, what would it look like? This presentation will highlight why it is so critical to diagnose people as early as possible and what can be done once an accurate diagnosis is made. Presenter will discuss what new advancements have been made and which ones are on the horizon for early diagnosis of COPD. RTs will gain a better understanding of their role in the diagnosis of this disease.

3:00 pm – 4:55 pm
Open Forums #9 and #10
Sponsored by

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.

3:05 pm – 4:55 pm
Pediatric Research for the Clinician

3:05 pm – 3:30 pm
Top 5 Ways to Find the Research Behind Clinical Practice
Timothy R Myers RRT-NPS, Avon OH
So, you want to change clinical practice in your hospital, but a colleague asks for the data to support your views. Do you know how to find the applicable evidence? Searching via your internet home page does not always provide the complete answer. This presentation will review strategies to optimize search engines as well as specific database to fulfill your quest for information. Once you have your data, how do you interpret the evidence for your multidisciplinary team in an understandable manner? Come learn how to find, study, and translate the published research for your clinical practice.

3:30 pm – 3:55 pm
Top 5 Studies Relevant to Neonatal-Pediatric Practice: What Does This Mean for the Bedside Clinician?
Robert M DiBlasi RRT-NPS, Seattle WA
Ever feel as though you cannot keep up with all of the published data. Are colleagues quoting articles that you have never heard of? This presentation will review the top five neonatal-pediatric publications relevant to your practice. General strategies will help the bedside RT apply the medical literature in the clinical environment.

4:00 pm – 4:25 pm
So, You Want To Do Research?
Michael A Gentile RRT FAARC, Durham NC
From the perspective of the staff therapist, clinical research is often a vast unknown. This presentation will provide an overview of the clinical research environment from the bedside respiratory therapist's perspective. Both the therapist who would like to be more aware of the research environment as well as the therapist who would like to launch a research project will benefit from this session. If you have any desire to participate in research, attend this informative session.

4:30 pm – 4:55 pm
Researching Neonatal-Pediatric Products in Respiratory Care
Kathleen M Deakins RRT-NPS, Cleveland OH
You have a clinical need for new products or equipment in your clinical practice. But does the cost justify the anticipated patient outcome? If there are multiple products, which one is better? This presentation will attempt to answer these questions. Also, the opportunity of performing product development research in a niche market will be discussed.

3:05 pm – 5:00 pm
Mass Casualty Respiratory Care

3:05 pm – 3:40 pm
Increasing Needs and Role of the Respiratory Therapist in Disaster Response
Michael R Anderson MD, Cleveland OH
The overall purpose of the National Disaster Medical System (NDMS) is to supplement the integrated national medical response capabilities for assisting state and local authorities in dealing with the medical impact of major peacetime disasters. It also provides support to the military and the Department of Veterans Affairs medical systems in caring for causalities evacuated back to the U.S. from overseas conflicts. The NDMS is actively recruiting RTs to incorporate them into federal disaster response. The lecture will include an overview of NDMS and the proposed role of RTs in the updated staffing model.

3:45 pm – 4:20 pm
Critical Care in Disaster Response
CDR Lewis Rubinson MD PhD (USPHS), Senior Medical Advisor, Emergency Care Coordination Center, HHS/ASPR/OPEO, Washington DC
This presentation will cover the role RTs will play in a new critical care team being formed by the NDMS. Such topics include the need for highly skilled RTs with experience in critical care, job descriptions, the application process and preferred skill sets. The NDMS is actively recruiting for >100 RTs to fill slots on these new critical care teams.

4:25 pm – 5:00 pm
Ethical Decision Making During a Disaster
Mark D Babic RRT, Lakewood OH
When we are faced with a disaster and have run out of supplies, how will we make decisions that are ethical and treat people fairly? This lecturer will discuss the decisions that were made during the tornadoes in Joplin, MO, and Hurricane Katrina and the lessons that were learned from both. It will also describe the differences between palliative care and euthanasia. Finally, the lecturer will discuss a plan that is currently in place in Ontario, Canada, to deal with a pandemic.

3:20 pm – 4:45 pm
Neonatal Ventilation

3:20 pm – 4:00 pm
Ventilator Graphics: Visualizing Infant-Ventilator Synchrony
John S Emberger RRT FAARC, Newark DE
Patient-ventilator synchrony is essential, especially in the neonatal world. A strategic approach to the interpretation of neonatal airway graphics will be presented. Real-time graphics videos will be incorporated into the presentation. Strategies to optimize neonatal synchrony and other common neonatal ventilator problems will also be discussed.

4:05 pm – 4:45 pm
The Neonatal Ventilator: Where We Have Been and Where We Are Going
Robert M DiBlasi RRT-NPS, Seattle WA
Ventilator technology has changed drastically over the last 40+ years, but infants continue to suffer complications associated with mechanical ventilation. This presentation will describe the evolution of neonatal ventilators, including the effects on outcomes. The presentation will also review the major limitations of current neonatal ventilators. Speculation on the effects of new ventilator features will also be offered.

3:45 pm – 4:30 pm
Management Section Membership Meeting
Bill Cohagen 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.

4:00 pm – 4:50 pm
Home Care Section Membership Meeting
Gregg Spratt/*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.

4:00 pm – 4:55 pm
Establishing Expertise: The Role of the RT to Improve PAP Adherence
Joy E Hargett RRT, Houston TX
This presentation will review the potential issues that patients may encounter while starting and maintaining PAP therapy. The basics of PAP adherence will be discussed, including disease education, proper mask fit, and equipment education. Support activities and techniques to improve patient adherence to therapy will be emphasized while referencing the AARC's "Clinician's Guide to PAP Adherence."

4:30 pm – 5:00 pm
Adult Acute Care Section Membership Meeting
Keith Lamb 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.

4:35 pm – 5:15 pm
Surface to Air Transport Section Membership Meeting
Steven Sittig 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.

Open Forum Symposia

Respiratory Care Open Forum

Sponsored by monaghan™

The Open Forum at 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. Respiratory Care journal is proud to present this year's 20 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 October issue of Respiratory Care. Come to the Congress and experience an Open Forum symposium!

SATURDAY, NOV 5 • 12:30 pm – 2:25 pm
Respiratory Care Open Forum #1
Aerosols— Part 1

Analysis of Aerogen AeroNeb Solo Nebulizer Gap Time With and Without the AeroNeb Solo Leur to Determine Safe and Effective Use With Flolan—Tiffany Pezzano, Runnemede NJ

Conversion From Inhaled Nitric Oxide to Inhaled Epoprostenol Reduces Costs of Inhaled Pulmonary Vasodilator Therapy in Critically Ill Patients—Susan LaGambina, Boston MA

Efficiency of Aerosol Devices During Noninvasive Positive Pressure Ventilation in a Simulated Adult Lung Model—Maher AlQuaimi BSRC, Atlanta GA

Effect of Vibrating Mesh Design Changes on Aerosol Production and Aerosol Pause Times—Patricia Dailey BS, Springfield MA

Comparison of Microbial Growth in Small Volume Nebulizers—Randy Williams, Mobile AL

Evaluation of Circuit Particle Deposition Using the Aerogen Micropump Aerosol Generator With a Closed-System Ventilator Circuits—Kimberly Farney AAS, Columbus OH

Self-Efficacy at Taking Inhaled Corticosteroids in African-American Adolescents Prescribed Daily Inhaled Steroids for the Treatment of Persistent Asthma—Emeli Yevu MS, Hoffman Estates IL

Aerosol Drug Delivery Via SVN and Resuscitation Bags to Patients With Tracheostomy—Arzu Ari PhD RRT PT CPFT, Atlanta GA

Aerosol Deposition Using a Vibrating Mesh Nebulizer in Two Positions During High Frequency Oscillation in an Infant Lung Model—Cathy Bardua, Cincinnati OH

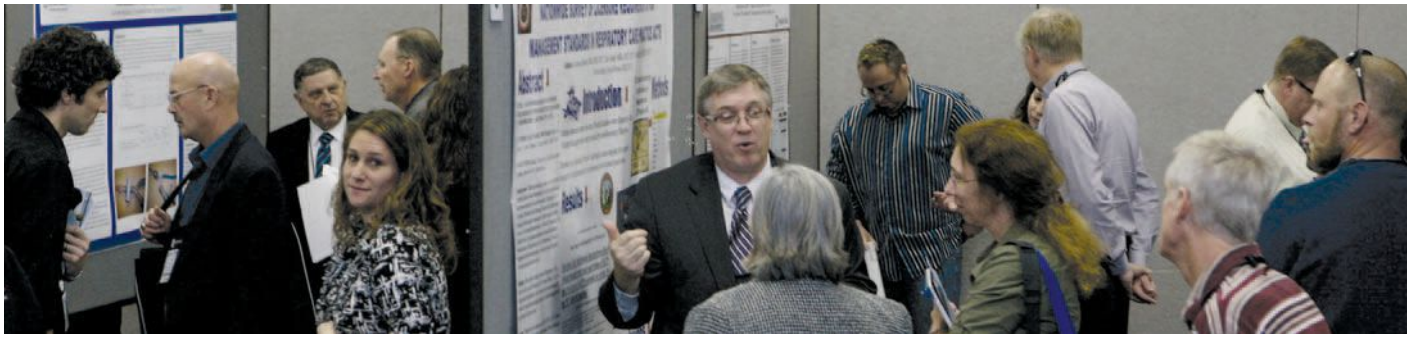
Feasibility of the Use of a Micropump During the Bivent/APRV Mode of Ventilation—Bob Demers BS, Temple City CA

Reducing Total Costs of Aerosolized Medication Delivery Using the AeroEclipse II Breath Actuated Nebulizer—John Wilson BSRT, Winston Salem NC

Safety and Therapeutic Potential of Inhaled Alkaline Glycine in Obstructive Airway Disease—Alix Paget-Brown MD, Charlottesville VA

The Effect of Interfaces on Aerosol Delivery in Simulated Spontaneously Breathing Adults With Tracheostomy—Alaa Bugis MSHS-RC MSRCL, Indianapolis IN

Comparison of the Performance of Jet Nebulizers Marketed in Taiwan—Hui-Ling Lin MSc, Taoyuan Taiwan



SATURDAY, NOV 5 • 12:30 pm – 2:25 pm
Respiratory Care Open Forum #2
Airways Care

Introduction and Evaluation of Metaneb IPV Device in a Pediatric Model—Cathy Hejl AAS, Minneapolis MN

Preliminary Report of a Quality Improvement Project to Assess the Reproducibility of Measurements of ETT Position in Pediatric Patients—Kevin Cleary, Seattle WA

Improving Tracheostomy Patient Safety Via a Respiratory Therapy Department Safety Committee—Victoria Martin, Cincinnati OH

Aggressive Oral Care in the Fight Against Ventilator Associated Pneumonia in Children on Long-Term Mechanical Ventilation—Tretha Hewett CRT, Dallas TX

High Risk Patient Protocol: Preventing Respiratory Complications—Pete Weber RRT, Green Bay WI

The Utilization of Sub-Glottic Endotracheal Tubes to Reduce Ventilator Associated Pneumonia Rate—Kenneth Mill MEd RRT-NPS, Allentown PA

A Bench-Top Model: the Comparison of Leakage Occurrence Around Endotracheal Tube Cuffs in Conventional Endotracheal Tubes and Those Newly Designed to Prevent Micro-Aspiration—Valerie Hathaway BS, Saint Paul MN

Cuff Pressure Increases Observed When Extra Volume Is Added to an Endotracheal Tube Cuff—Jim Fielder ASRC, Bellevue WA

Q48HR Suction Canister Change Protocol Experience—Caroline Panichello, Browns Mills NJ

Comparison of Simulated Subglottic Purge Maneuvers Using Endotracheal Tubes With Different Cuff Designs—Mark Siobal BS RRT, San Francisco CA

Exhaled Breath Condensate Assessment in Street Traffic-Operator and Office-Workers Exposed to São Paulo City Air Pollution—Naomi Nakagawa PhD, São Paulo Brazil

Increased Thickness and Volume of Mucus During Airway Diseases Facilitate Its Clearance During Cough—Anpalaki Ragavan MS, Reno NV

A Multifaceted Quality Improvement Approach Was Associated With a Decreased Incidence of Unplanned Extubations at King Fahad Medical City—Abdulmohsen AlAhmed BS, Riyadh Saudi Arabia

Inadequate Duration in the Prone Position Resulting in Decreased Oxygenation After Turning Back to the Supine Position in an Animal Model With Acute Respiratory Distress Syndrome—Ying Wu MD, Beijing People's Republic of China

SATURDAY, NOV 5 • 3:00 pm – 4:55 pm
Respiratory Care Open Forum #3
Asthma/Pulmonary Disease — Part 1

Coherence of Counting Talk Test to Determine an Appropriate Exercise Intensity in COPD Patients With Moderate and Severe Level—Fabiana Cantarutti Ronchi dei Legionari, Gorizia Italy

Correlation Between Smoking History and WBC Count—Sylvia Njau, Mobile AL

Developing an Asthma Management Plan to Meet the Joint Commission's Asthma Care Measure- 3, Including All Seven Components—Laurie Smrz RN AE-C, Milwaukee WI

Utilizing an Improvement Methodology to Implement the Joint Commission Children's Asthma Care Measure 3—Laurie Smrz RN AE-C, Milwaukee WI

Open Forum Symposia

Comparison of Clinical Outcome in Patients With Pulmonary ARDS and Extrapulmonary ARDS—Ramandeep Kaur MS, Chicago IL

The Relationship Between Knowledge of Inhaled Corticosteroids and Adherence to Inhaled Corticosteroids Among African American Adolescents—Alana Finley, Broadview IL

Effect of Roflumilast Treatment on Health Status in Patients With Chronic Obstructive Pulmonary Disease—Shawn Sun PhD, Jersey City NJ

Effect of Omeprazole on Pulmonary Functions in Patients of Mild to Moderate Chronic Obstructive Pulmonary Disease With Gastroesophageal Reflux—Nitish Kamble MD, New Delhi India

A Quasi-Experimental Study of the Relationship Between Lung Disease Knowledge and Brief Lung Health Educational Sessions—Alphonso Quinones DHA(C) MA RRT-NPS RPFT AE-C FACHE, East Meadow NY

The Addition of an Airway Clearance Specialist Improves Patients Outcomes and Satisfaction—Ginger Browning BS RRT, Cincinnati OH

Asthma Response Team—Clifton Dennis BHSA, Augusta GA

A Novel Approach to Spirometry Screening for COPD and Tobacco Use—Scott Cerreta BS RRT, Tucson AZ

Improving MDI Administration Education to Caregivers—Lisa Devoto, Cincinnati OH

SATURDAY, NOV 5 • 3:00 pm – 4:55 pm
Respiratory Care Open Forum #4
Education — Part 1

Predicting the Personality Type in Associate Degree Respiratory Therapy Students at Jefferson College of Heatlh Sciences—Linda Cochran MS, Roanoke VA

A Valid Academic Path to Promote Respiratory Physiotherapy—Simone Gambazza MSc, Firenze Italy

Leadership Styles of Respiratory Care Program Directors and Faculty Satisfaction and Faculty Willingness to Exert Extra Effort—Nancy Weissman PhD, Palm Beach Gardens FL

COPD Specialist Course: Evaluating Knowledge Amongst Healthcare Professionals—Scott Cerreta BS RRT, Tucson AZ

The Utilization of a Respiratory Care Journal Club to Facilitate State Continuing Educational Credits—Kenneth Mill MEd RRT-NPS, Allentown PA

Assessment of Interest in and Need for a Respiratory Care Preceptor Training Program—Lori VanBeusekom BS, St Paul MN

Determining Student Knowledge About Aging; Interprofessional Education—Helen Sorenson MA RRT, San Antonio TX

Use of High Fidelity Simulation to Improve Critical Thinking Skills and Decision Making in the Neonatal Intensive Care Unit—Daneen Nastars BSRC, Galveston TX

A New BSRT Program in Saudi Arabia: Effect of Student Evaluations on Curricular Changes and Overall Impact on Quality of the Program—Mansour Alaiwah BSRT MME, Riyadh Saudi Arabia

Implementing Asthma Strategies in Schools Through Developing Community Partnerships—Kathleen Hernlen MBA, Martinez GA

Staff Education Increases Reporting of Safety Events—Peter Black BS BAS, Rochester MN

A Five Year Comparison of Perceptions About Precepting—Elsie Collado-Koman MBA-HCM RRT, San Diego CA

The Clinical Reasoning of Expert, Competent, and Novice Respiratory Therapists Working in the Acute Care Setting Abstract—Rhonda Bevis EdD, Savannah GA

Student Survey Comparing Tegrity PowerPoint Lecture Recordings vs. Conventional Digital Video—Ijaz Ahmed MD RRT, Galveston TX

Understanding the Psychosocial Aspects of Waterpipe Tobacco Smoking (Hookah) Among College Students—Mary Martinasek PhD RRT-NPS AE-C, Tampa FL

Evaluation of Peer Teaching in the Respiratory Therapy Laboratory—Sarah Varekojis PhD RRT, Columbus OH

Respiratory Therapy Student Awareness of National Patient Safety Goals—Nancy Johnson, Medina OH

SUNDAY, NOV 6 • 10:00 am – 11:55 am
Respiratory Care Open Forum #5
Neonatal/Pediatric — Part 1

To Protocolize or Not to Protocolize: That Is the Question!—Karen Shambaugh, Ann Arbor MI

Evaluation of Number of Times Ventilator Circuit Is Broken Comparing Two Types of ETCO2 Devices—Tracey Neff, Cincinnati OH

Ten Year Multidisciplinary Experience of Reducing Accidental Extubations in a PICU—David Thelander BS RRT, Chicago IL

Shifting Atelectasis: a Sign of Foreign Body Aspiration (FBA) IN a Child—Diana Mark AS, Wichita KS

Comparison of Relative Humidity and Temperature With Two Types of Humidification Devices—Cynthia White, Cincinnati OH

Comparison of Two High Frequency Devices for Airway Clearance in a Simulated Pediatric Lung Model—Cynthia White, Cincinnati OH

Extracorporeal Membrane Oxygenation as a Mechanism for Rehabilitation While Awaiting Lung Transplantation: Program Development—Walter Williford III AS, Apex NC

A Standard Neonatal Self-Inflating Resuscitation Bag Without a Reservoir Delivers Oxygen Concentration of More Than 60%—Eribaweimon Shilla CRT MSc, Manipal India

the Bronchotron Ventilator: How Oscillatory CPAP, Pulse Frequency, and Pulsatile Flow Rate Influence the Ventilatory Dynamic—Mitchell Goldstein MD, Loma Linda CA

Use of a Procedural Checklist Dramatically Improves Tracheostomy Tube Safety in Children—Leane Soorikian BS RRT-NPS, Philadelphia PA

Nasal Respiratory Support (NARES) Via the Nares Using Neotech Ram Nasal Cannula in Newborn Infants With Respiratory Distress: Nasal Continuous Positive Airway Pressure [NCPAP] or Nasal Cannula-Intermittent Mandatory Ventilation [NC-IMV] From Delivery Room to Discharge—Richard Hernandez AS, Los Angeles CA

Variability of Fractional Inspired Oxygen During Simulated Pediatric Non-Invasive Ventilation—Darrin Bosquet, Boston MA

High Flow Nasal Cannula: When Does High Flow Mask Hypoventilation? —Rita Giordano, Philadelphia PA

Water Accumulation in the Circuit During Heated Humidified Nasal Cannula (HHNC) Therapy Using Two Different Humidification Systems—Rob Diblasi RRT-NPS FAARC, Seattle WA

Non-Invasively Measured Exhaled Breath Condensate Ph Can Detect Pulmonary Decompensation in Mechanically Ventilated Preterm Neonates—Alix Paget-Brown MD, Charlottesville VA

A Look at Delivered Nitric Oxide With a Heated Humidified Nasal Cannula—Jeffrey Wright BS, West Valley City UT

Open Forum Symposia

SUNDAY, NOV 6 • 10:00 am – 11:55 am
Respiratory Care Open Forum #6
Management — Part 1

Non-Invasive Rehabilitation Program in Cystic Fibrosis Patients With Urinary Incontinence—Monica Donà, Treviso Italy

Non-Invasive Ventilation in Cystic Fibrosis: the Italian Respiratory Physiotherapists' Point of View—Simone Gambazza MSc, Firenze Italy

How Creating a Collaborative Treatment Schedule for Adult Cystic Fibrosis Patients Can Improve Compliance of Airway Clearance Therapy—Tammy Kundinger RRT, Madison WI

Assessment of Malignancy in Patients With Idiopathic Pulmonary Embolus: a Protocol Evaluation—Robin Som MBBS BSc MRCS (Eng), London United Kingdom

Who's in Charge? —Renee Uchtorff BAS, Ann Arbor MI

Utilizing Web and Database Technology to Create a Custom Adaptable, Multi-Search, Real-Time-Editable, Multimedia-Rich Procedures, Policies and Equipment Online Tool for a Respiratory Care Department—Steven Prince BBA, Rochester MN

Improved Compliance of Departmental Competencies Through Internet Implementation—Rory Mullin BS RRT, Cleveland OH

Refining Tools and Processes to Help Improve the Hiring Process—Jan Phillips-Clar BS, San Diego CA

Unplanned Extubation in the Intensive Care Unit: One Hospital's Ongoing Experience—Russell Graham AS, Houston TX

Recognizing and Minimizing Distractions and Interruptions During Respiratory Care Shift to Shift Handoff at Children's Hospital of Wisconsin—Khris O'Brien AS, Milwaukee WI

Statewide Survey of Computer Documentation Issues by Respiratory Therapists in Acute Care Hospitals—Terrence Smith, Asheville NC

Disruptive Behavior in the Respiratory Workplace—Amanda Roby MHHS RRT RPSGT, Austintown OH

Creating an Effective Staff Empowerment Model in Your Department—Tanya Scholl, Cincinnati OH

SUNDAY, NOV 6 • 12:30 pm – 2:25 pm
Respiratory Care Open Forum #7
Monitoring/Equipment — Part 1

Capnography Monitoring for Patient Controlled Analgesia—Pamela Pohlenz BS, Grand Island NE

Evaluating the Proper Suction Catheter Size for an Artificial Airway—Joshua Gonzales MA Health Administration, San Marcos TX

Feasibility of Electrical Impedance Tomography (EIT) for Bedside Patient Use—John Emberger Jr BS RRT, Newark DE

Reducing Hospital Acquired Nasal Pressure Ulcers With Long Term NPPV Use—Marlene Riggle, Lexington KY

Bench Evaluation of NPPV Mask Leak Compensated VCO_2 Measurement—Joseph Orr PhD, Salt Lake City UT

Measurement of Dissolved Oxygen Tension in Fluid Following Supersaturation of Fluid With Oxygen Gas Using a Novel Hyperbaric Tonometer—Daniel Grady MEd, Asheville NC

Measurement of in Vitro Changes in Arterial Blood Gases Following Infusion of Supersaturated Dissolved Oxygen Solution—Daniel Grady MEd, Asheville NC

Relative Humidity Output at Different Oxygen Flowrates Using Salter High Flow Cannula and Bubble Humidifier—John Newhart AAS, San Diego CA

Evaluation of Accuracy and Reliability of the Neo-Tee Disposable T-Piece Resuscitator—John Gallagher BSHS, Cleveland OH

The Cost of Mechanical Ventilation: Reductions Due to Use of a Commercial Endotracheal Tube Holder—Michael Hewitt AS, Tampa FL

Correlation Between Different Tests to Assess Exercise Capacity in Patients With Cystic Fibrosis (CF)—Monica Donà, Treviso Italy

SUNDAY, NOV 6 • 12:30 pm – 2:25 pm
Respiratory Care Open Forum #8
Case Reports

Electrical Impedance Tomography Used to Monitor Regional Ventilation for a Patient With Pneumonia: a Case Study—John Emberger Jr BS RRT, Newark DE

Application of Diaphragmatic Stimulation for a Patient With Pontine Ischemia—Russell Graham AS, Houston TX

A Case Study: Benefits of Using Airway Pressure Release Ventilation on Patients With Rib Fractures—Donald Pearman BS RRT, San Diego CA

Ventilator Associated Pneumonia in Low Birth Weight Neonates at a Neonatal Intensive Care Unit—a Five-Year Retrospective Study in One Medical Center—Shih H Chu, Chiayi Taiwan

Infantile Hypophosphatasia Associated With Respiratory Insufficiency—Amy Gibbs, Little Rock AR

Use of Airway Pressure Release Ventilation With a Traumatic Brain Injured Patient—Brandy Davis, Columbia MD

Heliox Therapy in the Treatment of Mechanical Obstruction Secondary to Clot Formation in a Pulmonary Hemorrhage Patient—Kevin Bullock BS, Boston MA

Heliox Via Oxymask for Adult Airway Compression—Tom Strait BS, Tampa FL

Recurrent Plugging of the Tracheostomy Tube: Solving the Problem of Humidity Deficit and Portability for a Home Care Tracheostomy Patient With Airvo (Fisher & Paykel)—Lynn Sullivan BS RRT-NPS, Leominster MA

Transition From High Frequency Oscillatory Ventilation to Bivent Mode of Ventilation to Facilitate Intra-Hospital Patient Transport: a Case Report—Gary Lowe MEd RRT-NPS RPFT, Little Rock AR

Use of Neurally Adjusted Ventilatory Assist Technology to Facilitate Successful Transition to a Home Care Ventilator in an Infant With Chronic Lung Disease of Prematurity—Gary Lowe MEd RRT-NPS RPFT, Little Rock AR

Large Airway Obstruction in a Patient With an Undiagnosed Double Aortic Arch—Susan Roark BSRT, Atlanta GA

The Use of Carbogen for Apnea Test on a Pediatric Patient—Maria Madden BS, Fallston MD

Auto-Triggering and Optimal Trigger Sensitivity in a Patient With a Biventricular Device—John Priest AS, Boston MA

SUNDAY, NOV 6 • 3:00 pm – 4:55 pm
Respiratory Care Open Forum #9
Sleep/Pulmonary Rehab

Long Term Effectiveness of CPAP Treatment With Nasal Pillows Interface in Patients With Obstructive Sleep Apnea Syndrome—Andrea Lanza, Milan Italy

Coherence of Counting Talk Test to Determine an Appropriate Exercise Intensity in COPD Patients With Moderate and Severe Level—Fabiana Cantarutti, Ronchi dei Legionari Gorizia Italy

Global Care Project's Impact, Focused on COPD Patient: Implementing Respiratory Care From Acute to Rehabilitation and Home Care Program—Roberta De Carli RRT, Sant'Angelo Lodigiano Italy

Additional Effect of Arm Supported Exercize Administered During Weekend in Addition to Standard Hospital Rehabilitation Program in COPD Patient—Rossella Cavalli MD, Sant'Angelo Lodigiano Italy

Ease of Use Assessment of the Modified Borg and Modified Medical Research Council Dyspnea Scales—Melinda Weaver BSRC, Canfield OH

The Different Understandings of the Role in Pulmonary Hygiene/Toilet Amongst Respiratory Therapy and Nursing Staff—Christopher McCormick BS RRT, Morgantown WV

A Study to Assess Gains in Activities of Daily Living With Rate of Perceived Exertion Pre and Post Rehabilitation—Sheila Kamath MS RRT, Augusta GA

Inpatient Rehabilitation Outcomes Following Lower Extremity Fracture in Patients With Pneumonia—Ijaz Ahmed MD RRT, Galveston TX

Comprehensive Outpatient Pulmonary Rehabilitation as an Adjunct to Treatment in Patients With Pulmonary Hypertension: Evaluating Effects on Six Minute Walk Distance, Dyspnea and Quality of Life—Leonard Wittnebel MSIS RRT, San Antonio TX

Validation of Inpatient Testing for Sleep Disordered Breathing in Hospitalized Patients With Heart Failure—Jenny Hsieh, Buffalo Grove IL

Open Forum Symposia

SUNDAY, NOV 6 • 3:00 pm – 4:55 pm
Respiratory Care Open Forum #10
Ventilation/Ventilators — Part 1

Weaning Protocols & RSBI: Creating a Foundation for Successful Extubation of Mechanically Ventilated Patients—Deneen LeBlanc, San Diego CA

Measurement of Sub Tidal Volume and Mean Airway Pressure Changes as a Result of Resistance Changes on the High Frequency Percussive Ventilator. a Bench Study—Greg Merritt BSRC, Allen TX

Contribution of Ventilatory Mode to Successful Liberation From Mechanical Ventilation in Patients With Exacerbation of Chronic Obstructive Pulmonary Disease—Brianna Schimelpfenig, Rochester MN

High Frequency Oscillatory Ventilation: Algorithmic Application Improves Application, Monitoring and Implementation—Eduardo Mireles-Cabodevila MD, Little Rock AR

Process Change in a Trauma ICU Results in Increase Satisfaction for Respiratory Therapist/Registered Nurse Collaboration—Samson Tesfaye, Baltimore MD

Adaptive Support Ventilation Reduces Ventilator Duration in a Large Surgical Intensive Care Unit—Ken Hargett MHA Houston TX

Prospective Comparison of the Integrated Pulmonary Index (IPI) to Results From Spontaneous Breathing Trials (SBT) — Arthur Taft PhD RRT FAARC, Augusta GA

Source Gas Use for Twenty Critical Care Ventilators on Six Different Settings—Brian Ruzich, Olathe KS

Decreasing ICU LOS, VAP Rates, and Mechanical Ventilator Days Using an Electronic Standardized Wean Screening Tool by the Respiratory Therapist—Michael Bingaman BS, Danville PA

Performance of Four Ventilator Circuits, a Bench Study—Matthew Davis RRT, Nottingham MD

Patients' Opinions About Symptoms With and Without Humidification During Noninvasive Positive Pressure Ventilation—Tim Op't Holt EdD RRT AE-C FAARC, Mobile AL

Assessment of Variability in Recruitment Maneuver Delivery and Understanding—Michelle Moore AS, Pittsburgh PA

Volume Delivery and Measurement Characteristics of the Trilogy 202 Portable Ventilator—Thomas Cahill BS, Cincinnati OH

Going With the Flow: Factors That Affect F_{IO_2} While Using Low Pressure O_2 With the Pulmonetics LTV 1200 Ventilator—Joseph Bolton MBA, Philadelphia PA

MONDAY, NOV 7 • 9:30 am – 11:25 am
Respiratory Care Open Forum #11
Ventilation/Ventilators — Part 2

Do Tidal Volumes and Flow Rates Affect Relative Humidity and Temperature?—Kyle Jendral MS-RC, Lockport IL

Lung Bypass for Hermansky-Pudlak Syndrome (HPS) Patient Eliminating Need for Mechanical Ventilation While Awaiting Lung Transplant—Tiffanee Singer, Baltimore MD

Evaluation of Peak Inspiratory Pressure and Inhaled Tidal Volume During PC-PSV With Variable Pressure Support on the Dräger V500—Ross Armstrong, Boise ID

Evaluating the Set Release Percentage of Autorelease During APRV ON THE Dräger V500—Ross Armstrong, Boise ID

Correlation of Time Constants With Time Low and Release Volume in Airway Pressure Release Ventilation—John Emberger Jr BS RRT, Newark DE

A Comparison of Initiation Points of High Frequency Oscillatory Ventilation on Mortality Rates in Patients With Extrapulmonary Causes of Acute Respiratory Distress Syndrome—Daniel Rausch AS, Honolulu HI

a Bench Comparison: an Evaluation of the Effect of Pressure Changes and Tubing Design on Tidal Volume Display on the Philips V60—Lori Alturo BS, West Chester PA

Difference Between Calculated and Measured Tracheal Pressures at Peak Inspiratory Flow Demand During ATC on the Dräger XL Ventilator—Mark Siobal BS RRT FAARC, San Francisco CA

Effects of HFOV Ventilatory Parameters Upon the Lung Hemodynamics in Rat Heart and Lung Dissection—Karel Roubik PhD, Kladno Czech Republic

Eliminating Ventilator Acquired Pneumonia: an Interprofessional Collaboration—Jon Inkrott, Cincinnati OH

Multidisciplinary Strategy to Reduce VAP—Brian Glynn, Philadelphia PA

The Effect of a Dual Targeting Scheme on Tidal Volume Delivery During Volume Control Mechanical Ventilation—Justin Hoffman BSRC, Youngstown OH

Effect of Various Closed Suction Catheters on Mean Airway Pressure and Amplitude With a 3100B Oscillator—Debbie Santucci, Springfield MA

Evaluation of New Tool to Measure Patient's Height During Mechanical Ventilation: Impact on Protective Ventilation (Freesize) —Azadeh Bojmehrani, Quebec Canada

MONDAY, NOV 7 • 9:30 am – 11:25 am
Respiratory Care Open Forum #12
Neonatal/Pediatric — Part 2

Laryngeal Mask Airway for Surfactant Administration in an Animal Model—Brenda Plumm, St. Paul MN

Effects of Tidal Volume and PEEP on Mortality in Pediatric Patients With Inhalation Injury—Ronald Mlcak PhD, Galveston TX

Effects of Pneumonia Following Burns and Inhalation Injury in Children—Ronald Mlcak PhD, Galveston TX

Comparison of Three Endotracheal Tube Stabilizing Techniques to Decrease Unplanned Extubations in Ventilated Neonates in a Level III Neonatal Intensive Care Unit—Shari Toomey, Hardy VA

Prospective Comparison Between Neurally Adjusted Ventilatory Assist (NAVA) and Conventional Mechanical Ventilation in Preterm Neonates—Jose Batista AAS, Livingston NJ

The Effects of High Flow Nasal Cannula on the Use of Invasive Ventilation and Nasal CPAP in a Level IIIC NICU—Chris Lynn MHA, Nashville TN

Adaptive Dynamic Inspiratory Nasal Apparatus (ADINA): Comparison to Traditional Nasal Continuous Airway Pressure (NCPAP) —Aprille Febre, Loma Linda CA

Does Hyperoxic Therapy Enhance the Resolution of Pneumothorax in the Neonate? —Mary Schneeberger, Mayfield Heights OH

Pressure and Volume Cost of High Frequency Ventilation (HFV) of Inhomogenous Lungs in a Neonatal Test Lung Model—Robert Gillette MD, San Antonio TX

Humidified High Flow Nasal Cannula Use in Neonates With Congenital Diaphragmatic Hernia—Kevin Crezee AAS, Salt lake City UT

Effect of a High Frequency Amplitude Attenuation Device on Exhaled Flow Variability During High Frequency Oscillatory Ventilation—Craig Smallwood BS, Boston MA

Evaluation of Optimal Extubation Settings for Patients With Severe Bronchopulmonary Dysplasia—Erin Wishloff BS, Columbus OH

Iatrogenic Auto-PEEP and Associated High PEEP Alarms Created by the Dräger VN500 Ventilator in the Neonatal Intensive Care Unit—Brent Kenney BSRT, Springfield MO

Tidal Volume Precision During Neonatal Volume-Targeted, Spontaneous Modes With a Large ETT Leak in an Erratically Breathing Infant Lung Model—Rob DiBlasi RRT-NPS FAARC, Seattle WA

Performance Evaluation of Four Subacute Care Ventilators in a Simulated Spontaneously Breathing Infant With Chronic Lung Disease—Rob DiBlasi RRT-NPS FAARC, Seattle WA

A Novel Method for Measuring CO_2 Elimination During High Frequency Oscillatory Ventilation—Craig Smallwood BS, Boston MA

RESPIRATORY CARE

Open Forum Symposia

MONDAY, NOV 7 • 12:30 pm – 2:25 pm
Respiratory Care Open Forum #13
Home Care/O_2 Therapy

PAP Therapy: Increasing Patient Compliance Through Clinical Driven Pathways—Jenni Beilman RRT BS MHS, Wichita KS

Healthspring Medicare Advantage Plan-Comprehensive Case Management Respiratory Program—Deandrea Prince MBA RRT, Houston TX

Patient Satisfaction Following a Transition of Care COPD Management Program in the Home—Kimberly Wiles BSRC RRT CPFT, Ford City PA

Performance of Activities of Daily Living as a Predictor of Rehospitalization for Patients With COPD Exacerbations—Brian Carlin MD FAARC, Pittsburgh PA

Medication Usage for Patients With COPD Who Were Readmitted Within 30 Days Following Hospital Discharge for an Exacerbation—Brian Carlin MD FAARC, Pittsburgh PA

Transition of Care Program and Rehospitalization Rates for Patients With COPD Who Require Home Oxygen Therapy Following an Exacerbation: an Update—Brian Carlin MD FAARC, Pittsburgh PA

Effect of a Homecare Respiratory Therapist Education Program on 30 Day Hospital Readmissions of COPD Patients—Louis Kaufman BS, Germantown MD

Nocturnal Oxygen Saturations of COPD Patients Breathing Prescribed Oxygen—Louis Kaufman BS, Germantown MD

Evaluation of a Hospital Oxygen Conserving Flowmeter—Hal Herlong BS RRT, Whittier CA

Optimal Oxygen Titration Point in Full Face Mask CPAP Therapy—Bernhart Hochleitner, Reading PA

Autoadjusting O_2 System Raises SPO_2 Activity & Achieves Net O_2 Savings Over Nonadjusting Conserving Devices & Continuous Flow—Mark Miller AAS, Pueblo CO

Pulmonary Rehabilitation Corrects Oxygen Prescriptions in Chronic Lung Disease Patients—Arianna Villa BS RRT, San Diego CA

Evaluation of Bronchial Pressures and Tidal Volume Using Three Different Adult High Flow Nasal Cannula (HFNC) Devices—Ankeet Patel MS, Chicago IL

High Flow Nasal Cannula Oxygen Therapy Using a Simple Modification of the Respironics BiPAP Vision Circuit—Mark Siobal BS RRT FAARC, San Francisco CA

Comparison of Accuracy of Flow and Oxygen Concentration in Four Oxygen Blenders—Gary Lowe MEd RRT-NPS RPFT, Little Rock AR

Nasal High Flow (NHF) Therapy in Do-Not-Intubate (DNI) Patients With Respiratory Distress—Steven Holets BS, Rochester MN

MONDAY, NOV 7 • 12:30 pm – 2:25 pm
Respiratory Care Open Forum #14
Diagnostics

Spirometry for Seniors (S4S)—Helen Sorenson MA RRT, San Antonio TX

Errors During Point of Care Testing: Implications for Patient Safety—Jenni Raake MBA RRT NPS, Cincinnati OH

Errors Made During Point of Care Testing: Contributing Factors From the Bedside Respiratory Therapist Perspective—Jenni Raake MBA RRT NPS, Cincinnati OH

Analysis of Stat Lab Turn-Around-Times Before and After Conversion of the Hospital Information System—Gary Lowe MEd RRT-NPS RPFT, Little Rock AR

Comparison of Methods for Measurement of Blood Gases and Whole Blood Lactate Levels Between the Opti-Medical CCA-TS Portable Blood Gas Analyzer and the Roche Cobas B221 Benchtop Analyzer—Daniel Grady MEd, Asheville NC

The Use of Indirect Calorimetry Measurement for Quantitative Assessment of Patient Ventilator/Asynchrony—Thomas Glass, Royal Oak MI

Success Rate of Sputum Induction Performed on Adult Inpatients During Treatment of Lower Respiratory Tract Infection—Anne Flaten MBA, Madison WI

Comparison of the Aerocrine Mino Exhaled Nitric Oxide Device With the Sievers Eno Analyzer in Patients—Kristen Fields, Rochester MN

Prevalance of Obstruction Seen on Spirometry at Well-Child Visits—Elizabeth Koch BS, Cincinnati OH

Relationship Between Blood Pressure and Its Effect on Arterial Sampler Filling Times During Percutaneous Puncture in Human Subjects—F. Herbert Douce MS, Columbus OH

Non-Bronchoscopic Bronchial Alveolar Lavage (NB-BAL): a Safe and Less Expensive Procedure Compared to Bronchoscopic BAL in Diagnosing Pneumonias in the ICUs—Cherian Paily MS RRT, Chicago IL

MONDAY, NOV 7 • 3:00 pm – 4:55 pm
Respiratory Care Open Forum #15
Aerosols — Part 2

Common Canister Process and Therapeutic Interchange Implementation—Sandra Petter RRT AAS, Louisville KY

Continuous Albuterol Therapy in a Pediatric Academic Emergency Department—Andrew Miller, Durham NC

Aerosol Medication Scheduled Delivery Errors on Hospitalized Patients—Michael Spandorfer MD, Charleston SC

Quantifying Aerosol Delivery in Newborns, Infants and Toddler Using Different Drug Dosages With High Flow Nasal Cannula—Arzu Ari PhD RRT PT CPFT, Atlanta GA

Resistance Determinations of a Novel Aerosol Delivery Adaptor in a Neonatal Model—Christopher Henderson AS, Warrington PA

Are Patients Generating Appropriate Inspiratory Flow for Their Inhaled Medications? —Bill Pruitt MBA, Mobile AL

An In-Vitro Comparison of the Breath Actuated Nebulizer With the Jet Nebulizer at Two Different Drug Dosages—Abdullah ALQarni, Atlanta GA

Comparison of Drug Temperatures During Transport by Respiratory Therapists Using the Isothermal Medipac Device, Lab Coat Pocket, Medication Carts on Wheels, and Pyxis Machines—Daniel Grady MEd, Asheville NC

Cost Reduction Using Aeroneb Solo in a Medical ICU Ventilator Population—John Emberger Jr BS RRT, Newark DE

Aerosolized Albuterol Particle Size Distribution in Two Aerosol Delivery System Configurations Under Neonatal Ventilation Conditions—Jan Mazela MD, Poznan Poland

Delivery of Aerosolized Albuterol Using a Novel Aerosol Delivery Adaptor in an in Vitro Neonatal Ventilation Model—Jan Mazela MD, Poznan Poland

Aerosol Delivery During High Frequency Oscillatory and Jet Ventilation—Lee Williford, Durham NC

Aerosolized Kl4 Surfactant Improves Gas Exchange and Survival in Spontaneously Breathing Piglets With HCL Induced Acute Lung Injury—Patricia Meyers BS, St. Paul MN

Aerosolized Iloprost Is a Viable Alternative to Inhaled Nitric Oxide in Post Cardiothoracic Surgery Patients—John Davies MA RRT, Durham NC

Open Forum Symposia

MONDAY, NOV 7 • 3:00 pm – 4:55 pm
Respiratory Care Open Forum #16
Management — Part 2

The Effect of an RT Consult on Emergency Department Flow—Thomas Cahill Jr BHS, Cincinnati OH

A Comparison of Metrics for a Respiratory Care Department in an 800 Bed Medical Center—Daniel Grady MEd, Asheville NC

Use of Robotics in Respiratory Care: a Cost-Benefit Analysis of a Collaborative Pilot Project—Daniel Grady MEd, Asheville NC

Healthcare Cost Reductions Using a Daily, RVU-Based, Flex Staffing System for a Respiratory Care Department—Daniel Grady MEd, Asheville NC

Organizational Readiness to Implement a Smoking Cessation Intervention—Erna Boone DrPH, Little Rock AR

Readiness for Smoking Cessation Among Clients in a Small, Non-Profit Substance Abuse Treatment Program—Erna Boone DrPH, Little Rock AR

The Influence of Global Budget System on the Medical Resource Utilization of Integrated Delivery Services for Ventilator-Dependent Patients—Hung Huei Ling MSc, Kaohsiung Taiwan

Consideration of Ventilator Setting Adjustments on Reported Productivity—Deneen LeBlanc MA, San Diego CA

Factors Influencing Job Satisfaction for Respiratory Care Practitioners—Bill Pruitt MBA, Mobile AL

Status of Respiratory Therapists in Saudi Arabia: a National Survey—Ghazi Alotaibi PhD RRT, Dammam Saudi Arabia

A Respiratory Therapist-Led Interdisciplinary Inpatient COPD Care Program Can Improve Outcomes in Patients Hospitalized for a COPD Exacerbation—Gary Brown, Fargo ND

Preventing and Tracking Non-Invasive Ventilation (NIV) Interface Related Pressure Ulcers as a Quality Measure—Dave Crotwell RRT-NPS, Seattle WA

Integral Role of Respiratory Therapists in a Comprehensive Pain Management Program Using End Tidal CO_2 Monitoring—Debra Fox MBA RRT-NPS, Wichita KS

TUESDAY, NOV 8 • 9:30 am – 11:25 am
Respiratory Care Open Forum #17
Asthma/Pulmonary Disease — Part 2

Effectiveness of Asthma Education on Children Asthma Management—Yunige Park, Mobile AL

Causes OF COPD Exacerbation in a Hospital Population—Thuy Nguyen, Mobile AL

Improving Delivery of Evidence-Based Asthma Care: Asthma Education and Spirometry Training for Medical Assistants at Federally Qualified Health Centers—Len Picha, Charleston WV

Gender Differences in the Clinical Presentation of Sarcoidosis in Estonia—Hille Lill, Tartu Estonia

Implementation of an Indoor Air Quality Assessment for Three Schools in the East Central Health District of Georgia—Kathleen Hernlen MBA, Martinez GA

Inpatient Tobacco Dependence Counseling by Respiratory Therapists in a Large Academic Medical Center; Recommendations, Patient Satisfaction and RT Perceptions—Georgianna Sergakis PhD, Columbus OH

Outcomes Associated With Mono, Dual or Triple Combination Maintenance Therapy in Patients With Chronic Obstructive Pulmonary Disease—Craig Plauschinat PharmD MPH, East Hanover NJ

The Asthma Awareness Patch Program for Girl Scouts; an Evaluation of Educational Effectiveness—Teresa Volsko MHHS RRT FAARC, Youngstown OH

Effect of Roflumilast Treatment on Health-Related Quality of Life in Patients With Chronic Obstructive Pulmonary Disease—Shawn Sun PhD, Jersey City NJ

Can Exposure to Nail Salon Chemicals/Dust Increase the Risk of Developing Occupational Asthma? —Bill Pruitt MBA, Mobile AL

Asthma Attitudes and Beliefs From the Brooklyn Community Asthma Survey—Ellen Becker PhD, Brooklyn NY

Relationship of FEV_1 and Computerized Tomographic Emphysema Scores to Function in COPD—Josh Boyd, Durham NC

TUESDAY, NOV 8 • 9:30 am – 11:25 am
Respiratory Care Open Forum #18
Ventilation/Ventilators — Part 3

Evaluation of a Volume Targeted NIV Device: Bench Evaluation of the Breathe Technologies Non-Invasive Open Ventilation System (NIOV)—Richard Branson MSc RRT FAARC, Cincinnati OH

Documenting V_T in mL/kg PBW: Impact by Gender—Carl Haas MLS, Ann Arbor MI

Patterns of Tidal Volume Delivery During Mechanical Ventilation: a Retrospective Review of 2004-2010—Carl Haas MLS, Ann Arbor MI

Analysis of Two Different Ventilation Strategies During Interventional Rigid Bronchoscopy—Joel Brown II BS RRT, Newark DE

Bench Study of Two Battery Backup Units for the 3100B—Joel Brown II BS RRT, Newark DE

Tidal Volume Is Independently Associated With Outcome in Critically Ill Patients Receiving Mechanical Ventilation—Rory Mullin BS RRT, Cleveland OH

A Bench Study to Evaluate Dräger APRV With Auto Release Under Varying Compliance and Resistance—Stanley Baldwin MBA, Loma Linda CA

Agreement Between Respiratory System Compliance Obtained by Traditional Method Versus Esophageal Pressure Monitoring—Carl Hinkson, BS Seattle WA

Noninvasive Positive Pressure Ventilation Usages: a Survey of Respiratory Therapists—Degen Clow, Little Rock AR

Impact of Increased Staffing and Dedicated Respiratory Team on Liberating Patients From Mechanical Ventilation—John Emberger Jr BS RRT, Newark DE

A Statewide Survey of Patient Safety Issues Resulting From Non-Respiratory Therapists Adjusting Mechanical Ventilator Controls in Acute Care Hospitals—Daniel Grady MEd, Asheville NC

Evaluation of Three New Generation Portable Ventilators—Thomas Blakeman MSc, Cincinnati OH

Effects of Bias Flow on Carbon Dioxide Elimination During Pediatric High Frequency Oscillatory Ventilation—Walter Williford III AS, Apex NC

Open Forum Symposia

TUESDAY, NOV 8 • 1:00 pm – 2:55 pm
Respiratory Care Open Forum #19
Education — Part 2

Effects of an Interprofessional Clinical Simulation Activity on Student Confidence Levels of Interprofessional Team Collaboration Skills—George Steer PhD, Roanoke VA

Hospital-Initiated Implementation of the 5 A's for Smoking Cessation by Respiratory Therapists—Shane Groves RRT, Indianapolis IN

Changing CPR to a Resuscitation Bundle Format Improves Incidence and Outcomes in Inpatient Cardiopulmonary Arrest—Trista Kallis BS, Encinitas CA

Tobacco Use Among Lesbian, Gay, Bisexual, and Transgender Atlantans: a Community Needs Assessment—Lawrence Bryant PhD, Atlanta GA

Development and Validation of the University of Dammam Respiratory Care Educational Environment Measure (UDREEM) —Ghazi Alotaibi PhD RRT, Dammam Saudi Arabia

Performance Improvement Project: the Effect of Mandatory Bipap Workshop on a Respiratory Care Department—Lori Alturo BS, West Chester PA

The Mobile Classroom: Assessing Staff Satisfaction With Online Training—Ben Downs, Little Rock AR

Inter-Rater Reliability of a Respiratory Therapy Preceptor Training Program—Crystal Dunlevy EdD, Columbus OH

A Retrospective Comparison of Traditional and Hybrid Format of Course Delivery on Students' Learning and Perceptions of Teaching Effectiveness in Research Methodology—Arzu Ari PhD RRT PT CPFT, Atlanta GA

Utilizing High Fidelity Simulation as a Comprehensive Experiential Teaching Tool in Respiratory Care—Kimberly Beers, Hershey PA

Simulation: an Effective Non-Invasive Positive Pressure Ventilation Education Method for Resident Physicians? —Patricia Achuff MBA, Philadelphia PA

Advanced Educational & Leadership Development for Respiratory Care Programs—Travis Collins MS, Ft. Thomas KY

Identifying and Understanding Barriers to Advanced Degrees for Respiratory Therapists—Shawna Strickland PhD, Columbia MO

Perspectives on Passing the Certifying Examination for Respiratory Therapists—F. Herbert Douce MS, Columbus OH

Health Literacy: the Current State of Practice Among Respiratory Therapists—Kimberly Clark EdD, Charlotte NC

Developing an Asthma Action Plan and Improving Documentation Compliance Specific to the Emergency Room—Lindsey McLemore, Aurora CO

TUESDAY, NOV 8 • 1:00 pm – 2:55 pm
RESPIRATORY CARE OPEN FORUM #20
Monitoring/Equipment — Part 2

Comfort Evaluation of Noninvasive Respiratory Monitoring Interfaces—Jonathan Waugh PhD RRT RPFT CTTS, Birmingham AL

Implementation of Continuous Cardiac Monitoring While Weaning Patients Requiring Prolonged Mechanical Ventilation Results in a Reduction in Mortality—Laura Kaszer, Cleveland OH

Clinical Assessment of Carbon Dioxide Rebreathing Functional Residual Capacity Measurement—Lara Brewer, Salt Lake City UT

Accuracy of Automated Carbon Dioxide Rebreathing Functional Residual Capacity Measurement—Lara Brewer, Salt Lake City UT

Accuracy Evaluation of NM3 Volumetric Capnometry System—Joseph Orr PhD, Salt Lake City UT

Waveform Simulator for Evaluation of Capnometer Performance—Joseph Orr PhD, Salt Lake City UT

The Effect of Blood Pressure on RCP Ultrasound Guided Arterial Cannulation Success Rates—Andrew Miller AS, Durham NC

A Pilot Bench Study Comparing the Accuracy of the Neo-Tee Infant T-Piece Resuscitation Circuit With Existing T-Piece Circuits and Devices—John Gallagher BSHS, Cleveland OH

Mechanical Ventilator Alarms: Will They Ever Go Off? —Adil Al-Otaibi BSRC MSRC, Riyadh Saudi Arabia

Effects of Adding PEEP and Oxygen Flow on Delivered F_{IO_2} in the IPV Breathing Circuit—Jared Rice ASRC, Cleveland OH

AARC CONGRESS 2011

The 57th International Respiratory Convention & Exhibition

Pre-Congress 2011 Course

Hospital Readmissions: The Global Impact on Respiratory Therapy

Friday, November 4, 2011 • 8:00 am - 4:00 pm

Tampa Convention Center • Tampa, Florida

Reviewing the evolution of health care in the United States over the last 100 years clearly identifies that our care model has been based on a 'sickness model' and one that is typically focused on providing care in an episodic manner, with little or no coordination of care between various providers within the health care system. This symposium is a dramatic departure from this focus and was created to assemble experts from government, short term acute care, long term acute care, long term care, and physician practice, with the goal of identifying current ways in which providers can collaborate in a holistic model to coordinate care for chronic pulmonary disease patients to provide high quality, cost-effective, and coordinated care across the continuum of care.

- **Approved for 5.75 hours of CRCE credit. You must attend the entire course to receive CRCE credits; no partial credit will be given.**
- **Maximize your attendance by registering for one of the pre-Congress courses. Congress attendees receive a 60% discount on this course .**
- **If you have already registered for Congress, please use the registration form on page 157, or call Customer Service at 972-243-2272, to add one of these courses to your registration.**
- **Registration fee is separate from Congress registration.**
- **Course capacity is limited.**
- **Pre-registration is required.**
- **Deadline: October 14 or when the course is full.**
- **This course runs concurrently with the Mechanical Ventilation Course. You may register for only one.**
- **Lunch is on your own.**

Course Agenda

8:00 – 8:15am

Introduction

Sam Giordano MBA RRT FAARC, Executive Director, American Association for Respiratory Care, Irving TX

A brief review of the evidence and literature will be discussed that highlight the non-traditional roles RTs have played in some organizations to improve quality, reduce costs, and reduce hospital readmissions, that include but are not limited to disease management, case management, and discharge planning.

8:20 – 9:10am

Short Term Acute Care Hospital (STACH)

This presentation will review the current, and projected impact the Accountable Care Act has had on STACHs. More specifically, the presenter will discuss the financial impact readmissions from COPD, CHF, and pneumonia has on hospitals, and what role (if any) the RT can play to improve quality, reduce readmissions and control costs. The presenter; a senior leader from a STACH will review historic, and current hospital performance data, as well as what the future will hold for transparent reporting of quality metrics. Attendees will gain a better understanding of the current and future drivers of change in healthcare, and what value-added responsibilities RT departments must assume to succeed in this ever-changing environment.

9:15 – 10:05am

Long Term Acute Care Hospital (LTACH)

Garry Kauffman MPA RRT FAARC, CEO,
Select Specialty Hospital, York PA

When patients are transitioned from one level of care to another, is the transferring RT part of the discharge/transfer process? Do they know what traditional care plans might look like for that patient? Should they care? This presentation will provide a review of operations and CMS admission criteria for LTACHs, how the discharge process takes place, and the role of the RT in facilitating a smooth transition for the patient from the LTACH to the next level of care. What are the current and future challenges for LTACHs, including financial penalties for discharge/admission between LTACHs and STACHs? Identify how you and your fellow RTs can provide seamless care when patients are transitioned from one level of care to another and how you can demonstrate your value.

10:05 – 10:20am

BREAK

10:20 – 11:10am

Home Care

Kim Wiles, VP of Respiratory Services,
Klingensmith Healthcare, Ford City PA

This presentation will discuss why RTs must be engaged in the dischargeing process, and most importantly, know what happens to the patient and how they are cared for once they return home. Are they frequented and assessed by RTs on a regular basis? Do RTs set the patient up on home oxygen? Surprisingly, the answer to these questions usually is a resounding "no". Highlighting the current and future challenges of caring for the patient in the home, this presentation will give an overview of how hospital and homecare RTs can work together to improve care, and reduce hospital readmissions. The role of the inpatient RT does not end when the patient leaves the hospital.

11:15 – 12:05pm

Government (CMS)

This presentation will provide an overview of the existing healthcare model from a governmental agency perspective. A historical review of US reimbursement will be discussed and how the United States government has taken an aggressive approach to financially reward hospitals who focus on improving quality rather quantity; wellness rather than sickness. Attendees will acquire knowledge on current government programs, their intent, and what their organizations must do to qualify for additional reimbursement. Accountable Care Organizations will also be discussed and how through collaboration, data sharing, and a commitment to delivering evidence-based care every day, with every patient, can yield financial rewards to participating hospitals.

12:05 – 1:30pm

LUNCH (on your own)

1:30 – 2:20pm

Physician

Brian Carlin MD, Assistant Professor of Medicine, Drexel University College of Medicine, Pittsburgh, PA

They work directly with and are responsible for the care of cardiopulmonary patients; many of which are readmitted to the hospital for the same diagnosis they were just treated for. Readmissions are not new to the physician community. They have seen them happen for years. They know the challenges, and many know the reasons why and how the problem can be solved. This presentation will detail the physician's perspective of what the American healthcare model needs to do to address hospital readmissions (most of which are avoidable) and more specifically how the respiratory therapist can take a lead role to address this growing epidemic. The presenter will shift the paradigm of how we traditionally view the role of the RT and suggest untraditional responsibilities the RT can assume to assist physicians in keeping patients out of the hospital. A candid perspective will also be discussed on how the passing of HR 941 would impact the healthcare landscape and how RTs can anticipate being used in physician offices.

2:20 – 2:35pm

BREAK

2:35 – 3:25pm

Commercial Insurance

It is well publicized what actions the government and CMS are taking to combat avoidable hospital readmissions. What is less clear, however, is what stance commercial payers have taken and will take to address this issue. Will they mimic the government's actions and financially penalize hospitals that produce poor outcomes and have higher readmission rates? Will they create their own solution? Or will they create some sort of hybrid program that will provide a new look to the reimbursement landscape in healthcare? These answers and many more will be discussed during this presentation. This presentation will address hospitals that have a favorable payer-mix and serve a high patient population with commercial insurance. Chances are you have already taken steps to address reimbursement issues for patients insured through CMS. Now it is time to close the loop and understand how to manage reimbursement for patients of all payer-mixes.

3:30 – 4:00pm

Summation of Proceedings

Garry Kauffman MPA RRT FAARC

This presentation will provide a cursory review of all presentations within the symposium. Presenter will review what actions the AARC has taken and will take to address this issue and most specifically how they anticipate how the role of the respiratory therapist will change. Attendees will be asked to think "outside the box" as untraditional roles of the RT will be discussed. Also, a review of the current literature will be provided that highlights the value of the RT and what leadership roles they have played to reduce avoidable hospital readmissions for cardiopulmonary patients. Attendees will gain a better understanding of what next steps are required of the RT community to better serve cardiopulmonary patients at high risk for hospital readmissions.

Pre-Congress 2011 Course

Mechanical Ventilation 2011

Friday, November 4, 2011

8:30 am - 4:15 pm

Tampa Convention Center • Tampa, Florida

Changes in mechanical ventilation happen at lightning speed. New modes and strategies to liberate patients from ventilators come along faster than most clinicians can keep pace with. This symposium allows respiratory therapists from all disciplines to come together and learn from some of the world's leading experts in mechanical ventilation. Don't miss out on this exciting opportunity as our speakers will present material from patient synchrony, to disease specific ventilator strategies, ventilator discontinuation, NIV, and everything in-between. The day will conclude with a panel discussion with our experts. This is your unabated opportunity to ask our experts direct questions on topics that are most important to you.

- **Approved for 5.5 hours of CRCE credit. You must attend the entire course to receive CRCE credits; no partial credit will be given.**
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- **Registration fee is separate from Congress registration.**
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- **Pre-registration is required.**
- **Deadline: October 14 or when the course is full.**
- **This course runs concurrently with the Hospital Readmission Symposium. You may register for only one.**
- **Lunch is on your own.**

Course Agenda

8:30 – 8:45
Introduction and Format of the Course
Neil MacIntyre MD FAARC, Duke University Medical Center, Durham NC

8:50 – 9:25
Principles of Mechanical Ventilation
Neil MacIntyre MD FAARC

9:30 – 10:05
Patient-Ventilator Synchrony
Richard Branson MS RRT FAARC, University of Cincinnati, Cincinnati OH

10:10 – 10:45
Demonstration – Ventilator Modes, Mechanics and Synchrony
Neil MacIntyre MD FAARC
John Davies MA RRT FAARC, Duke University Medical Center, Durham NC

10:45 – 11:00
Break

11:00 – 11:35
Ventilator Management of ALI/ARDS – Lung Protection
Michael Gentile RRT FAARC, Duke University Medical Center, Durham NC

11:40 – 12:15
Ventilator Management of Obstructive Airway Disease
Dean Hess PHD RRT FAARC,
Massachusetts General Hospital, Boston MA

12:15 – 1:30
Lunch

1:30 – 2:05
Demonstration – Management of Severe Hypoxemia
Neil MacIntyre MD FAARC
John Davies MA RRT FAARC
Michael Gentile RRT FAARC

CONGRESS 2011

The 57th International Respiratory Convention & Exhibition

2:10 – 2:45
The Process of Ventilator Discontinuation
Dean Hess PHD RRT FAARC

2:50 – 3:25
Non-Invasive Ventilation
John Davies MA RRT FAARC

3:25 – 3:40
Break

3:40 – 4:15
Panel Discussion – Interactive Case Studies
Neil MacIntyre MD FAARC
Richard Branson MS RRT FAARC
John Davies MA RRT FAARC
Michael Gentile RRT FAARC
Dean Hess PHD RRT FAARC

Monday, Nov 7

The largest respiratory care Exhibit Hall in the world will be open in Tampa Florida on Saturday through Monday, Nov 5-7, 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

27th Phil Kittredge Memorial Lecture

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

Bruce K Rubin MD

Great Mistakes in Respiratory Care: How Evidence Has Changed Clinical Practice

Bruce K Rubin MD MEngr MBA FAARC, Richmond VA

What have been the 'great mistakes' in Respiratory Care? This presentation will review respiratory therapies which were once the accepted "gold standard" and then were later abandoned. Many traditional clinical approaches have been demonstrated by research evidence to be ineffective or even dangerous. How can we learn from our experience? Has recent evidence really changed clinical practice such that similar errors can be prevented in the future? Strengths and limitations of an evidence-based medicine approach will be discussed.

CONGRESS 2011

The 57th International Respiratory Convention & Exhibition

7:00 pm

34TH National Competition Sputum Bowl® Finals

Monday Nov. 7
Tampa, Florida

Sponsored by COVIDIEN

The top four teams will advance to the Finals on Monday evening, Nov. 7, along with the Student Sputum Bowl finalists.

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

Exhibit Hours at The Buying Show: Saturday - Monday, Nov 5 - 7, 11:00 am - 4:00 pm

Monday, Nov 7

9:30 am – 10:10 am

Respiratory Autonomy: Creating a Culture To Succeed

Scott Lofland RRT, Jackson MS

There are many reasons why some RT departments succeed where others fail. Some RTs work in an environment where they work autonomously under the auspices of therapist-driven protocols, where others struggle with respect, limited to task-driven procedures directed exclusively by physician order. What differentiates these two types of departments? How is culture established? What are the expected roles of the manager and medical director? These questions and others will be answered in this presentation, which will discuss the development of a political and clinical environment to support therapist autonomy. Presenter will provide a template to establish a pulmonary consult service.

9:30 am – 10:20 am

Hyperbaric Medicine

Clifford E Boehm MD RRT, Baltimore MD

The definition, indications, and contraindications for HBO therapy will be discussed. In addition to the basics presented at last year's conference, we will be discussing mechanical ventilation in the hyperbaric environment, its use in CO poisoning, and in the treatment of scuba diving and other forms of decompression illness. The role of respiratory therapists in providing HBO care will also be discussed.

9:30 am – 10:30 am

Lung Volume Assessment in the Mechanically Ventilated Patient: Techniques, Clinical Application, Practical Applicability

John J Marini MD, St Paul MN

Adept measurement of lung volumes and shifts in lung volume is important in the evaluation of chest mechanics in the critically ill patient, however spirometrically based assessments give incomplete and potentially misleading information. Knowledge of the absolute lung volume could be the missing piece required to guage severity of disease, risk of ventilation choice, selection of PEEP and tidal volume, and response to therapy. Imaging information provided by electrical impedance tomography and sonic imaging promise to give us a handle on heterogeneity and response to therapy. This presentation will review spirometric, gas dilution, and imaging methods that can be used in an attempt to avoid ventilator-associated lung injury, while tracking the course of disease and the lung's response to management.

RESPIRATORY CARE

Open Forum® Symposia

Sponsored by monaghan™

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. Twenty Open Forum Symposia will be presented during the four days of AARC Congress 2011. See pages 106-119 for symposium sessions, abstracts titles and authors.

9:30 am – 10:35 am

Communication Essentials for Safety and Success

9:30 am – 10:00 am

Assuring Safe and Effective Handoffs

Donna Clayton MBA RRT, St Louis MO

It has been well documented that adverse patient events occur when limited or no patient hand-off takes place. How can we substantially reduce defective handoffs? How does an RT department establish a culture of patient safety in which pertinent information is passed along during patient hand-off…every time? This presentation will review multiple handoff communication processes that meet The Joint Commission standard that can help reduce serious medical errors.

10:05 am – 10:35 am

Physician Partnering: Effective Communication Is Required!

Lisa Cracchiolo RRT, St Louis MO

Hand-offs don't just occur during shift report. Nor are they limited to communications between RTs. Patient hand-offs occur every time there is an exchange of information between caregivers. For the pulmonary patient, there is no more important exchange of clinical information between caregivers than that between the RT and physician. This presentation will describe tools and methods required to ensure effective communication between these two entries and how to build a culture in which meaningful hand-offs are not just a luxury, but a requirement.

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

Roberta Hales MHA RRT-NPS RN, Collegeville 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 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 protective tool that can be used to assess latent conditions in patient care environments, current protocols, and hospital systems. This presentation will demonstrate how simulation can be used to identify latent conditions.

10:05 am – 10:35 am

Using Simulation To Train for Low-Volume, High Risk Emergencies

Julianne S Perretta MSEd RRT-NPS, Eldersberg PA

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 in their institutions and discuss the process for designing a simulation for their low-volume, high-risk events.

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 respiratory therapists to adequately evaluate them because it is time consuming and an 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 participants to experience and explore technology in life-like scenarios that can uncover subtle 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 #11 and #12

Sponsored by

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.

9:30 am – 11:40 am

Managing Pulmonary Function Operation: Questions & Challenges in 2011

9:30 am – 10:10 am

Where Did All of Our Referrals Go? Strategies to Improve the Bottom Line

Matthew J O'Brien MS RRT RPFT, Madison WI

Does your pulmonary lab rely on a single physician group for the bulk of your outpatient referrals? Have you considered what would happen if this same physician group elected to open and staff their own lab? This presentation describes factors threatening hospital-based pulmonary function labs including; ambulatory competition, expenses, staff reductions and loss of expertise. Concepts are offered on how to differentiate your lab from others in your community and how to reverse the slow demise some labs are experiencing.

10:15 am – 10:55 am

Predicted Values in the PFT Lab: Past, Present and Future

Gregg L Ruppel MEd RRT RPFT FAARC, St Louis MO

This lecture looks at some of the issues surrounding selection and use of reference equations for pulmonary function tests. Some of the recent developments in statistical modeling will be described along with what these new methods might mean for interpretation of PFT results in the future.

11:00 am – 11:40 am

Lower Limit of Normal, 80% of Predicted, Misclassify

Gregg L Ruppel MEd RRT RPFT FAARC

The current debate about the lower limit of normal (LLN) is not completely resolved, and little information about the clinical impact of these different criteria is available. This presentation describes why the current recommendations for lower limit of normal values that are widely used in PFT labs can potentially misclassify patients. Alternative methods for expressing the lower limit or normal will be discussed.

Monday, Nov 7

9:30 am – 11:45 am

Hospital and Home Care RTs: Partnering for a Better Future (Part I)

9:30 am – 10:00 am

What Home Care RTs Need to Know About…The Hospital Discharge Planning Process

Dianne L Lewis MS RRT FAARC, Naples FL

From the perspective of the home care RT, it's a simple concept…"If the patient has home going respiratory needs, the hospital-based RT should facilitate the discharge." Unfortunately, it's not quite that simple. This presentation will provide an overview of the complexity of the hospital discharge planning process. Limitations and barriers will be discussed as to why RT departments may (or may not) be involved in the discharge planning for patients with home respiratory needs. Examples will be provided of why the discharge-planning process varies from hospital to hospital and influenced by hospital size and scope of services provided.

10:05 am – 10:35 am

What Hospital RTs Need to Know About…Referring a Ventilator-dependent Patient for Discharge

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

The process is much more involved than simply securing an order for discharge. When a ventilator-dependent patient is discharged from the hospital, there is much preparation that must take place on behalf of the hospital-based RT. This presentation will provide an overview of the requirements needed for a safe and effective transition of a ventilator-dependent patient from hospital to home or hospital to LTACH. Emphasis will be placed on the amount of lead-time, competence of transport team and pre-planning required to ensure caregiver familiarity will all primary and back-up equipment.

10:40 am – 11:10 am

What Home Care RTs Need to Know About… The Pending Impact of 30-day Readmissions Rate on Acute Care Hospitals

Douglas S Laher RRT MBA, Irving TX

This presentation will review the pending adverse impact of the implementation of CMS' value-based reimbursement methodology and the proposed metrics under consideration. Home care RTs will gain a better understanding and appreciation for the financial pressures faced by their hospital-based counterparts. Contributing factors for COPD and other cardiopulmonary re-admissions will be identified and how this metric will alter the way hospital RTs will practice discussed. Want to differentiate your DME from others in your community? Attend this presentation and learn how you can better serve RTs working in the hospital so that, together, you can address this growing problem.

11:15 am – 11:45 am

What Hospital RTs Need to Know About…Discharging a COPD Patient with Co-Morbid Conditions

Dianne L Lewis MS RRT FAARC

Patients with co-morbid conditions are more likely to get readmitted to the hospital following discharge. This presentation will describe the challenges that COPD patients with co-morbid conditions present to the home care therapist and what the hospital-based RT can do to facilitate a successful and safe discharge of these at-risk patients to home. This is a "can't miss" presentation for those working in a hospital with high readmissions rates. Your patients and hospital administrators will be glad you attended.

9:30 am – 11:45 am

Extracorporeal Life Support: What Are the Limits?

9:30 am – 10:00 am

ECMO: Today and Tomorrow

Heidi Dalton MD, Phoenix AZ

ECMO: What are the limits? What are the eligibility criteria for ECMO to continue to broaden? Patients who were previously considered ECMO candidates are being cannulated today. This presentation will review the recent trends in the clinical aspects of ECMO and will provide provocative speculation for the future.

10:05 am – 10:35 am
The Nuts and Bolts of ECMO
Walter L Williford RRT, Durham NC
The technical advances in the field of ECMO have been tremendous over the past few years. This presentation will review the recent technical advances in the field of extracorporeal life support, the role of the RT, and consideration for a specific patient population. Presenter will also provide insight on how he anticipates ECMO will evolve into the future…and whether RTs will go along for the ride.

10:40 am – 11:10 am
What If I Do Not Have an ECMO Program? Will You Really Transport My Patient?
Bradley A Kuch RRT, Pittsburgh PA
What if your critically ill patient requires ECMO and you're hundreds of miles from the nearest center? What if your patient with congenital heart disease cannot be separated from cardiopulmonary bypass? ECMO transport is reality. Patient management, flight physiology, and operational hurdles will be discussed. This presentation will conclude with an evidence-based review that includes complications and outcomes.

11:15 am – 11:45 am
Update in Fetal Surgery: The EXIT to ECMO Procedure
Sundeep Keswani MD, Cincinnati OH
One of the most difficult scenarios for the clinician is the anticipated delivery of an infant with a known severe cardiopulmonary malformation in which separation from the utero-placental circulation will lead to immediate instability. In such cases, an EXIT-to-ECMO strategy may be life-saving. This presentation will describe this novel approach along with the available outcome data.

9:30 am – 11:45 am
Management Boot Camp – Part I

9:30 am – 10:00 am
Professionalism in a Changing Healthcare Environment
Toni L Rodriguez EdD RRT, Phoenix AZ
Frequent solicitations litter AARConnect and specialty section list serves with questions about how to gain respect and be viewed as professionals and patient advocates. Unfortunately, respect is not something to be freely given away, but rather earned through actions as a professional and patient advocate. The presenter, a past AARC President, will provide recommendations on how respiratory therapists can and must conduct themselves in order to be seen as a valued health care professional. Be inspired, feel empowered, and become motivated to be a true health care professional by one of the most passionate and engaged members of our profession.

10:05 am – 10:35 am
AARC Uniform Reporting Manual
Bill Dubbs MHA MBA RRT FAARC, Irving TX
The AARC Uniform Reporting Manual can assist managers in establishing a credible productivity system that can guide short and long-term staffing decisions based on service demand. An overview of this updated manual, its expanded application, and ways in which the RT manager can use this tool to influence staffing and productivity decisions will be presented.

10:40 am – 11:10 am
How to Lead from the Front Lines
Scott Reistad RRT CPFT, Centura CO
"How do I become a leader without a title after my name?" This is one of the most common questions asked by aspiring leaders. The role of the RT manager is certainly well established in terms of competencies, skill, and abilities to lead, however this presentation will provide the front line RT with these same skills that they can utilize to become a leader in their department.

11:15 am – 11:45 am
Update on AARC Leadership Institute
Toni L Rodriguez EdD RRT
Do you want to explore the exciting world of management, research, or education? Are you concerned about the lack of career pathways to prepare you for these roles? This presentation will share with you the foundation the AARC has laid to better prepare our future leaders of tomorrow. The presenter, a past AARC President, will provide an update on the newly minted AARC Leadership Institute, its goals, and timeline for implementation.

Monday, Nov 7

10:15 am – 10:55 am
Inspiring the Uninspired
Mark Vargas AAS RRT RCP, Edgewood KY
Ever walk into work in a pleasant mood only to find out you get to spend the rest of the day working with the most unmotivated, uninspired person in the department? For them, the job is a means to an end – for you it's a passion. While it may not be possible to motivate the unmotivated, it is possible to inspire the uninspired. The presenter will provide a compendium of examples of how to inspire RT staff, both from the perspective of the manager and employee.

10:25 am – 12:05 pm
Inhaled Pharmacotherapy Update

10:25 am – 10:55 am
Nebulizers Are Not All Created Equal
Ruben D Restrepo MD RRT FAARC, San Antonio TX
Is there really a difference between a $0.50 nebulizer and another that costs ten times as much? Is the proof in the pudding or is it all marketing ploys? Aerosol deposition, output, and inspired mass are all critical characteristics that influence clinical outcomes. New generations of aerosol devices are associated with a greater deposition of medication. Attend this presentation to find out how your nebulizer measures up.

11:00 am – 11:30 am
Clinical Application of Inhalational Therapies for Infectious Processes
Marcos I Restrepo MD MSc, San Antonio TX
New clinical applications have significant benefits through unconventional therapeutic interventions. Vaccines and antimicrobials to treat or prevent infectious disease may now be inhaled and are frequently prescribed. Are they appropriate? Do they work? What is the role of the respiratory therapist and is delivery of these new medications within an RT's scope of practice? These and other questions will be answered in this presentation.

11:35 am – 12:05 pm
Other Non-conventional Inhalational Therapies: Insulin, Gene Therapy, and Analgesics
Arzu Ari PhD RRT PT CPFT, Atlanta GA
New uses of inhalational therapies to manage a series of conditions are emerging topics of significant interest. This lecture will review some of these applications, including insulin, gene therapy, and analgesics. Do you and/or your department administer these non-conventional inhalation therapies? Are policies and procedures in place to protect the patient and caregiver? Are these new medications within an RT's scope of practice? Attend this presentation to find out.

Continuing Respiratory Care Education (CRCE)

AARC Congress 2011 is approved for all the credit hours you need to maintain your state license, more than 25 hours.

10:40 am – 11:40 am
Sleep Section Membership Meeting
Michael Runge 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.

10:40 am – 11:45 am
Social Networking in Health Care: The Good, the Bad, and the Ugly

10:40 am – 11:10 am
List Serve's "Social Network or Near Live Consultation"
Keith Lamb RRT, Newark DE
In the new age of social networking and computer savvy practitioners, list serves have become a popular way to communicate with peers and professional colleagues. Are these list-serves just another social networking tool or are they legitimate ways of getting sound clinical advice? The AARC has its own social networking site for members – AARConnect. Before you accept list serve chatter as gospel, attend this presentation to learn pros and cons of these interactive ways of sharing information.

11:15 am – 11:45 am
Social Networking in the Workplace: Chatter or HR Disaster?
Colleen L Schabacker RRT FAARC, Cookeville TN
We cannot ignore social networking as being part of modern working life. Whether we choose to believe it or not, most employees utilize social networking sites while at work. Therefore, the focus should be not so much on that it happens but how we should manage it. Is it appropriate to use at work? When is it appropriate at work? What information is appropriate to share, and what policies should be in place to govern its use? This presentation will answer these questions and share real life examples you can take home with you to disseminate with your staff and co-workers.

11:00 am – 12:00 noon

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.

11:15 am – 12:00 noon

Continuing Care/Rehab Section Membership Meeting

Debra Koehl MS RRT-NPS 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.

12:30 pm – 2:25 pm

Open Forums #13 and #14

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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.

1:00 pm – 1:30 pm

Extreme Ventilation for Status Asthmaticus: Heliox and Inhaled Anesthetics

John S Emberger RRT FAARC, Newark DE

When conventional mechanical ventilation is failing for status asthmaticus, what can you do? This presentation will review the most current literature and evidence for the appropriate use of heliox and inhaled anesthetics. Presenter will use several case studies as a means to facilitate learning and exchange information on this therapeutic treatment option.

1:00 pm – 1:30 pm

Measuring Clinical Outcomes in Pulmonary Rehabilitation

Debra M Koehl MS RRT-NPS, Indianapolis IN

Your pulmonary rehabilitation program is a success. Patient volume that exceeds budget coupled with a favorable payer mix lead to strong financials. Operationally, your rehab clinic is doing fine, but how do you know if it's of benefit to your patients? The speaker will discuss the types of clinical outcomes that should be measured in a pulmonary rehabilitation program. The discussion will cover outcome tools that can be used to measure the patient's functional ability, quality of life, and degree of dyspnea.

1:00 pm – 2:40 pm

Pre-Operative OSA: One Hospital's Experience

1:00 pm – 1:30 pm

The Hospitalist's Role in the OSA Program

Scott Fitzgerald MD, Frisco TX

This presentation will describe the role of a hospitalist in the development, implementation and day-to-day management of the inpatient hospital OSA program. Rationale, challenges, and benefits of the program will also be discussed from the perspective of a physician. Attend this presentation to identify how you can engage your physician partners in creating an OSA program at your hospital.

1:35 pm – 2:05 pm

The Respiratory Department's Role in the OSA Program

Sharon Trongaard RRT, Frisco TX

Awareness regarding obstructive sleep apnea in the hospital setting gains traction each day. By now, most departments have policies or procedures in place to address this patient population. This presentation will review the history of OSA in the pre-operative setting, and risks to be mindful of post-operatively. Presenter will describe how to create an inpatient OSA program, and how RTs can aid in issues of patient flow, post-operative patient management, and outcome measurements.

2:10 pm – 2:40 pm

The Sleep Medicine Physician's Role in an OSA Program

Scott Fitzgerald MD

So you want to develop your own OSA program in your hospital but don't have an affiliated on-site sleep center? Is it a requirement to have one, or can you partner with another facility? This presentation will answer these questions and highlight the role of the sleep medicine physician in the development, implementation and day-to-day management of an OSA program. Rationale, challenges, and benefits of the program will also be discussed.

Monday, Nov 7

1:00 pm – 2:40 pm

What's New in Critical Care Transport

1:00 pm – 1:30 pm

On the Ground in an International Disaster

Bill L Hutchison RRT-NPS, Houston TX

This presentation will show the devastation that took place in Port Au Prince following a magnitude 7.0 earthquake. Absent of technological advances and no health care structures to speak of, the need for creativity, flexibility, and thinking outside the box to care for patients was at a premium. Attend this presentation and learn how volunteer respiratory therapists utilized their skills to meet the pulmonary needs of patients in a third world country. Find out how you too can serve during emergency medical disasters.

1:35 pm – 2:05 pm

Transportation of Patients Receiving Noninvasive Ventilation

Joe Hylton BSRT RRT-NPS NCEMT-B FAARC, Charlotte NC

This presentation will discuss the current challenges to transporting NIV patients as well as review transport requirements in various settings: pre-hospital, ED, inter-hospital, and intra-hospital. Presenter will highlight equipment options needed to provide care/support during transport that includes: high-flow oxygen, CPAP generators, BiPAPs for transport, and use of transport ventilators. A review of critical resources (battery options, gas consumption) will also be discussed.

2:10 pm – 2:40 pm

Advance Airway Pharmacology…Analgesics, Anesthetics, Sedatives/Hypnotics, and Paralytics…Oh My!

Scott Prater RRT-NPS CPFT NREMT-P, Charlotte NC

Protecting the airway is of paramount importance for the respiratory therapist. Assuming this responsibility during a patient transport is especially difficult. This presentation will discuss advanced airway pharmacology, to include the appropriate selection of analgesics, sedatives/hypnotics, and paralytics, based on patient presentation and co-morbidities. What role does the RT play and what information should they know when caring for patients with advanced airway emergencies?

1:00 pm – 2:45 pm

Automating Respiratory Care: Critical Considerations

1:00 pm – 1:50 pm

Optimizing Efficiency through Information Technology

Richard M Ford RRT FAARC, San Diego CA

Technology can improve productivity and operational efficiencies, but do so at a cost. The presenter will share valuable information on how an organization can make improvements in these areas, how to quantify them and what metrics should be considered when drafting an ROI to present to administration

1:55 pm – 2:45 pm

Facilitating Protocols through Information Technology

Garner Faulkner RRT, San Diego CA

Protocols have been proven to be a valuable tool to provide evidence-based care to patients. Care is expedited by allowing the RT to serve as a physician extender while making autonomous clinical decisions. Unfortunately, protocols are only effective when followed consistently and accurately. This presentation will highlight the importance of incorporating electronic protocols into a hospital's electronic medical record/information system using branching logic. Doing so will ensure adherence to the protocol, incorporate hard stop and start points, and keep the physician in the loop. Attend this presentation to learn how to incorporate your protocols into an electronic and digital format.

1:00 pm – 2:55 pm

Neonatal-Pediatrics Year in Review

1:00 pm – 1:25 pm

Neonatology

Thomas E Wiswell MD, Orlando FL

This lecture will provide a 2011 review of the top advances, management strategies, and evidence-based respiratory care practices in the neonatal intensive care setting.

1:30 pm – 1:55 pm

Neonatal-Pediatric Diagnostics

Timothy R Myers RRT-NPS, Avon OH

This lecture will provide a 2011 review of the recent literature regarding the advances, diagnostic and evidence-based respiratory care practices for infants and children with respiratory disorders in the diagnostic setting.

2:00 pm – 2:25 pm
Pediatric Pulmonology
Karen McDowell MD, Cincinnati OH
This lecture will provide a 2011 literature review of the advances, management and evidence-based care practices for children with respiratory disorders in the emergency and non-ICU settings.

2:30 pm – 2:55 pm
Pediatric Critical Care
Ira M Cheifetz MD FCCM, Durham NC
This lecture will provide a 2011 review of the top advancements in the pediatric critical care and cardiac critical care settings. Emphasis will be placed on evidence-based respiratory care technology and practices.

1:00 pm – 3:15 pm
Respiratory Care in 2011: the North American – European Perspective

1:00 pm – 1:30 pm
Approaches to Noninvasive Ventilation: The European Perspective
Michelle Chatwin PhD, London United Kingdom
This presentation will provide an overview of the approaches to noninvasive ventilation utilized in Europe. Patient selection, equipment used, and roles of various clinician groups will be discussed. Is the European model for NIV superior to the North American model? Attend this presentation to find out.

1:35 pm – 2:05 pm
Approaches to Noninvasive Ventilation: The North American Perspective
Dean R Hess PhD RRT FAARC, Boston MA
This presentation will provide an overview of the approaches to noninvasive ventilation utilized in North America. Patient selection, equipment used, and roles of various clinician groups including RTs will be discussed. Is the North American model for NIV superior to the European model? You may be surprised by the answer!

2:10 pm – 2:40 pm
Approaches to Liberation from Mechanical Ventilation: The European Perspective
Paolo Navalesi MD, Novara Italy
Is there one best way to liberate patients from mechanical ventilation? Is one mode of ventilation superior over another? Are nurses and physicians as adept at weaning patients as are RTs? This presentation will provide an overview of the approaches to liberation for mechanical ventilation in Europe. Specific approaches and roles of various clinician groups will be discussed. Is the European model for weaning mechanically ventilated patients superior to the North American model? Attend this lecture and formulate your own opinion.

2:45 pm – 3:15 pm
Approaches to Liberation from Mechanical Ventilation: The North American Perspective
Timothy R Myers RRT-NPS, Avon OH
Is there one best way to liberate patients from mechanical ventilation? Is one mode of ventilation superior over another? Are nurses and physicians as adept at weaning patients as are RTs? This presentation will provide an overview of the approaches to liberation for mechanical ventilation in North America. Specific approaches and roles of various clinician groups will be discussed. Is the North American model for weaning mechanically ventilated patients superior to the European model? Attend this presentation to find out.

1:00 pm – 3:25 pm
Tobacco, More Than Just Blowing Smoke! The History, Evolution and Health Policy of Tobacco in the U.S.

1:00 pm – 1:45 pm
The History of Tobacco: Know Thy Enemy
Jay Taylor RRT TTS, Fargo ND
Attendees will learn about the origins of tobacco in our country. Presentation will address how tobacco was once thought to be harmless, how large organizations embraced and promoted its use, and how disease evolved and developed over the years.

1:50 pm – 2:35 pm
Tobacco and the Evolution of Disease
Jay Taylor RRT TTS
The second part of this amusing but poignant presentation will continue to address the evolution of the tobacco movement and introduce the link to disease. Presenter will address the role and function of the respiratory therapist as a diagnostician and interventionalist, physician extender, a smoking cessation counselor, and support group facilitator.

Monday, Nov 7

2:40 pm – 3:25 pm
Health Policy Implications for Practitioners and Their Patients
Lynda T Goodfellow EdD RRT FAARC, Atlanta GA
This presentation will review current US and state health policy for tobacco control and the effectiveness of these current initiatives. A review of the literature for current medications used in treating tobacco dependence will also be included.

1:00 pm – 4:25 pm
Year in Review 2011
Presentations reviewing and discussing the most significant papers published in recent months.

1:00 pm – 1:30 pm
Year in Review: Education
Kathy Rye EdD RRT FAARC, Little Rock AR

1:35 pm – 2:05 pm
Year in Review: Management
Garry W Kauffman MPA FACHE RRT FAARC, Elizabethtown PA

2:10 pm – 2:40 pm
Year in Review: Pulmonary Rehabilitation
Neil R MacIntyre MD FAARC, Durham NC

2:45 pm – 3:15 pm
Year in Review: Long-Term Oxygen Therapy
Patrick J Dunne MEd RRT FAARC, Fullerton CA

3:20 pm – 3:50 pm
Year in Review: Airway Management
Ulrich Schmidt MD PhD, Boston MA

3:55 pm – 4:25 pm
Year in Review: Acute Respiratory Distress Syndrome
Carl F Haas MLS RRT AE-C FAARC, Ann Arbor MI

1:35 pm – 3:15 pm
Respiratory Therapy Competencies for COPD

1:35 pm – 2:05 pm
Competencies for COPD Management: the AARC COPD Educator Program
Thomas J Kallstrom RRT FAARC, Irving TX
This presentation will be an overview of the role of the respiratory therapist as a COPD educator. With much of the focus on the need for patients to be better self-managers of their disease as well as to decrease readmissions to the hospital, respiratory therapists can make a positive impact.

2:10 pm – 2:40 pm
Competencies for COPD Management: The Home Care Environment
Kim S Wiles RRT, Ford City PA
This presentation will provide the respiratory therapist with knowledge of the various competencies required to manage a COPD patient in their home care environment.

2:45 pm – 3:15 pm
Competencies for COPD Management: Pulmonary Rehabilitation
Brian W Carlin MD FAARC, Pittsburgh PA
This presentation will provide the respiratory therapist with knowledge of the competencies required as part of the management of the COPD patient who is undergoing pulmonary rehabilitation.

1:35 pm – 3:50 pm
Monitoring During Mechanical Ventilation

1:35 pm – 2:05 pm
Ventilator Graphics: New and Improved
Rory A Mullin RRT, Cleveland OH
Mechanical ventilator graphics are more than just "screen hoops and loops." In today's day-and-age, it's practically impossible to effectively ventilate patients without the utilization of ventilator graphics. This presentation will review the history and recent developments in ventilator graphics. User interface and innovative designing will be highlighted by demonstrations.

2:10 pm – 2:40 pm
Esophageal Pressure Monitoring: What Can We Learn from Balloons?
Michael A Gentile RRT FAARC, Durham NC
Esophageal catheters provide substantial information that may aid in the management of mechanical ventilation. Seperating information from the chest wall versus the lung is imperative to asses treatment strategy. Growing evidence suggests the information gathered by this technique may guide the administration of PEEP. This lecture will discuss the technology, techniques, and available literature of esophageal pressure monitoring.

2:45 pm – 3:15 pm
Current Clinical Concepts for Pulse Oximetry and Capnography during Mechanical Ventilation
Richard H Kallet MSc RRT FAARC, San Francisco CA
Over the past decade, advances in both oximetry and capnography, as well as their application in clinical practice, have opened the door to exciting new possibilities for ventilator management of patients with acute respiratory failure. This presentation reviews both the fundamental principles of each technology as well as interesting recent clinical studies. The implications for such discoveries in the emerging age of closed loop mechanical ventilation will be discussed.

3:20 pm – 3:50 pm
Hemodynamic Monitoring for the Critical Care Specialist
Mark S Siobal RRT FAARC, San Francisco CA
Cardiorespiratory interactions are an integral part of management for patients receiving mechanical ventilation. A comprehensive understanding of hemodynamic function in regard to preload, afterload, contractility, and rate control, provide a foundation for understanding cardiopulmonary physiology. This lecture will discuss the strategies for balancing the interrelationship between gas exchange and hemodynamic performance.

2:45 pm – 3:25 pm
A Lean Rapid, Improvement Process for a Hospital-based Pediatric Sleep Center
Michael McPeck RRT FAARC, Long Beach CA
This presentation will detail the Lean process, the benefits, and specifically the unique, yet surmountable, issues that can be overcome when striving to improve the operational efficiency of a pediatric sleep testing facility. Discussion will include details about the streamlined operating methodology that was developed, how barriers to efficiency were removed, and the environmental and patient/family improvements that were initiated. Potential cost reductions as well as outcome measurements will be presented.

2:45 pm – 4:25 pm
COPD Transition of Care: Reducing Re-hospitalization Rates – the Problem, the Plan and the Process

2:45 pm – 3:15 pm
The Plan and the Program – In the Home
Dan Easley, Ford City PA
Through no fault of our own, many RTs working in the home care setting have evolved into overpaid equipment transporters. Due to lack of reimbursement, many DMEs have either adopted this philosophy or closed their doors. This presentation will describe the discharge assessment and summary of a novel home care program that utilizes RTs the way they were intended – as clinicians and physician extenders. The presenter will discuss strategies for implementation of a similar home care management process anyone can incorporate.

Monday, Nov 7

3:20 pm – 3:50 pm
The Plan and the Program – In the Hospital
Matt VanCamp MBA RRT, Uniontown PA
While many hospitals incorporate respiratory therapists in discharge planning, many do not. As COPD readmissions become more rampant, RTs will likely play larger roles as case managers and discharge planners. This presentation will describe how to develop a discharge planning process in which the respiratory therapist will play a lead role. Attend this presentation to learn how RTs in your department can further evolve out of these nontraditional roles.

3:55 pm – 4:25 pm
COPD Gaps in Transition of Care
Brian W Carlin MD FAARC, Pittsburgh PA
What does the current process look like for the care of a COPD patient? What does the PERFECT process look like? This presentation will identify the gaps that currently exist in the care of a CODP patient who has been hospitalized with an exacerbation. Attend this presentation to close those gaps and provide better care to your COPD patients.

3:00 pm – 3:50 pm
Performance Appraisals: The Good, the Bad and The Ugly
Bill Cohagen RRT FAARC, Phoenix AZ
The presentation will demonstrate how to plan, prepare, and conduct performance appraisals that result in both an enhanced evaluation process as well as a planning tool to guide the employee. Presenter will highlight aspects of the performance evaluation process in which managers are notoriously good at, notoriously bad at, and notoriously ugly at. Attend this presentation to find out how to identify and close those gaps so that you can deliver performance appraisals that are meaningful, powerful, and mutually beneficial.

3:00 pm – 4:15 pm
Congenital Heart Disease: An RT Perspective

3:00 pm – 3:35 pm
Essentials of Congenital Heart Disease
Nancy Johnson RRT-NPS, Cleveland OH
The management of infants and children with congenital heart disease has become a speciality to itself. Whether you directly care for patients with congenital heart disease or not, a general knowledge of these various anomalies is essential for all neonatal-pediatric respiratory therapists. This presentation will provide an overview of the more common congenital heart lesions, including a systematic approach to the diagnosis of infants and children with desaturation and murmurs.

3:40 pm – 4:15 pm
Congenital Heart Disease: Post-operative Respiratory Management
Kathleen M Deakins RRT-NPS, Cleveland OH
Much of the post-operative management of infants and children with congenital heart disease involves the respiratory system. How does ventilatory management affect pulmonary blood flow? When is the optimal time for extubation? When should nitric oxide be utilized? These questions and others will be answered from the perspective of the RT.

3:00 pm – 4:55 pm
Open Forums #15 and #16
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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.

3:20 pm – 4:55 pm

Extreme Hypoxia: Available Clinical Strategies

3:20 pm – 3:50 pm

Extreme Hypoxia: Available Clinical Strategies

John D Davies MA RRT FAARC, Durham NC

Is HFOV used routinely and appropriately in your institution or is it used exclusively in the last few futile hours of life? This lecture will describe the physiology and mechanical features of high-frequency ventilation, why it works, and what candidates respond best. Other various technologies to treat extreme hypoxia will be discussed as well. Attend this presentation and learn what other options you have at your disposal to reverse this debilitating condition.

3:50 pm – 4:20 pm

APRV: Lung Recruitment While Breathing

John S Emberger RRT FAARC, Newark DE

While not new, the use of APRV is gaining in popularity. This lecture will describe the physiology and mechanical features of APRV, why it works, and what candidates respond best. Several ARDS patient case studies will be revealed with a review of the most current literature evidence to justify its use. A practical guide on the use of APRV will be presented.

4:25 pm – 4:55 pm

Pro/Con: Adult ECMO: Ready for Primetime or Delaying Death?

Pro: Neil R MacIntyre MD FAARC, Durham NC

Con: Robert M Kacmarek PhD RRT FAARC, Boston MA

Extracorporeal Membrane Oxygenation (ECMO) has resurfaced as a strategy for the adult patient with severe hypoxia. The pro's and con's of this invasive technology will be debated.

3:20 pm – 5:10 pm

Ventilator Care Units: A Collaborative Approach to Care

3:20 pm – 3:50 pm

Collaborative Care Fostering Interdisciplinary Cooperation

Maureen Keane RRT RPFT, Towson MD

This presentation will describe the roles and responsibilities of interdisciplinary team members involved in the provision of services to patients in a ventilator unit. Presenter will discuss the specific roles of respiratory therapists and speech language pathologist in patients with and without tracheostomies. Attend this presentation and learn how to establish a cohesive collaboration among interdisciplinary members caring for the mechanically ventilated patient.

3:55 pm – 4:25 pm

Speech Language Pathology: Giving Ventilator Patients a Voice

Erin Knoepfel MS CCC/SLP, Towson MD

Are care plans on your ventilator unit constructed in a vacuum or in collaboration with other interdisciplinary team members? This presentation will describe the collegial relationship that should take place between all care providers and will site real case examples in which RTs and speech language pathologists can work together to provide better care to the tracheostomy patient. Presenter will share examples of a collaborative assessment and the development of treatment plans for patients receiving mechanical ventilation.

4:30 pm – 5:10 pm

Setting the Standard for Long-Term Care Weaning

Kristy Wittlich RRT, St Louis MO

This presentation will describe the goals, expectations and advantages of implementing a clinician-driven long-term mechanical ventilator weaning protocol. Presenter will share case studies and lessons learned regarding a patient's progression from tracheostomy to liberation from mechanical ventilation. Attend this presentation and shorten the ventilator course of your mechanically ventilated tracheostomy patient.

Monday, Nov 7

3:30 pm – 4:15 pm

The Curious Case of CPAP Noncompliance

Gary Jeromin MA RRT, Ann Arbor MI

This presentation will detail how CPAP compliance was not originally designed into most CPAP treatment regimens. The speaker will discuss current Medicare CPAP requirements as well as common compliance problems. Strategies and techniques to improve PAP compliance will be detailed, including the current focus on behavioral modification.

3:40 pm – 4:25 pm

Transitioning from Graduate Therapist to Specialty Practitioner

Lynda T Goodfellow EdD RRT FAARC, Atlanta GA

As the profession moves toward the recommendations, and adhering to the attributes of the 2015 and Beyond Conferences, the transition of graduate therapist to obtaining competence in the workforce may prove to be difficult for some. The significance of documenting competence and continued experience in a specialty area results from market-driven consumer forces. The focus of this presentation will be how to best navigate the transition from graduate therapist to specialty practitioner to meet expectations by obtaining specialty credentials in any area of respiratory care.

4:00 pm – 4:50 pm

Emergency Management: Critical Areas of Emergency Responses

Cheryl A Hoerr MBA RRT CPFT FAARC, Rolla MO

The presenter will address the type of support health care workers require to successfully manage a large scale disaster and explain the critical importance an employee's level of home preparedness plays in emergency response planning. The speaker will also share the additional plans that health care organizations must have in place to ensure adequate preparation for disaster situations.

4:00 pm – 5:00 pm

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

Dan 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 techniques for inventing new technology and discuss criteria to analyze marketability. Resources for research and development of new product ideas will also be discussed.

4:20 pm – 5:00 pm

Keys to Successful Noninvasive Ventilation for Children

Thomas J Cahill RRT, Erlanger KY

This presentation will discuss the specific challenges that occur in the pediatric population for the successful application of noninvasive ventilation. Disease states that typically require NIV will be reviewed along with an assessment of those which respond favorably to non-invasive approach. The technologic equipment and interface challenges of NIV for infants and children will be discussed.

4:20 pm – 5:00 pm

Screening for Sleep Apnea: Early Intervention for Inpatient OSA

Paul Selecky MD FAARC FAASM FACP FCCP, Newport Beach CA

Awareness of, and education about sleep apneas can make a huge difference in improving patient outcomes. This presentation will highlight the assessment of every admission using a standardized case-finding tool for OSA. The presenter will also discuss the facilitation of sleep study orders, interpretation of completed studies, and follow-up letters to the patient and the referring physician with an explanation of the results.

4:30 pm – 5:00 pm

An Advanced RCP with Prescriptive Rights – the Journey Begins

Denise LeBlanc RRT, Stony Brook NY

The respiratory care program at Stony Brook University is developing a masters degree curriculum with an emphasis on advanced clinical practice. At the same time, the New York State Department of Education is exploring the feasibility of creating a new profession – that of an advanced respiratory care practitioner with prescriptive rights for respiratory services. Given the anticipated shortage of primary care physicians and the increase in respiratory related illnesses, there is a critical need for physician extenders specifically trained in cardio-respiratory sciences. An outline of the journey to date will be presented and will include a draft curriculum, proposed scope of practice grant resources and stakeholder issues.

4:30 pm – 5:00 pm

The Winds of Change – When Disaster Strikes Home

Sherry Whiteman RRT, Neosho MO

We've all practiced disaster drills, but are we truly ready for a disaster to hit home? This presentation will discuss the first hours and days after the tornado struck Joplin, MO, and how the medical community responded. Hospital disaster polices/procedures will be compared with what actually occurred after the tornado. Presenter will also identify potential hazards and safety issues. Attend this presentation and identify how your state society might benefit from the "lessons learned" by the MSRC on how they responded to the disaster, how they assisted their members, and how they reinforced the value of being and AARC and MSRC member.

Open Forum Daily

34TH National Competition Sputum Bowl® Finals tonight

Tuesday, Nov 8

8:30 am – 9:35 am

Fine-Tuning Your RC Writing Skills

8:30 am – 9:00 am

Creating and Using Case Studies: Practical Advice for Educators and Clinicians

William A French MA RRT, Kirtland OH

Working through case studies and patient situations is a crucial component in fostering critical thinking among respiratory care students and clinicians at all levels. However, these case studies are not always well crafted or utilized. This presentation will focus on how to collect appropriate information for the case study, write and format case studies to maximize their benefit, and incorporate case studies into formal education and informal discussion. Presenter will provide several examples and give direction on how to create a case study.

9:05 am – 9:35 am

Sharing Your Story in Writing: Practical Advice for Respiratory Care Professionals

William A French MA RRT

This is a presentation serving as a sequel to the 2010 International Congress in which presenter will address the critical issues of written communication in your clinical practice. This presentation will focus on types of writing in health care and provide practical tips on how to gain confidence with writing, how to get started on a writing project (especially how to write that dreaded first sentence), and how to overcome "writers block."

8:30 am – 9:35 am

Patient Safety: Prevention and Reaction to Unexpected Events

8:30 am – 9:00 am

Skin Breakdown and Pressure Ulcers Related to Respiratory Care

Carl F Haas MLS RRT AE-C FAARC, Ann Arbor MI

Skin breakdown and pressure ulcers are of paramount concern for The Joint Commission. These wounds lead to costly infections, extended length of stay, and impact reimbursement if the condition is hospital acquired. Pressure ulcers related to nasal cannulas and noninvasive ventilation masks are daily occurrences in many institutions. While this is of significant concern, few organizations place much emphasis on wounds developed by the respiratory patient. The goal of this presentation will be to review the importance of skin integrity related to clinical respiratory care.

9:05 am – 9:35 am

Unplanned Extubations

Keith Lamb RRT, Newark DE

Unplanned extubations is probably the single most common quality metric measured in ICUs today and is an indicator that measures quality of care provided to the mechanically ventilated patient. Are there times when an unplanned extubation should be considered a good thing? Is there a national benchmark for unplanned extubations? The goal of this presentation is to discuss common causes, expectations of caregivers, and prevention strategies for unplanned extubations.

8:30 am – 9:40 am

All Grown Up: Transition of Care for "Pediatric" Diseases

8:30 am – 8:50 am

Growing Up with Cystic Fibrosis

Louis Boitano MS RRT, Seattle WA

There are approximately 30,000 children and adults with CF in the United States. Because of improved medical treatments, a person with CF can expect to have a median life expectancy into their late 30s, and children diagnosed with CF today may live much longer. The presenter will discuss the challenges of treating CF… not just in children, but also in people of all ages.

8:55 am – 9:15 am

Muscular Dystrophy and Other Neuromuscular Disorders

Louis Boitano MS RRT

The muscle weakness and loss of muscle tissue that characterize muscular dystrophy can cause chronic respiratory failure. The goal of any treatment for MD is to control the symptoms of the disease and this presentation will focus on the types of respiratory support necessary for patients with MD and comorbid respiratory compromise with special emphasis on the use of non-invasive ventilation. The presenter will also discuss diagnostic tools that may improve the timeliness of therapyand facilitate optimal therapy support.

9:20 am – 9:40 am

Take Charge of My Asthma

Timothy R Myers RRT-NPS, Avon OH

For most people with asthma, the disease can be well controlled with minimal flare-ups. However, this takes a commitment to self educate and proper-self-manage strategies. Typically, there is a rather large gap between diagnosis and good control. The speaker will discuss the right time to take charge of the disease and the latest recommendations for controlling symptoms. Roles, responsibilities and expectations of the respiratory therapist will also be discussed.

8:30 am – 10:10 am

Pediatric Mechanical Ventilation: Beyond Traditional Modes

8:30 am – 9:00 am

Are Novel Modes Really Necessary?

Brian K Walsh MBA RRT, Dallas TX

Each ventilator has its unique mode. Do these novel approaches really make a difference? Are there outcome data? Why not limit our ventilatory strategies to the more traditional pressure control mode? This presentation will address these and other clinically relevant questions. The knowledge learned from this session may change your practice.

AARC CONGRESS 2011

The 57th International Respiratory Convention & Exhibition

9:05 am – 9:35 am

APRV Is Just as Good as HFOV… or Is It?

Gregg Merritt RRT, Dallas TX

APRV or HFOV? Does it really matter? This presentation will provide an overview the advantages and disadvantages of these approaches to ventilate children with acute lung injury. Presenter will take a "deep dive" into each mode of ventilation, highlight similarities and differences, and discuss patient populations that may benefit from one, the other or both modes of ventilation. Pro's and con's will be discussed.

9:40 am – 10:10 am

High Frequency Ventilation: Just another Conventional Mode?

Brian K Walsh MBA RRT

High frequency ventilation has traditionally been described as a non-conventional approach. But, is this belief true today? High frequency ventilation is used every day in neonatal and pediatric critical care units across the world. This presentation will review the available data with attempts to convince the audience that HFV is no longer "unconventional" and should be considered a standard of care provided by all neonatal intensive care units.

Tuesday, Nov 8

8:30 am – 10:45 am
Respiratory Care Symposium

8:30 am – 9:00 am
The 5 Best Papers Published in RESPIRATORY CARE in 2011
Richard D Branson MSc RRT FAARC, Cincinnati OH
An overview of the 5 best original research papers published in RESPIRATORY CARE in 2011.

9:05 am – 9:35 am
The 5 Best Case Reports Published in RESPIRATOR CARE in 2011
Dean R Hess PhD RRT FAARC, Boston MA
An overview of the 5 best case reports published in RESPIRATORY CARE in 2011.

9:40 am – 10:10 am
PFT: Summary of the RESPIRATORY CARE Journal Conference
Gregg L Ruppel MEd RRT RPFT FAARC, St Louis MO
An overview of the RESPIRATORY CARE Journal Conference on pulmonary function testing.

10:15 am – 10:45 am
Care of the Chronically Ill: Summary of the RESPIRATORY CARE Journal Conference
Neil R MacIntyre MD FAARC, Durham NC
An overview of the Respiratory Care Journal Conference on care of the chronically ill.

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. Twenty Open Forum Symposia will be presented during the four days of Respiratory Care 2011. See pages 106-119 for symposium sessions, abstracts titles and authors.

8:30 am – 10:45 am
Train the Trainer – OSA Patient Workshop

8:30 am – 9:00 am
The Basics of Sleep for the PAP Provider
Kathryn Hansen CPC REEGT, Lexington KY
Sleep is a dynamic activity and not a passive, dormant part of our daily lives. Our brains are very active during sleep and cycle through five different phases of sleep throughout each night. The speaker will first review the normal parameters of sleep and sleep staging and then detail the impact of sleep dysfunction on sleep staging. The speaker will also discuss how these dysfunctions can affect daily functioning as well as physical and mental health. Proven protocols to diagnose sleep dysfunctions will be shared.

9:05 am – 9:35 am
Education to Motivational PAP Therapy
June Sorensen CRT SAE, Lexington KY
PAP adherence is the single most important aspect of successful treatment for OSA. The presenter will share with attendees strategies to "hook" the patient on this therapy. Attendees will learn how to use a PAP Plan of Care and when it's appropriate to intervene with troubleshooting techniques to ensure success. Presenter will discuss the "divide and conquer" philosophy and how group dynamics affect adherence to PAP.

9:40 am – 10:10 am

Daily Habits that Affect Sleep and Adherence

Kathryn Hansen CPC REEGT

A good night's sleep is an achievable goal for everyone. At what price, however, are patients willing to pay to enjoy restful sleep every night? Often it's as simple as making lifestyle changes and committing one's self to daily habits that facilitate deep and meaningful sleep. This presentation will identify daily activities that impact sleep quality and review the relationship between sleep quality and family activities. Presenter will also discuss the importance of understanding the role of circadian rhythms to promote sleep and reinforcement of appropriate sleep habits.

10:15 am – 10:45 am

Device and Interface Session

June Sorensen CRT SAE

Perhaps the single most important responsibility of any sleep specialist is the proper identification of a mask interface. With so many different options available on the market today, it is imperative that clinicians are aware of the different types of interfaces, advantages and disadvantages to each, and have the ability to tailor specific interfaces to the unique traits and needs of each patient. This presentation will offer strategies and techniques for proper interface fitting. Discussion will center on strategic planning to teach devices in groups and why it is important to teach patients about humidification. The three main reasons patients remove their interfaces during sleep will also be discussed.

8:30 am – 11:05 am

New Endeavors in Pulmonary Diagnostic Testing

8:30 am – 9:05 am

Demystifying VTG Measurement

James Sullivan RPFT, New York NY

Thoracic gas volume measurements are commonly used to represent functional residual capacity (FRC). Correct utilization of VTG can be useful in distinguishing between restrictive and obstructive lung diseases. This presentation describes the ins and outs of VTG patient instruction and maneuver corrections post-testing made simple.

9:10 am – 9:45 am

Challenges of Metabolic Testing for Nutritional Assessment in an ICU

Allen G Andrews MS RRT, Ann Arbor MI

While most presentations on indirect calorimetry concentrate on obtaining an acceptable steady state and interpretation of the results of the study, this presentation will examine how the interaction between the ventilator, the metabolic cart and the patient can significantly affect the outcome of the study. The speaker will briefly review a variety of metabolic carts and ventilators available on the market and discuss how technology choice combined with the patient's clinical condition can alter study results. He will share his personal experience in using different metabolic carts with a variety of ventilators and ventilator modes to achieve reliable results.

9:50 am – 10:25 am

The Role of the Respiratory Therapist Using Indirect Calorimetry in Cancer Patients Undergoing Intraperitoneal Chemotherapy

Jorge Rodriguez BsRC RRT, Houston TX

Intraperitoneal hyperthermic perfusion is a cancer treatment that administers heated chemotherapy agents directly to tumors in the peritoneal cavity. Due to the nature of this treatment, patient metabolism can change significantly afterwards and makes correct nutrition support crucial for treatment success. Indirect calorimetry can be used to assess patient caloric needs after treatment and determine substrate utilization during this hypermatabolic state. Attend this presentation to learn everything you need to know regarding indirect calorimetry and the oncology patient receiving intraperitoneal chemotherapy.

10:30 am – 11:05 am

Brachybronchs, EBUS and Navigational Bronchoscopies; the RCPs Role in the Cancer Fight

Bill Cohagen RRT FAARC, Phoenix AZ

The presentation will assist the audience in understanding the rationale and importance in utilizing brachybronchs, EBUS, and navigational Bronchoscopies in patients with cancer diagnoses and describe the expanding roles of the Respiratory Care Practitioner in provide this critical testing. It will also give insight to the tools used and basic interpretation of what is being seen and done as well as insight to the follow up care.

Tuesday, Nov 8

8:30 am – 11:10 am
Selected Topics in Adult Critical Care Transport

8:30 am – 9:20 am
"A" Stands for Airway: The ABCs of Critical Care Transport
Scott Prater RRT-NPS CPFT NREMT-P, Charlotte NC
Managing the airway of a critically ill patient during transport is one of the most important responsibilities of a respiratory therapist. In confined space, with limited resources, the respiratory therapist must be knowledgeable, a critical thinker, and confident of their responsibilities. This presentation will review key components of an effective airway assessment, and will discuss assessment findings that may predict difficult airway management. Rapid sequence intubation will be discussed, when and with whom it's appropriate, as well as advantages and disadvantages.

9:25 am – 10:15 am
Management of the Difficult Airway
Allan Bulkley BSN CCRN CFRN NREMT-P, Charlotte NC
This presentation will review the most current literature pertaining to out-of-hospital airway management, will discuss challenges and common difficulties encountered when performing airway management in the out-of-hospital environment and discuss current trends in difficult airway management. Are you up-to-date with your airway management skills for the out-of-hospital patient? Attend this presentation to brush up your skills and learn all you'll need to know.

10:20 am – 11:10 am
Acute Lung Injury/Adult Respiratory Distress Syndrome – Can We Make a Difference in the Transport Environment?
Joe Hylton BSRT RRT-NPS NCEMT-B FAARC, Charlotte NC
It's difficult enough to manage the ARDS patient in the secure confines of an intensive care unit. Now you're expected to manage the patient during critical care transport. Is there a difference? Are there strategies to incorporate to make your life easier and provide enhanced care to the patient? This lecture will identify causes of lung injury, define acute lung injury (ALI)/adult respiratory distress syndrome (ARDS) and discuss pertinent research for treatment of ALI/ARDS. An emphasis will be placed on the role of positive-pressure ventilation for treatment of ALI/ARDS in the transport environment.

9:30 am – 11:25 am
Open Forums #17 and #18
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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.

9:40 am – 11:35 am
Expanding Roles in Respiratory Care

9:40 am – 10:15 am
Respiratory Therapists on the Pain Team
Joan A Kohorst MA RRT-NPS, St Charles MO
Pain management is a multidisciplinary process. Patients have the right to expect that pain experienced during their hospitalization is addressed. In fact, The Joint Commission describes pain as the "fifth vital sign," stating that inadequate pain control is unethical, clinically unsound and economically wasteful. Unfortunately, respiratory depression from the administration of pain medication is a leading cause of preventable death in hospitals. Post-op respiratory failure is the third most common patient safety incident in hospitals each year affecting more than 600,000 patients at a cost of $1.5 billion. This presentation will describe one health system's decision to establish an expert panel to improve safety for patients receiving narcotics for pain management. Discussion will focus on the part played by respiratory therapists on the PCA/Pain management team, which includes researching "best practice", revising/creating policies, implementing OSA screening for all admissions, establishing monitoring requirements, establishing assessment frequency and components and creating an algorithm to aid caregiver response to end-tidal CO2 monitor alarms.

10:20 am – 10:55 am
The Role of the Respiratory Therapist in Palliative Care
Cheryl Heffner RRT, Allentown PA
Respiratory therapists' involvement on a palliative care team is essential. Using case-based scenarios in advanced neurological disorders, this session will demonstrate the role of respiratory therapists in symptom assessment, treatment, and patient/family education. Comparison between pediatric and adult interventions will be highlighted.

11:00 am – 11:35 am
Hospice Setting: A New Location for Respiratory Therapists
Anton Lukcevic MA RRT, Woodridge IL
Respiratory therapy is evolving from the traditional role of hospital therapist to nontraditional roles in multiple venues and care settings. Respiratory therapists working in hospice centers are at the epicenter of serving the patient's physical and emotional needs. The differences between acute/critical care vs. hospice care are substantial. This lecture will describe respiratory care as an essential partner of the hospice team in fulfilling the patient and family's medical and psychosocial needs.

9:45 am – 11:55 am
Management Boot Camp – Part II

9:40 am – 10:10 am
Benchmarking To Make a Difference
Stan Holland MS RRT, Harrisonburg VA
For new managers, access to tools and resources to assist them in their day-to-day responsibilities is significant. Understanding and interpreting those tools carries even more importance. This presentation will highlight the benefits of benchmarking programs, how they can be used, as well as advantages and disadvantages. Presenter will discuss the AARC benchmarking system and how managers can use the tool to better understand the performance of their RT department as well as identify opportunities to improve operations.

10:15 am – 10:45 am
Maintaining Morale in the Midst of Madness
Kenneth Thigpen RRT FAARC, Jackson MS
Poor morale is a cancer that spreads through departments and negatively influences every aspect of department operations. From quality of care to patient satisfaction, low morale drags everybody down with it. Today's health care environment can suck the life out of just about anyone unless managers are intentional about effectively managing it. Attendees will learn basic strategies that help promote teamwork and communicate purpose before poor morale inflicts itself on your department.

10:50 am – 11:20 am
Do RTs Make a Difference?
Garry W Kauffman MPA FACHE RRT FAARC, Elizabethtown PA
Is your elevator speech prepared? The one where you've only got 30 seconds to communicate the value of your department when your hospital president hops on the elevator with you? This presentation will review an extensive list of peer-reviewed articles as well as unpublished anectodotes that demonstrate the value of respiratory therapists in various care venues. Additionally, the attendees will be challenged to implement one of the opportunities in their hospital to demonstrate and communicate the value of RTs. Attend this presentation and craft your elevator speech today!

11:25 am – 11:55 am
Engaging Your Staff in Performance Management
Scott Reistad RRT CPFT, Centura CO
"Performance? That's my manager's job." This is the prevailing thought of most RTs working in hospitals today. Can this be changed? Can managers engage employees to the point of where they're owners of department performance and not renters? This presentation will discuss strategies and tactics that can be used to fully engage staff in understanding performance, taking the lead to improve performance, and communicating the improvements to others in their hospital.

Tuesday, Nov 8

9:45 am – 12:00 noon
Old Strategies – New Implications on Preventing Ventilator Associated Pneumonia

9:45 am – 10:15 am
VAP Prevention and the Impact of the Bundle
Roger D Seheult MD, Banning CA
VAP prevention strategies continue to be a high priority for patients undergoing mechanical ventilation in the critical care setting. This presentation will review the more popular elements of the VAP bundle and provide attendees with insight into the published evidence supporting their use.

10:20 am – 10:50 am
Ventilator Equipment and Accessories' Impact on VAP
Ruben D Restrepo MD RRT, San Antonio TX
Ventilator equipment and accessories, including circuits, humidifiers, suction systems and filters are all potential sources for bacterial colonization and further development of VAP. This presentation will review the currently accepted practices in selecting the best accessories to provide adequate humidification, secretion removal and circuit changes while protecting the patient from VAP.

10:55 am – 11:25 am
New Endotracheal Tube Designs and Materials to Prevent VAP
Marcos I Restrepo MD MSc, San Antonio TX
The need to use an endotracheal tube to provide mechanical ventilation introduces one of the highest risk factors for acquiring VAP. Aside from bypassing the normal protective function of airways, ET tubes are also associated with the formation of deadly biofilm. This presentation will evaluate the recent evidence of using newer materials to construct ET tubes that are supposedly safer and lower the likelihood of VAP.

11:30 am – 12:00 noon
Prevention of VAP and Its Implications on the Health Care System
Patrick J Dunne MEd RRT FAARC, Fullerton CA
VAP prevention is part of a much larger picture – a national strategy to improve patient safety and reduce iatrogenic harm and medical mistakes. As hospital reimbursement shifts to a pay-for-performance methodology, acute care hospitals will be expected to have in place a strong, vibrant VAP prevention program to protect patients receiving mechanical ventilation.

Continuing Respiratory Care Education (CRCE)

AARC Congress 2011 is approved for all the credit hours you need to maintain your state license, more than 25 hours.

10:15 am – 11:55 am
Neonatal-Pediatrics: Thinking Outside the Box

10:15 am – 10:45 am
Enhancing the RT Scope of Practice
Kathleen M Deakins RRT-NPS, Cleveland OH
What is the RT scope of practice today? What should be the RT scope of practice in the future? This presentation will provide an overview of potential areas of expansion for neonatal-pediatric respiratory therapy responsibilities across a comprehensive continuum of care for neonates, infants, and children in the inpatient setting.

10:50 am – 11:20 am
Is Your Staff Competent for the Future?
Nancy Johnson RRT-NPS, Cleveland OH
Competence leads to proficiency. Proficiency leads to quality. With health care reform forthcoming and increasing scrutiny on quality outcomes, this presentation will provide an overview of the vital necessity in developing and deploying a comprehensive competency system for neonatal-pediatric RTs. Do you have a sound competency program in place in your pediatric department? If not, attend this presentation to find out how to develop one.

11:25 am – 11:55 am
Mission-based Scorecards for RTs
Timothy R Myers RRT-NPS, Avon OH
Federal and state regulatory bodies are taking a greater interest not only at the hospital level but also at the department level. Most all organizations monitor their performance against financial, operational, quality and community metrics via a dashboard or scorecard. How many departments adopt this same approach with their staff? How many managers monitor the global performance of their department against the mission, vision, and values of the organization? Should they? This presentation will provide insight on how a manager can create a department-based scorecard built on the goals of the hospital.

10:50 am – 11:25 am

Undiagnosed Sleep Apnea in the Preoperative Period: Risk Assessment and Monitoring

Charles G Durbin Jr MD FAARC, Charlottesville VA

This presentation will discuss the patient safety issues surrounding unrecognized sleep apnea in surgical patients. Is the problem as big as everyone suggests? Should more resources be allocated to identify and monitor these patients? The speaker, an anesthesiologist, will explain risk assessment models and the importance of intra-operative as well as post-operative monitoring to ensure successful patient outcomes.

10:50 am – 12:00 noon

Long-Term Oxygen Therapy – Transitioning to Future Practice

10:50 am – 11:10 am

Scientific Foundation for LTOT: Is the Evidence Still Solid

Brian W Carlin MD FAARC, Pittsburgh PA

How does the newest evidence for long-term oxygen therapy compare to the two landmark studies (BMRC and NOTT) published more than 30 years ago? This presentation will review the data of the BMRC and NOTT clinical trials and compare those findings with newer research, especially in the realm of supplemental oxygen during ambulation and sleep.

11:15 am – 11:35 am

Patient-centric Ambulatory LTOT: The Strengths and Limitations of Existing Technology

Robert W McCoy RRT FAARC, Apple Valley MN

Does 2 lpm equate to the same FiO2 on all devices? Are all concentrators created equal? Are FiO2 sacrifices made for improved portability? This presentation will discuss trade-offs that can and do take place with portable concentrators when balancing lighter weight and oxygen production capabilities. Presenter will highlight desired characteristics of an ideal ambulatory system.

11:40 am – 12:00 noon

Newer Emphasis on Proper Prescribing of LTOT – Why Is Change Needed?

Kent Christopher MD RRT FAARC, Denver CO

For years, the prescribing of LTOT has been sub-optimal for several reasons and has contributed to sub-optimal clinical outcomes. This presentation will review those reasons and make recommendations for the proper prescribing of this life-saving therapy. Presenter will review the most current published evidence on LTOT and discuss evidence-based guidelines respiratory therapists can use when recommending this therapy to physicians.

11:15 am – 12:00 noon

Agencies Update

Karen J Stewart MS RRT FAARC – AARC President
Michael T Amato – ARCF Chair
Stephen P Mikles EdS RRT FAARC – CoARC President-Elect
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!

11:30 am – 12:00 noon

Obstructive Sleep Apnea: Surgical Quality Program

George W Gaebler MS Ed RRT FAARC, Syracuse NY

The lecture will discuss value-added benefits of quality surgical programs for patients with known and undiagnosed obstructive sleep apnea. Presenter will share with attendees steps that should be taken to implement such a program in their own organization, including the identification of key interdisciplinary members that should be involved and critical pieces of equipment that are needed.

1:00 pm – 1:30 pm

Complications of Untreated Sleep Apnea

Robert Messenger RRT CPFT, Lakewood OH

This presentation will focus on the long-term sequelae resulting from untreated sleep apnea. Particular attention will be given to pathology that is mediated by the autonomic nervous system. Long-term outcomes, including hypertension, insulin resistance (metabolic syndrome), and cognitive dysfunction are discussed.

1:00 pm – 1:50 pm

Endotracheal Suctioning: Benign Procedure or Proceed with Caution?

Doug Pursley MEd RRT, Springfield MO

This presentation will highlight and summarize the 2010 AARC Clinical Practice Guidelines for endotracheal suctioning. Emphasis will be placed on recommended pressures, use of shallow suctioning technique, catheter size, and correct methodology for setting and adjusting vacuum pressure. Pig lung videos will be utilized to demonstrate the effect of inadvertently applying excessive suction pressure to the lung.

Tuesday, Nov 8

1:00 pm – 2:10 pm

Bronchiolitis: New Therapeutic Advances or Just Fads?

1:00 pm – 1:20 pm

3% Saline and Other Creative Approaches

Walter L Williford RRT, Durham NC

Hypertonic saline has been used in the cystic fibrosis population, but what about bronchiolitis? This presentation will review the published data and provide a rationale for this therapy as well as other creative strategies for the management of this common illness. Attend this session and form your own opinion whether hypertonic saline is a real therapeutic option or just a fad.

1:25 pm – 1:45 pm

Noninvasive Support

Robert M DiBlasi RRT-NPS, Seattle WA

High-flow nasal cannula and noninvasive ventilation are being used with increasing frequency for various disease processes. Does the data justify the use of noninvasive support for infants with bronchiolitis? Attend this presentation, review the most current published evidence, and form your own opinions.

1:50 pm – 2:10 pm

Heliox

Gregg Merritt RRT, Dallas TX

Heliox has been used for asthmatics for many years, but what about bronchiolitis? Is there supportive data? The potential benefits and review of the most current published literature for the use of heliox in the care of infants with bronchiolitis will be reviewed. Attend this presentation and decide for yourself whether or not heliox is a viable treatment alternative for children with bronchiolitis.

1:00 pm – 2:40 pm

Cystic Fibrosis Mini-Symposium

1:00 pm – 1:30 pm

Lung Disease in the CF Patient

Andrew Colin MD, Miami FL

Cystic Fibrosis is a genetic disease that affects 30,000 people in the United States. Though every CF patient carries the CF gene, symptoms can vary widely from patient to patient. The speaker will review recent discoveries about CF genes that influence the course of disease and provide insight into the causes of the wide variation in lung disease severity experienced by CF patients. The speaker will also discuss the implications of these discoveries for new therapeutic approaches to combat the increasing prevalence of multi-drug resistant organisms.

1:35 pm – 2:05 pm

Current Treatments for CF Airways Disease

Teresa A Volsko MHHS RRT FAARC, Youngstown OH

This presentation will cover the various therapies currently used to treat and prevent progressive loss of lung function. Discussion will include a brief review of airway clearance, mucolytic agents, airway wetting agents, anti-inflammatory agents, and antibiotics. The speaker will also emphasize the role of the RT in providing education regarding these therapies and airway clearance techniques.

2:10 pm – 2:40 pm

Novel Therapies in Development for CF

Andrew Colin MD

We all know of the existing pharmacologic and treatment options for CF, but what about new and future therapies? This presentation will cover therapies new to the CF treatment arsenal and new therapies in the pipeline for development. Presenter will review new inhaled antimicrobials, airway wetting agents, CFTR potentiators and correctors, and gene therapy.

1:00 pm – 2:45 pm
Protocols and Roles

1:00 pm – 1:50 pm
Utilizing Protocols To Increase the Value of the Respiratory Therapist
Thomas R Lamphere RRT RPFT, Sellersville PA
While protocols have been in use for several decades, many RT departments have been unable to streamline their use across all services offered within their hospital. This presentation will review the latest literature on the value of protocols and give specific examples of how protocols can demonstrate the value of the RT department. It will also identify what the traditional barriers for implementation have been from other hospitals and how you can avoid the same pitfalls.

1:55 pm – 2:45 pm
New Roles for Respiratory Therapists – Part II
Thomas R Lamphere RRT RPFT
Traditional roles of RTs find them working in short-term acute care hospitals (STACH). In today's economy, STACHs are facing severe economic challenges that sometimes result in the loss of RT positions. There are, however, other care venues that have been demonstrated to provide care in a less expensive manner and that have shown job growth for RTs in non-traditional roles. Attendees will leave this presentation with knowledge, intuition, and know-how on how to improve quality and the economics of their department by creating new roles and responsibilities for their staff. A can't miss presentation for the manager needing to cut costs while maintaining quality through their people.

1:00 pm – 2:55 pm
Open Forums #19 and #20
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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.

1:00 pm – 3:15 pm
Hospital and Home Care RTs: Partnering for a Better Future – Part II

1:00 pm – 1:30 pm
What Hospital RTs Need to Know About…Discharging a Patient on LTOT
Kent Christopher MD RRT FAARC, Denver CO
Many RTs facilitate discharge for patients prescribed on LTOT, but do they really understand the clinical benefits, proper prescribing requirements, and current coverage guidelines for reimbursement? Are they familiar with he most current LTOT equipment on the market today? Are they aware of the role of the homecare RT in caring for patients on LTOT? This presentation will answer all of these questions and more. Attend this presentation and become an LTOT provider that achieves better outcomes for your patients.

1:35 pm – 2:05 pm
What Home Care RTs Need To Know About… The Growing Importance of Safe Patient Hand-Offs
David A Gourley MHA RRT FAARC, Pompton Plains, FL
Home care RTs have been asking for discharge hand-offs from the hospital-based RT for years. Their vision of "seamless care" from one level of care to another relies on it. But, do homecare RTs really know what an effective patient hand-off looks like? Do they know what information must be included? Do they really want to take this leap of faith and commit themselves to a new requirement? This presentation will review recent Joint Commission regulations on safe patient hand-offs between care providers; regardless of venue or care site. Presenter will also discuss the growing use of checklists in the health care setting and how we can benefit from "lessons learned" regarding checklists used in other industries.

2:10 pm – 2:40 pm
What Hospital RTs Need To Know About…The Variability between Ambulatory LTOT Systems
Robert W McCoy RRT FAARC, Apple Valley MN
Many RTs facilitate discharge for patients prescribed on LTOT, but do they really understand the difference between the oxygen delivery devices used in the hospital to qualify patients and the equipment used in the home? Do they understand the difference between continuous flow and intermittent flow portable oxygen systems? This presentation will answer these questions and offer ideas that hospital-based RTs may want to consider when electing what oxygen delivery device to use when qualifying the patient for LTOT. Presenter will also highlight the dangers of using lightweight portable systems with insufficient oxygen production capabilities.

Tuesday, Nov 8

2:45 pm – 3:15 pm
What Home Care RTs Need To Know About…What Hospital RTs Expect from Their Respiratory Home Care Partners
Debra Koehl MS RRT-NPS, Indianapolis IN
Given the transformation underway in health care, hospital RTs will be transitioning into new roles and responsibilities. Hospitals will be held accountable for improved chronic disease management and care in the home to reduce avoidable readmissions. The desired preferences that DME companies offer routine lunches, and free CRCE inservices will soon be replaced by a commitment to invest more resources in the care of the patient. Presenter will share what types of collaboration between hospital and home care RTs might result in more successful, and cost-effective outcomes.

1:00 pm – 3:40 pm
What's New in Pulmonary Challenge Testing?

1:00 pm – 1:50 pm
An Overview of Bronchoprovocation Testing
Cheryl A Hoerr MBA RRT CPFT FAARC, Rolla MO
The airways of those with asthma are sensitive to a number of inhaled particles and allergens. However, there are those patients who present with signs and symptoms of hyper-reactivity but have normal pulmonary function tests with no bronchodilator response. Bronchoprovocation testing is the only way to make a positive and objective diagnosis of asthma in those circumstances. This presentation will provide an overview of the direct and indirect airway challenges that are commonly used to diagnose asthma and review the advantages as well as the disadvantages of each testing methodology.

1:55 pm – 2:45 pm
Inhaled Mannitol Test Administration
Tim Ballweg RRT CPFT AE-C, Madison WI
The presenter will describe how to conduct an inhaled mannitol bronchial challenge test. Specific areas to be addressed will include: Mannitol description, indications and clinical application, contraindications, equipment needed for testing, patient preparation, and testing methodology.

2:50 pm – 3:40 pm
Six Minute Walk Test – What Can Be Learned After Just Six Minutes?
Carl D Mottram RRT RPFT FAARC, Rochester MN
The 6MWT evaluates global and integrated responses of all systems involved during exercise, including the pulmonary and cardiovascular systems, systemic circulation, peripheral circulation, blood, neuromuscular units, and muscle metabolism. This presentation explores that rapid growth of this diagnostic assessment previously reserved for academic research and discuss the nuances related to the Six Minute Walk Test and how this information is used for clinical care.

1:00 pm – 3:40 pm
Developing Your Department

1:00 pm – 1:50 pm
An Effective Model for Implementing Evidence-based Practice and Research
Debbie Bennett RRT, St Louis MO
Evidence-based medicine is heralded as critical and essential to the effective and efficient delivery of quality health care in the United States. This presentation will describe a model that integrates evidence-based medicine and research methodology to improve clinical practice in respiratory care. It will describe how to methodically and logically look at the content of your existing or proposed policies and procedures. The presenter will employ a case study to demonstrate the process in a concrete, easy-to-understand manner.

1:55 pm – 2:45 pm
Nurturing Our Own: The Role of Preceptors in Staff Development
Curtis Kretschmer RRT, St Louis MO
Does your department employ a clinical preceptor? Should you? What are the benefits of having one? This presentation will discuss the vital role preceptors have in developing respiratory care practitioners for clinical and professional excellence. A model on how to develop a preceptor training program will be discussed. Attendees will leave with tools to ensure the on-going development of your preceptor staff.

2:50 pm – 3:40 pm

Make Lemonade: The Effect of Positivity in Your Workplace

Jasmine Peralta RRT, St Louis MO

Are you using the obstacles encountered during your workday in a positive manner? Are you able to turn problems into opportunities? This presentation will describe the effects of maintaining a positive, progressive thinking outlook and how it can improve patient care, productivity, and stress levels. The speaker will share personal experiences about how a positive attitude can lead to workplace performance improvement and increased job satisfaction for busy respiratory therapists.

1:35 pm – 3:50 pm

Lessons Learned from the Biggest Loser®: Diagnosis and Treatment of OSA

*NBC and **The Biggest Loser** do not endorse the facts, advice or recommendations made or included in this conference. **"The Biggest Loser"** is a registered trademark and copyright of Reveille, LLC and NBC Studios, LLC. All rights reserved.*

1:35 pm – 2:05 pm

Obesity, OSA and the Journey Back to Health

Brett Hoebel, Las Angeles CA

This presentation will provide an overview of the co-morbidities associated with untreated OSA and obesity. The presenter will explor current concepts in the relationship between successful weight loss and good sleep. Attendees will leave the presentation with a better understanding of how the diagnosis and treatment of OSA can make aggressive weight loss safer.

2:10 pm – 2:40 pm

Obesity, OSA and the Journey Back to Health

Pam Minkley RRT RPSGT, Portland MI

This presentation will discuss the role of education and follow-up in achieving optimal CPAP compliance. Presenter will examine the unique environment and the programs used at "**The Biggest Loser**" ranch and identify the challenges to CPAP compliance for "**The Biggest Loser**" participants.

2:45 pm – 3:15 pm

Taking "The Biggest Loser" Model to Clinical Operations

Dody Jordahl CRT, Agoura Hills CA

This presenter will discuss how the experiences at "**The Biggest Loser**" ranch can help front-line clinicians improve CPAP adherence in their patients. The speaker will identify business opportunities within the obese patient population.

3:20 pm – 3:50 pm

Hear from Some of "The Biggest Losers" Themselves

Ashley Johnston, BL9 Santa Rosa CA

Hear personal stories about why **Biggest Loser** cast members did not take action to get treatment for their OSA sooner and how education and follow-up at the ranch helped them achieve success. Get tips from the "patient" perspective.

1:55 pm – 2:45 pm

Interactive Case Studies in Respiratory Care

Doug Pursley MEd RRT, Springfield MO

This presentation will highlight case studies in oxygen therapy, chest radiography, mechanical ventilation, arterial blood gases, and an unusual case of upper airway obstruction. These case studies will be interactive. Attendees are encouraged to participate in the presentation by submitting responses via a handheld keypad.

2:15 pm – 3:10 pm

Children Are Just Small Adults… Or Are They?

2:15 pm – 2:40 pm

Adult Data Are Directly Applicable to Infants and Children

Matthew Davis RRT, Baltimore MD

Evidence from adult literature is often extrapolated to the neonatal and pediatric populations for a variety of clinical conditions. This approach is not only appropriate but necessary given the limited research conducted with neonatal and pediatric patients in the form of randomized, controlled trials. This presentation will argue this point by illustrating situations in which information learned from adult patients has clearly improved the care in the fields of neonatology and pediatrics.

2:45 pm – 3:10 pm

Adult Data Should NOT Be Extrapolated to Infants and Children

Cyndi White RRT-NPS AE-C FAARC, Cincinnati OH

Although neonatal and pediatric research evidence may be limited in comparison to the adult population, extrapolation of data is NOT appropriate. Children are not small adults. Physiology, pathophysiology, and development are all very different. Relying on clinical experience is safer and more effective than extrapolating data from a very different population. Examples from the medical literature that has contradicted the adult literature will be reviewed. Scenarios which truly exemplify infants and children as special populations and require their own practice considerations will be discussed.

Tuesday, Nov 8

2:45 pm – 5:00 pm
The How To's of Pulmonary Rehabilitation

2:45 pm – 3:15 pm
How to Bill for Pulmonary Rehabilitation
Gerilynn Connors RRT FAACVPR, Falls Church VA
This presentation will review the changes implemented by CMS in 2010 concerning reimbursement and documentation for pulmonary rehabilitation programs. The speaker will detail the criteria that must be present for participant inclusion in a pulmonary rehab program and explain the importance of developing an individualized treatment plan. The speaker will also share tips for successfully navigating the Medicare and private pay systems to enhance program revenues.

3:20 pm – 3:50 pm
How To Justify Staffing for Your Pulmonary Rehabilitation Program
Trina M Limberg RRT, San Diego CA
How is productivity measured in a pulmonary rehab clinic? Does the AARC Uniform Reporting Manual address time standards for pulmonary rehab activities? The presenter will describe how to plan for proper patient-therapist ratios in a pulmonary rehab program, justify staffing levels, and discuss the use of multidisciplinary professionals in the most effective manner.

3:55 pm – 4:25 pm
How To Develop Your Pulmonary Rehabilitation Program
Trina M Limberg RRT, San Diego CA
This presentation will examine the challenges clinicians confront when attempting to develop a top-notch pulmonary rehabilitation program. The presenter will discuss how to conduct a needs assessment to create or expand a pulmonary rehabilitation program. Using this information, attendees will learn how to package this information in the form of a business plan to present to administrators in the C-suite. Step-by-step plans will be shared on how to develop a pulmonary rehabilitation program, create referrals, establish physician and customer loyalty, and operate in the "black."

4:30 pm – 5:00 pm
How To Prepare Your Pulmonary Rehabilitation Program for Certification
Debra Koehl MS RRT-NPS, Indianapolis IN
So you want to become a certified pulmonary rehabilitation program? Do you know what it entails? Is your hospital prepared for the commitment? This presentation will detail steps programs must take as they prepare for the certification process of their pulmonary rehabilitation program. Presenter will share experiences and lessons learned from going through the process.

2:50 pm – 3:30 pm
Quality Improvement: Indigenous Flux
Laura Denton BSRC RRT CPFT, Fort Worth TX
This presentation is directed for front-line staff and managers alike and will describe incremental process improvement strategies for quality improvement. The presenter will provide simple tools for data collection and describe the process of plan, do, study, act to achieve performance improvement that further demonstrates the value of the respiratory therapists.

2:50 pm – 5:00 pm
The Airway and Infection

2:50 pm – 3:30 pm
Selective Decontamination of the Digestive Tract To Prevent VAP
Richard H Kallet MS RRT FAARC, San Francisco CA
Selective decontamination of the digestive tract (SDD) is a controversial infection-prevention strategy for critically ill patients. It involves the topical administration of prophylactic antibiotics to the gastrointestinal tract, as well as the concurrent use of intravenous antibiotics to treat incubating infections. Although this technique is popular in parts of Europe, it is not been widely adopted in the United States. This presentation will describe the technique, review the published evidence, and discuss the controversy surrounding the use of SDD.

3:35 pm – 4:15 pm
Oral Care and VAP – The Evidence
David M Wheeler RRT-NPS, Cleveland OH
Oral care for the prevention of VAP is simple and is often bundled with other prevention strategies, but does the evidence really support this idea? Is dental cleaning required of the ventilated patient? This presentation will review the evidence regarding oral care and the incidence of VAP. Presenter will detail the procedure and answer questions surrounding frequency and rinse solutions (peroxide, chlorahexadine, etc.).

4:20 pm – 5:00 pm
Special ET Tubes and VAP – Silver, Suction, and Special Cuffs
Mark S Siobal RRT, San Francisco CA
Endotracheal tubes have undergone whole scale changes in design over the last few years. Materials, cuffs and additional ports have been introduced. New cuff materials and designed portends reduce silent aspiration, silver coatings minimize colonization and biofilm, and suctioning above the cuff eliminates a source of contamination. Do these new advents provide real benefit or is it just marketing hype? Attend this presentation to find out!

3:15 pm – 4:40 pm
Special Issues in VAP Prevention

3:15 pm – 3:55 pm
The VAP Paradox: Are We Measuring the Right Things?
Roger D Seheult MD, Banning CA
In analyzing the outcomes of VAP clinical studies, a major issue is the paucity of outcome data showing any impact of VAP prevention efforts on patient mortality. This presentation will discuss this so-called "VAP Paradox" and offer insights into why the absence of mortality data might not necessarily be cause for concern.

4:00 pm – 4:40 pm
My Pediatric Patient Has VAP: Now What?
Sue Poynter MD, Cincinnati OH
Much focus has been given to preventing VAP in the adult world, but what about neonates and children? This presentation will review special considerations for the prevention and treatment of VAP in the NICU and PICU. Are inhaled antibiotics indicated? Should cuffed ET tubes be used? Answers to these questions as well as strategies to eliminate VAP will also be discussed.

3:20 pm – 4:55 pm
Advances in Teaching Mechanical Ventilation

3:20 pm – 4:05 pm
10 Aphorisms for Understanding Modes of Ventilation
Robert L Chatburn MHHS RRT-NPS FAARC, Cleveland OH
The presentation will explain the importance of distinguishing between names of modes and terms used to classify them. It will define the basic terms used to understand ventilator operation and describe the difference between spontaneous and mandatory breaths and why this distinction is important. Additionally, it will list the 6 basic targeting strategies that make possible all the current modes of ventilation and use a 3-level classification (control variable, breath sequence, and targeting scheme) to identify any named mode.

4:10 pm – 4:55 pm
Teaching the 10 Aphorisms Using Online Resources and Excel-Generated Simulations
Teresa A Volsko MHHS RRT FAARC, Youngstown OH
The presentation will assess student's learning styles and describe how learning styles affect learner outcomes when using simulation in the classroom. It will identify strengths and weaknesses of current student resources for teaching mechanical ventilation and outline a curriculum for teaching mechanical ventilation. It will conclude with illustrations of the use of simple models of mechanical ventilators, built in Microsoft Excel, to teach the basics of volume and pressure control modes (models will be provided to audience).

3:35 pm – 4:15 pm
Challenges of Pediatric Long-term Care: The Role of the RT
Thomas J Cahill RRT, Erlanger KY
This presentation will discuss the various challenges of long-term care for the pediatric patient. Presenter will discuss strategies for the care of this complex patient population and advantages of creating a pediatric long-term care unit. Suggestions for optimizing a smooth transition to home for these chronically ill patients will also be offered.

Tuesday, Nov 8

3:45 pm – 4:25 pm

Use of Carbogen during Apnea Tests Is Proving To Be a Safer Method

Maria Madden RRT, Baltimore MD

This presentation will review the purpose and the updated guidelines of the apnea testing procedure as suggested by the American Academy of Neurology. The discussion will cover the risks of a traditional apnea testing and how the addition of carbogen alleviates many of them. The presentation will include a summary of how to administer carbogen and the detailed pre and post assessment process that is completed by the respiratory therapist.

3:45 pm – 4:35 pm

Health Care Disparities and Change Agency…Are You a Change Agent?

Robin Kidder RRT AE-C, St Louis MO

The presenter will describe health care disparities the – unfair or unequal treatment of our patients even when we do not realize it is occurring. National data will be reviewed along with an introduction of safety net systems available across the United States. Change agency will be described and the idea of a respiratory therapist being an active participant in implementing change will be explored.

4:25 pm – 5:00 pm

Pulmonary Management of the Burn Patient

Paul F Nuccio MS RRT FAARC, Boston MA

Care of the burn patient presents the health care professional with unique challenges that require a true multidisciplinary effort. The speaker will describe the importance of early identification of thermal injury to the airways. Five predictable clinical problems that are most common in patients with inhalation injury will be presented.

4:30 pm – 5:00 pm

OSA in the Bariatric Population

Jessica Schweller RRT-RCP MS RN NP-C, Columbus OH

This presentation will discuss preoperative OSA screening for bariatric patients. Presenter will examine CPAP vs APAP in the bariatric population, compliance rates before surgery and how they correlate to post operative complications. A review of post operative recommendations to reduce the risk of complication/death will be included.

4:30 pm – 5:00 pm

Sleep Disorders – What Are They?

Sheri Tooley RRT-NPS CPFT AE-C, Adams Center NY

More than 100 different disorders of sleeping and waking have been identified and involve many difficulties related to sleeping, including difficulty falling or staying asleep, falling asleep at inappropriate times, excessive total sleep time, or abnormal behaviors associated with sleep. This presentation will provide an overview of the types of sleep disorders most commonly encountered in the sleep clinic setting, including symptoms, testing based on specific sleep disorders, treatments and outcomes.

Special Events

Breakfast Symposia

Held in the morning, the symposia present timely information on topics affecting your practice and are free of charge and approved for CRCE credits. In mid-October Congress registrants will receive an email with the scheduled topics, speakers, descriptons and instructions on how to register online. Course capacities will be limited, first-come, first served.

AARC Opening Reception

Saturday. November 5, 7:30 pm
Sponsored by Dräger

5K Fun Run and Walk

Sunday. November 6, 6:30 am
Sponsored by Roche

34th Sputum Bowl Finals

Monday. November 7, 7:00 pm
Sponsored by COVIDIEN

Travel Discounts/Information

TRAVEL DISCOUNTS/INFORMATION

Discounts are offered to AARC Congress attendees, family members and friends.

CONGRESS 2011

The 57th International Respiratory Convention & Exhibition

AIRPORT

Tampa International Airport (TPA) is approximately 10 miles from downtown Tampa.

AIRTRAN AIRWAYS

Call, or have your travel agent call, AirTran Airways EventSavers Desk at 866-683-8368. Refer to Event Code TPA110211 and the AARC International Respiratory Congress. The discount is available only by calling the toll free number.

AMERICAN AIRLINES

Online at www.aa.com. Enter 99N1AR in the Promotion Code box (no booking fee). **Call** AA Meeting Services at 800-433-1790 and refer to Authorization Code 99N1AR (booking fee added).

CONTINENTAL AIRLINES

Online at www.continental.com. Enter ZKBS111322 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 ZKBS and Agreement Code 111322 (booking fee added).

DELTA AIR LINES

Call, or have your travel agent call, Delta Meeting Network at 800-328-1111. Refer to Ticket Designator NM7AZ. 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 RENT-A-CAR

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 049T0004 in the Convention Number (CV) discount box. Call 800-654-2240 or 405-749-4434. Refer to Convention Discount Code 049T0004.

GROUND TRANSPORTATION

There are a variety of ground transportation options between Tampa International Airport and surrounding destinations. Choose from various public transportation, bus service, shared ride and taxi companies.

TAMPA INFORMATION

Visit www.VisitTampaBay.com/visitors/things-to-do.

Registration and Fees

CONGRESS 2011

The 57th International Respiratory Convention & Exhibition

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 Oct 14, 2011.** A fee of 35% will be deducted from the refund to cover processing. No refunds will be made after **October 14**.
- No soliciting from exhibitors and attendees is permitted without AARC permission.

REGISTRATION FEES (SEE NEXT PAGE FOR THE FORM)

Congress	By Sept 30	After Sept 30 And On-site 4 Days	Daily (On-site only)
AARC Active/Associate	$370	$395	$205
AARC Student Member	$160	$170	$ 80
Non-member*	$500	$515	$285

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. Go to www.aarc.org/member_services/military/congress.htm.

Pre-Congress Course #1 — Hospital Readmissions Symposium
Friday, Nov. 4, 2011

Course capacity is limited. Pre-registration is required. Deadline: Oct 14, or when the course is full. You must attend the entire symposium to receive CRCE credit; no partial credit will be given. *The Hospital Readmissions Symposium and Mechanical Ventilation Course run concurrently; you may register for only one.*

By Sept 30	AARC Member	Non-member
Symposium only	$190	$300*
If registered for Congress	$80	$125*

Oct 1–Oct 14	AARC Member	Non-member
Symposium only	$220	$330*
If registered for Congress	$110	$155*

Pre-Congress Course #2 — Mechanical Ventilation Course
Friday, Nov. 4, 2011

Course capacity is limited. Pre-registration is required. Deadline: Oct 14, or when the course is full. You must attend the entire course to receive CRCE credit; no partial credit will be given. *The Hospital Readmissions Symposium and Mechanical Ventilation Course run concurrently; you may register for only one.*

By Sept 30	AARC Member	Non-member
Course only	$190	$300*
If registered for Congress	$80	$125*

Oct 1–Oct 14	AARC Member	Non-member
Course only	$220	$330*
If registered for Congress	$110	$155*

*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.

Online Registration

If you are using a credit card, go to www.AARC.org/Education/Meetings.

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 Tampa, FL. Present the receipt on-site to receive your name badge and registration packet(s).

On-site Congress Registration Hours

Friday—11/4	10 am–6 pm
Saturday—11/5	7 am–4 pm
Sunday—11/6	7:30 am–4 pm
Monday—11/7	8 am–4 pm
Tuesday—11/8	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.

AARC Congress 2011 Registration Form

November 5–8, 2011 • Tampa, Florida, USA

INTERNET: Go to www.AARC.org to register online and to receive a confirmation.

***or* MAIL:** Send this form to: AARC Congress, 9425 N. MacArthur Blvd. Ste. 100, Irving, TX 75063-4706 U.S.A. Full payment must be included with your registration form.

***or* FAX:** If paying by American Express, MasterCard, or VISA, you may fax your registration form to (972) 484-2720.

One person per form. No invoices will be issued. Cancellations must be in writing. There will be a 35% handling fee for cancellations received by October 14, 2011. No refunds will be made thereafter.

PLEASE PRINT INSIDE THE BOXES

AARC Member # | Membership Expiration Date | Daytime Telephone (if international, include country code)

First and Last name as you want them to appear on your name badge. DO NOT include credentials here.)

Employer

Preferred Mailing Address (write address below, but first indicate if this is your home or business address) ☐ Home Address ☐ Business Address

City (and Country if outside US) | State | Zip/Postal Code

E-Mail Address _____ @ _____

CHECK THE HIGHEST DEGREE EARNED:
☐ PhD ☐ EdD ☐ MEd ☐ MBA ☐ MS ☐ MHA
☐ MHS ☐ MPA ☐ MPH ☐ MSEd ☐ MSN ☐ MA ☐ BSRT ☐ BSRC
☐ BS ☐ BHS ☐ BSEd ☐ BSN ☐ BA ☐ AAS ☐ AS ☐ AA

CREDENTIAL *(check three to be printed after your name)*:
☐ MD ☐ DO ☐ RRT-NPS ☐ RRT-SDS ☐ RRT
☐ RPFT ☐ CRT-NPS ☐ CRT-SDS ☐ CRT ☐ CPFT ☐ RN ☐ RPSGT ☐ AE-C
☐ CTTS ☐ EMT-P ☐ LPN ☐ LVN ☐ Other_____

HONORARY CREDENTIALS: ☐ FAARC ☐ FACHE ☐ FAACVPR ☐ FCCM ☐ FCCP

CONGRESS REGISTRATION

Payment of appropriate fee entitles registrant to attend all Congress activities and social events November 5-8. Spouses register on-site only.

CHECK ONE:	*By Sept 30*	*after Sept 30 (and on-site 4-Day)*
AARC Active/Associate Member	☐ $370	☐ $395
AARC Student Member	☐ $160	☐ $170
Non-member*	☐ $500	☐ $515

*You may become a Member prior to registering by going to www.AARC.org. If you opt to pay the Non-member fee you are entitled to complimentary, automatic 1 year AARC membership. Check here ☐ if you **DO NOT** wish to receive this complimentary 1 year AARC membership.

Check enclosed for $_____ or Charge $_____ to my

☐ **American Express** ☐ **MasterCard** ☐ **VISA**

Card Holder Name (print) _____

Credit Card # _____

Expiration Date_____ Signature_____

The Congress will be electronically recorded by the AARC. By attendance or participation in discussion, registrant agrees that the AARC may electronically record, copy, and distribute registrant's attendance and involvement in the program discussions and question-and-answer periods. **No individual or entity other than the AARC may record (audio or video) any portion of this program.**

OFFICE USE ONLY: ☐ BC ☐ PC ☐ C ☐ CC

Total Received _____ Check # _____ Date _____

HOSPITAL READMISSIONS SYMPOSIUM

Friday, Nov. 4, 2011 • Tampa, FL

Course capacity is limited. Pre-registration is required.
Deadline: October 14, 2011 or when course is full.

	AARC Member	Non-member
By Sept 30		
Symposium Only	☐ $190	☐ $300*
With Congress Reg	☐ $80	☐ $125*
Oct 1– Oct 14		
Symposium Only	☐ $220	☐ $330*
With Congress Reg	☐ $110	☐ $155*

MECHANICAL VENTILATION 2011

Friday, Nov. 4, 2011 • Tampa, FL

Course capacity is limited. Pre-registration is required.
Deadline: October 14, 2011 or when course is full.

	AARC Member	Non-member
By Sept 30		
Course Only	☐ $190	☐ $300*
With Congress Reg	☐ $80	☐ $125*
Oct 1– Oct 14		
Course Only	☐ $220	☐ $330*
With Congress Reg	☐ $110	☐ $155*

Housing Reservation for AARC

AARC International Respiratory Congress at the Tampa Convention Center, 333 South Franklin Street, Tampa, FL 33602

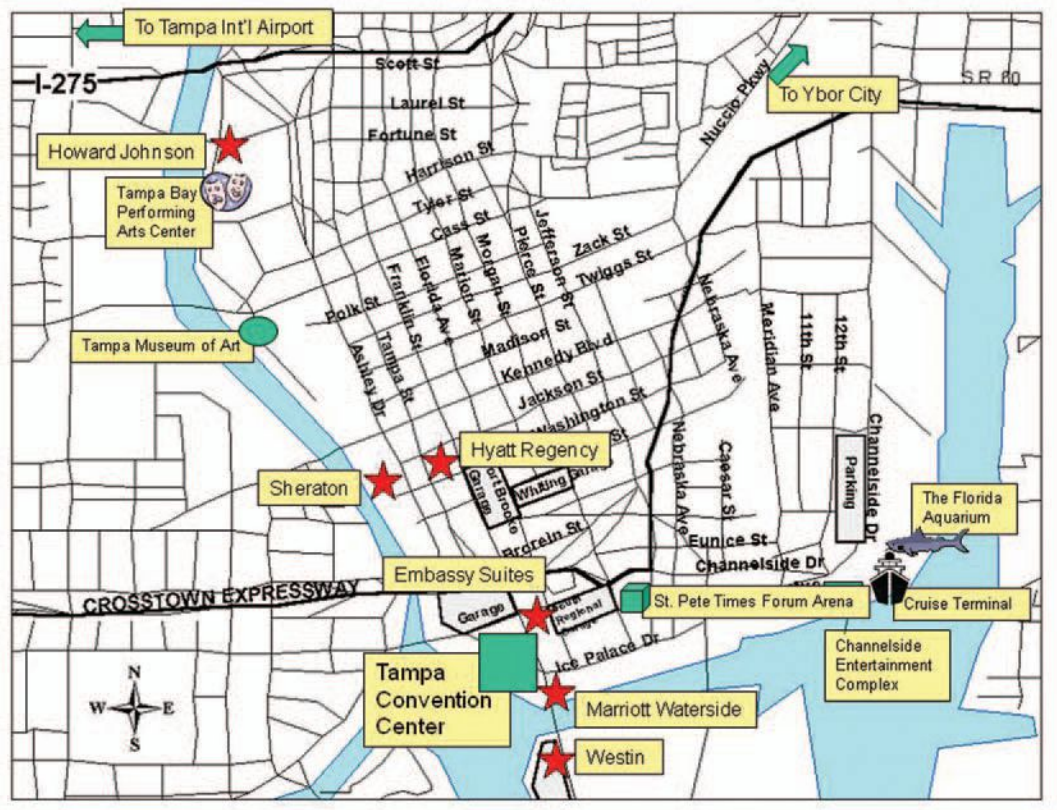
Conference Hotels

Tampa Marriott Waterside Hotel & Marina – Headquarter Hotel
700 South Florida Ave.
Tampa, FL 33602
*$165 Single; $165 Double
$185 Triple; $205 Quad

Embassy Suites Tampa Downtown Convention Center
513 S. Florida Ave.
Tampa, FL 33602
*$174 Single; $174 Double
$184 Triple; $184 Quad

Howard Johnson Plaza
111 W. Fortune Street
Tampa, FL33602
*$85 Single; $85 Double
$85 Triple; $85 Quad

Hyatt Regency Tampa
211 N. Tampa Street
Tampa, FL 33602
*$155 Single; $155 Double
$170 Triple; $170 Quad



Sheraton Tampa Riverwalk Hotel
200 N. Ashley Drive
Tampa, FL 33602
*$132 Single; $132 Double
$152 Triple; $172 Quad

Westin Tampa Harbour Island
725 S. Harbour Island Blvd.
Tampa, FL 33602
*$155 Single; $155 Double
$165 Triple; $175 Quad

**Single, Double, Triple and Quad represent occupancy and not bed types. The rates above do not include 12% tax (subject to change without notice).*

Access Code

Attendees must use the Attendee Access Code AARCATTN2011 to make online, faxed or mailed reservations. Exhibitors can contact Annette Phillips at aphillips@aarc.org for the Exhibitor Access Code.

Housing Guidelines

• **To receive discounted rates for the AARC International Respiratory Congress, reservations must be booked through the AARC Housing Bureau by Wednesday October 12, 2011.** After this date, the official AARC room blocks may be released by the hotels and they may charge significantly higher rates. Reservations made from October 13 to October 27 will be processed through the AARC Housing Bureau on a space/rate available basis. **Do not send the housing form to the AARC Executive Office or individual conference hotels; it will delay processing your request.**

• A credit card guarantee of one night's room and tax is required with each reservation request. Housing forms received without a valid credit card will be returned without being processed. Credit cards must be valid through November 30, 2011 to be considered a proper guarantee. NO CASH OR CHECK DEPOSITS ARE ACCEPTED. If you need assistance setting up special billing, please e-mail **Housing@VisitTampaBay.com.**

• Please contact the AARC Housing Bureau with new reservations, changes or cancellations through October 27, 2011. After this date, direct all changes to the designated hotel.

• **CANCELLATION POLICY:** Any cancellation received within 72 hours of arrival is subject to one night's room and tax penalty charged by your confirmed hotel. Your confirmed hotel may assess an early departure fee for departure date changes at check-in.

Housing Reservation Form for AARC

AARC International Respiratory Congress at the Tampa Convention Center, 333 South Franklin Street, Tampa, FL 33602

Instructions

Reservations can be made by choosing one of the following methods:

Internet: Book your reservations online by logging onto: **www.aarc.org**

Fax: Send a completed form, one copy per room request to:(813) 218-3369

Mail: Send a completed form, one copy per room request to:
AARC Housing Bureau
401 East Jackson St., Suite 2100
Tampa, FL 33602

Confirmations

Confirmations will be sent after each reservation booking, modification, or cancellation. Review it carefully for accuracy. If you do not receive a confirmation via e-mail within 14 days after any transaction, please contact the Housing Bureau via the fax number (813) 218-3369 or e-mail address Housing@VisitTampaBay.com. You will not receive a written confirmation from the hotel.

Deadlines/Room Rates/Taxes

To take advantage of the special conference rates, book your reservations by **October 12, 2011**. Though reservations can be booked October 13–27, 2011, AARC cannot guarantee discounted rates and availability at the conference hotels. All rates are per room per night and are subject to 12% tax *(subject to change without notice)*.

Guarantee

All hotels require a credit card guarantee of one night's room and tax with each reservation request. Housing forms received without a valid credit card will be returned without being processed. Credit cards must be valid through November 30, 2011 in order to be considered a proper guarantee. NO CASH OR CHECK DEPOSITS ARE ACCEPTED. If you need assistance with setting up special billing, please send email to Housing@VisitTampaBay.com.

Changes/Cancellation

Please contact the AARC Housing Bureau with new reservations, changes or cancellations through October 27, 2011. After this date, direct all changes to the designated hotel.

Any cancellation received within 72 hours of arrival is subject to one night's room and tax penalty charged by your confirmed hotel.

Your confirmed hotel may assess an early departure fee for departure date changes at check-in.

Arrival Date:_____/_____/_____ **Departure Date:**_____/_____/_____

Hotel Selection: (Please number hotels in order of preference)

_____ **Tampa Marriott Waterside Hotel & Marina - Headquarter Hotel**
_____ **Embassy Suites Tampa Downtown Convention Center**
_____ **Howard Johnson**
_____ **Hyatt Regency Tampa**
_____ **Sheraton Riverwalk Hotel**
_____ **Westin Tampa Harbour Island**

Reservations will be processed on a first come, first served basis. If all hotels are unavailable, comparable reservations will be made at another participating hotel. Please process this reservation according to (please check one):

- Comparable room rate
- Proximity to conference site
- Do not process this reservation and advise of alternatives

Check one:

Attendee: _____ Exhibitor:_____

Access Code (required to process your reservation):_____

Room Type: (must fill out)

Number of people in room:_____ Number of beds in room (one or two):_____

Hotel Rewards #: _____

List all occupants in room: (include yourself)

1_____ 2._____

3. _____ 4._____

Special Requests: ____ Non-Smoking ____ Smoking ____ ADA

____ Other:_____

Hotels will assign specific room types upon check in, based upon availability. Requests are not guaranteed. The Marriott, Sheraton & Westin are smoke free hotels. The Embassy Suites has a limited number of smoking rooms and they cannot be guaranteed.

Send Confirmation to: (Fill out this portion completely)

Last:_____ First:_____ MI:_____

E-mail Address:_____

Company:_____

Address:_____

City:_____ State:_____ Postal Code:_____

Country:_____

Phone:_____ Fax:_____

Payment Information: All hotels require a valid credit card guarantee of one night's room and tax with each reservation request. Credit cards must be valid through November 30, 2011.

Type of Card:

_____American Express _____Visa _____Discover
_____MasterCard _____Other_____

Account Number:_____

Exp. Date:_____

Card Holder Name (Print):_____

Signature:_____

AARC Congress 2011 Exhibitors

Exhibit Hours

Saturday, Nov 5
11 am – 4 pm

Sunday, Nov 6
11 am – 4 pm

Monday, Nov 7
11 am – 4 pm

Exhibitors list as of Aug. 2, 2011

A
AARC
ADVANCE-Media, Marketing & Merchandise
Aerogen
Air Lift & CareFore Medical
Airborne Life Support Systems/VIA Medical
Airon Corporation
AirSep Corporation
Airtraq LLC
Alere
Alpha–1 Foundation
ARC Medical, Inc.
Aureus Medical Group

B
B&B Medical Technologies
Baitella AG
Bay Corporation
Beevers Manufacturing
Beijing Choice Electronic Technology Co., Ltd
Bio-Med Devices, Inc.
Boehringer Ingelheim Pharmaceuticals, Inc.
BOMImed Ltd
Bosch Rexroth Corp.
Boston Medical Products
Boston Scientific Corp.
Breathe Technologies
Bunnell Incorporated

C
Cadwell Laboratories, Inc.
CareFusion
Children's Medical Center Dallas
Clement Clarke International
Clippard Instrument Lab., Inc.
CME America
CoARC
Committee of Accreditation for Polysomnographic Technologist Education
Compumedics USA
CooperSurgical
Cornerstone Therapeutics
COSMED USA, Inc.
Covidien
Cross Country TravCorps

D
Dale Medical Products
Dey Pharma, L.P.
Discovery Labs
Draeger Medical, Inc.

E
EKOM spol s r.o.
Electromed, Inc.
Elsevier

Ephiphany Cardiography Products
Excelsior College

F
Fisher & Paykel Healthcare
Flight Medical
Forest Pharmaceuticals

G
GaleMed Xiamen Co. Ltd.
GCX Corporation
GE Healthcare
Gems Medical Sciences
General Physiotherapy, Inc.
Goldstein & Associates Inc.

H
Hamilton Medical, Inc.
HCA West Florida
Hill-Rom
Hi-Tech Medical
Hollister Incorporated
Hospira

I
I.V. League Medical
IDEM
Ikaria
Independence University
IngMar Medical, Ltd.
Instrumentation Industries, Inc.
Instrumentation Laboratory
Intersurgical Inc.
Invacare Corporation
IPI Medical Products

J
Jones & Bartlett Learning

K
KARL STORZ Endoscopy-America, Inc.
Kettering National Seminars
Kimberly-Clark

L
Lakeland Regional Medical Center
Lambda Beta Society
Legacy Health

CONGRESS 2011

The 57th International Respiratory Convention & Exhibition

M
MAQUET, Inc.
Marpac, Inc.
Marsh U.S. Consumer
Masimo
Maxtec
MEDGRAPHICS
MediServe
Medline Industries
Mercury Medical
Methapharm
Monaghan Medical Corporation

N
National Board for Respiratory Care, Inc. (NBRC)
ndd Medical Technologies
Newport Medical Instruments
Nihon Kohden America
Nonin Medical, Inc.
Northwestern Memorial Hospital
Nouvag AG
Nova Biomedical
Nova Southeastern University
nSpire Health

O
ONY Inc. Infasurf
OPTI Medical Systems, Inc.
Oridion

P
Pall Medical
Parker Medical
Parker Precision Fluidics Division
Passy-Muir Inc.
Patient Shield Concepts LLC
Percussionaire Corporation
Philips Respironics
Pikeville Medical Center, Inc
Praxair Healthcare Services
Precision Medical
Pulmodyne Inc.

R
Respiratory Health Services
RespirTech
RMS Medical Products
Roche Diagnostics
RT/Sleep Review

S
Salter Labs
Sensirion, Inc.
Sentec, by Master Dist. Bemes Inc.
Siemens Healthcare Diagnostics
Sleepnet
Smiths Medical
SonarMed, Inc.
Soundway Medical China

T
Talecris Biotherapeutics
Teleflex
Thayer Medical
Tri-anim
TSI, Inc.

U
University of Virginia Health System

V
Vapotherm
Ventus Medical
Verathon Medical
VORTRAN Medical Technology 1, Inc

W
Westmed, Inc.

Industry Watch

Joint Commission program focuses on interdisciplinary care

The Joint Commission's new Primary Care Medical Home (PCMH) option for ambulatory care organizations became available in July. Under the PCMH model of care, services are provided to patients by a primary care clinician and an interdisciplinary team. Patients benefit because they have increased access to the services of the clinician and interdisciplinary team, the care provided by other clinicians and facilities is tracked and coordinated, evidence-based treatment protocols guide patient care, and a greater focus is placed on education and patient self-management. According to The Joint Commission, the PCMH option will help accredited organizations ensure their patients receive timely, appropriate treatment, increase patient satisfaction, improve patient outcomes, and reduce the overall costs to the health care system.

Maquet anesthesia system gets FDA clearance

According to Maquet Critical Care AB, the company has received 510(k) clearance from the FDA for its FLOW-i anesthesia system, including the C20, C30, and C40 models. FLOW-i is a high-performance system designed to meet ventilatory challenges within anesthesia, as well as to provide inhalation anesthesia in a broad range of patients from neonatal to adult. "The 510(k) clearance allows us to further serve the U.S. hospital market with a differentiated anesthesia system due to its high-performance ventilation capabilities," said Jens Viebke, president at Maquet Critical Care AB.

Deep Breeze showcases lung imaging systems

Deep Breeze showcased its new lung imaging systems embedded with the O-Plan application at the 14th World Conference on Lung Cancer in Amsterdam, The Netherlands, in July. Deep Breeze's Vibration Response Imaging (VRI™) systems are now integrated with advanced interactive software that enables the physician to automatically calculate the predicted post-operative lung function for high- and low-risk lung cancer patients prior to resection surgery.

Covidien announces leadership change

Peter L. Wehrly transitioned to group president at Covidien on July 1, with responsibility for the company's Respiratory & Monitoring Solutions and Vascular Therapies businesses, as well as regional responsibility for Japan, Australia–New Zealand, and Canada. Wehrly joined Covidien in 2009 as president of Respiratory & Monitoring Solutions and has more than 20 years of experience in the medical devices industry.

Library of Medicine launches MedlinePlus Connect

The National Library of Medicine (NLM) has formally launched MedlinePlus Connect, a free service that allows health organizations and health information technology providers to link patient portals and electronic health record systems to MedlinePlus.gov, a trusted source of authoritative, up-to-date health information for patients, families, and health care providers. MedlinePlus Connect uses technology and standards to bring high-quality information to patients and clinicians when and where they need it, according to NLM Director Donald Lindberg, MD.

Kimberly-Clark receives performance award

Kimberly-Clark Health Care and I-Flow Corporation, a Kimberly-Clark Health Care company, have received the sixth annual Performance Award presented by the Premier health care alliance. Winners are recognized for their outstanding management of Premier agreements and drive toward the mutual goal of providing clinical and financial value to Premier members. Kimberly-Clark recently bestowed some awards of its own to recognize hospitals that have made great progress in curtailing health care-associated infections. Its HAI Watchdog Awards went to Tammany Parish Hospital in Covington, LA; Cabell Huntington Hospital in Huntington, WV; Children's Healthcare of Atlanta in Atlanta, GA;

and Memorial Healthcare System in Chattanooga, TN.

International Biomedical receives FDA clearance

According to International Biomedical Ltd., the company has received FDA clearance for integrating pulse oximetry into their Airborne transport incubator systems. Both Masimo® and Nellcor® pulse oximetry technology and an integrated oxygen analyzer are now available. International Biomedical President John Segars said, "Many transport teams want to monitor the blood oxygenation at two sites. The addition of a second, built-in pulse oximeter allows them to safely monitor a second site. In addition, the built-in pulse oximeter can be used during back transport where a full vital signs monitor is not required."

Royal Philips Electronics debuts "Pathway to Compliance"

Royal Philips Electronics demonstrated the latest advances in sleep with the premiere of its "Pathway to Compliance" interactive showcase at SLEEP 2011. It features the latest breakthroughs for diagnosing, treating, and managing the entire spectrum of sleep-disordered breathing. Attendees walk through the patient care model from diagnosis to therapy in lab, physician, home care provider, and patient home settings. Technologies that connect the care team to vital patient information are demonstrated using Philips Respironics integrated solutions. The educational program includes hands-on demonstrations with patients, physicians, respiratory therapists, and product experts.

Aria CV to commercialize device for PH treatment

The University of Minnesota has licensed technology to Aria CV Inc. to develop and commercialize a medical device for the treatment of pulmonary hypertension. The technology was invented by former fellows in the U of M's Medical Devices Center Innovation Fellows Program. "The patients whose lives we aim to improve are extremely sick and aren't being helped by presently available pharmacologic therapies," one of the former fellows, Karl Vollmers, PhD, was quoted as saying. "There is a significant market and medical need to treat these patients." Dr. Vollmers will serve as vice president of research and development in the start-up company. Another former fellow, John Scandurra, DVM, will be the CEO.

Sleep report features celebrities, experts

Mediaplanet Publishing recently released a sleep report to targeted markets through *USA Today* that featured contributions from Olympic gold medalist Dara Torres, HGTV's Genevieve Gorder, Alliance Health, the American Sleep Apnea Association, and leading sleep experts. Torres shared her secrets to getting enough sleep and why it's crucial to her success as she eyes the 2012 London games. Gorder provided tips to transform the bedroom into a tranquil sleep environment. Dr. Jeffrey Durmer, of the Fusion Sleep Medicine Program of Atlanta, and Ed Grandi, of the American Sleep Apnea Association, helped readers distinguish between snoring and sleep apnea. Other experts offered sleep tips for frequent flyers.

British trade association releases social media guidelines

The British Trade Association has published guidelines to provide insights into the future acceptable use of social media by pharmaceutical and biotechnology companies. "Making Sense of Social Media in a Regulatory Vacuum" examines the pharmaceutical industry's efforts to navigate unclear and delayed regulatory guidelines for social media. U.S. trade association PhRMA has indicated the organization intends to wait for the FDA to release its own guidance on social media before setting its own doctrine for companies' social media usage.

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

Marketplace

Featuring information on products and equipment from manufacturers

▶ Press releases and photos on new products are welcome. Send to Marsha Cathcart, *AARC Times* editor, at cathcart @aarc.org.

Multi-function Ventilator

CareFusion's new EnVe™ multi-function ventilator features a revolutionary Activcore gas delivery system comprised of a "Roots Blower" adapted from the design of the super charger in a high-performance race car. The extremely tight tolerance in the blower's intermeshing impellers allows the delivery of high pressures at high flows. The EnVe is expected to revolutionize ventilation in its ability to deliver critical care ventilation performance in a physical package that can truly go anywhere — including transport inside and outside the hospital. www.carefusion.com

Pacifier Adaptor

The Babi.Plus™ Pacifier Adaptor from B&B Medical Technologies conveniently provides aerosolized medication therapy for babies and children who are reluctant to relinquish their familiar pacifiers or to wear a mask. The Pacifier Adaptor attaches directly onto the child's pacifier and delivers medication via a small port directed at the nose, which minimizes aerosol or gas directed toward the eyes. The Pacifier Adaptor comes with a 15 cm length of 10 mm tubing and a nebulizer adaptor for connection to any small-volume nebulizer. www.BandB-Medical.com

Pediatric Tracheostomy Holder

Pepper Medical's new pediatric Rainbow-Tie® tracheostomy holder is packaged 10 to a bag with three different color schemes: variety, pastel, and bold. With Orthowich® moisture wicking technology, the device pulls the moisture away from the child's skin, potentially aiding in the reduction of skin breakdown and infection; and SOFT Velcro® tabs offer plush backing that will aid in patient comfort. The holders are latex free and available in both one-piece and two-piece designs. www.peppermedical.com

Full Face Mask

ResMed's Quattro FX is a unique full face mask for sleep apnea patients on positive airway pressure therapy that offers a clear field of vision with no need for forehead support. Bringing together new frame and cushion technologies, Quattro FX's contoured headgear design and flexible new spring frame combine to create a suspension-like effect that maintains a strong seal while the wearer moves during sleep. The mask comes packaged with an easy-to-use sizing tool and a three-step fitting process that may reduce the time a dealer or clinician must spend fitting, troubleshooting, and adjusting the mask. www.quattrofx.com

Intraoral Suction and Lighting System

New from Great Lakes, the eBiteplus Intraoral Suction and Lighting System is a multi-functioning device that combines full illumination of the workspace as well as suction, tongue retraction, and bite block tools in a single unit. Featuring three levels of light intensity and a fully autoclavable handpiece, it fits into any standard delivery unit and provides continuous aspiration without interruption of treatment. www.greatlakesortho.com

RC Currents

IN THE NEWS

RTs May Benefit from Changes to Rules on Telemedicine

The Centers for Medicare and Medicaid Services (CMS) recently revised the process hospitals must use to determine who is eligible to provide telemedicine services to patients in remote hospitals or critical access hospitals. (Medicare defines telemedicine as "the provision of clinical services to patients by practitioners from a distance via electronic communications.")

CMS has covered telemedicine services for over a decade. Some of these include initial inpatient consultations, follow-up inpatient consultations in hospitals or skilled nursing facilities, and office or other outpatient visits. Until recently, however, telemedicine practitioners had to be granted separate practice privileges by both their home hospital as well as the remote hospital or critical access hospital where the telemedicine services were being conducted.

Under the new provisions, the originating hospital's governing body, for example, can now rely on the credentialing and privileging decisions made by the distant site when making its own decisions about who can provide telemedicine services, thus eliminating the duplicative process used previously. The new more flexible rules are designed so Medicare beneficiaries can receive medically necessary interventions in a timelier manner and hospitals can take advantage of new methods and technologies that can improve patient access to high-quality care.

Although RTs are not directly eligible to furnish services (only physicians and other practitioners recognized in Medicare law are qualified), there may be opportunities for RTs to be involved in follow-up care both in the inpatient hospital and physician office settings since the removal of unnecessary barriers to the current privileging process could enhance patient follow-up in the management of chronic disease conditions. A copy of the final rule is available online (www.gpo.gov/fdsys/pkg/FR-2011-05-05/pdf/2011-10875.pdf). ■

Sen. Durbin Co-chairs COPD Caucus

Sen. Richard Durbin (D-IL) has agreed to serve as Senate co-chair along with Sen. Mike Crapo (R-ID) of the Congressional COPD Caucus. The caucus is made up of members of Congress who actively support people living with chronic obstructive pulmonary disease nationwide.

AARC President Karen Stewart, MSc, RRT, FAARC, believes Sen. Durbin's decision to take on this active role in advocating for people with COPD will help the entire COPD support community move its goals forward. "As Assistant Senate Majority Leader, Sen. Durbin has great demands on his time; and we appreciate his willingness to help improve the quality and quantity of life for our patients with COPD."

AARC members from Sen. Durbin's home state of Illinois have been advocating for pulmonary patients with the senator and his staff for some time now, helping to educate them about COPD, its treatment and causes, as well as the great toll it takes not only on those Americans who suffer from COPD but their families who care for them.

H.R. 941, the legislation AARC is supporting in the House of Representatives, would help achieve that goal by providing easier access to the services of a respiratory therapist for Medicare patients with COPD being treated in outpatient settings, such as the physician's office.

The AARC believes having Sen. Durbin join Sen. Crapo at the helm of the Congressional COPD Caucus will help to move the bill forward in the Senate, where it is currently awaiting introduction. "As the leading national organization representing the respiratory therapists who provide day-to-day care for COPD patients, we appreciate his dedication to promoting state-of-the-art care for people with this chronic lung disease and look forward to working with him to achieve our collective goals," says Stewart.

The Congressional COPD Caucus was created in 2004 by Sen. Crapo as a bipartisan, bicameral way to raise awareness of COPD. Sen. Crapo was joined by then-senator Blanche Lincoln (D-AR), and Rep. Cliff Stearns (R-FL) and Rep. John Lewis (D-GA) in the House. Working with professional and patient organizations, the Caucus has addressed the need to ease air travel with supplemental oxygen, made pulmonary rehabilitation a permanent benefit for Medicare beneficiaries, and enhanced data collection that will assist with tailoring the public health response to COPD. ■

Free Download of Dr. Petty's First Oxy-phile Book Available

Last year friends and colleagues of the late Thomas L. Petty, MD, FAARC, decided to finish "Adventures of an Oxy-Phile2," a sequel to his first book for oxygen users, "Adventures of an Oxy-Phile." Dr. Petty had been working on "Adventures of an Oxy-Phile2" to help home oxygen users continue to live life to the fullest, at the time of his death. "Adventures of an Oxy-Phile2" is now available for sale on drtompetty.org. Also, the website offers a free download of the first edition, "Adventures of an Oxy-Phile" (at http://drtompetty.org/Books_Articles_Free_Down.html), which has been out of print for the last year or so, as well as other publications helpful to pulmonary patients.

"We hope you will let your oxygen patients know about these great resources and how they can help them cope with the challenges of living life with supplemental oxygen," says Louise Nett, RN, RRT, FAARC, who worked closely with Dr. Petty in the National Lung Health Education Program for many years. "Consider how you can incorporate either the entire first book or portions of it into your discharge planning process, perhaps as a handout for your patients going home on oxygen for the first time. The website's free download of the first Oxy-Phile book will make this easy to do."

The second book offers stories by more patients who have done amazing things while on oxygen, plus chapters by respiratory therapists and other health professionals who go over the latest developments in oxygen use. "It can assist your patients in their journey to fit home oxygen into an active lifestyle," says Nett. ■

AARC Times Seeks Volunteers To Review Articles

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

If you are interested in providing this kind of service to your professional organization, please email your resume and a brief letter explaining your areas of interest and expertise to *AARC Times* Editor Marsha Cathcart at cathcart@aarc.org. We know there's a lot of untapped talent out there, so we hope to be hearing from you soon! ■

Time Running Out To Enter the 2011 AARC Photo Contest

AARC Times is looking for creative members to enter our monthly Photo Contest. Winners will receive a free one-year membership renewal and have their submittal entered into our Photo-of-the-Year Contest with the chance of it being chosen to appear on the February 2012 cover. For instructions and guidelines, select the *AARC Times* icon on www.AARC.org and click on the "Photo-of-the-Year Contest" link. Deadline is Sept. 10, 2011. ■

Industry Profile: Verathon

Dr. Jack Pacey

Verathon President Dr. Jack Pacey fills us in on his company and what he believes the future holds for the respiratory device industry.

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

Dr. Pacey: Saturn Biomedical was formed in 1998 and began developing video tools for surgeons. That work led to the development of a true video laryngoscope, the GlideScope®, which was introduced in 2001. The team followed up with video laryngoscopes designed for small adults, children, and neonates. The rugged, portable GlideScope Ranger video laryngoscope — perfect for "grab and go" settings — was introduced to meet the needs of the military and emergency medical services (EMS).

Saturn was acquired by Diagnostic Ultrasound in 2006, and the new company was renamed Verathon. Since then, additional GlideScope instruments have been added to the line, offering consistently clear airway views, enabling quick intubation.

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

Dr. Pacey: We added to our family of single-use Stats for little patients; we now have a full range of sizes for patients from preterm up to 25 kg. We've also just completed a series of design changes for the GlideScope line to make the devices more robust and even easier to use. We are looking at exciting new ways to approach airway issues, such as secretion clearing technology that could reduce the likelihood of ventilator-associated pneumonia. The cricothyrotomy procedure has defied a safe solution so far, and we would like to solve this problem. We have an array of stylet products that offer advantages for patients and make intubation easier. One such stylet that will be introduced this year should help improve patient safety.

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

Dr. Pacey: The goal of GlideScope video laryngoscopes is to make intubation easier and safer. Our instruments are designed to have a "skill leveling effect," enabling those with less intubation experience to have comparable results to more seasoned practitioners. This applies to respiratory therapists by allowing them to operate more autonomously during a variety of airway emergencies. Our focus on making devices easier to teach and learn is very important to those who may not intubate every day and will help simplify airway management.

AARC Times: Do respiratory therapists work for your company; and if so, in what capacity? How has having a respiratory therapist impacted your product line?

Dr. Pacey: One of our important distributors has a strong core of respiratory therapists who sell our products. We also retain a respiratory therapist on contract for R&D to give us the benefit of his knowledge base. We discuss a lot of issues with RT practitioners to learn their problems and help develop solutions.

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. Pacey: Health care reform should prompt a wave of technology development and capital investment that will

help RT practitioners improve patient care. We support the long-term trend to add skills and functionality to the RT group to increase their effectiveness. The major initiative to implement electronic medical records will generate many possibilities for improving respiratory care. To this end, some GlideScope devices generate digital video files that can be incorporated into patient records. A variety of patient information gathered by wearable sensors or implantable technologies with onboard radio capability may enable home monitoring; home ventilation will be increasingly monitored and driven by networks.

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

Dr. Pacey: The increased capability of new devices will improve care and reduce training time; capital investment in technology will automate many tasks. There will be a dramatic increase in connectivity, resulting in excellent team backup and fewer people working in isolation. This "telemedicine" concept is just beginning to have an impact; and it strongly supports RTs, EMS, certified registered nurse anesthetists, as well as physicians in remote or "austere" environments. In fact, a GlideScope instrument was used not long ago in the first "telebation" in the field. There will be an increase in the level of IT knowledge required by RT personnel as the profession incorporates equipment that will be networked to provide care. ■

▶ Strange But True…

Good for the Skin, Too: Aspirin is well known for reducing pain and inflammation and helping to prevent heart attacks. Now a group of international researchers finds it can hold melanoma at bay as well. In their study (co-authored by Dr. Robert Stern from Harvard Medical School), people who took a daily dose had half the risk of the skin cancer as those who didn't.

Pulse-free Living: Texas Heart Institute researchers are working on a new type of artificial heart that's lacking one thing we've all come to take for granted: a heartbeat. The device uses simple whirling rotors to spin the blood and move it through the body instead. It's been tested successfully in animals and has also been used on one patient, who survived for about a month on the device before his disease, amyloidosis, attacked his liver and kidneys and he passed away. The artificial heart, however, performed flawlessly.

Polluting Pavement: International researchers who studied the effect of paved surfaces on air pollution find streets, parking lots, and other hard surfaces in urban areas along the coast soak up heat, thus keeping the areas relatively warm at night and reducing the nighttime winds that normally blow air pollution out to sea. (Journal of Geophysical Research-Atmospheres)

Payback in Overdrive: Health care workers often receive words of thanks from patients and families who are grateful for the care they provide. A private duty nurse who spent the last 20 years caring for copper heiress Huguette Clark got a bit more: When Clark passed away recently at age 104, she left Hadassah Peri $38 million. The nurse plans to donate much of it to charity in honor of her benefactor, who gave the lion's share of her $400 million fortune to a foundation to promote the arts.

Have a Cup: Florida investigators at the University of South Florida have found that caffeinated coffee lowers the risk of Alzheimer's disease in mice, but believe something else is coming into play to help caffeine get the job done. The yet-to-be-discovered compound reacts with the caffeine to increase levels of granulocyte colony stimulating factor, which is believed to stall the progression of the disease.

Tough Town: Caltech neuroscientists who used functional MRIs to see which regions of the brain light up in stressful situations found differences depending on whether people were city dwellers or lived in more rural areas, leading them to conclude that more study is needed to determine how urban living may be affecting mental health. (June 22 issue of *Nature*)

Plan Now for Respiratory Care Week Oct. 23–29, 2011

Circle the dates on the calendar and start thinking about your plans for Respiratory Care Week this October. Send an announcement to your hospital newsletter and tell a success story. Do something special to acknowledge group or individual contributions in 2011. Plan an event with your rehab patients. Or participate in the DRIVE4COPD Adopt-A-Company campaign. The official RC Week website at www.AARC.org/rcweek is loaded with great ideas, resources, links, and tools to make planning easy. ■

There's an (RT) App for That!

Computer gaming and simulation students Caleb Ray (second from the left) and Christian Schwartz (far right) demonstrate the "Respiratory Refresher" app to Gary Wynne (far left) and Caroline Chamness.

These days it seems like there's an "app" for just about everything. But when Gary Wynne, MBA, RRT-NPS, CPFT, assistant professor of respiratory care at Lone Star College-Kingwood in Kingwood, TX, went looking for one that could help his students with pulmonary assessments, he came up short.

"I was looking for a respiratory app for our students, but I could not find anything that fit our needs," says the AARC member. Undaunted, he decided to turn to colleagues in his school's computer gaming and simulation department for the answer. After getting the go-ahead from Program Director Kenny McCowen, BS, RRT, he contacted Professor Caroline Chamness to see if she and any of her students would be interested in working on such a project.

"I had several conversations with Caroline and she was very excited to work with us and have her students get involved," says Wynne. Even though they'd never worked with iTunes or developed an app before, Caleb Ray and Christian Schwartz volunteered to create the "Respiratory Refresher" app, which is now available for free in the iPhone and iPad App Store and includes assessments such as the Glasgow Coma Scale and respiration patterns, along with a section on medical gas therapy and another that details temperature, height, and weight conversions. Their efforts were rewarded when they presented the app at a technology conference and were subsequently offered a paid internship at Rice University in Houston.

Wynne says his students are already benefiting from the app, and so far it has received rave reviews from users who have weighed in with comments in the App Store. Plans are also in the works to upgrade the app over time. "This is just a 'lite' version," says Wynne, "so we will be adding more topics and updates this semester." ■

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

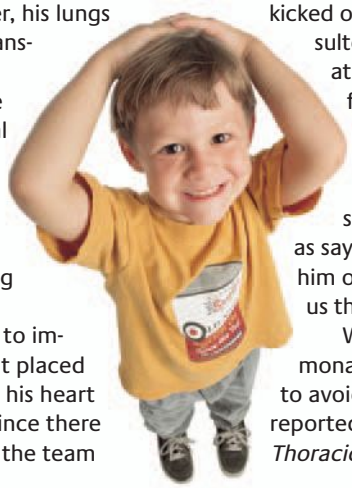
Do you know an AARC member who would be a good choice for one of our "people" features in "RC Currents"? If so, provide this information to the editor at the address below: the member's name, job title, place of work, city, and state; why you think they should be featured; and their contact information.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

Artificial Lung Helps Toddler Recover

Two-year-old Owen Stark was near death as a result of heart failure and pulmonary hypertension when investigators from Washington University collaborated with surgeons at St. Louis Children's Hospital to modify an artificial lung to treat his condition, hoping it would keep him alive along enough for a new pair of lungs to become available. Less than a month later, his lungs had recovered to the point where a transplant was deemed unnecessary.

The artificial lung works outside the patient's body, using the body's natural heartbeat to add oxygen and remove carbon dioxide from the blood. It is only approved for use in adults and has been used to treat severe pulmonary infections or as a bridge to lung transplantation.

When mechanical ventilation failed to improve Owen's condition, physicians first placed him on ECMO. After 16 days on ECMO, his heart had recovered but his lungs had not. Since there were no lungs available for transplant, the team got emergency approval from the U.S. Food and Drug Administration and Washington University's Institutional Review Board to move the boy from ECMO to the artificial lung in an innovative procedure that did not require cardiopulmonary bypass.



After 23 days on the artificial lung, Owen accidentally kicked off one of the device's connectors, which resulted in a stroke. When he was taken to the operating room to reconnect the device, physicians found that his lungs had healed enough to allow adequate blood flow on their own.

"Owen was able to come off of the artificial lung," Avihu Z. Gazit, MD, a Washington University pediatric critical care physician, was quoted as saying. "We had no idea that we'd be able to get him off of the device before a transplant. It showed us that everything we did was the right thing."

While the child still takes medication for pulmonary hypertension a year later, he has continued to avoid the need for a transplant. The investigators reported on the case in the June issue of the *Journal of Thoracic and Cardiovascular Surgery*. ■

Too Much of a Good Thing?

University of Michigan researchers publishing in May in the online journal *PLoS Pathogens* have made an interesting discovery: In their mouse model, cold-induced asthma flare-ups were caused not by the cold virus itself but by the body's heightened immune response. The study runs counter to conventional wisdom, which holds that boosting the immune system can help fight off infections and thus reduce the asthma symptoms that often accompany a cold.

Using a rhinovirus 1B, the investigators infected mice deficient in MDA5 and TLR3, two receptors that trigger the protective defenses of the immune system against viruses and other pathogens. MDA5-deficient mice showed a delayed defensive response to the infection, leading to a small increase in the level of virus in the lungs. Nevertheless, these mice showed less airway inflammation and bronchoconstriction following infection compared to wild-type mice.

TLR3-deficient mice also showed diminished airway responses. What's more, both MDA5- and TLR3-null mice with asthma showed decreased airway inflammatory and contractile responses in response to rhinovirus infection compared to normal mice, suggesting that in the context of rhinovirus infection, reducing the mouse's innate immune system reduces inflammatory signaling pathways, airway inflammation and hyperresponsiveness.

Study author Marc B. Hershenson, MD, believes this study shows that the elements of the immune response actually make the symptoms worse once you have a cold. "A better strategy might be to modulate the immune response in asthma patients with colds," he suggests. ■

Members, Send Us Your Human Interest Stories

Have you been active in a ventilator-dependent kids' summer camp? Have you helped an elderly patient in need? Have you saved a life outside of a health care facility? *AARC Times* is always searching for stories from AARC members that relate special experiences.

If you have a human interest story to share with our readers, please contact *AARC Times* Editor Marsha Cathcart at cathcart@aarc.org. ■

Contribute to Writer's Corner

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

AARC Member Moves Air Quality Research Inside

Photo courtesy of Phil Jones, Georgia Health Sciences University

Kitty Hernlen records air quality levels in a local school classroom as part of her new study.

Kitty Hernlen, MBA, RRT, a professor in the RC program at Georgia Health Sciences University (GHSU) in Augusta, first got involved with air quality issues in her local schools several years ago after eight children in her community died from asthma over an 18-month period. "Many members of the community formed a grassroots coalition to address this problem," she says. "I started providing asthma education to the faculty at the local schools and noticed there were buses that idled while picking up students."

That observation spurred Hernlen to conduct a study on bus idling along with her department director, Randy Baker, PhD, RRT. The results eventually led the county to enforce a "no idling" policy for school buses, purchase new buses that emit fewer toxic fumes, and retrofit some older buses to be more air-friendly.

Now Hernlen is at it again, this time studying indoor air quality in the schools through a $30,000 grant she received from the W.G. Raoul Foundation in Atlanta.

"We initially approached them a couple of years ago for a grant. They asked us — myself and Dr. Baker — to come and make a presentation last summer," says the AARC member. "We talked about the results of the bus idling study and the need for education not only about asthma but indoor air quality. It seemed logical to me that looking at the inside of schools was needed since children spend at least one-third of their day in schools." The Foundation agreed to fund the project for one year.

The research is a two-pronged effort. In the first portion, Hernlen looked at indoor air quality (IAQ) in the classroom with the assistance of co-investigators Dr. Baker and Susan Whiddon, MEd, RRT. Together they educated principals and faculty at three different schools about the importance of maintaining clean indoor air for students, using the Environmental Protection Agency's IAQ Tools for Schools Action Kit as a foundation.

"We walked through each classroom in each of the schools trying to educate teachers about items that could pose a hazard to indoor air quality, such as cleaning products or air fresheners in the classrooms, proper ventilation so that CO_2 levels stay within guidelines, and rugs or curtains that can harbor dust mites and pollen," says Hernlen. "Hopefully this will eliminate some of the asthma triggers and air quality issues found at schools."

In the second portion of the study, which is kicking off this fall, she's focusing on asthma education for parents, faculty, and students, and will be using the AARC's Peak Performance USA program as the basis for these efforts. "Students with asthma at these schools will attend a two-hour asthma mini-camp during school hours," Hernlen says. "We will look at pre- and post-education tests, exhaled nitric oxide levels of the students with asthma, absences due to asthma, and number of visits to the school RN for asthma as outcomes."

Hernlen is also circling the research back into her own classroom. Students in the GHSU class of 2012 developed the mini-camps; they will also be staffing the camps at the schools. "The students worked with the faculty to develop the project and will assist in the research we will perform with the study," she explains. "Not only will they be performing a vital service to the community, but learning about the research process at the same time." ■

10 Years After, Lung Function Mainly Intact

It has been 10 years since the twin towers fell in New York City. Now a new study is helping to shed light on how the recovery efforts have affected the long-term lung function of emergency workers at the site.

According to researchers from the New York Police Department who have been conducting pulmonary function tests in 206 World Trade Center responders from the department's Emergency Services Unit every year for the past decade, 95% of officers show no long-term decrease in lung function. Mild lung function decline was noted in the remaining 5% and was more likely in those with respiratory symptoms, those who were present when the towers collapsed, and those who worked long hours at the site. Smokers also had greater declines in lung function, as did the small number of participants who didn't wear respiratory protective devices while working at the site.

The researchers plan to continue closely following workers in the high-risk groups. They believe their findings hold important implications for disaster planning in general, specifically noting the importance of having workers wear effective personal protective gear and limiting duty hours at sites where they could be exposed to hazardous materials. The investigators published their findings in the June issue of the *Journal of Occupational and Environmental Medicine*. ■

Antibiotic-resistant Staph Pneumonia on the Rise in Kids

Twice as many children today are developing pneumonia caused by infection with *Staphylococcus aureus* bacteria than 10 years ago, report Texas Children's Hospital investigators. They analyzed 117 children with a median age of under 12 months who were hospitalized with staph pneumonia at Texas Children's Hospital between 2001 and 2009. Children who developed pneumonia while on mechanical ventilation were not included in the study.

Nearly 60% of the children required treatment in the ICU, and 30% were placed on mechanical ventilation. Detailed analysis of the causative bacteria found that three-fourths of the infants were infected with methicillin-resistant *S. aureus* (MRSA). The remaining one-fourth of cases were caused by antibiotic-susceptible *S. aureus*. Most of the children were infected with a strain of *S. aureus* called USA300, which has been linked to more aggressive infection. More than 90% of the children with MRSA had an antibiotic-resistant type of USA300. Children infected with USA300 strains were more likely to have complicated pneumonia requiring video-assisted surgery for diagnosis and treatment.

In addition to *S. aureus* bacteria, some of the children were also infected with viruses — most often influenza virus. These children tended to have more severe pneumonia, with higher rates of ICU care and respiratory failure.

On average, the children required three weeks of treatment with antibiotics; and at follow-up, more than 80% were considered cured or improved. The rest had additional emergency room visits or hospital admissions. One child died. The study appeared in the July issue of the *Pediatric Infectious Disease Journal*. ■

National Health Observances

- **Respiratory Care Week**; Oct. 23–29; AARC, (972) 243-2272; www.AARC.org/rcweek; materials available
- **Lung Health Day**; Oct. 26; AARC, (972) 243-2272; www.AARC.org/rcweek; materials available
- **Great American Screen Off**; Nov. 4; AARC, (972) 243-2272; www.AARC.org, or www.drive4copd.com

Giving Back: Jim Love Keeps Public Education on the Right Track

Jim Love looks on as two young students in his school district use a computer program to learn how to operate the controls of a small plane.

When Jim Love's kids were growing up, he enjoyed serving as a youth group leader in his church and a troop leader for his son's Boy Scout troop. But Love's kids grew up and that part of his life came to an end — until he saw a brief notice in the newspaper one day asking for candidates to run for the local school board in a special election to replace a seat vacated by another board member.

"I lost the first race in the spring and ran unopposed in the fall," says the Registered Respiratory Therapist at Casa Grande Regional Medical Center in Casa Grande, AZ. "I am in my 11th year on the Flowing Wells Unified School District Governing Board in Tucson, AZ."

As clerk of the board, Love signs all contracts and fills in when the president has to be absent from meetings. Over the years, he has also gotten involved in raising money for special projects, helping to start a dropout prevention program, and assisting with the building of an alternative high school. He serves as the board's legislative representative to the Arizona School Boards Association as well, where he works to advocate for educational issues with the state government — much as he works as a member of the AARC Political Advocacy Contact Team during the annual Capitol Hill Lobby Day events. ■

By the Numbers…

According to the latest statistics from the federal Agency for Healthcare Research and Quality, nearly 12% of all hospital stays in 2008 were readmissions within 30 days of a previous stay. Seven percent of hospital stays were readmissions within 14 days of a previous admission, and 4% were readmissions within a week of a previous hospital stay. Other findings include:

- The highest percentage of readmissions occurred in the 45–64 age group. Among this group, about 8% were readmitted within seven days of an initial hospital stay, 14% were readmitted within 14 days, and 25% were readmitted within 30 days.
- Close to 21% of hospital stays for those ages 18–44 were readmissions within 30 days of a previous stay.
- For adult Medicaid patients under age 65, readmission rates were 50% higher than those of privately insured patients for any of the time periods within 30 days of discharge.
- For Medicare patients age 65 and older, about 19% of hospital stays were readmissions within 30 days, 11% were readmissions within 14 days, and 6.5% were readmissions within seven days. ■

New Members

Welcome to the AARC

U.S. Members

A

Payne, Tanya, Eagle River, Ak*

Egan, Nancy, Mobile, Al*
Ford, Bonnie, Eufaula, Al*
Free Hunter, Amanda, Centre, Al*
Hancock, Ronnie, Eufaula, Al*
Peeples, Carie, Odenville, Al*
Pilkington, Rodney, Albertville, Al*
Rigby, Regina, Millbrook, Al*
Smith, David, Mobile, Al*
Studdard, Greg, Alexander City, Al*

Alexander, Tiarra, Jacksonville, Ar
Allred, Alisha, North Little Rock, Ar
Anderson, Rodney, Little Rock, Ar
Boren, Melissa, Sherwood, Ar
Brannon, Kristi, Little Rock, Ar
Carruth, April, Scott, Ar
Carter, Theresa, Little Rock, Ar
Davis, Patricia, Austin, Ar*
Frazier, Evelyn, Sherwood, Ar
Hampton, Laura, Bay, Ar*
Harrod, Blakelea, Conway, Ar
Heard, Darren, Bryant, Ar
Howell, Lori, Fayetteville, Ar*
Langhorn, Jennifer, Little Rock, Ar
Mays, Shandrea, Jacksonville, Ar
McFarlin, Anethea, Conway, Ar
Moon, Robert, Little Rock, Ar
Plumb, Darrick, Henderson, Ar
Powell, Bethany, England, Ar
Poynter, Barry, North Little Rock, Ar
Richardson, Tim, Beebe, Ar
Robinson, Tenesha, Little Rock, Ar
Rumph, Crystal, Jacksonville, Ar
Ryan, Debbie, Van Buren, Ar*
Sims, Alvin, Little Rock, Ar
Steele, Gregory, Bryant, Ar
Thomson, Celeste, Mountain Home, Ar*
Wartick, Natalie, Alexander, Ar
Woodruff, Luke, Sherwood, Ar

Andrews, Jeremy, Tucson, Az
Armijo, Stefanie, Scottsdale, Az
Arseth, Colleen, Tempe, Az
Banks, Kerri, Mesa, Az
Bassett, John, Queen Creek, Az
Bingham, Jessica, Mesa, Az
Bowen, Sunny, Phoenix, Az
Brenan, Jennifer, San Tan Valley, Az
Brown, Susan, Queen Creek, Az
Carrillo, Ruth, Tucson, Az
Castellanos, Paola, Phoenix, Az
Diaz Robles, Abraham, Nogales, Az
Duran, Guadalupe, Mesa, Az
Eicke, David, Sun City West, Az
Eisele, Lauren, Sahuarita, Az
Erickson, Michelle, Chandler, Az
Fritz, Roxanne, Tucson, Az*
Gallarzo, Kristina, Phoenix, Az*
Garcia, Miguel, Peoria, Az
Garcia, Stephanie, Tucson, Az
Gauthier, Elizabeth, Tempe, Az
Gile, Stephanie, Gilbert, Az
Godzich, Lisa, Mesa, Az
Harris, Anisha, Tucson, Az
Hayes, William, Chandler, Az
Hodge, Harry, Tucson, Az
Keefe, Kimberly, Mesa, Az
Lewis, Jessica, Marana, Az
Lord, Mykael, Mesa, Az
Lutz, Nicole, Tucson, Az
Maldonado, Ivan, Mesa, Az
Manjares, Ronaldo, Avondale, Az*
Melendrez, Karina, Tucson, Az
Neuman, Jollene, Marana, Az
Olguin, Alfred, Tucson, Az
Orme, Jonathan, Mesa, Az
Ortiz, Edward, Tucson, Az
Padilla, Ruben, Mesa, Az
Phininzy, Stephen, Tucson, Az
Pollock, Tina, Tucson, Az*
Reed, Bonnie, Buckeye, Az*
Reichle, Tracy, Chandler, Az*
Reid, Latoya, Gilbert, Az
Richardson, Emil, Peoria, Az
Rockman, Jamie, Tucson, Az
Rogers, Shauna, Peoria, Az*
Romero, William, Tucson, Az*
Rosales, Ethmundo, Mesa, Az
Rudolph, Kate, Phoenix, Az
Salas, Reyna, Tucson, Az
Sanders, Jacob, Phoenix, Az
Sanders, Tanya, Gilbert, Az
Schaeffer, Krista, Maricopa, Az
Scheel, Susan, Phoenix, Az*
Tornquist, Natalie, Tucson, Az
Valentin, Alexandra, Tucson, Az*
Vollaro, Marianne, Phoenix, Az
Widger, Juanytha, Tucson, Az
Wilcox, Alexander, Surprise, Az
Yates, Cynthia, Peoria, Az

C

Abenojar, Shannon, West Covina, Ca
Adoc, Raymund, Torrance, Ca*
Aguilar, Brandy, Pomona, Ca
Alarcon, Audra, Upland, Ca
Amaya, Gilbert, Fontana, Ca
Anderson, Sherri, Newport Beach, Ca*
Apfel, Carlee, Fontana, Ca
Aquino, Miles, Milpitas, Ca
Aquino, Richard, Norwalk, Ca
Aristizabal, Kim, Stockton, Ca*
Armstrong, Deon, Rialto, Ca
Arnold, Brittany, Covina, Ca
Arnold, Estevan, Hesperia, Ca
Ascencio Jr, Rogelio, Riverside, Ca
Asfour, Afaf, Rohnert Park, Ca*
Avila, Jose Luis, Moreno Valley, Ca
Babajian, David, Monrovia, Ca
Babilonia, Carlos, Simi Valley, Ca
Baker, Jessica, Yucaipa, Ca
Balite, Marvin, Chula Vista, Ca
Banuelos, Jose, Los Angeles, Ca
Barahona, Evelyn, Pomona, Ca
Barnett, Catherine, Highland, Ca
Bass, Angela, Pomona, Ca
Billinger, Dominique, Rancho Cucamonga, Ca
Bonner, Mia, Alta Loma, Ca
Britton, Tameca, Corona, Ca
Bruno, Trammell, Chino Hills, Ca
Bucsit, Marianne, Corona, Ca
Camara, Desiree, Corona, Ca
Campbell, Sarah, Azusa, Ca
Carlson, Erik, Long Beach, Ca
Caser, Alec Shan, Chino, Ca
Cervantes, Diana, Riverside, Ca
Cochrane, Bakari, Pomona, Ca
Collado, Jacinto, Palmdale, Ca*
Conde, John, Pomona, Ca
Corby, Ida, Carmel, Ca*
Corrales, Elizabeth, Hesperia, Ca
Cuevas, Kimberly, Ontario, Ca
Cuevas, Walter, Chino, Ca
Dang, Katie, Rancho Cucamonga, Ca
Davis, Darriana, Upland, Ca
Dela Cruz, Kesiah, San Diego, Ca*
Deleon, Matthew, Baldwin Park, Ca
Deveaux, Nicol, Chino Hills, Ca
Deveny, Gina, Fontana, Ca
Diaz, Joanna, Chino, Ca
Djibo, Fati, Northridge, Ca
Dorman, Lisa, Claremont, Ca
Dreyer, Scott, Riverside, Ca
Dyer, Richard, Modesto, Ca*
Enriquez, Cecelia, Barstow, Ca
Espinosa, Barbara, Fontana, Ca
Espinosa, Luis, Montclair, Ca
Fitzgerald, Sharon, Palm Desert, Ca*
Fletcher, Dijonnay, Rancho Cucamonga, Ca
Flynn, Bradley, San Marcos, Ca
Fonseca, Francisco, Rancho Cucamonga, Ca
Fritsch, Andrea, Victorville, Ca
Fugit, Michael, Ripon, Ca*
Ganding, Caridad, Loma Linda, Ca*
Garner, Andrew, Fontana, Ca
Genavia, Ronnie, Riverside, Ca*
Geslani, Zachary, Fontana, Ca
Gibilisco, James, San Francisco, Ca*
Gomez, Jeromy, Riverside, Ca
Gonzalez, Alex, Riverside, Ca
Gonzalez, Jamie, Rancho Cucamonga, Ca
Groves, Ruth, Yorba Linda, Ca
Guerra, Kristian, La Puente, Ca
Guggenmos, Bailey, Wrightwood, Ca
Gutierrez, Edwin, Moreno Valley, Ca
Halaby, Alexandra, South Pasadena, Ca
Herrera, Hector, Duarte, Ca*
Ibarra, Joseph, Chino, Ca

These individuals have been approved for membership in the AARC. Any member may object to a new membership by filing a written objection within 30 days. *Active Members

Ilagan, Angelica, Riverside, Ca
Imaku, Aze, Corona, Ca
Itchon, Elmer, Chino Hills, Ca
Jackson, Debbie, Temecula, Ca
James, Keith, Corona, Ca*
Jaramillo, Maria, Ontario, Ca
Javier, Phillip, Chino Hills, Ca
Jellison, Chris, Rescue, Ca
Johnson, Ashley, Redlands, Ca
Johnson, Kelli, Apple Valley, Ca
Kennedy, Rochan, Corona, Ca
Kosmatka, Arnie, Redlands, Ca*
Kristin, Camacho, Riverside, Ca
Kuei, Cynthia, Diamond Bar, Ca
Lafontaine, Sean, Hemet, Ca
Lalonde, Noella, Los Angeles, Ca*
Lam, Lena, Rosemead, Ca
Latorre, Eddie, Ontario, Ca
Lee, Beatriz, Antelope, Ca*
Leslie, Lynn, Long Beach, Ca*
Levine, Aaron, Riverside, Ca
Logan, Robert, Ontario, Ca
Ma, Kim, Diamond Bar, Ca
Manalo, Mario, Fontana, Ca
Maristel, David, Chino, Ca
Markus, Helen, Hayward, Ca*
Mauleon, Bryan, Diamond Bar, Ca
McClellan, Travis, Corona, Ca
Megala, Natalia, Fontana, Ca
Mejia, Troy, Indio, Ca
Mellor, Jill, Walnut, Ca
Mendoza, Geovanni, Bloomington, Ca
Meyers-Dixon, Danae, Chino Hills, Ca
Millard, Chris, Riverside, Ca
Montalvo, Landon, Corona, Ca
Montes, John, Rialto, Ca
Morales, Jorge, Ontario, Ca
Murray, Cheryl, Oakland, Ca*
Nguyen, Ho, San Diego, Ca
Nguyen, Stephanie, Redlands, Ca
Nolan, Laura, Palo Alto, Ca
Ojacastro, Eric, Chino Hills, Ca
Ordonez, Kimberly, Fontana, Ca
Orozco, Adrian, Fontana, Ca
Padolina, James, Chino Hills, Ca
Park, Michelle, Camarillo, Ca*
Parker, Felonda, Fontana, Ca
Parker, Rahje, San Bernardino, Ca
Payne, Brandon, Salida, Ca
Piceno, Manuel, Fresno, Ca*
Poblete, Edward, Chino, Ca
Reyes, Roger, Fontana, Ca
Reyes, Tamara, Montclair, Ca
Roacho, Rose, Azusa, Ca
Robinson, Trinket, Perris, Ca*
Rocha, Rene, Apple Valley, Ca
Rubalcava, Patricia, Upland, Ca
Russell, Laura, Torrance, Ca*
Salazar, Moises, Fontana, Ca
Sanchez, Ashley, Upland, Ca
Sanchez, Gabriel, Pomona, Ca
Sanchez, Maria, Rancho Cucamonga, Ca
Sarumian, Nicholas, Chino, Ca
Sazo, Amy, Rancho Cucamonga, Ca
Schiffer, Natalie, Rancho Cucamonga, Ca
Shaw, Eleanor, Long Beach, Ca*
Solis, Rio, Fontana, Ca
Taad, Carlo, Altadena, Ca
Tagami, Alec, West Covina, Ca
Topete, Maria, Los Angeles, Ca
Tran, Melanie, San Diego, Ca
Valenzuela, Alison, Bakersfield, Ca*
Valeriano, Doricela, Ontario, Ca
Villanueva, Anthony, West Covina, Ca
Viloria, Adrian Josh, Chino, Ca
Warden, Robert, San Bernardino, Ca
Waslh, Carina, Los Gatos, Ca
Wells, Mary, Reseda, Ca*
West, Robert, Redondo Beach, Ca*
Wheeless, Breanne, Rancho Cucamonga, Ca
Wu, Xia, Baldwin Park, Ca
Yanez, Alexandro, Fontana, Ca
Yang, Godpen, Sacramento, Ca
Zaldivia, Christian, West Covina, Ca
Zellalem, Fischa, Montclair, Ca*
Zuniga, Jonah, Mira Loma, Ca

Accetturo, Kathryn, Westminster, Co
Blamey, Tiffany, Aurora, Co
Bloom, Susan, Centennial, Co
Burgermeister, Matthew, Denver, Co
Cooks, Anthony, Denver, Co
Crisafulli, Ricci, Highlands Ranch, Co
Cruz, Brandy, Denver, Co
Delucio, Layne, Aurora, Co
Detlefsen, Kara, Denver, Co
Edwards, Debra, Parker, Co
Gates, Larkin, Broomfield, Co
Gettys, Sophia, Aurora, Co
Green, Monica, Aurora, Co
Hansen, Ashley, Thornton, Co
Harmon, Ray, Denver, Co
Harms, George, Fort Collins, Co
Hollin, Eric, Aurora, Co
Holmes, Christina, Denver, Co
Hultgren, Jessica, Aurora, Co
Jacobs, Denise, Aurora, Co
Johnson, Emily, Denver, Co
Johnson, Lucas, Aurora, Co
Johnson, Wesley, Longmont, Co*
Jones, Kevin, Denver, Co
Keiser, Mandi, Aurora, Co
Litten, Mark, Denver, Co
Maas, Miranda, Parker, Co
Major, Tiffany, Lakewood, Co
Mawdsley, Stephanie, Denver, Co
Morrissey, Kelli, Byers, Co
Muhammad, Kalimah, Denver, Co
Myhre, Sara, Castle Rock, Co
Nauert, Tracy, Canon City, Co*
Otten, Gwen, Denver, Co
Racine, Jennifer, Centennial, Co
Rael, Jessica, Aurora, Co
Reichert, Nicole, Denver, Co
Riopelle, Sean, Glendale, Co
Robbins Colwell, Megan, Aurora, Co
Sargent, Cynthia, Aurora, Co
Scarborough, Kentner, Parker, Co*
Shepherd, Erin, Denver, Co
Sparks, Mary, Castle Rock, Co
Teehan, Sonja, Greenwood Village, Co
Tilmon, Cristy, Denver, Co
Vazquez, Alberto, Denver, Co
Walker, Brian, Colorado Springs, Co
Wildman, Naomi, Denver, Co

Allard, Paula, Southington, Ct*
Cardano, Georgette, Cromwell, Ct*
Facihnini, Robin, Oxford, Ct*
Grady, Toni, Norwich, Ct*
Juchniewicz, Katarzyna, Bristol, Ct*
Kim, Jeong, Suffield, Ct*
Pacheco, Stacy, Vernon, Ct*
Stephenson, Sherael, Bloomfield, Ct*
Woina, Susan, Plymouth, Ct*

D

Zajaczkowski, Laureen, Hartly, De*

F

Avenaut, Madga, Homestead, Fl*
Barthold, Margaret, Coconut Creek, Fl*
Brown, Holly, Panama City, Fl*
Campbell, Nadia, Miami, Fl*
Carrera, Laura, Winter Haven, Fl*
Cotto, Nelson, Ft Myers, Fl
De Velasco, Luis, Miami, Fl*
De Weijer, Gaylene, Weston, Fl*
Delp, William, Lake Worth, Fl
Estrada, William, Dania, Fl*
Ewart, Christopher, Palm Coast, Fl*
Falconer, Shaunekah, Fort Lauderdale, Fl*
Grace, Sara, Yulee, Fl*
Lindor, Malachie, Miami, Fl*
Long, Rena, Naples, Fl
Luangamath, Thipharot, Clearwater, Fl*
Lukaszewski, Emily, St Augustine, Fl
McGlade, Melissa, Cape Coral, Fl
Moser, Peter, Miami, Fl
Nicely, Harry, N Fort Myers, Fl*
Norman, Jason, Bonita Springs, Fl*
O'Connor, Jessica, Saint Petersburg, Fl*
Richmond, Joy, Chuluota, Fl*
Schmidt, Nancy, Ormond Beach, Fl*
Schwable, Ken, Fort Myers, Fl*
Tassillo, Sandra, Clearwater, Fl*
Wilson, Meloney, Jacksonville, Fl*
Wright, Marjorie, Cape Coral, Fl*
Zelenty, Caitlin, Ponce Inlet, Fl*

G

Allen, Amanda, Gordon, Ga
Arehart, Beverly, Macon, Ga
Barker, Arthur, Hamilton, Ga*
Beckom, Erica, Milledgeville, Ga
Bray, Melanie, Savannah, Ga*
Brew, Ebenezer, Macon, Ga
Brown, Debra, Barnesville, Ga
Chandler, Danielle, Macon, Ga
Clark, D'miya, Macon, Ga
Clark, Larrica, Byron, Ga
Clark, Yolanda, Fort Oglethorpe, Ga*
Clemons, Mia, Milledgeville, Ga
Cooper, Terri, Summerville, Ga*
Corlette, Ingrid, Conyers, Ga*
Crawford, Erika, Lizella, Ga
Dawkins, Kristie, Macon, Ga
Douglas, April, Jonesboro, Ga*
Douglas, Heather, Macon, Ga
Edouard, Cindy, Jonesboro, Ga*
Enfinger, Katie, Colquitt, Ga
Faulkner, Carrie, Sharpsburg, Ga
Flourney, Celenia, Warner Robins, Ga
Fulford, Mark, Albany, Ga*
Gaines, Tammy, Moultrie, Ga*
Hall, Regina, Dawson, Ga*
Hayes, Heath, Byron, Ga
High, James, Pine Mountain, Ga*
Hill, Jelisa, Macon, Ga
Holloway, Sarina, Round Oak, Ga
Hughes, Robin, Augusta, Ga*
Janda, Richard, Powder Springs, Ga*
Jaquish, Jacqueline, Bonaire, Ga
Johns, Leah, Waynesville, Ga*
Johnson, Christopher, Lithia Springs, Ga*
Johnson, Kanika, Port Wentworth, Ga*
Kikhia, Maleha, Roswell, Ga*
Lucas-Cadle, Amanda, Hephzibah, Ga*
McCarey, Laura, Perry, Ga
McDade, Len, Buford, Ga*
McDaniels, Karla, Warner Robins, Ga
McDaniels, Nick, Warner Robins, Ga

McKinley, Karen, Mableton, Ga
Mengistu, Rebecca, Tucker, Ga*
Mills, Stefani, Lizella, Ga
Musgrove, Janet, Camilla, Ga*
Newton, Ronald, Evans, Ga*
Nobles, Charles, Smyrna, Ga*
Nunnally, Brandon, Macon, Ga
Parrish, Amanda, Macon, Ga
Paster, Donald, Thomson, Ga*
Patrick, Keiva, Lawrenceville, Ga*
Peletier, Nancy, Savannah, Ga*
Purvis, Michael, Macon, Ga
Rowland, Whitney, Byron, Ga
Sergent, David, Blackshear, Ga*
Steedley, Jessica, Waycross, Ga*
Stephens, Tarbaries, Macon, Ga
Stephens, Wendy, Cedartown, Ga*
Taylor, Rodrique, Tifton, Ga*
Thames, Tiffany, Byron, Ga
Thomas, Tamika, Macon, Ga
Thwaites, Stephanie, Macon, Ga
Waddell, Angela, Rincon, Ga
White, Karen, Byron, Ga
White, Katrina, Douglasville, Ga*
Williams, Beverly, Atlanta, Ga*
Williams, Jarret, Vienna, Ga
Williams, Natasha, Warner Robins, Ga
Williams, Tiffany, Warner Robins, Ga
Woods, Carla, Douglasville, Ga*
Youngblood, Kimberly, Milledgeville, Ga

H

Gregory, Melissa, Kihei, Hi*

I

Coffer, Shari, Waterloo, Ia
Dillavou, Amanda, Ames, Ia
Franck, Lucinda, Oelwein, Ia
Hatcher, Edward, Traer, Ia
Hrustanovic, Alma, Waterloo, Ia
Keeney, Joy, Des Moines, Ia*
Larsen, Rachel, Janesville, Ia
Leill, Ashley, Dunkerton, Ia
Long, Josh, Larchwood, Ia
Mingus, Troy, Waterloo, Ia
Murphy, Mackenzie, Cedar Falls, Ia
Olson, Trisha, Cedar Falls, Ia
Quandahl, Paige, Waterloo, Ia
Ricke, Amber, Parkersburg, Ia
Rutto, Symon, Clive, Ia
Schares, Natalie, Jesup, Ia
Smith, Sierra, Victor, Ia
Stoffregen, Lindsey, Cedar Falls, Ia
Waugh, Kristine, Jewell, Ia*
Yaddof, Michael, Cedar Falls, Ia

Bailey Jackson, Judith, Salmon, Id*
Devlin, Rita Jo, Nampa, Id*
Duran, Amy, Emmett, Id*
Franklin, Chad, Middleton, Id*
Fuentealba, Ariel, Meridian, Id*
Hennessy, Shari, Meridian, Id*
Henson, Karen Jo, Coeur D Alene, Id*
McGee, Heidi, Ammon, Id*
Oneida, Nickole, Meridian, Id*
Reyes, Jennifer, Middleton, Id*
Rousseau, Roberta, Kuna, Id*

Ahmed, Yasmeen, Carol Stream, Il*
Ainsworth, Raven, Chicago, Il*
Alicea, Richard, Chicago, Il*
Allen, Pattsy, Rock Island, Il*
Andersen, Althea, Aurora, Il*
Andres, Jorge, Alsip, Il*
Armstrong, Mark, Tinley Park, Il*
Bell, Willie, Chicago, Il*
Bittle, Kelli, Jonesboro, Il*
Blissitt, Wanda, Chicago, Il
Bradley, Lora, Chicago, Il*
Branzan, Sorinel, Chicago, Il*
Buniao, Claro, Naperville, Il*
Cardamone, Susan, Bloomington, Il*
Castillo, Claudia, Chicago, Il
Closson, Robin, Alton, Il*
Criollo, German, Chicago, Il
De Guzman, Joel, Addison, Il*
Diamond, Matthew, Naperville, Il*
Dupuy, Jeffery, Park Forest, Il*
Fimihan-Ajayi, Florence, Dunlap, Il*
Frank, Anne, Kewanee, Il*
Geda, Meron, Wheaton, Il*
Goodman, Elisa, Wood River, Il*
Gotfryd, Regina, Homer Glen, Il*
Grissom, Leanna, Pana, Il*
Hannon, John, Lombard, Il*
Harris, Precious, Chicago, Il
Harris, Serena, Chicago, Il
Herrera, Marisol, Chicago, Il
Heseth, Joseph, Hoffman Estates, Il*
Hornburg, Dorothy, Aurora, Il*
Janssen, Elaine, Bartlett, Il*
Johnson, Barnard, Matteson, Il*
Johnson, Tanika, Chicago, Il
Kneebel, Christina, Highland, Il
Lacsamana, Katherine, Norridge, Il*
Lara Rivas, Victor, Chicago, Il*
Lewis Bunch, Rita, Willowbrook, Il
Linville, Jon, Grayslake, Il
Long, Ariane, Park Forest, Il*
Lozada, Ramonita, Hoffman Estates, Il*
Madden, Daneil, Palatine, Il*
Mason, Gregory, Naperville, Il*
McGhee, Jerry, Fox River Grove, Il*
Monroe, Melissa, Kewanee, Il*
Monty Hanson, Kelly, Batavia, Il*
O'Connor, Daniel, Midlothian, Il*
Oliver, Sandra, Mount Vernon, Il*
Pahomi, Richard, Elmhurst, Il*
Pearson, Sonja, Blue Island, Il*
Pienkowski, Anna, Villa Park, Il*
Rinehard, Diane, Woodridge, Il*
Shah, Alpesh, Streamwood, Il*
Skariah, Babuji, Morton Grove, Il*
Staffan, Catherine, Alsip, Il*
Swift, Mark, Macedonia, Il*
Swiniuch, Darrell, Elmwood Park, Il*
Swiniuch, Sharon, Elmwood Park, Il*
Taher, Sultan, Tinley Park, Il*
Taylor, Elizabeth, Rock Island, Il*
Thomas, Scariakutty, Glenview, Il*
Thornsberry, Paul, Oswego, Il*
Thornsberry, Renee, Oswego, Il*
Thottapurathu, Bindu, Glenview, Il
Tyson, Tabitha, East Carondelet, Il
Vayalil, Jacob, Willowbrook, Il*
Velasquez, Luis, Lake Zurich, Il*
Watt Hosch, Carrie, Chicago, Il
Weiss, Helene, Buffalo Grove, Il*
Whetzel, Catherine, Metamora, Il*
Williams, Tess, Chicago, Il*
Yvanauskas, Cheryl, Naperville, Il*
Zilch, Stephanie, Bartonville, Il*
Zuk, Denise, Plainfield, Il*

Borshchevskaya, Elena, Carmel, In
Gilpatrick, Jessica, Indianapolis, In
Hermansperger, Babette, Fort Wayne, In
Hoover, Anthony, Kendallville, In
Jackson, Ashley, Indianapolis, In
McBride, Erika, Decatur, In
Oparah, Maria, Indianapolis, In*
Pridemore, Gregory, Indianpolis, In
Rogian, Rachel, Fairland, In
Schluttenhofer, Mike, Indianapolis, In*
Soto, Manuel, Fort Wayne, In
Upshaw, Alexandria, Indianapolis, In
Weber, Regina, Indianapolis, In
Williams, Rita, Carbon, In*
Williams, Samuel, Markle, In

K

Castor, Kim, Wichita, Ks*
Highfill, Janet, Edgerton, Ks*
Keeven, Christian, Leawood, Ks*
Morris, Alonna, Olathe, Ks
Walker, Dalton, Bonner Springs, Ks
Watson, Charles, Kansas City, Ks

Close, Heather, Milton, Ky*
Herald, Cassie, Newport, Ky
Irvin, Stacey, Berea, Ky*
McDavid-Stamm, Shanna, Grayson, Ky*
Melzer, Kevin, Louisville, Ky*
Murphey, Tymori, Madisonville, Ky*
Pate, Lee, Worthington, Ky*
Williams, Angela, Covington, Ky*
Wyatt, Stephen, Russell Springs, Ky

L

Fowler, Erin, Shreveport, La*
Gulotta, Sammie, Plaquemine, La*
Mongrue, Stacy, New Orleans, La*
Pearsall, Sara, Haughton, La
Rester, James, Baton Rouge, La

M

Adjetey, Mary, Dorchester, Ma*
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Observations

(continued from page 20)

with every clinical/nonclinical service or activity, then get acquainted soon.

Re-visit the cost analysis for each service rendered. Update compensation, supplies, and other equipment to reflect today's costs. And make sure you include a component of each procedure or service that addresses the use of staff time and supplies that are usually not charged for separately but, nonetheless, are essential to the successful application of the procedure or service in question.

> Are you working for free? Prove it!

Best practice

This approach is not only best practice from a business standpoint but will also provide your departments with documentation that even when one of your staff is just making rounds (and you don't charge to make rounds) that the component of the cost associated with rounds is imbedded in the procedures. Once done, if staff must be cut to avoid doing what is considered "free," then charges must be reduced as well to eliminate that specific cost component — that is, of course, unless you do not pay your staff to make rounds. They do that while they are on their lunch hour or coffee break. Let me know if you operate that way. I will gladly do a spotlight on your department in this magazine.

Do you check portable cylinders on different floors, but you don't charge the hospital for those services? Well that's entirely likely. But let's think about safety. You know there weren't always respiratory therapists checking these devices. This practice came to pass because far too many patients literally ran out of gas during transport. Indeed, some died. What's the value of life, and what would the cost of an unnecessary, avoidable adverse event be to your institution? Sometimes you pay your way by providing chargeable services; and other times you earn your value by avoiding expensive adverse events. Both are absolutely necessary. Both can be costed out. And if standards are changed just to comply with a perceived need to cut expenses, I would offer one more quote. It is "*primim non nocere*." It's part of the Hippocratic Oath and means "first, do no harm." We need to keep our eye on the ball and, in our case, that's our patients. Yes, we want to make them better when they come to us, and we absolutely do not want them to be among the approximate 100,000 who die from avoidable adverse health events in hospitals. Safety isn't free either.

Free isn't free

So, free isn't free, and there really aren't any free lunches out there. Let's make sure that policy makers and decision makers are fully aware of all the benefits we provide. Once again, I urge you to document your value. ■

Calendar of Events

AARC & State Society Programs

September 6–9
Myrtle Beach, SC
SCSRC's 40th Annual Conference
Contact Randy Lydick at randylydick@yahoo.com or www.scsrc.org

September 20–21
Honolulu, HI
38th Annual Hawaii State Respiratory Care Conference
Contact www.hawaiircps.org or hsrcconferenceattendee@yahoo.com

September 22–23
Verona, NY
31st Annual Symposium of the NYSSRC
Contact Chuck Svoboda, (315) 792-5476 or www.nyssrc.com

September 27–28
Sioux Falls, SD
South Dakota Society for Respiratory Care's Annual Meeting and Conference
Contact Lora Bornhoft at (605) 328-2436 or www.sdsrc.org

September 27–30
Wilmington, NC
North Carolina Society's Annual Symposium
Contact Bill Kiger at (336) 971-9931 or www.ncsrc.org

September 28–30
Hot Springs National Park, AR
40th Annual ASRC State Meeting
Contact John Lindsey at John.Lindsey@Mercy.net or www.arksrc.org

September 29–30
Pittsburgh, PA
Pennsylvania Society's 2011 Western Regional Conference
Contact Tom Lamphere at (215) 687-2904 or www.psrc.net

September 29–30
Casper, WY
Wyoming Society for Respiratory Care's 2011 State Conference
Contact Stacey Metzger at (307) 577-2546 or www.wysrc.org

October 13–14
Blacksburg, VA
Virginia Society for Respiratory Care's Mountain Air Symposium
Contact www.vsrc.org

October 13–14
Indianapolis, IN
Indiana Society for Respiratory Care's 37th Annual Fall Seminar
Contact Ross Havens at rhavens@in-isrc.org or www.in-isrc.org

October 14
Harrisburg, PA
Pennsylvania Society's 2011 Conference in the Capital
Contact Tom Lamphere at (215) 687-2904 or www.psrc.net

October 23–29
Respiratory Care Week
Contact AARC, (972) 243-2272, www.aarc.org

October 26
Lung Health Day
Contact AARC, (972) 243-2272, www.aarc.org

October 27
Newark, DE
18th Annual Trends in Respiratory Care Conference
Contact John Emberger at (302) 733-3565 or www.delawarelung.org

November 4
DRIVE4COPD
Great American Screen Off
Contact AARC, (972) 243-2272, www.aarc.org, or www.drive4copd.com

November 4
Tampa, FL
Hospital Readmissions: The Global Impact on Respiratory Therapy
Contact AARC, (972) 243-2272, www.aarc.org/education/meetings

November 4
Tampa, FL
Mechanical Ventilation 2011
Contact AARC, (972) 243-2272, www.aarc.org/education/meetings

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

Other Meetings

October 17
King of Prussia, PA
Neonatal Care Today Conference sponsored by Dräger
Ed Coombs at edwin.coombs@draeger.com

November 16
World COPD Day
Contact GOLD at www.goldcopd.org

Submissions for the next available issue are due September 24.

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

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