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AARC Strategic Plan

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

AARC Strategic Objectives

- Refine and expand the scope of practice for respiratory therapists in all care settings.
- Advance the knowledge base and educational preparation of respiratory therapists to ensure competent patient care and to foster patient safety initiatives.
- Support research and scientific inquiry to strengthen the scientific foundation and promote best practice for patient care.
- Establish professional standards and outcomes supported by scientific evidence.
- Advocate for federal and state health care policies that enhance patient care, patients' access to care and professional practice.
- Partner with governmental agencies, community organizations, third-party payers, professional societies and the public to promote healthy behaviors and prevent cardiopulmonary disease.
- Broaden consumer and health care providers' knowledge and understanding of the value of respiratory therapists in providing safe, competent and cost-effective care.

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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Managing Editor
Douglas Laher, MBA, RRT, FAARC

Assistant Editor
Karen Singleterry, BS

Contributors
Debbie Bunch, BA
Sheila Henegar

Art Director
Donna Knauf, BA

Graphic Designers
Jeanette Chawdhury, MBA
Lisa Dudley
Kelly Piotrowski

Consultant
Sherry Milligan, MBA, CAE

Director, Advertising Sales
Tim Goldsbury, BA, RRT
Goldsbury@aarc.org

Advertising Sales Consultant
Andrea Conté
andrea@aarc.org

Advertising Rates and Media Information
Contact: Goldsbury@aarc.org
Tim Goldsbury, 725 N. Highway A1A, Ste. C-106, Jupiter, FL 33477
Voice (561) 745-6793
Fax (561) 745-6795

Advertising Materials
Send production materials for AARC publications to Binkley@aarc.org or AARC
9425 N. MacArthur Blvd., Ste. 100
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Daedalus Enterprises, Inc.
9425 N. MacArthur Blvd., Ste. 100
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(972) 243-2272
Fax (972) 484-2720

Director of Business Development
Dale L. Griffiths, BA

Publisher
Thomas J. Kallstrom, MBA, RRT, FAARC

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Meet the AARC Staff

Tony Lovio
Controller
lovio@aarc.org

Dian Whitaker
Accounting
whitaker@aarc.org

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Reference: 1. Data on file. Hampton, NJ: Ikaria, Inc; 2013.

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INDICATIONS AND USAGE

Treatment of Hypoxic Respiratory Failure

INOmax® is a vasodilator, which, in conjunction with ventilatory support and other appropriate agents, is indicated for the treatment of term and near-term (>34 weeks) neonates with hypoxic respiratory failure associated with clinical or echocardiographic evidence of pulmonary hypertension, where it improves oxygenation and reduces the need for extracorporeal membrane oxygenation.

Utilize additional therapies to maximize oxygen delivery with validated ventilation systems. In patients with collapsed alveoli, additional therapies might include surfactant and high-frequency oscillatory ventilation.

The safety and effectiveness of INOmax have been established in a population receiving other therapies for hypoxic respiratory failure, including vasodilators, intravenous fluids, bicarbonate therapy, and mechanical ventilation. Different dose regimens for nitric oxide were used in the clinical studies.

Monitor for PaO_2, methemoglobin, and inspired NO_2 during INOmax administration.

CONTRAINDICATIONS

INOmax is contraindicated in the treatment of neonates known to be dependent on right-to-left shunting of blood.

WARNINGS AND PRECAUTIONS

Rebound Pulmonary Hypertension Syndrome following Abrupt Discontinuation

Wean from INOmax. Abrupt discontinuation of INOmax may lead to worsening oxygenation and increasing pulmonary artery pressure, i.e., Rebound Pulmonary Hypertension Syndrome. Signs and symptoms of Rebound Pulmonary Hypertension Syndrome include hypoxemia, systemic hypotension, bradycardia, and decreased cardiac output. If Rebound Pulmonary Hypertension occurs, reinstate INOmax therapy immediately.

Hypoxemia from Methemoglobinemia

Nitric oxide combines with hemoglobin to form methemoglobin, which does not transport oxygen. Methemoglobin levels increase with the dose of INOmax; it can take 8 hours or more before steady-state methemoglobin levels are attained. Monitor methemoglobin and adjust the dose of INOmax to optimize oxygenation.

If methemoglobin levels do not resolve with decrease in dose or discontinuation of INOmax, additional therapy may be warranted to treat methemoglobinemia.

Airway Injury from Nitrogen Dioxide

Nitrogen dioxide (NO_2) forms in gas mixtures containing NO and O_2. Nitrogen dioxide may cause airway inflammation and damage to lung tissues. If the concentration of NO_2 in the breathing circuit exceeds 0.5 ppm, decrease the dose of INOmax.

If there is an unexpected change in NO_2 concentration, when measured in the breathing circuit, then the delivery system should be assessed in accordance with the Nitric Oxide Delivery System O&M Manual troubleshooting section, and the NO_2 analyzer should be recalibrated. The dose of INOmax and/or FiO_2 should be adjusted as appropriate.

Heart Failure

Patients with left ventricular dysfunction treated with INOmax may experience pulmonary edema, increased pulmonary capillary wedge pressure, worsening of left ventricular dysfunction, systemic hypotension, bradycardia and cardiac arrest. Discontinue INOmax while providing symptomatic care.

ADVERSE REACTIONS

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice. The adverse reaction information from the clinical studies does, however, provide a basis for identifying the adverse events that appear to be related to drug use and for approximating rates.

Controlled studies have included 325 patients on INOmax doses of 5 to 80 ppm and 251 patients on placebo. Total mortality in the pooled trials was 11% on placebo and 9% on INOmax, a result adequate to exclude INOmax mortality being more than 40% worse than placebo.

In both the NINOS and CINRGI studies, the duration of hospitalization was similar in INOmax and placebo-treated groups.

From all controlled studies, at least 6 months of follow-up is available for 278 patients who received INOmax and 212 patients who received placebo. Among these patients, there was no evidence of an adverse effect of treatment on the need for rehospitalization, special medical services, pulmonary disease, or neurological sequelae.

In the NINOS study, treatment groups were similar with respect to the incidence and severity of intracranial hemorrhage, Grade IV hemorrhage, periventricular leukomalacia, cerebral infarction, seizures requiring anticonvulsant therapy, pulmonary hemorrhage, or gastrointestinal hemorrhage.

In CINRGI, the only adverse reaction (>2% higher incidence on INOmax than on placebo) was hypotension (14% vs. 11%).

Based upon post-marketing experience, accidental exposure to nitric oxide for inhalation in hospital staff has been associated with chest discomfort, dizziness, dry throat, dyspnea, and headache.

OVERDOSAGE

Overdosage with INOmax will be manifest by elevations in methemoglobin and pulmonary toxicities associated with inspired NO_2. Elevated NO_2 may cause acute lung injury. Elevations in methemoglobin reduce the oxygen delivery capacity of the circulation. In clinical studies, NO_2 levels >3 ppm or methemoglobin levels >7% were treated by reducing the dose of, or discontinuing, INOmax.

Methemoglobinemia that does not resolve after reduction or discontinuation of therapy can be treated with intravenous vitamin C, intravenous methylene blue, or blood transfusion, based upon the clinical situation.

DRUG INTERACTIONS

No formal drug-interaction studies have been performed, and a clinically significant interaction with other medications used in the treatment of hypoxic respiratory failure cannot be excluded based on the available data. INOmax has been administered with dopamine, dobutamine, steroids, surfactant, and high-frequency ventilation. Although there are no study data to evaluate the possibility, nitric oxide donor compounds, including sodium nitroprusside and nitroglycerin, may have an additive effect with INOmax on the risk of developing methemoglobinemia. An association between prilocaine and an increased risk of methemoglobinemia, particularly in infants, has specifically been described in a literature case report. This risk is present whether the drugs are administered as oral, parenteral, or topical formulations.

 IMK111-01540 April 2013

AARC Members Are the Heart of the Respiratory Care Profession

On the cover of this issue of *AARC Times*, we feature *you*, our members. You may see a colleague, a classmate, or a long-time friend.

AARC membership continues to grow; and as we send this issue to the printer, we're right at 52,000 members. Refer to our AARC Annual Report article in this issue to learn all about what your professional association has been doing for the membership and for respiratory patients over the past year.

If you have not recently reviewed the benefits and services of the AARC, please take note that benefits continually change to meet the needs of respiratory care professionals around the world. We value your membership in the AARC and look forward to continuing this vital relationship in the future. You *are* the AARC — thank you! ■

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Tobacco Cessation in Acute Care: Opportunity Knocking — Will We Answer?

by Georgianna Sergakis, PhD, RRT, CTTS

Tobacco use in the United States is responsible for immeasurable suffering: nearly half a million deaths a year and health care costs estimated near $193 billion annually.[1] (Yes, that's "billion" with a "b.") The resulting individual burdens are poor health outcomes (COPD, cardiovascular disease, cancers, etc.), decreased quality of life, and lost productivity.[2] The health care system suffers as well due to the fiscal impact of excessive health care utilization and decreased quality performance measures. The strong relationship between tobacco use and poor health outcomes necessitates identification of use, intervention, and systematic implementation of strategies to help people quit. In general, contact with the health care system has the potential to increase tobacco cessation.

Teachable moments

In an article scrutinizing the impact of The Joint Commission's Tobacco Performance Measure-Set, tobacco experts wrote, "Health care visits represent teachable moments when a patient's very real fears and concerns about tobacco use can provide a particularly powerful motivation to quit."[3] The development of tobacco intervention strategies in acute care is one approach to address continued tobacco dependence and can be justified by the following:

- Joint Commission tobacco-free policies in accredited hospitals prohibit inpatients from using tobacco in and around the facility during their stay.
- The initiation of tobacco withdrawal symptoms and their associated discomfort during this forced abstinence motivates patients to seek evidence-based smoking-cessation medications.
- New or continued tobacco-related symptoms may highlight vulnerability and emphasize the need to stop.

In the acute care setting, respiratory therapists have a unique opportunity to take advantage of these teachable moments because we often treat these patients for the clinical manifestations of continued tobacco use. How often have we delivered breathing treatments to current tobacco users? How many times have we asked about their tobacco status or calculated a pack-year history for the medical record? The answer is probably more times than we can count. For those of us who work with children, how often have we noticed the distinct smell of tobacco smoke on the clothing of the parent of a child with asthma? How often do we take it to the next level and offer evidence-based tobacco-cessation treatment? It is crucial that we are directly involved in the effort to provide counseling, medication, and resources for tobacco users.

Evidence and recommendations

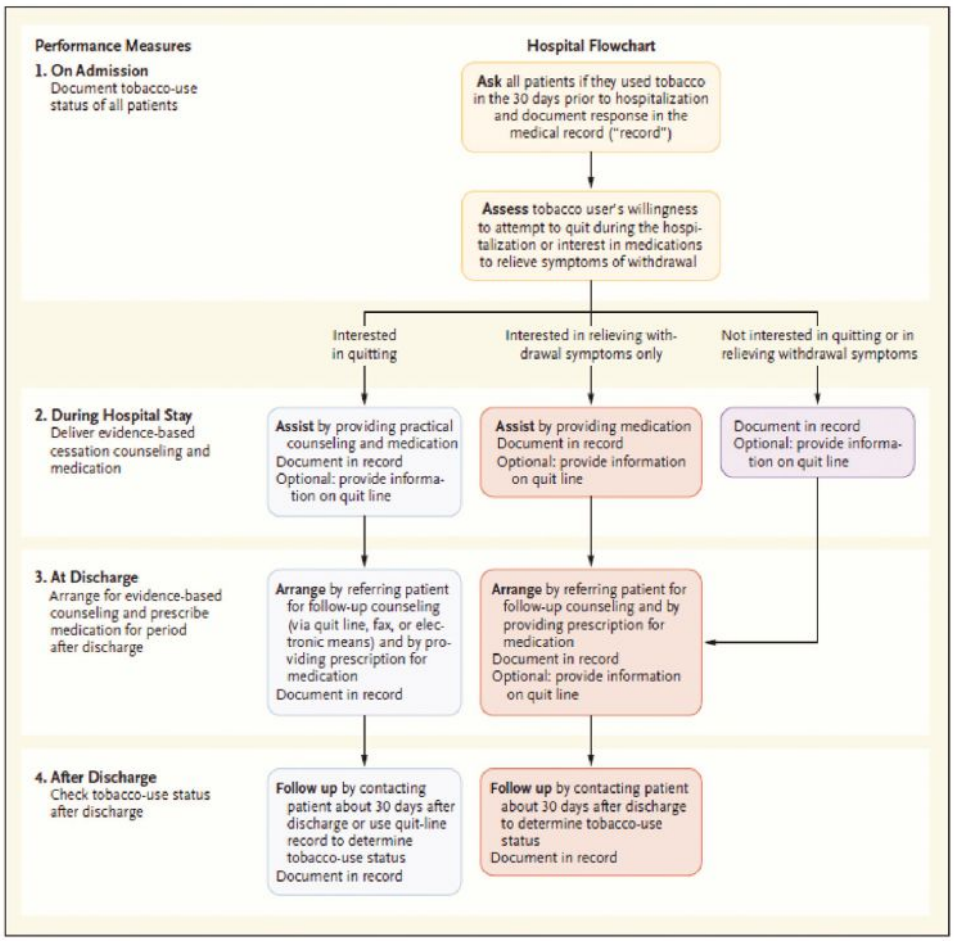
Although we have noticed a steady decline in tobacco use in the United States in the 60 years since the first Surgeon General's report about the dangers of tobacco in 1964, more than 43.8 million adults continue to use tobacco.[4] The majority of adult tobacco users want to quit (68.8%), but very few succeed unaided.[4] Effective treatments are available but underutilized.

The use of nicotine replacement therapy (NRT) and other pharmacotherapy has been shown to vastly increase the success rate.[5] The evidence also suggests that multi-component cessation programs wherein health care providers combine strong advice to quit with pharmacotherapy, ongoing support, and referral to additional cessation counseling assistance when needed can further improve cessation rates.[5] The combination of pharmacotherapy and counseling is more effective for treating tobacco dependence than either medication or counseling alone.[5]

about the author...

Georgianna Sergakis, PhD, RRT, CTTS, is an assistant professor of respiratory care at The Ohio State University in Columbus, OH.

Figure 1. The New Joint Commission Tobacco-cessation Performance Measure Set



After a patient's tobacco use and level of interest in quitting have been determined at admission, specific approaches are recommended for the hospital stay, at discharge, and on follow-up (as derived from the 2008 Public Health Service Guideline). Counseling about evidence-based tobacco-cessation measures and prescribing of appropriate medication can take place as long as there are no contraindications and the patient does not refuse such treatment. Quitline (1-800-QUIT NOW) is an evidence-based telephone service that offers tobacco-cessation counseling and is available in all five states. Based on Reference 3.

Again, the RT is in a perfect position to capitalize on this evidence and assist the tobacco-dependent patient in the acute care setting. The new Tobacco Cessation Performance Measure-Set from The Joint Commission is providing some hospitals with an impetus to provide these services. The measure-set went into effect at the beginning of 2012 and expands on the 2004 performance measure that required we ask specific groups of adults (those admitted for acute myocardial infarction, congestive heart failure, or pneumonia) whether they smoke and advise them to quit if they do. While The Joint Commission is not requiring hospitals to implement all of the measures in the new set (hospitals need only choose four from a list of 14), the new measure-set does expand tobacco treatment and documentation to all admitted patients. It also promotes evidence-based treatment for those willing to quit and for those unwilling to quit but interested in alleviating withdrawal symptoms.

The measure-set is outlined in Figure 1 and notes measures at certain time intervals: at admission, during the hospital stay, at discharge, and following discharge.[3] It is easy to see where the RT would be instrumental along this continuum in providing the services at each stage.

PHS guideline

In 2008, the U.S. Public Health Service (PHS) commissioned the Tobacco Use and Dependence Guideline Panel to update its clinical practice guideline on tobacco cessation. The abundance of research supporting this guideline indicates that health care providers can provide a reliable and persuasive message to patients about the risks of continued smoking and the benefits of quitting.

The PHS guideline synthesizes 8,700 research articles, some of which illustrate the evidence-base for the use of pharmacotherapies for those attempting cessation, excluding patients with specific medical contraindications.[5] These pharmacotherapies have been shown to be cost-effective and beneficial to increase long-term cessation. In the acute care setting, use of pharmacotherapy also addresses the discomfort of withdrawal experienced from the abstinence forced by hospital admission. Positive experiences with these treatments may increase the likelihood of use in future quit attempts or allow the patient to maintain contin-

Table 1. First-line Pharmacotherapy for Tobacco Dependence

Nicotine patch
Nicotine lozenge
Nicotine gum
Nicotine inhaler
Nicotine nasal spray
Bupropion SR
Varenicline

ued abstinence. Table 1 lists the seven first-line pharmacotherapies recommended in the guideline.[5] These include the non-nicotine medications bupropion and varenicline and the NRT medications — gum, patch, lozenge, inhaler, and nasal spray.

The guideline also acknowledges that while intensive interventions are often associated with better cessation outcomes, brief interventions can be effective as well.[5] The Treating Tobacco Use and Dependence: 2008 Update supports the promotion of cessation interventions in the hospital and recognizes the need for further evidence regarding the effectiveness of nurses and respiratory therapists in such intervention efforts.[5] Amidst the almost 300 pages of the PHS guideline arises a specific call to our profession to impact tobacco use in this environment. Table 2 outlines acute care tobacco interventions suggested by the PHS guideline.[5]

Removing barriers

Despite the call for hospital-based tobacco-cessation efforts found in The Joint Commission measure-set and the PHS guideline, however, the evidence suggests that inpatient smoking status is not reliably addressed.[6] Tobacco dependence intervention opportunities are often overlooked because of gaps in clinician training, as well as work overload and lack of comfort approaching the subject of smoking with patients.

Resources are available to assist the RT in this environment. In 2009, the American Respiratory Care Foundation and the AARC published "Why Quit Using Tobacco?" available at www.aarc.org/resources/tobaccocessation. To accompany the patient guide, the AARC is currently developing clinician training. The training will review knowledge about the seven first-line pharmacotherapies available for tobacco users, demonstrate motivational interviewing techniques in a variety of settings, and outline ways to systematically implement tobacco-dependence protocols and counseling programs.

Another barrier to providing evidence-based tobacco intervention is the concern related to reimbursement. However, Appendix C of the PHS guideline clearly notes that the American Medical Association has CPT reimbursement codes for these services, which can be billed under "incident to" provisions. 2013 CPT smoking-cessation counseling codes are for face-to-face counseling by a physician or other qualified health care professional and include: 99406 — Smoking and tobacco use cessation counseling visit; intermediate, greater than three minutes up to 10 minutes; and 99407 — intensive, greater than 10 minutes. For more information about reimbursement, visit the report by Muse & Associates on the AARC website:[7] https://www.aarc.org/members_area/advocacy/federal/sc_guidance_doc.pdf.

The electronic health record (EHR) has the potential to impact adherence to the tobacco-treatment guidelines as well. Several uses have been outlined in the literature, many of which have been shown to be effective in other settings.[8] The EHR can be utilized to:

- Deliver clinician prompts to ask about tobacco use.
- Give clinician reminders to deliver brief advice.

Table 2. Suggested Interventions for Hospitalized Patients

For every hospitalized patient, the following steps should be taken:

- **Ask each patient** on admission if he or she uses tobacco and document tobacco use status.
- For current tobacco users, **list tobacco use status** on the admission problem list and as a discharge diagnosis.
- **Use counseling and medications** to help all tobacco users maintain abstinence and to treat withdrawal symptoms.
- **Provide advice and assistance** on how to quit during hospitalization and remain abstinent after discharge.
- **Arrange for follow-up** regarding smoking status. Supportive contact should be provided for at least a month after discharge.

Based on Reference 5.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- Prompt clinicians to examine appropriate pharmacotherapy levels given the patient's dependence level and withdrawal symptoms.
- Communicate previous and current tobacco-dependence interventions.
- Facilitate referral to further tobacco counseling and intervention.

Role of the respiratory therapist

Initiation of tobacco intervention protocols by clinical nurse specialists and other clinicians has been described in the literature as having positive outcomes for providing assessment and intervention as well as achieving compliance with quality measures.[9] A gap exists in the literature regarding the effectiveness of the RT in this role. However, some RC departments such as those at the University of California San Francisco[10] and The Ohio State University's Wexner Medical Center (OSUWMC) have illustrated positive local impact.

OSUWMC Department Director Marc Mays, MS, RRT, initiated development of a Brief Tobacco Intervention Protocol three years ago in response to the closure of the Tobacco Treatment Center at the institution. A designated team of RTs underwent a four-hour training session delivered by a Certified Tobacco Treatment Specialist. These therapists now deliver a brief tobacco intervention following a physician referral facilitated by the protocol in the EHR. The intervention basically follows the Ask, Assess, Advise, and Refer model.

A designated team of RTs provides tobacco intervention at OSUWMC.

According to Andrea Yagodich, BS, RRT, team leader for education at OSUWMC, patients have a positive reaction to the consultation. After the formal assessment of dependency level by the RT and brief counseling, common interventions by the RT include a recommendation for additional pharmacotherapy (typically increasing patch dose or additional NRT for breakthrough nicotine cravings) to help the patient achieve an adequate comfort level during the hospital stay. When asked about the impact of the service, Yagodich said, "It is rewarding to know our RC department is integral in providing this important service. The patients seem to really embrace the program. It is gratifying to be recognized for our role in tobacco counseling. We look forward to expanding these services in the future."

Now is the time

Opportunities for RTs' involvement in tobacco cessation are clearly present in the acute care environment. Will we answer the call? I can assure you this — if we don't, someone else will. Now is the time to demonstrate our expertise in this area of pulmonary disease management. Let's continue to assist these patients we treat every day and demonstrate our effectiveness in this role. ■

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The View From Here

Retirement

by Mark Brady, BA, RRT

As I approach a welcome retirement, I can't help but look back 42 years when I started on-the-job training as an inhalation therapist/EKG technician/orderly. I "cut my teeth" in a 60-bed community hospital with a two-therapist department managed by the director of maintenance. Needless to say, this was in the early stages of the American Association for Inhalation Therapy, which over the years became the American Association for Respiratory Care.

That was then...

Just to give you a glimpse, our small-volume nebulizers were in the middle of an IPPB circuit connected to a Bird Mark 7 or Bird Mark 8, or to a Puritan Bennett TV2P or AP-6. In small hospitals, we did not have the option of mechanical ventilation. Patients had to be taken to larger medical centers for that level of care; and without the sophistication of today's ventilators that have outstanding graphics, barotrauma was all but a given. Using 15 cc per kilo for tidal volumes does seem to be a bit excessive, but that was the rule. Probably the worst offense to the lungs was the 1.5 times the tidal volume for a sigh three times per hour. When you explain to students the reason PEEP is measured in cm of water, it's because the metric ruler was used to measure how deep the expiratory limb of the circuit was under water. If it was not for the metric ruler, our standard would be 2 inches of PEEP instead of 5 cm.

Medications back then were limited. All we had were Isuprel™, racemic epinephrine, and Mucomyst®. What is amazing is that we *still* have racemic epinephrine and Mucomyst, but our arsenal has grown tremendously. We have available so many long-acting medications that the days of every-hour treatments are mostly gone. Who would not want to manage their health with one daily and one BID medication, with an occasional blast from a rescue inhaler? Because of all the changes in treatment modalities, technology, and medications, we have seen many respiratory care departments shrink by as much as half.

This is now...

Over 42 years, the changes I have seen have been mostly good. People in our profession have progressed from "tank jockey" or "treatment jockey" to being an important cog in the disease management team. Old-timers like me have often bragged that we could make anything from a bag of adaptors, but the biggest thing we have adapted is ourselves — our profession. We no longer unquestioningly do "what the doctor orders" but insert ourselves into the team and come to a collective approach for managing the disease process to fit the patient's lifestyle and needs. Now we are even becoming part of the outpatient system as chronic disease management specialists. The respiratory therapist is finally being recognized as the expert in managing chronic lung disease — and it seems that doctors, nurses, and patients are leaders in that recognition!

Just to make sure you don't read this as some old-timer only trying to capture his past glories, I will finally make my point. None of this progress in treatment modalities just happened. The development of more sophisticated mechanical ventilators with graphics was not an accident. None of the improvements in diagnostic equipment were made just to see if we could do it. We have reached this level of progress in our profession because of our professional organization, the AARC, and the individual state societies of the Association. We have always had tremendous leadership throughout the AARC and, I know personally, the Kansas Respiratory Care Society. Why anyone would work to achieve a credential in our profession and not be involved is mind boggling to me because the support they give us all is enormous.

I never set out to be a respiratory therapist; it just happened. But I wouldn't change a thing about my career. And now, as I look forward to retirement, I just wanted to say, "Thank you." ■

about the author...

Mark Brady, BA, RRT, formerly day shift supervisor at St. Francis Health Center in Topeka, KS, is recently retired.

What To Do When You Suspect Abuse

by Anthony L. DeWitt, JD, RRT, FAARC

Every clinician who takes their profession seriously has a duty to patients to protect them from preventable harm. This is why hospital personnel are trained on fire prevention and how to shut off oxygen in the event of a fire. It's why there are policies and procedures to make sure that the right drug is administered to the right patient at the right time and in the right way. These are things most clinicians take for granted, even though they should not.

But as clinicians we also have a duty that is even more important. Every state mandates that health care workers who see or have a reasonable suspicion of patient abuse make a report to the state agency in charge of protecting those patients. Most commonly, abuse is required to be reported if it involves children or the elderly. Statutes make it a crime not to report abuse among these patient populations, and clinicians are sometimes charged.

Abuse from caregivers

The most common time when patient abuse gets reported is when the patient is admitted with unexplained injuries. For example, a non-mobile infant with a skull fracture raises an immediate concern of abuse. Similarly, an elderly patient who isn't on blood thinners but who is covered with 26 bruises creates a situation where a clinician might reasonably suspect patient abuse.

Normally, only one report is required; and that report should come from the senior clinician assigned to that patient, usually the physician. However, if the physician refuses to make a report on a patient-abuse situation, the physician's failure or refusal does not excuse another clinician from making a report if they have a genuine belief that patient abuse has occurred.

In the situation where a physician refuses to make a report, the proper approach is to go through the hospital chain of command. If hospital personnel cannot convince the physician to report the incident, then hospital personnel should do it.

Sometimes, for all the wrong reasons, a clinician will bury their head in the sand and refuse to make a report, relying on the idea that it prevents them from being sued. "I'm not going to report Mrs. Doe for child abuse and have her sue me!" But in most states that is simply not a real concern. While it is unlawful and unwise to make a false report, a clinician report founded on a good faith belief and clinical evidence of abuse is almost always immune from liability.

However, a clinician who suspects but does not interdict abuse can be sued. Where the child or elder is more seriously injured because they were not removed from the abusive situation, they may have a cause of action for medical malpractice. This is because the statute provides the standard of care, and violation of a statute can sometimes be "negligence per se." In other words, all a plaintiff would need to show is that the clinician violated the statute, and the jury could presume that the clinician was negligent.

Abuse from clinicians

Most of the time, patient abuse is noted on admission; but every now and then, depending on the facility, a patient may receive abuse at the hands of their care-

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.

If you know or reasonably suspect that a patient has been abused, and you report it up the chain of command but learn that a report has not been made, you have a legal obligation to make a report.

givers. There are many reasons for this, including short staffing, rude patients and family, and personal problems at home. When they combine in a way that a clinician strikes out at or harms a patient under their care, that is a serious and weighty problem for everyone involved.

Most of the time, these injuries happen when the doors are closed and it's just the patient and the clinician. That's what happened to Marshall Rhodes, a 79-year-old patient at Claywest Nursing Center in St. Charles, MO, in 1999. A residential aide (who was wanted for a drive-by shooting in Mississippi at the time he was hired by the facility) beat Mr. Rhodes with a wheelchair leg after having threatened him.

The Claywest debacle is one to learn from. After the patient was found beaten and bloody, he was sent to the ER where none of the nurses and none of the doctors made a report to the Missouri Division of Aging. The director of nursing and the CEO of the facility decided that he must have been injured falling out of bed, and that's what they concluded from their "investigation." Nurses reported their suspicions of abuse to the administrator, and she told them to "mind their own business." In the interim, management, as directed by the CEO, failed to make a report to the Division of Aging because they determined none was required.

When the elderly Mr. Rhodes expired from his injuries, he was sent to a funeral home where the mortician was outraged by the extent of the poor man's injuries. He made the call to the county coroner, who ruled the death a homicide.

In that case the director of nursing was acquitted of failure to report, but the CEO was convicted of failing to report. In summarizing the evidence in the case, one of the Missouri Court of Appeals' judges said this:

"What was permitted to take place at Claywest is a disgrace. 'All hope abandon, ye who enter here' would be a fitting inscription for Claywest's portals, just as over the gates of Dante's Hell."

Your legal obligation

What makes the Claywest case stand out so starkly, though, is that the CEO who was convicted was an attorney. He knew better than anyone the risks of not reporting patient abuse, and he paid for it with the loss of a year of his life in the St. Charles County jail (and another 14 months in federal prison on Medicare fraud).

The bottom line is this: If you know or reasonably suspect that a patient has been abused, and you report it up the chain of command but learn that a report has not been made, you have a legal obligation to make a report. Only the state agency can determine if the report is valid. In most instances, the names of people who report abuse are kept confidential.

You might just save a patient's life, and you'll sleep better at night. ■

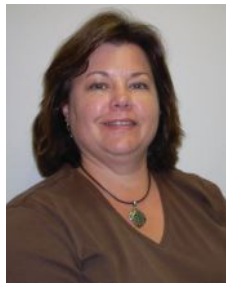
Medication Management in the Home

by Debra Koehl, MS, RRT-NPS, FAARC

Helping our patients manage their medications at home can be a daunting and difficult task. We know that older adults use more medications, including prescription, over-the-counter (OTC), and supplements, than any other age group in the United States.[1] This population of patients is growing and is expected to account for 40% of drug expenditures nationally by the year 2030.[2] A survey of 17,000 Medicare patients on the MUST for Seniors™ website found that two out of five reported taking five or more prescription medications.[1] Overall, 90% of Medicare beneficiaries take prescription medications.[1]

As respiratory therapists, we also know that many patients use more than one pharmacy as they shop for the best price, and they often have more than one physician prescribing drugs. This makes it even more difficult to track medications and their interactions, and to identify any potential problems a patient may encounter. Many older patients are dealing with more than one chronic condition as well. Adherence to medications is another big problem we all see in our practices; statistics show that non-adherence rates can be anywhere from 40%–80%.[2,3] Experts also state that polypharmacy (which is the use of more drugs than are clinically indicated, or excessive and unnecessary use of drugs) is more often the norm than the exception.[3]

about the author...



Debra Koehl, MS, RRT-NPS, FAARC, is coordinator of the pulmonary rehabilitation program at Indiana University Health in Indianapolis, IN.

Physiologic concerns

Now that we have looked at some of the statistics and background information about geriatric drug use, it is equally as important to understand some physiologic concerns with medication administration. As we age, many of our systems age as well. These changes in key organs also affect drug delivery. Let's review some of these changes.

- The decline in liver and kidney function affects the way the drug is broken down and removed from the body. It means that drugs may stay in the body longer, causing more side effects.[2,3]
- Transdermal absorption may be affected as the skin ages. Loss of water, a decrease in cells in the dermis, skin thinning, and a generalized reduction in skin perfusion all come into play.[2,3]
- Loss of total body water may affect distribution of some drugs as well. The use of diuretics may further exacerbate this problem.[2,3]
- Changes in the gastrointestinal tract of older adults are important, too. For example, older adults may have decreased gastric emptying, which leads to increased drug availability in the systemic system. Conversely, many older adults use laxatives, which would cause less of the drug to be absorbed, leading to lower drug dosage delivered.[2,3]

Not only should we be concerned about the physiological systems that aid in drug delivery, we must also remember that older adults experience increased memory loss and retention abilities. Patients may have decreased vision, hearing, and grip strength as well.[1,2] All of these factors can influence the patient's ability to take his medications as prescribed.

Understanding the patient

So as respiratory therapists, what can we do to help our patients? Patient education plays a key role in many areas of health care, and nowhere is that more true than with medication management. We not only need to educate and engage the patient, but we need to educate and engage all of the patient's caregivers

as well. The first step to educating the patient is understanding the patient. Understanding the patient means that we need to gather some facts about some of the following important issues:

- Where does the patient obtain medications? The pharmacy (one or more), physician's office, or online resources?
- What is on the patient's medication list? It is extremely important to make sure this is a complete list. You MUST ask about OTC medications, herbal supplements, and vitamins. Many patients may not consider OTC and herbal medications part of the medication routine. We also need to encourage patients to carry an up-to-date medication list with them at all times.
- Does the patient have family or friends to assist in their care, or do they live alone?
- How well equipped is the patient to pay for their drugs? Do they not fill prescriptions because they cannot afford them?
- Is health literacy a concern? Does the patient have reading, writing, or comprehension limitations?
- How many medications is the person taking?
- What has been the patient's established routine for taking medications?

We could all add many more questions to this list, but these provide a good starting point when thinking about how to begin the patient education process. It is imperative for us to educate our patients on the whys and hows of their medications and the importance of taking them correctly.

The medication list

As noted earlier, one of the most important aspects of patient medication management in the home is to ensure the patient has an up-to-date list of medications that have been prescribed.[3] When patients are discharged from the hospital, they should be given a medicine reconciliation record with all of their medicines. Although this is useful, often when patients get home they are faced with old and new prescriptions alike. It is very important that someone sit down with the patient and sort out the current prescriptions from the old, out-of-date prescriptions. If this is not done, it may set up the person for overdosing, underdosing, and drug interactions.[1–3]

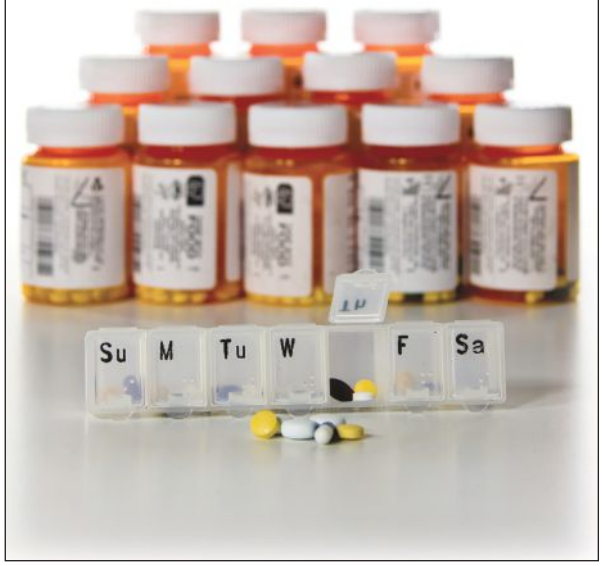
It is also vital to assess whether or not the patient may be missing any key medications. For example, if a COPD patient is only prescribed a rescue inhaler for his COPD, that should send up a red flag. If medications appear to be missing or if duplicate medications are noted, we should communicate back to the physician to make sure an error or oversight has not been made.

Getting into a routine

Once the prescriptions and medications are sorted out, it is now time to set up a medication management routine based on the patient's home routine. The first step is to talk to your patient about his home routine to establish the most effective and efficient way for him to remember to take his medications. Here are some great recommendations on how to establish a home routine — and how to remember it:[1–3]

- Set a daily routine.
- Make a list of all medications; include the instructions on how to take each one.
- Use sticky notes as reminders. Place the notes where they will be seen.
- Count pills. The patient will then know if she took the pill or not.

It is imperative for RTs to educate our patients on the whys and hows of their medications and the importance of taking them correctly.



- Use a pill box or organizer. There are many types available.
- Set an alarm to alert the patient that it is time to take the medication. Use a clock radio or even a cell phone.
- Ask a friend or caregiver to give the patient a call when it's time to take medications.
- Bring another "set of ears" to physician appointments. It is always helpful to have someone with the patient to listen to instructions on medication management.
- Use a regular calendar. Mark when the dose was taken, when the refill is due, and the next appointment.
- Discuss a system of automatic refills with the pharmacist. Many pharmacies now offer automatic monthly refills and will call or text the patient when it is time for a pick-up. Using the same pharmacy for all medications will make this easier.

Avoid the pitfalls

We all know there are many pitfalls in helping patients manage their medications at home. What may work for one patient may not work for another. Remember, nonadherence to prescribed drug regimens is problematic.[3] In order to combat this problem, it is important to remember that we, as health care professionals, need to be able to sit down and talk to our patients about their concerns and needs at home. Working out a routine that meets their needs and compliments their medication regimen is the goal. Creativity and flexibility may be some of the tools we need to accomplish this job. ■

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Ensuring Continual Intubation Competencies

by Diane Dunn, RRT

Airway management is an essential competency-based skill required of respiratory therapists.[1] Intubation is a critical component of airway management, which if performed incorrectly has serious consequences in terms of morbidity and mortality. According to the American Society of Anesthesiologists, 85% of intubation failures leading to airway compromise resulted in death or severe brain injury.[2] Achieving and maintaining competency in intubation reduces the risk of harm and improves patient outcomes.[3]

Competency assurance

Intubation practice, through clinical and simulated training, directly correlates with an ability to perform the technique properly and improve intubation success rates. The literature reports skill retention degrades over time if practice opportunities are not provided.[3] Clinicians must not only adhere to organizational and departmental policies for competency assessment, but also to state licensure board and/or accrediting agency regulations.

The Accreditation Council for Graduate Medical Education requires physician residents in pediatric training programs to competently perform neonatal intubations before completing their residency.[4] The Joint Commission requires participation in and documentation of ongoing staff education and competency training.[5] The Centers for Medicare and Medicaid Services requires staff to receive job-specific training and experience and recommends that the organization's practice coincides with standards and recommendations determined by professional groups such as the AARC and the American Thoracic Society.[6]

about the author...

Diane Dunn, RRT, is the education coordinator for the respiratory care department at Akron Children's Hospital in Akron, OH.

The AARC Clinical Practice Guideline on Management of Airway Emergencies suggests endotracheal intubation procedures be reinforced as often as every three months to maintain clinician competency.[7] Although there is professional practice and regulatory support for the need for continuing competency, a dearth of information exists specifying minimum standards to verify continual competency. Therefore, it is difficult to construct substantiated policies.

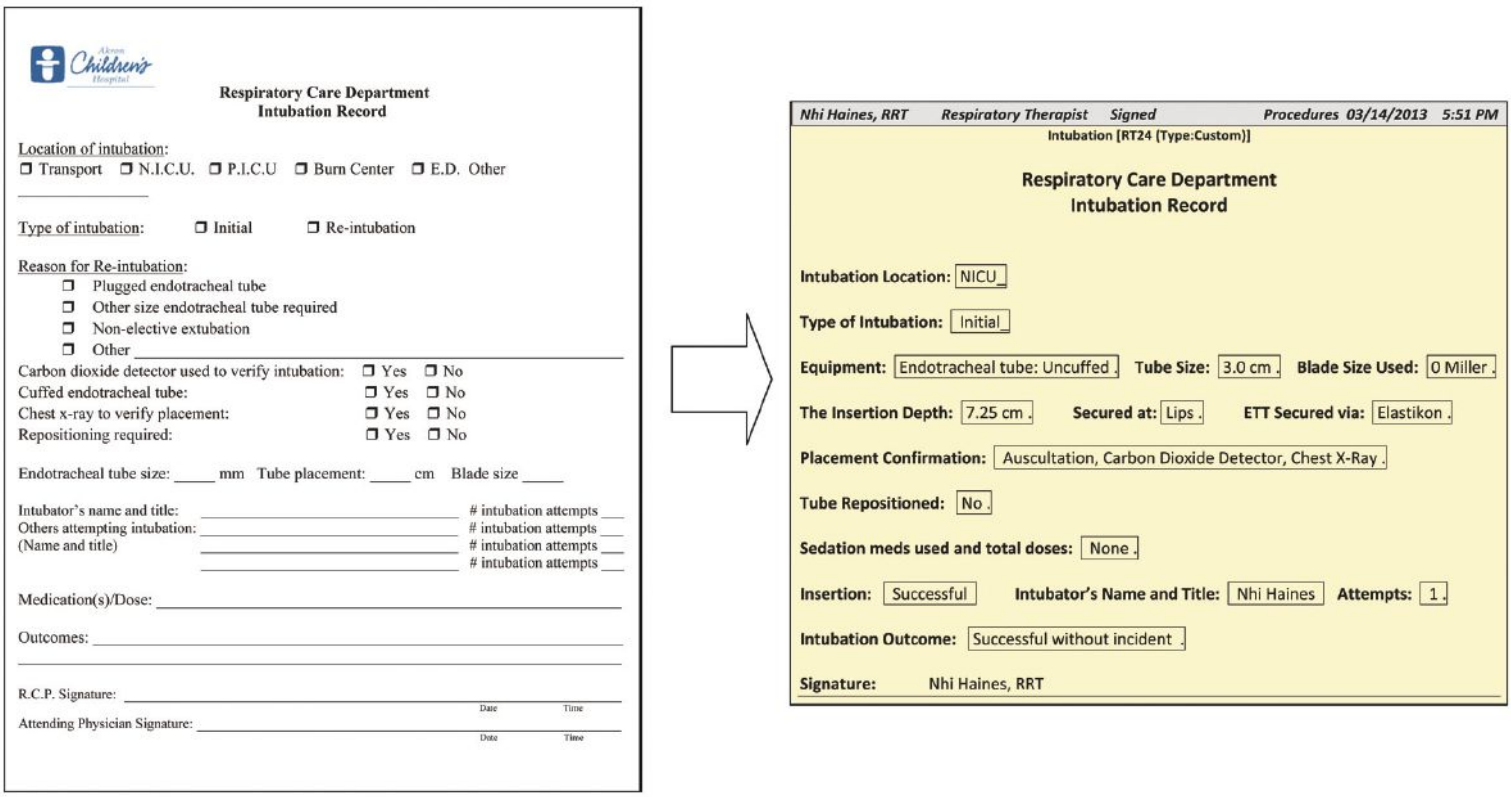
The Commission on Accreditation of Medical Transport Systems (CAMTS) has published the only discernible guidelines.[8] CAMTS standards require personnel to obtain at least one successful intubation every three months using patients, cadavers, or mannequins.[8] While research demonstrated that adherence to CAMTS training and competency standards resulted in *no significant improvement or decline* in intubation success rates within a 12-month study period, it is important to set a benchmark for intubation success rates and assess the competency program's ability to achieve and maintain it. This practice minimizes any risk of perpetuating suboptimal competency standards.[9]

Losek et al reported the benefit of establishing competency standards and audit processes to track intubation attempts in order to objectively determine the need for and frequency of retraining.[9] As shown in Figure 1, embedding audit tools in the electronic medical record reduces redundancy and improves data capture.

Challenges to maintaining competency

Several factors may limit opportunities to perform endotracheal intubation clinically. The successful use of noninvasive ventilation, the increased use of alternative

Figure 1. Transforming paper audit tools to data fields in the electronic medical record.



Children's Hospital

Respiratory Care Department
Intubation Record

Location of intubation:
❒ Transport ❒ N.I.C.U. ❒ P.I.C.U ❒ Burn Center ❒ E.D. Other

Type of intubation: ❒ Initial ❒ Re-intubation

Reason for Re-intubation:
- ❒ Plugged endotracheal tube
- ❒ Other size endotracheal tube required
- ❒ Non-elective extubation
- ❒ Other

Carbon dioxide detector used to verify intubation: ❒ Yes ❒ No
Cuffed endotracheal tube: ❒ Yes ❒ No
Chest x-ray to verify placement: ❒ Yes ❒ No
Repositioning required: ❒ Yes ❒ No

Endotracheal tube size: ____ mm Tube placement: ____ cm Blade size ____

Intubator's name and title: # intubation attempts
Others attempting intubation: # intubation attempts
(Name and title) # intubation attempts
intubation attempts

Medication(s)/Dose:

Outcomes:

R.C.P. Signature: Date Time

Attending Physician Signature: Date Time

Nhi Haines, RRT Respiratory Therapist Signed Procedures 03/14/2013 5:51 PM
Intubation [RT24 (Type:Custom)]

Respiratory Care Department
Intubation Record

Intubation Location: NICU
Type of Intubation: Initial
Equipment: Endotracheal tube: Uncuffed **Tube Size:** 3.0 cm **Blade Size Used:** 0 Miller
The Insertion Depth: 7.25 cm **Secured at:** Lips **ETT Secured via:** Elastikon
Placement Confirmation: Auscultation, Carbon Dioxide Detector, Chest X-Ray
Tube Repositioned: No
Sedation meds used and total doses: None
Insertion: Successful **Intubator's Name and Title:** Nhi Haines **Attempts:** 1
Intubation Outcome: Successful without incident
Signature: Nhi Haines, RRT

airways such as the laryngeal mask airway, and legal considerations such as non-teach case designations all come into play.[10] However, the number of clinicians needing intubation experience is increasing, which may foster competitive rather than collaborative working relationships. For example, respiratory therapists may vie with resident and attending physicians, as well as nurse practitioners, for intubation attempts. This creates challenges for intubation training and achieving and maintaining competency. Interdisciplinary policies can minimize the propensity for creating a disruptive work environment by outlining equitable processes to allocate intubation opportunities (see Figure 2).

Since intubation is a continuous improvement process, retraining sessions augment skills and improve an individual's success rate above minimum set standards. Although there are no set standards for retraining, assessment of cognitive knowledge and technical skills is an essential element.[9,11]

Refresher training in the operating room (OR), where the clinician performs intubations under the close supervision of an anesthesiologist, remains a preferred practice.[11] This setting may limit exposure to factors that can impede intubation success. The trainee still gains exposure to difficult airway scenarios, while the anesthesiologist can address performance issues, thus improving a clinician's airway management skills and reducing the likelihood of a safety event.[10,11] Soleimanpour and colleagues reported training in the OR improved overall intubation success rates by 55.6% and recommended OR training be incorporated into airway management training programs.[11] This may increase the demand for scheduled OR training time.

The role of simulators

Alternatives to intubation training involving human subjects, such as the use of animals and cadavers, are costly and constrained by availability and ethical con-

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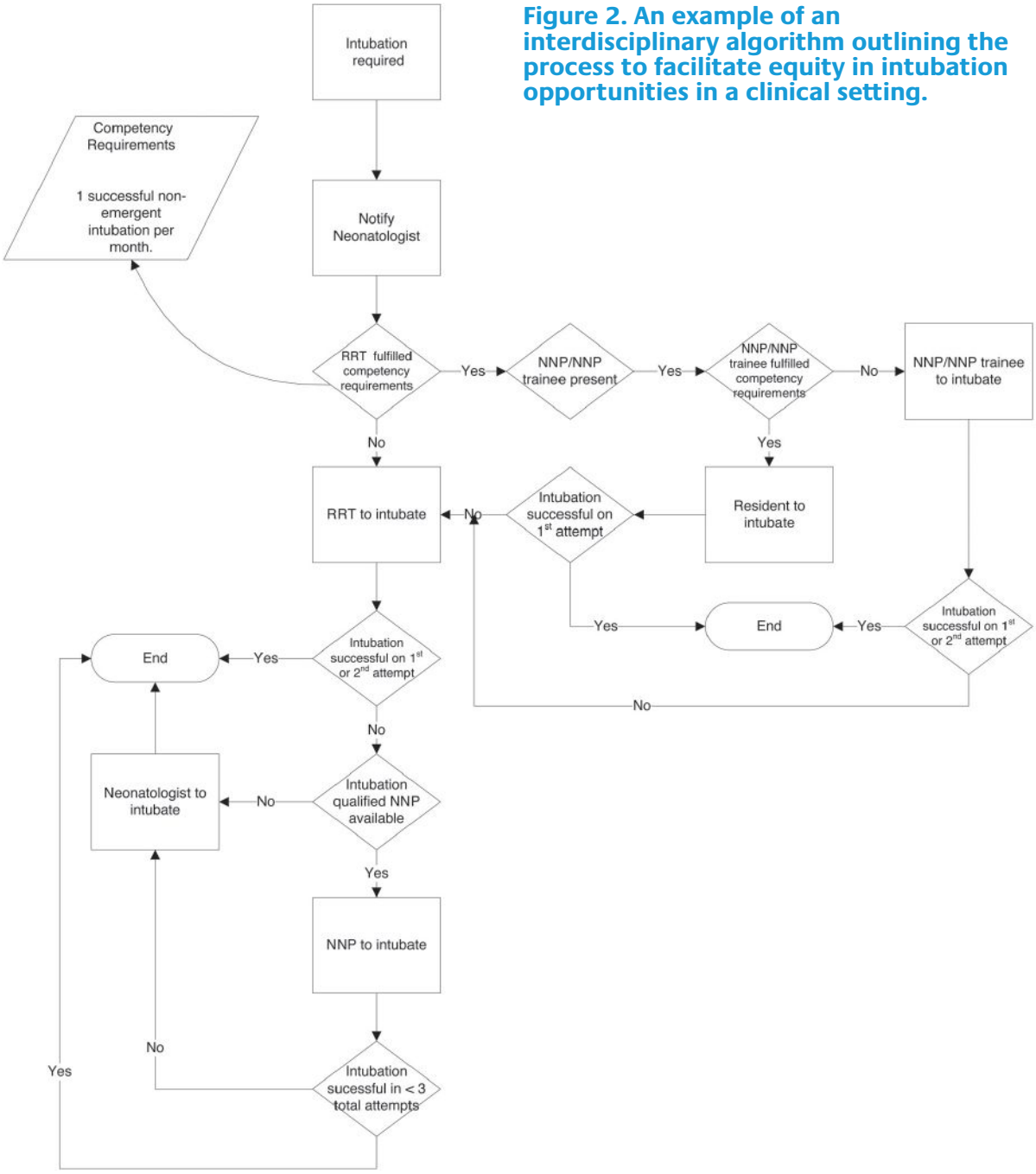

Figure 2. An example of an interdisciplinary algorithm outlining the process to facilitate equity in intubation opportunities in a clinical setting.

siderations.[12] As a result, the role of simulation in outcomes-based medical education has increased exponentially.[3,12] Certification programs (e.g., Advanced Cardiac Life Support and the Neonatal Resuscitation Program) incorporate simulation-based training into their curricula. Simulation training enhances learning through skill demonstration and debriefing and improves inter-rater reliability among evaluators during competency assessment.[13]

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(continued on page 25)

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Nhi Haines, RRT (left), joins Kristine Nagy, BSN, RN (center) and Stephanie Bailes, RRT-NPS, NREMT-B, in an intubation competency assessment with a high fidelity infant simulator at Akron Children's Hospital.

(continued from page 22)

simulators to low-tech task trainers.[12] The cost to operate these tools is directly proportional to their features and complexity. Although expensive, high-fidelity human patient simulators can realistically simulate a difficult airway. Simulation promotes interdisciplinary teamwork, effective communication, and psychomotor and critical thinking skills in a safe learning environment.[13] The debriefing process facilitates reflective and transformative learning.

There is little evidence suggesting the use of simulation training alone during initial training or sustained competency improves success rates compared to training and competency assessment in the clinical setting alone or clinical setting combined with simulators.[11,14,15] *In situ* simulation-based training quickly assesses competency and retraining needs. *In situ* airway scenarios improve skill retention and intubation performance.[3]

A diversity of methodologies

A rigorous training and competency assessment program enhances intubation skill retention. Although the literature does not offer substantial evidence to unequivocally support the use of one particular practice over another, published reports suggest programs integrate a diversity of methodologies to facilitate goal achievement. Programs that assess and enhance cognitive knowledge and procedural skills derive positive patient outcomes. ■

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Clinical Perspectives

Blood Gas Testing: Tabletops vs. Handheld Devices

by William J. Malley, MS, RRT, FAARC

Historically, all complex hospital lab testing, including blood gas analysis, was performed in a central laboratory. These central labs typically employed laboratory technicians extensively trained and highly skilled in the scientific basis of lab testing and methodology. Blood gases are frequently characterized as a test that needs to be done as close to real time as possible because therapeutic reactions and decisions must be immediate and are potentially lifesaving.[1] For these reasons, smaller machines and satellite labs emerged using tabletop units. Personnel in these labs were often respiratory therapists trained in the nuances of arterial blood interpretation. These individuals had to gradually learn good laboratory practice principles.

Finally, handheld devices were developed to run and report blood gases immediately at the bedside or point-of-care (POC). The clear focus of POC testing was the rapid availability of results for decision making and turn-around-time of the test. POC testing near the patient would seem to facilitate better care through rapid assessment and intervention. Studies have shown that this has indeed been the case.[2-4]

However, the POC movement has proven to be both valuable and challenging. Clearly, critical emergent tests can facilitate immediate treatment and action. Likewise, studies have generally shown good correlation of results with central labs. These devices have also become easier and more efficient to use by clinicians at the bedside. On the other hand, POC devices are often more costly to operate and maintain. Also, the use of clinicians without sufficient training in blood gas sampling and good laboratory practice has the potential to introduce errors. We must be diligent to ensure blood gas results are timely, accurate, and done in a cost-efficient manner.

about the author...

William J. Malley, MS, RRT, FAARC, is recently retired as the director of respiratory care at Indiana University of Pennsylvania/Western Pennsylvania Hospital in Pittsburgh, PA. He also authored two major textbooks on clinical blood gases.

Time

It has been said that there is paralysis by slow and extensive analysis. Nowhere is this more true than in emergent and critical care medicine. While accuracy and standards must always take precedence, there is a need for speed. POC analysis is all about time.

POC testing allows emergency department clinicians to achieve prompt diagnoses, determine risk stratification, identify priorities, and facilitate early therapy and triage. According to the Carter review of pathology services, POC testing improves patient outcomes acutely and over the longer term.[2,5] Lactate, blood gases, and electrolytes are of particular value in this regard and are considered tests needed as quickly as possible in real time.[1]

Indeed, lactate has correlated with vital signs regarding triage on admission.[6] Lactate is likewise well accepted as an early marker for sepsis and trauma.[7,8] In emergency medicine, the first, or "golden," hour of care is frequently described. Others have suggested the "silver day," focusing on the importance of lactate clearance in 24 hours.[8] In one small but remarkable study, 100% survival was achieved (27/27) if cleared in 24 hours to <2.0 mM/L. That compared to a 74% (22/25) mortality rate for those who did not achieve these levels within 24 hours.[9]

Similarly, blood gases may be especially valuable in POC management of major organ failure, trauma, sepsis,

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Table 1. Potential Advantages: Tabletops vs. POC

Tabletops	POC
1. Slower turnaround	Rapid turnaround
2. Skilled trained technicians	Less trained technicians
3. Increased precision	Decreased precision
4. Optimal lab practice	Sub-optimal lab practice
5. Decreased analytical error	Increased analytical error
6. Increased complexity	Increased simplicity
7. Decreased cost (generally)	Increased cost
8. Slower clinical decisions	Rapid clinical decisions

and altered mental status.[1,3,4] Perhaps blood gases may represent the "platinum minute" in management of many of these disorders.

However, unless the hospital uses pulse oximeters with COHb and MetHb readings, tabletop units do have one significant advantage over handheld devices. Some anti-inflammatory medications will cause MetHb levels to rise. Additionally, some patients have reactions to lidocaine and other drugs in that family of drugs. MetHb levels should be monitored in patients on oscillatory ventilation. Especially in colder climates, patients may also present to the emergency department with flu-like symptoms when they have elevated levels of COHb. Most handheld device results would not identify these problems. (See Table 1 for advantages of tabletops versus POC units.)

Accuracy

It has been said regarding blood gas analysis that incorrect results may be worse than no results at all. This is especially true in the emergency department and critical care unit, where decisions must be made immediately. POC technology appears to have generally passed the test for correlation with central lab results. Of course, the quality of any test depends on how and by whom the test is performed. It has been documented that nearly 70% of blood gas errors occur in the pre-analytical process.[10] This seems intuitively correct given that complex tests are often hastily performed by clinicians in high-stress, potentially low-staffed venues.

Table 2 lists a variety of potential errors that may be introduced if samples are not properly acquired or handled. Although hospital identification procedures and bar coding may help decrease this incidence, the worst type of error is action on a patient resulting from lab results from a different patient. Respiratory therapists are likewise well aware of the impact of oxygen therapy, positioning, etc., on blood gas results. They are also knowledgeable about the time it takes to achieve a steady state.

Blood may easily be contaminated by IV medications or solutions. Anticoagulants may be the wrong type, concentration, amount, or not electrolyte balanced. Similarly, aerobic samples are a source of contamination, and errors may be magnified when pneumatic tubes are used. One needs to clearly understand the oxyhemoglobin curve and why samples with high oxygen levels are much more impacted than those with low oxygen levels.

Samples must be mixed gently to ensure anticoagulation while preventing hemolysis and potassium alterations. Lower gauge syringes also help minimize shear forces during drawing with subsequent hemolysis. Capillary blood gas samples should never be "milked." Finally, it has become increasingly clear that samples do not need to be iced if run within 30 minutes.

The thing to keep in mind is that fast, precise tabletop or handheld ABG machines do absolutely nothing to prevent pre-analytical error. The keys to preventing these problems are coordination, oversight, and training. The central lab must work closely with POC labs. There should be a POC coordinator as well as a user expert. External quality control and competencies must be carefully documented. Finally, training must be standardized and ongoing.

Cost

As discussed earlier, a bad sample always results in bad and costly results. Everything has a price. POC test-

Table 2. Common Pre-Analytical Errors

1. Patient ID
2. Undocumented patient status
3. Failure to achieve steady state
4. Blood contamination and dilution
5. Aerobic sampling
6. Inappropriate sample mixing
7. Icing samples

ing also has a price in dollars. In general, handheld blood gas and electrolyte devices are more expensive to operate than tabletop machines. Likewise, tabletop machines may incur more expense than similar tests in the central lab.

Clearly, one size does not fit all. The Centre for Evidence-based Purchasing in the United Kingdom has suggested that handheld devices may be most cost effective if you run less than 10 samples per day.[2] Likewise, they imply cartridge-based tabletop systems may make more sense with higher testing volumes. An interesting hybrid model has also been described where not all blood gas orders are considered of equal immediate importance.[11] Neonatal ICU blood gases were triaged between the central lab and handheld systems, and a tabletop machine was eliminated.

The use of clinicians without sufficient training in blood gas sampling and good laboratory practice has the potential to introduce errors. We must be diligent to ensure blood gas results are timely, accurate, and done in a cost-efficient manner.

POC testing is growing. In the end, blood gases must be drawn and analyzed quickly with accurate results at the lowest cost. We must select the right machine or machines for our needs. Ease of operation, convenience, accuracy, and minimal maintenance are necessary. However, it is people who do the testing. Training must be standardized, appropriate, ongoing, and documented at least annually. Numbers, regardless of how quickly we get them, are just numbers. People do the testing, interpret the results, and make care decisions. ■

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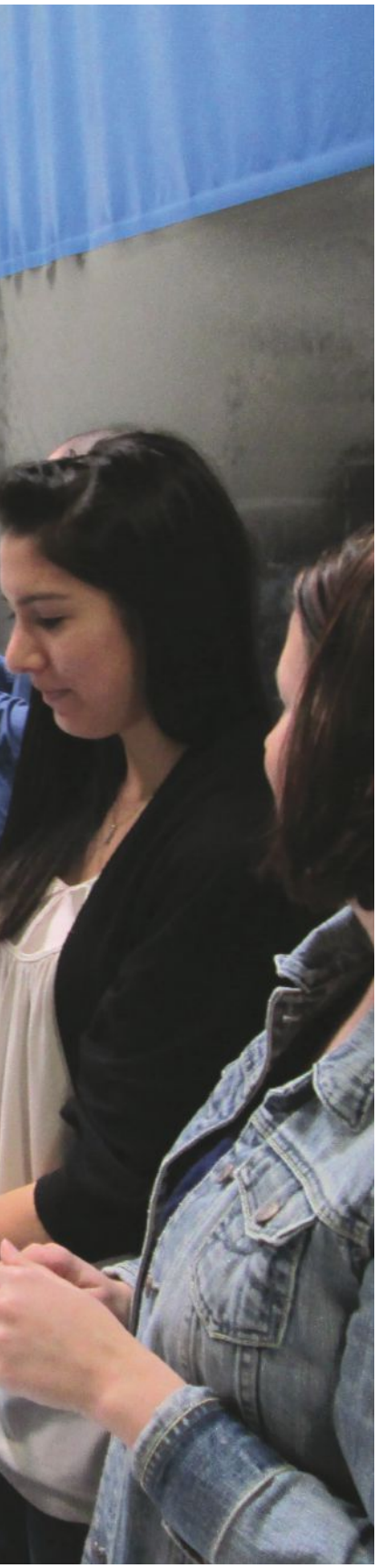
PepsiCo Partners with AARC for COPD Awareness

Colorado students "adopt" bottling plant to screen for chronic lung disease

by Debbie Bunch

Log on to www.AARC.org for the latest information on COPD Awareness



Most people with undiagnosed chronic obstructive pulmonary disease are still getting up and going to work every day.

The AARC's new DRIVE4COPD campaign is designed to seek them out in their workplace.

Employee wellness is moving up the priority list at many companies, as employers realize that healthier workers are more productive workers. The AARC officially re-launched its DRIVE4COPD Adopt-A-Company campaign in April to help AARC members connect with the employers in their areas to offer COPD screening and education in the workplace. But the campaign went through a test run in late February on a pretty big stage out in Colorado, thanks to a PepsiCo manager, the Colorado Society for Respiratory Care (CSRC), and some energetic students and faculty members at Pickens Technical College.

The stars align

Kevin Kallstrom first learned about the DRIVE4COPD campaign a few years ago at the Minnesota State Fair. The sales analyst/space manager for Pepsi's gas and convenience business strolled over to the cordoned-off area that had been set up for COPD screening and visited with some of the respiratory therapists who were there for the event. "Ever since then, I have been trying to get something together for my company," said Kallstrom. "I think it is something that people need to pay more and more attention to as the baby boomer generation gets older and older." The time was finally right this year, so he networked with Jason Moury, BS, RRT, the AARC's new COPD coordinator, to bring COPD screening to a health fair being hosted for the workers and families at one of the company's large bottling plants in Denver.

Once the event was scheduled, Moury looked for RTs in the Denver area to staff it; and Jamie Sahli, BS, RRT, AE-C, program director for the respiratory therapy program at Pickens Technical College, thought it would be a great way to get her students more involved in community outreach. "The faculty feels it is important to not only give a solid scientific foundation, but also to focus on community projects that will broaden their scope of awareness into the profession," said Sahli. Her students were already familiar with COPD screening — they had seen articles on DRIVE4COPD in *AARC Times* — so it wasn't a hard sell. Since it was designed to be a learning experience for the students, Sahli turned the logistics over to the chair of the class organization, Grace Noynay.

Students do an outstanding job

"I have always been interested in community outreach," said Noynay, an AARC member who just graduated from the program in May. "I felt screening the workers would be a wonderful way to provide much-needed education, make recommendations for those at high risk, and raise awareness of the disease process." Noynay quickly began recruiting volunteers from among her class and was able to get commitments from about eight students, who agreed to be on hand for the day-long Pepsi health fair. Several CSRC board members attended the screening as well.

The students screened workers and their family members from about 11 a.m. to 5 p.m., with the majority of the activity centering on the change of shift at the plant. Jason Moury met the students before the event kicked off to be sure they understood how to implement the five-question COPD risk screener, and Kevin Kallstrom was also there to get a firsthand look at how the AARC program would play out. He was impressed. "I thought the RT students who volunteered for this event did an outstanding job," he said. "They were friendly, caring, outgoing… we couldn't have asked for a better group of local RT students to help screen all of our Pepsi employees."

Jerome Piccoli, RRT, CPFT, was one of several members of the Colorado Society for Respiratory Care Board of Directors who attended the DRIVE4COPD event at the Pepsi bottling plant.

Go to www.AARC.org for the latest information on COPD awareness.

Rewarding conversations

Sahli said the COPD booth was a big hit with the Pepsi employees. "All were thrilled to receive the NASCAR DRIVE4COPD cars to give to their children and grandchildren," she said. "We were a popular booth because we handed out paraphernalia without selling anything besides knowledge."

For the students, perhaps the most rewarding part of the day was talking with the Pepsi employees who scored "at risk for COPD" on the risk screener. "The people who scored at least 2 received most of my attention," explained Noynay. "I sat down with those at high risk, explaining in detail the COPD disease process and how visiting their primary care provider can help aid them with their specific diagnosis of COPD."

Both Sahli and Noynay would recommend Adopt-A-Company to their fellow AARC members. "It gets the word out about COPD screening to a large group in a streamlined and fun manner," said Sahli. "The questionnaire was simple to administer yet opened up quality dialogue."

"Overall, I received positive feedback," said Noynay. "Most workers who answered 'yes' to the screening process were thankful that I screened them." She said she believes getting the chance to educate these workers on a one-on-one basis is an experience that could enhance the education of any RT student.

Several CSRC Board members attended the event and offered their help. "The Colorado Society for Res-

piratory Care was privileged to be a partner with the AARC in the recent DRIVE4COPD event held in Denver, CO," said CSRC President Kevin Fischer, BS, RRT. He explained the Board of Directors jumped at the opportunity to support the event along with the Denver respiratory therapy community. "The commitment to our community and the dedication in this initiative to help identify and diagnose individuals who have COPD is humbling. We were excited to be able to participate and look forward to an ongoing partnership in supporting a healthier community."

5 easy questions

After the Denver event, Kevin Kallstrom began spreading the word about the AARC's Adopt-A-Company campaign to other Pepsi bottling plants around the country, and several plants in California have since hosted events of their own. "Our team here in Denver was blown away by the AARC and DRIVE4COPD showing at our health fair," said Kallstrom. "It was a great day!"

Jason Moury notes that getting involved in Adopt-A-Company is a great way for respiratory therapists in any community to raise awareness of COPD while at the same time letting more people know who respiratory therapists are and what they do in the health care system. "Since there are 12 million people suffering from COPD and do not know it, our involvement could help change some lives by asking five easy questions."

Toolkit has everything you need

Respiratory therapists are encouraged to get involved in the AARC's Drive4COPD Adopt-A-Company campaign.

Connecting with a local company through this campaign is easy. Everything you need to contact your company and set up a screening can be found in the Adopt-A-Company Toolkit, including:

- **Template** letters and emails to make initial and follow-up contact with your business
- **Press releases** you can customize to let your local media know you are reaching out to help raise awareness of COPD and provide free screening for people at risk
- **Newsletters** and other materials about COPD and lung health you can send out to the employees at the companies you adopt
- **The five-question COPD risk screener** to use for actually screening people for the condition.

"The AARC and the COPD Foundation saw the success with the 2011 Adopt-A-Company initiative and knew that there was still more work to be done," Moury notes. "That is why for 2013 we brought it back with the goal of screening more and driving to raise awareness." The 2013 campaign has already generated a lot of interest from AARC members, many of whom have already started planning their adoptions.

To learn more about the awareness campaign and to download the toolkit, just go to www.aarc.org/drive4copd. ■

DRIVE4COPD
A CAMPAIGN OF THE COPD FOUNDATION

RTs: Right Clinicians, Right Place, Right Time

The AARC worked overtime last year to position the respiratory therapist as a value-added clinician in the fast-changing world of health care.

by Debbie Bunch

2012 in Words and Pictures

The AARC marked its 65th anniversary in April.

A Banner Year for the Association

Health care has been bracing for changes coming from the U.S. Affordable Care Act since it was signed into law in 2010, but 2012 turned speculation into reality as the first hospitals began being penalized for excessive readmissions for patients with heart attacks, congestive heart failure, and pneumonia under the Hospital Readmissions Reduction Program. In addition, lower reimbursements for facilities receiving lower scores on the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) patient satisfaction survey were just around the corner.

Realizing that the bottom line was literally "on the line" for many organizations, the AARC stepped up efforts to ensure its members would have the information and tools they need to play a major role in reducing readmissions and improving patient satisfaction in their facilities. Association leaders also realized that the time was right for major legislation to improve access to respiratory therapists in the outpatient setting and set to work on a revamped version of its Medicare legislation. The newly revised Medicare Respiratory Therapist Access Act is expected to garner increasing attention from members of Congress anxious to ensure vulnerable chronic lung disease patients have the services they need to keep them as healthy as possible and out of the acute care setting.

"The health care law is all about value-driven care," said 2011–2012 AARC President Karen Stewart, MSc, RRT, FAARC, "and respiratory therapists can deliver that value by being in the right place at the right time. AARC activities in 2012 were centered around that concept."

Of course, the Association engaged in many other important activities on behalf of members last year as well. The following pages contain some of the AARC highlights of 2012. ■

RT students from Taiwan toured the AARC Executive Office in August, reinforcing our international connections.

Stopping the Revolving Door

When the first penalties in the Hospital Readmissions Reduction Program went into effect on Oct. 1, hospitals everywhere knew that the days of allowing patients to be trapped in the revolving door of readmissions were quickly coming to an end. In the first phase of the program, facilities with higher than expected 30-day readmissions for heart attack, congestive heart failure, and pneumonia lost up to 1% of their Medicare revenue; overall, 2,217 hospitals were affected to some degree by the FY 2013 penalty.

The amount will quickly escalate, too. In FY 2014 (which begins this Oct. 1), the penalty rises to 2%, and in FY 2015 it will be 3%. As the penalties go up, so will the number of conditions included in the program, with most observers believing COPD will be among the first to be added to the list.

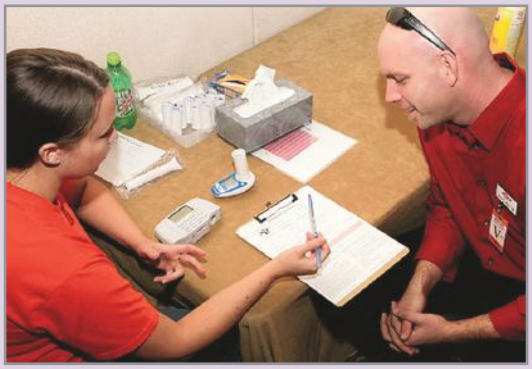
For hospitals, it was bad news. For respiratory therapists who have long lamented the plight of their "frequent flyers" — those chronic lung patients who seem to end up back in the hospital time and time again — they knew it was now crucial to provide patients with the education they need on their disease and training on how to manage it.

Medicare Respiratory Therapist Access Act

The AARC has been working toward that goal on several fronts for many years. Our Hospital to Home project, for example, is aimed at fostering better collaboration between hospital-based RTs and their colleagues in home care who must pick up with the patient where the hospital therapist leaves off.

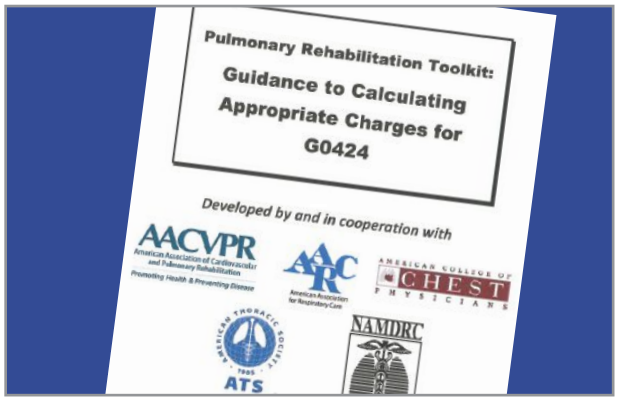
Perhaps most exciting, however, is our proposed bill language to allow certain qualified RTs to provide self-management services to Medicare patients with specific pulmonary diseases in physicians' offices. Although there are many RTs working in doctor's offices today, they are mainly located in large pulmonology practices that can afford to absorb their costs. Specifically, under the proposed AARC legislation, which was revised last year to narrow the scope, qualified therapists would be covered under the "incident to physicians' services" provision to deliver pulmonary self-management education and training services in the physician practice setting for Medicare beneficiaries who have been diagnosed with COPD, asthma, pulmonary hypertension, pulmonary fibrosis, and cystic fibrosis.

2012 in Words and Pictures



A study in the August issue of CHEST was based in part on an AARC program to screen the general public for COPD.

Pulmonary Rehabilitation Toolkit



While this language isn't as broad as language in previous bills, the Association believes it is an important first step in acquiring Medicare coverage and recognition for respiratory therapy services in the physician office setting. If passed, the legislation would, in effect, enable physicians to get paid for services provided by RTs, thus greatly expanding the number of physicians who can afford to hire RTs to educate the chronic lung disease patients in their practice, teach them how to correctly use their aerosol delivery devices, and provide the smoking-cessation counseling paramount to recovery from any respiratory illness.

Pulmonary Rehabilitation Program Toolkit

Of course, for patients whose condition has progressed to the point of needing rehabilitation, nothing can replace the pulmonary rehabilitation (PR) program, and last year saw some significant progress toward ensuring the future of PR programs through a partnership between the AARC and other organizations wanting to protect the life-enhancing services these programs provide. The issue at hand: Medicare reimbursement levels for the PR benefit that fall far short of meeting the needs of rehab programs.

Working closely with the American Thoracic Society, American Association of Cardiovascular and Pulmonary Rehabilitation, and National Association for Medical Direction of Respiratory Care, the Association developed a Pulmonary Rehabilitation Program Toolkit to help programs accurately report their charges to Medicare. While rehab programs are still faced with a significant shortfall in reimbursement, the hope is that by utilizing the strategies outlined in the toolkit, subsequent changes to the payment rate, most likely issued in the 2014 update to the hospital outpatient prospective payment system, will more correctly reflect the cost of providing PR pulmonary rehab programs. ■

Florida students represented the AARC well at the annual Health Occupations Students of America conference last June.

Patient Safety First

The AARC invested considerable time and energy into addressing patient safety issues last year as well. Always important to patient care, these issues could play an even bigger role now that patient satisfaction is figuring into Medicare reimbursement. Beginning Jan. 1 of this year, hospitals found their payment tied to scores on the HCAHPS patient satisfaction survey, which asks patients to weigh in on the quality of care they received during their hospital stay. Clearly, patients who experience fewer adverse events while in the hospital are more likely to report satisfaction.

One AARC initiative took the form of checklists that were developed to address key issues in respiratory care practice. The first two AARC checklists targeted oxygenation during in-hospital transports for neonates and children/adults. The third dealt with reducing critical care readmissions and was designed to highlight the role RTs can play in more formally triaging and evaluating patients prior to ICU

discharge. Development of all three of the checklists was supported through an educational grant from the Masimo Corporation.

The AARC checklists dovetailed nicely with the keynote address at AARC Congress 2012. Nationally known aviation and patient safety expert John Nance addressed attendees with his take on how checklists and other tools developed by the aviation industry can have equally profound effects on improving safety in hospitals.

Another Association initiative provided respiratory therapy managers with tools they can use to ensure adequate staffing in their departments. Released near the end of the year, a white paper on "Best Practices in Respiratory Care Productivity and Staffing" offers recommendations on using metrics to determine appropriate staffing levels, as well as recommendations for using metrics for benchmarking. Noting that understaffed departments put patients at risk for unsafe practices, missed treatments, and delays in medication delivery, the white paper urges hospitals to work more closely with their respiratory therapy departments to achieve adequate staffing levels.■

2012 in Words and Pictures

The AARC PACT

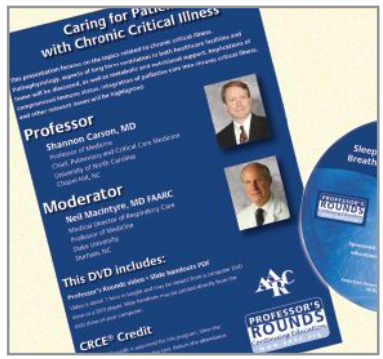
made another successful trip to Capitol Hill to educate members of Congress on issues important to patients and the profession.

New Programs Educate Members

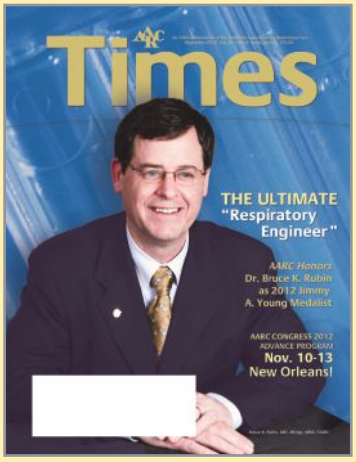
Ensuring the continuing education of its members is one of the most important goals of the AARC, and every year the Association adds new programs to its list of online course offerings.

■ "Empowering the Respiratory Therapist To Be the VAP Expert" is designed to provide RTs with the latest information on preventing ventilator-associated pneumonia (VAP). Course modules focus on VAP prevention, the RT's role as the "owner" of VAP prevention, and developing and maintaining a viable VAP prevention program.

■ "Emerging Roles for the Respiratory Therapist in Alpha-1 Antitrypsin Deficiency" is presented by internationally recognized experts in the identification and management of alpha-1 and includes course modules on the pathobiology of the disease, clinical manifestations, epidemiology and detection, optimal management of stable COPD, augmentation therapy, and emerging therapies. Graduates of the program have the opportunity to refer free genetic testing to at-risk patients through the Alpha-1 Coded Testing Study.



■ The AARC Professor's Rounds series is a DVD-based program featuring an array of timely topics delivered by leading clinicians in the profession, but the 2012 package included a bonus program that members found especially compelling. Featuring internationally recognized expert on tobacco cessation Michael C. Fiore, MD, MPH, MBA, "Effectively Treating Tobacco Dependence: We Can Move the Mountain," challenged RTs to play a more significant role in identifying and assisting patients who want to quit tobacco. ■



Dr. Bruce K. Rubin

was named the 2012 Jimmy A. Young Medalist.

Preparing the Profession for a Bright Future

Several years ago, the AARC embarked on a series of conferences designed to help guide the respiratory care profession into the rest of this decade and beyond. The first 2015 and Beyond conference took place in the spring of 2008 and looked at the future of health care and the roles and responsibilities likely to be held by respiratory therapists in the future. Conference findings were published in the March 2009 edition of the AARC's science journal, Respiratory Care.

The Association held the second conference in the spring of 2009. It aimed at identifying the competencies required to fulfill the RT's role in health care in the future, and findings appeared in the May 2010 edition of the Journal. The third and final conference convened in July of 2010 and examined the profession's options for transitioning the profession to meet the envisioned demands of the future. Results were published in the May 2011 issue of Respiratory Care.

After the completion of the third conference, the AARC Board of Directors issued several recommendations designed to ensure that the conference findings would be thoroughly vetted before any final decisions would be made. The review process was to include a briefing/listening tour to provide key stakeholder groups with the opportunity to better understand the project and give the AARC the chance to gain additional input before taking action. By the spring of last year, the AARC Board had passed a recommendation accepting the direction for the future of health care as recommended by the first conference report published in 2009. At the same time, the Board called for the Association to develop a dedicated website to house all of the 2015 and Beyond conference materials and papers so that any RT could become fully apprised of the project developments.

Last fall, the Board made additional recommendations designed to further clarify the next steps, including:

- A request that a baccalaureate mandate not occur until such time as the Committee on Accreditation for Respiratory Care (CoARC) can verify that there are enough bachelor's degree-prepared respiratory therapists to fill demand. The Board also affirmed its goal of aspiring to have 25% more bachelor's degree-prepared RTs in the workforce by 2020.

- Postponement of the retirement of the CRT credential until such time as the impact of the National Board for Respiratory Care's new consolidated written exam can be evaluated. It is expected that the new exam will roll out in 2015.

- Postponement of the recommendation that the AARC assist state boards in transitioning to the RRT as a licensure requirement until objective evidence exists that the CRT no longer documents minimal entry-level competence.

The AARC will continue to assess the 2015 and Beyond conference findings and act as appropriate to ensure a viable and secure future for the respiratory care profession. ■

2012 in Words and Pictures

AARC members raised awareness of COPD.

Respiratory Care Enhances Its Online Presence

Respiratory Care totally revised its website near the end of 2012, adding a wealth of new features designed to make it easier to navigate the Journal contents every month. Now members can:

- Link to Email Alerts to receive the table of contents for each new issue
- View papers published ahead of print
- View full text in HTML
- Search for content
- Download to a citation manager
- Email citations to colleagues
- Post citations on Facebook

The Journal also now has apps for the iPhone and iPad (and soon, one for Android), making it possible to pull up the latest evidence at the bedside or when discussing a patient's case in the halls of the hospital or elsewhere. Also, with a new Facebook page, everyone can keep up with what's happening with the Journal on their favorite social networking site. New Journal Webcasts debuted this spring as well, providing yet another way to stay in touch with the latest research. ■

We continue to strengthen the RT's position as the premier respiratory care provider.

AARC Congress 2012

attracted thousands of respiratory professionals from around the world.

A number of other developments marked a successful year in 2012:

■ **AARC 65th Anniversary:** The AARC marked a major milestone in April with the celebration of its 65th anniversary. The Association celebrated by asking members to get creative with the number "65." Many folks took us up on the offer, sending in photos and videos illustrating 65 years of respiratory care. A retrospective on the Association's milestones also appeared in the April issue of *AARC Times*.

■ **Change in leadership:** Long-time AARC Executive Director Sam Giordano, MBA, RRT, FAARC, retired in June and Thomas J. Kallstom, MBA, RRT, FAARC, was appointed the new CEO and executive director. Last year also included the addition of Timothy Myers, MBA, RRT-NPS, FAARC, to the AARC staff as associate executive director, brands management; and Shawna Strickland, PhD, RRT-NPS, FAARC, joined the team as associate executive director-education upon the retirement of William Dubbs, MHA, RRT, FAARC.

Thomas Kallstrom | **Timothy Myers** | **Shawna Strickland**

■ **Uniform Reporting Manual:** The AARC's Uniform Reporting Manual went through a significant update last year with the inclusion of productivity systems for pulmonary function, blood gas, echo/noninvasive cardiology, hyperbaric medicine, sleep laboratory services, and pulmonary rehabilitation services provided in both hospitals and free-standing facilities. Time standards for the updated manual were collected in the spring and early summer, and the updated manual was published near the end of the year.

■ **Sputum Bowl:** The Sputum Bowl got a significant overhaul in 2012 with the addition of a high-tech scoreboard, plus some cool new question categories and even a way for the audience to participate in the contest. It all debuted at AARC Congress 2012, reenergizing this long-standing fun-filled tradition in the AARC.

■ **Disaster Fund:** The AARC's Disaster Fund was activated twice last year — first for victims of Hurricane Isaac in August and then again after Superstorm Sandy in October — to help AARC members following a natural disaster. Established in 1992, the disaster fund exists thanks to the generous donations of AARC members and is activated at the time of any federally declared disaster.

■ **Free Congress recordings:** For the first time, every registrant of the

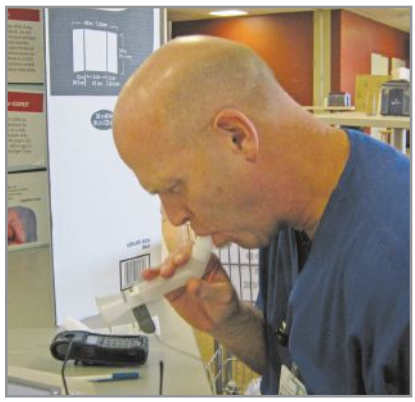
2012 in Words and Pictures

"Respiratory Therapist"
was named to the list of "best jobs" by
U.S. News & World Report.

Other AARC Activities of 2012

AARC Congress received free access to online recordings of the lectures and symposia, adding even more value to what is already the best value around in respiratory care continuing education. Those who were unable to attend the meeting are able to purchase the recordings.

■ **Growth campaign:** The Association's new membership growth campaign was launched on Nov. 1, offering some great prizes on a quarterly basis to new and renewing AARC members. Now through Oct. 31, these members will have the chance to receive either an iPad (renewing members) or Kindle Fire (new members). The Membership Committee believes these technology awards will encourage more people to sign up and renew — and will hopefully encourage them to spread the word about the value of AARC membership among their colleagues in the profession.



■ **Research made easier:** Launched shortly after the first of this year, the new IRB research protocol for the study of heated high-flow nasal cannulas is expected to foster research in this important topic throughout participating institutions. The protocol can be used intact or customized to fit the needs of specific institutions, and it was funded in part through an unrestricted grant from Tri-anim.

■ **DRIVE4COPD Adopt-A-Company:** Initially launched in 2011, the DRIVE4COPD campaign underwent a facelift last year with a brand new toolkit for making it easier for members to connect with companies in their area to provide free COPD screening and education. The new campaign, called Adopt-A-Company, was officially launched this April by the AARC and the COPD Foundation and is already off to a great start as Association members across the country use the AARC resources to seek out undiagnosed COPD in the workplace.

■ **COPD Toolkit:** This educational toolkit emphasizes an evidence-based flip chart that the AARC has created and customized for the RT. It includes lots of tools, such as smoking-cessation guides, pamphlets, talking points for RTs, a placebo MDI spacer, and an in-check dial to effectively monitor a patient's peak inspiratory flow rate for DPI use. It is meant to serve as an educational adjunct for RTs so they can deliver standardized, scripted, streamlined education to previously diagnosed COPD patients, with the end goal being better patient self-management of the disease. ■

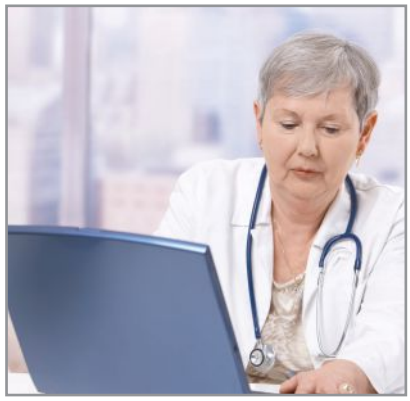
The AARC honored

military members on Veterans Day at Congress 2012 in New Orleans, LA.

More AARC Activities in 2012

And here are some more things AARC did on your behalf last year.

- **Pledged to support** the government WAVE campaign to reduce hospital-acquired infections and urged RTs to educate themselves about the key components of the campaign: wash hands, ask questions, vaccinate, and ensure safety.
- **Launched a new mobile app** for smartphones called "Mobile Membership" that brings AARConnect and the AARC website right to your phone.
- **Was cited as a reference** on a "Today Show" program about sleep apnea.
- **Clarified CMS instruction** on which practitioners are qualified to write orders for rehabilitation and respiratory care services.
- **Participated in the March meeting** of the Hospital Care Collaborative, a group fostering teamwork in the hospital setting. The AARC is a founding member of the organization.
- **Named Dean Hess, PhD, RRT, FAARC, and Kathleen Deakins, MSHA, RRT-NPS, FAARC,** to serve as the AARC representatives to CDC VAP Surveillance Working Groups. The goal: improve surveillance for ventilator-associated events for adult and pediatric patients.



- **Encouraged members** to comment on the Draft User's Guide research report from the Agency for Healthcare Research and Quality. Issued by the agency's Effective Health Care Program, the report is working to keep the research process open to the public.
- **Worked in collaboration** with and provided consultation to both the Indiana and Michigan state societies regarding the "de-licensing" of respiratory therapists in these states.
- **Made members aware** of a new Department of Labor Web portal for health care jobs that includes information on the respiratory therapist.
- **Participated** in a June 4 meeting hosted by the American Organization of Nursing Executives and the Human Resources Section of the American Hospital Association to discuss future demands on health care and the direction necessary to meet the challenges.
- **Partnered** with students and faculty from Valencia College to host a booth at the Health Occupations Students of America National Leadership Conference in June.
- **Issued a statement** on the Supreme Court ruling on the Affordable Care Act, noting the AARC will continue to monitor health care changes enacted by the law that are likely to impact respiratory care patients and therapists.
- **Supported the repeal** of the medical device tax in the Affordable Care Act because equipment manufacturers may have to pass the cost of the tax on to consumers.

2012 in Words and Pictures

Student members from Texas marked World Spirometry Day with a pulmonary screening at a local senior center.

The Latest Updates for Our Members

- **Published** a Turkish version of our "Guide to Aerosol Delivery Devices for Respiratory Therapists."
- **Joined in the publication** of a study in the August issue of CHEST outlining a NHLBI/COPD Foundation approach used by the AARC to screen adults for chronic lung disease. AARC Associate Executive Director Steven B. Nelson, MS, RRT, FAARC, co-authored the paper.
- **Asked members to circulate** a survey among their home oxygen patients to learn more about what these patients need.
- **Created a presence** for the AARC on the popular social networking site Pinterest.
- **Supported a bill** to replace DMEPOS (durable medical equipment) Competitive Bidding with a market-based approach.
- **Joined with FirstGiving** to make it easier for people to collect donations for the ARCF's Ventilator 5K competitions. Now donations can be made online at the FirstGiving website.

- **Announced that Kathleen Deakins, MSHA, RRT-NPS, FAARC,** was a co-author on a new clinical consensus statement on tracheostomy care published online ahead of print by *Otolaryngology–Head and Neck Surgery* in October. The AARC had chosen Deakins to serve as the AARC representative on the consensus panel that developed the statement.
- **Noted that CoARC** has received recognition from the Council for Higher Education Accreditation, a private, non-profit, national organization comprised of more than 3,000 degree-granting higher education institutions as well as over 60 regional, institutional, and professional accrediting bodies.
- **Signed on to a letter** to the Department of Health and Human Services that supported a proposed rule to expand the rights of patients to access their medical test results.
- **Called for greater involvement** of RTs in raising COPD awareness in the wake of a new CDC report showing COPD is a health crisis deserving of more focus and attention.
- **Launched a new ecommerce website** to update our payment webpages.

AARC members

Jenny Hsieh and Kristen Scott put their respiratory therapy skills to work to help save members of their communities. Both were recognized in the news as "life savers."

2012 Annual Financial Report

In February 2013, the AARC engaged the public accounting firm Salmon Sims Thomas to conduct an audit of its financial operations.

It issued an unqualified opinion stating that the AARC's financial statements were presented fairly and conform with generally accepted accounting principles.

In 2012, AARC's total revenues (excluding investments) were $9,876,000; total expenses were $9,212,000.

Figures 1 and 2 highlight the sources of 2012 revenues and expenses. Net assets at the end of 2012 were $20,764,000. ■

FIGURE 1. TOTAL REVENUES IN 2012 (Excluding Investments)

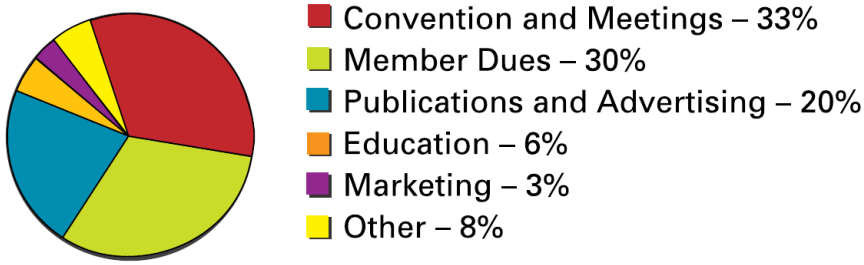
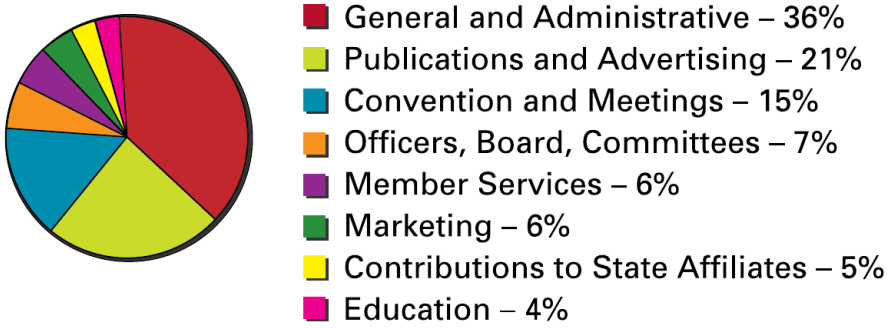


FIGURE 2. TOTAL EXPENSES IN 2012



2012 in Words and Pictures

Managers and educators

gathered for the 2012 Summer Forum in Santa Fe, NM.

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FOR COMPLETE DESCRIPTIONS, VISIT WWW.AARC.ORG/STORE

- **Medicated Aerosol Therapy – New Drugs and Devices**
  By Douglas S. Gardenhire, EdD RRT-NPS and Tom Kallstrom, MBA RRT FAARC
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- **Humidification During Mechanical Ventilation – A Review of the Literature**
  By Richard Branson, MSc RRT FAARC and Tom Kallstrom, MBA RRT FAARC
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- **Caring for Patients with Chronic Critical Illness**
  By Shannon Carson, MD and Neil MacIntyre, MD FAARC
- **Cystic Fibrosis - A 21st Century Perspective**
  By Elliot Dasenbrook, MD MHS and Timothy R. Myers, MBA RRT-NPS FAARC
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  By Timothy R. Myers, MBA RRT-NPS FAARC and Richard Branson, MSc RRT FAARC
- **VAP to VAE: Implication for the Respiratory Therapist - Ventilator Associated Events**
  By Dean Hess, PhD RRT FAARC and Kathleen Deakins, MHA RRT-NPS FAARC
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- **Oxygen Therapy in the Hospital**
  By Keith Lamb, RRT and Dean Hess, PhD RRT FAARC

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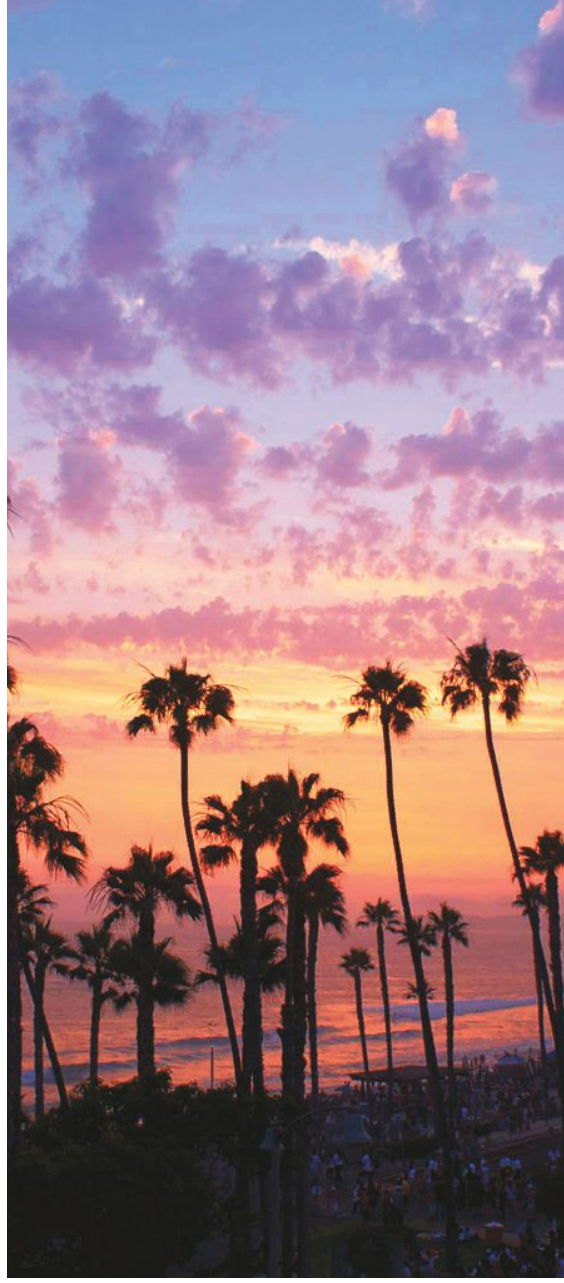
CONGRESS 2013

The 59th International Respiratory Convention & Exhibition

AARC Congress 2013



Program Committee Chair Cheryl Hoerr Offers a Sneak Peek at the Meeting

2014 promises to be an important year in health care, as many of the key provisions of the U.S. Affordable Care Act go into effect. The AARC Program Committee is working overtime to ensure AARC Congress 2013 delivers the information you'll need to meet the changes coming your way.

Newport Harbor

For more information about AARC Congress 2013 or to register, log on to www.aarc.org/education/meetings/congress/

The 59th International Respiratory Convention & Exhibition will convene in Anaheim, CA, Nov. 16–19, with thousands of respiratory therapists and others in health care coming together to share research, learn about successful strategies in clinical respiratory care, and see all the new equipment in the profession. They will also hear more about how the Affordable Care Act and other developments are changing the landscape of health care delivery in their facilities.

In the following *AARC Times* interview, AARC Program Committee Chair Cheryl Hoerr, MBA, RRT, FAARC, (shown above with Bill Galvin, MEd, RRT, FAARC) explains what goes into the planning process and offers a tantalizing preview of some of the topics likely to end up in the Congress program.

The Program Committee had its initial meeting to go through all the proposals that came in earlier this year. How many did you get this year, and what was the consensus of the committee about the quality of the topics suggested?

As always, we had a wonderful response from our members. Every year that I've been on the Program Committee I've been inspired and proud to witness the creativity and dedication shown by our members as they meet the challenge of such a rapidly changing health care environment.

The Program Committee ended up sorting through over 700 submissions. Submissions came from every specialty section and every roundtable group. We again had so many more submissions than our program timeframe would allow, and committee members struggled long and hard to thoughtfully consider each individual proposal. Our goal was to ensure that the final selections would meet the needs of AARC members in this time of uncertainty and change.

The Program Committee spent a lot of time weighing the merits of the various proposals. What goes into the decision-making process?

Over the past several years, the Program Committee has developed a process that ensures a well-rounded program. Each of the committee members acts as a liaison to one or more specialty sections or roundtable groups, and we review the submitted proposals with the specialty section chairs to give them a chance to offer feedback.

Once the committee meets in Dallas at the end of January, we have each individual review every submitted proposal — yes, all 700+ of them! On the first day of our meeting, we spend several hours talking about global issues such as the general state of health care, important changes and trends, critical issues facing respiratory care, etc. We also discuss specific issues that may affect only one section or roundtable. From those discussions we develop a list of priorities or "hot topics" for this year's meeting. The Program Committee then begins a collaborative review of each individual proposal and discusses its merits and how it might fit in with that list of priorities we developed earlier.

Many proposals are accepted "as is." But there are times when the Program Committee likes the basic idea but wants the topic refocused to highlight a different issue, and we may tweak the submitted objectives to more closely align with our established priorities. Alternately, we may notice a hole in the program and may actively solicit a speaker who is an expert on a specific topic.

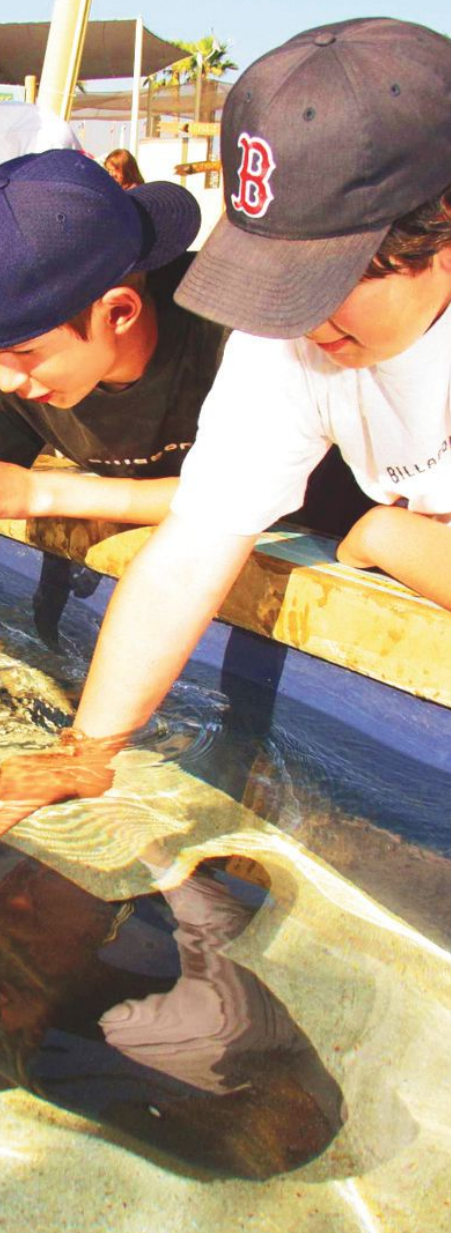
Can you give us an idea of what will be in the Congress program? What are some of the hot topics that people can expect, and why did the committee choose them?

There's no doubt that the Affordable Care Act will continue to have far-reaching and long-lasting impacts on our profession; and as each piece of legislation is enacted, we will continue to be rocked by the changes coming our way. There are quite a few lectures in the program that will address critical issues related to reducing readmissions, improving patient safety, and reducing or eliminating health care–acquired infections.

Respiratory therapists will have a critical role to play in this newly emerging health care environment, but we must be proactive in demonstrating our value to administration. The information in many of these presentations will help RTs develop and implement a plan to ensure that RTs remain on the frontlines of this brave new world of health care.

Another area of concern this year has been the proliferation of health care organizations that have chosen to work with consultants to reduce costs. The Program Committee has developed a strong program that will provide RC department managers with information and concrete steps they should take to get their departments in top shape to fight off any "slash and burn" strategies suggested by outside consultants.

And, of course, we'll still deliver important clinical content with presentations on mechanical ventilation, neonatal and pediatrics, adult acute care, sleep medicine, and disease management, to name just a few.



Aquarium of the Pacific

Laguna Beach

Will there be any pre-courses this year or any new developments that our readers would like to know about?

Yes, we'll have some great pre-courses on patient safety, trauma, sleep, and tobacco cessation, giving people the chance to add significant value to their meeting attendance. There are more pre-courses than we've ever had before. And the Program Committee is excited to share some exciting changes to the meeting that were in direct response to attendee feedback we've received in the past. Here are just a few of the exciting changes scheduled for AARC Congress 2013:

- You will get information "on the go" with 30-minute lectures.
- All lectures will start/stop at the same time, allowing attendees to maximize CRCE credit.
- BYOD (Bring Your Own Device) — Complimentary WIFI will be offered throughout the Anaheim Convention Center.
- There will be more unopposed exhibit time to see, touch, and manipulate products from all vendors in the industry.
- We will have a Closing Ceremony and keynote speaker to celebrate the conclusion of the meeting.

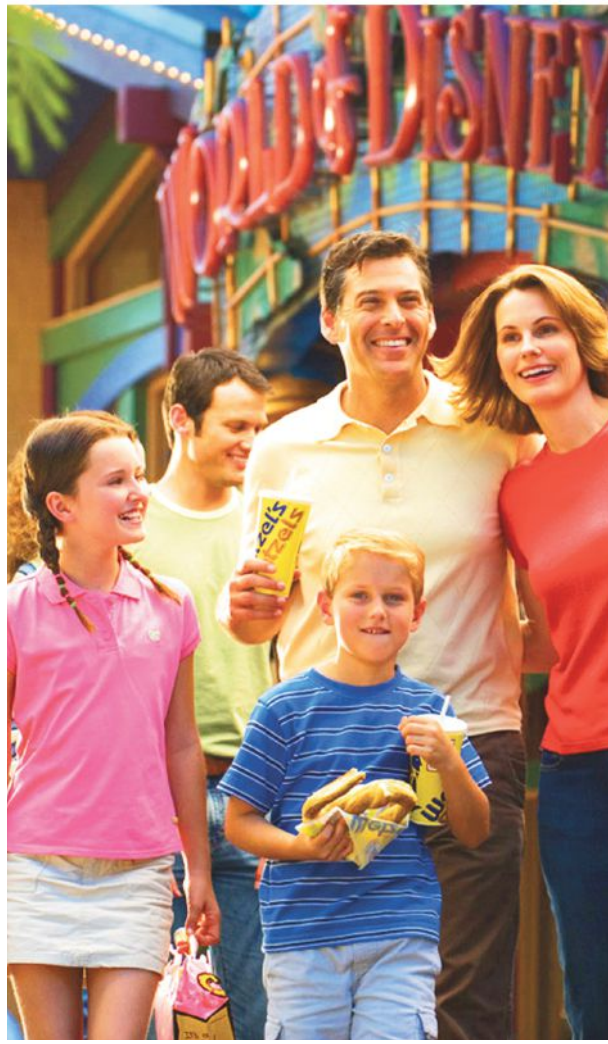
And many, many more!

Early registration is going on now. What are the main benefits of registering early, and why do you encourage people to do so?

The Program Committee realizes that many organizations are experiencing decreased reimbursement, and as a result are cutting back on the amount of financial support they are able to offer individual therapists who attend the Congress. So one of the best reasons to register early is the registration discount you'll receive, and in this economy every dollar in your pocket is like a bonus. And the earlier you register the more lead time you'll have to switch shifts with co-workers and minimize the amount of vacation you may have to take. Once again, this equates to more dollars in your pocket.

Registering early also allows you to coordinate your conference experience with others in your department, most specifically your manager. Your enthusiasm and willingness to bring back what you learn and share it with your co-workers just might earn you that promotion you've been working toward, and maybe a pay increase — even more dollars in your pocket! ■

6 Great Things To See and Do in Anaheim This November



AARC Congress 2013 in Anaheim promises to deliver the cutting-edge continuing education you will need to help your organization adapt to the growing number of provisions in the new health care law set to go into effect next year. But our Congress venue has plenty to offer in terms of downtime as well. With three Disney parks plus the Anaheim GardenWalk just steps away from the Convention Center, you won't have to go far for a little R&R. And if you do plan to travel farther afield, you'll find lots of other activities as well.

You can find lots of things to do on this website developed for AARC members by the Anaheim Visitors and Tourist Bureau: http://microsite.anaheimoc.org/american-association-respiratory-care.

Here are six things you won't want to miss when you travel to Anaheim/Orange County for the 59th International Respiratory Convention & Exhibition this November.

■ **As the nation's first theme park** (opened in 1955), Disneyland® Park remains an iconic site for many Americans. With more than 60 adventures and attractions across eight themed lands, the park has something for everyone, from the young to the young at heart. One of the newest attractions, "Star Tours: the Adventures Continue," opened in June of 2011 with all new 3-D scenarios. Star Tours features multiple odysseys to locations ranging from Tatooine to Kashyyyk. Along the way you'll encounter a Death Star under construction and all your favorite characters.

■ **Several major renovations in recent years** have helped bring Disney California Adventure® Park out of the shadows of its more famous sibling. The newest attractions include Cars Land, based on the Disney-Pixar film "Cars"; Buena Vista Street, which transports visitors back to the California of the 1920s; Ghirardelli Chocolate, a new soda

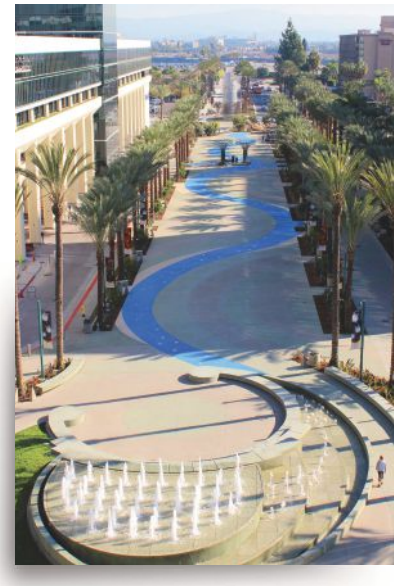
fountain and chocolate shop; and Mad T Party, based on Tim Burton's "Alice in Wonderland."

■ **The Downtown Disney® District** features lots of live music and a unique array of restaurants and shops, including the House of Blues and Ralph Brennan's Jazz Kitchen. It's the perfect place to end a full day of Congress lectures and symposia.

■ **You can also take in some great nightlife** along the Anaheim GardenWalk, the city's newest oasis of outdoor shopping, dining, and entertainment. Restaurants range from The Cheesecake Factory to McCormick & Schmicks. The shops include some of the biggest names around, including White House/Black Market and Harley-Davidson. There's even a wine bar and an upscale bowling lounge.

■ **It wouldn't be a trip to Southern California** without an excursion to the beach, and Orange County has six to choose from, all with their own character. Locals recommend taking in the beach-side cliffs and tide pools of Laguna Beach for a look at some cool natural artwork created by centuries of wind and water; and Huntington Beach, known by many as Surf City USA®, is also a great place to go. With its surf shops and local wave-rider hangouts, it is the worldwide center of surf culture. Newport Beach offers dolphin and whale-watching tours; and Seal Beach, Dana Point, and San Clemente also boast special attractions, from quaint downtown districts, to fishing excursions, to friendly sidewalk cafes.

■ **And of course, when you're in Anaheim**, you're not far from the mecca of the movie business. Just 30 miles north of the city is Los Angeles and all of the major film studios. Several sightseeing tours are available to take you past the stars' homes, and many of the studios offer tours as well.



Grand Plaza Brings the Outdoors to Anaheim Convention Center

As an attendee of AARC Congress 2013, you will find a greatly enhanced outdoor experience when you arrive at the Anaheim Convention Center in November.

Opened just last January, the 100,000 square foot pedestrian-oriented Grand Plaza is a uniquely designed outdoor environment where everyone can dine al fresco, listen to concerts, attend receptions and exhibitions, or just come together to network in the beautiful Southern California sunshine. Click on this link in the digital version of June *AARC Times* to see a video: http://anaheimoc.org/GrandPlaza/grand-plaza-opening-video.php.

Lined with 151 palm trees and 60 orange trees, home to a river of 300 in-ground programmable LED lights and three major water features, the plaza flows between the Hilton Anaheim and Anaheim Marriott. A special Transit Plaza is also included for efficient transportation flow. ■

A Summary of Milestones Associated with the Launch of the NBRC Credentialing Program for Adult Critical Care Specialists

by Robert C. Shaw, Jr., PhD, RRT, FAARC

The NBRC will only launch a credentialing program when asked. The following organizations are authorized to make such requests:

- The American Association for Respiratory Care (AARC),
- The American College of Chest Physicians (ACCP),
- The American Society of Anesthesiologists (ASA), and
- The American Thoracic Society (ATS).

The request leading to the launch of the Adult Critical Care Specialists (ACCS) program came from the AARC. The first request for such a program occurred several decades ago. However, a *viability study* led to the conclusion that whatever a specialty examination would cover was addressed by the RRT examinations of that period. A second viability study in mid-2005 indicated that unique competencies had emerged that the modern RRT examinations did not address. This result supported moving to the second of what is a five-step process.

There had to be evidence that the program was likely to be sustained financially. Fees that respiratory therapists pay to achieve initial credentialing and document continued competencies entirely support NBRC operations. Although NBRC credentials are often linked to government licensing and employer hiring, the only individuals who pay to support credentialing are candidates and credential holders. The focus of the *personnel study* in 2007 was to assess whether there was a sufficiently large population of potential candidates to support the program. The study also started to explore whether national practice was uniform enough that there would be a body of content to cover.

Confirmation of the second point was the focus of the third step, which was called a *job analysis*. The job analysis study started in late 2008 and concluded in 2009. The job analysis advisory committee concluded that there was a uniform national set of competencies that could be covered by an examination. The committee chose the multiple-choice examination format with each item containing four options. *Test specifications* for developing forms of the examination were developed. A large number (150) of test items was specified to yield reliable scores. *Test specifications* were organized around content domains and levels of cognition, but the committee decided to require that five of the items also draw on medical ethics concepts. The committee limited the number of items about various patient conditions or disorders. Test specifications and limits on item characteristics are critical to the assertion that each form of the examination presents a similar challenge to each candidate who wants to demonstrate his or her competence as a specialist in adult critical care.

In fact, there is a potential fifth step, which is called a *criterion-validation study*. A criterion-validation study could be done in the future for the RRT-ACCS program should the NBRC decide that it would be beneficial to do so. Coincidently, the NBRC is conducting such a study in 2013 for the CRT and RRT programs. Persons who are interested in volunteering can apply by using the link www.surveymk.com/s/ValidationStudyApplication. Any-

about the author...

Robert C. Shaw, Jr., PhD, RRT, FAARC, is the assistant executive director and psychometrician for the NBRC in Olathe, KS.

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Information about accessing the free practice examination and the SAE is available from the ACCS page of the NBRC website (www.nbrc.org/Pages/ACCS.aspx).

one can volunteer, from students close to graduation to therapists with many years of experience.

Examination development details

Building the Item Bank — By design, the RRT-ACCS examination assesses a scope of content that falls between the practice of physicians and general respiratory therapists. During the job analysis study, overlap with content covered by examinations for the CRT or RRT credentials was avoided. Hence, there were no opportunities to borrow items from existing banks.

Identifying writers became the first task in early 2010. Using responses from a survey of potential writers, we sought specialists with a lot of experience while working in critical care. We wound up with a good kind of problem to solve. We intended to host 30 people for a weekend of training and writing at the NBRC executive offices. Our solicitation yielded about 70 well-qualified individuals. Training was conducted for the 30 people in the on-site group on a Saturday and repeated during a Web conference on Sunday for the rest of the writers. With several hundred new items banked, we were ready to start developing test forms in mid-2010.

Sequencing Examination Projects — Because we knew that most potential candidates would come to this examination while relying mostly on their experiences, we decided to release practice examinations before releasing the first test forms. The first practice examination was called the "free practice examination." While developing this examination, we realized that investing the time it would take to develop a full-length form would significantly delay the date on which candidates could start their attempts at achieving the RRT-ACCS credential. Hence, the free practice examination is a test form of one-third the full length. The content domains and allocations of items by cognitive complexities proportionately mirror the test specifications. The same examination committee of respiratory therapists and physicians developed each of the practice examinations and the first test forms that were used to make credentialing decisions.

The examination committee turned its attention to the Self-Assessment Examination (SAE). This test form is full-length. Feedback is available to potential candidates by revealing each item key. Additionally, the reason for crediting an option or withholding credit is explained. Within the explanations are codes indicating whether the examination committee agreed that an option would do harm and whether an option was linked to concepts about medical ethics. There are codes as well that distinguish merely acceptable options from the truly best option. Information about accessing the free practice examination and the SAE is available from the ACCS page of the NBRC website (www.nbrc.org/Pages/ACCS.aspx).

Developing the Test Forms that Count — The examination committee turned its attention in the last half of 2011 to developing test forms to be associated with credentialing decisions. The RRT-ACCS program was to be operated according to the same policies under which other NBRC credentialing programs ran.

- Test forms are administered and scored exclusively by computers.
- Each candidate receives his or her score report, including the pass or fail result, on the day that he or she takes the examination.
  - This element was held at the launch until item keys could be validated.
- A candidate who fails is permitted to make a repeat attempt and should receive a test form that is different from the first form in significant ways.

The examination committee had approved the first set of items by May of 2012, which made us ready for a study whose results would support the passing point that would be selected for each test form. A group of 11 respiratory therapists and physicians, of which six were from outside of the NBRC, gathered over a weekend at the NBRC executive offices. While assembled, the group

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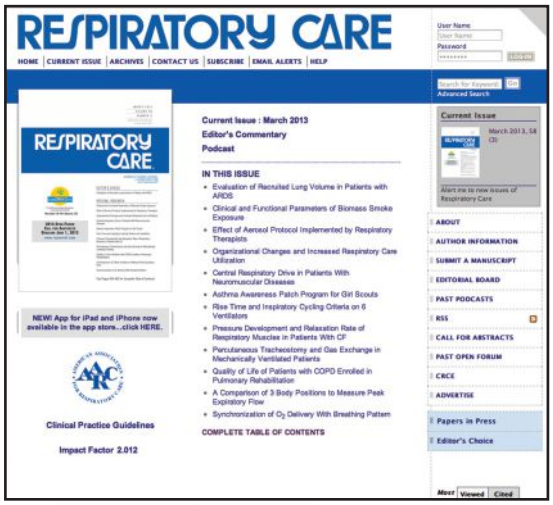

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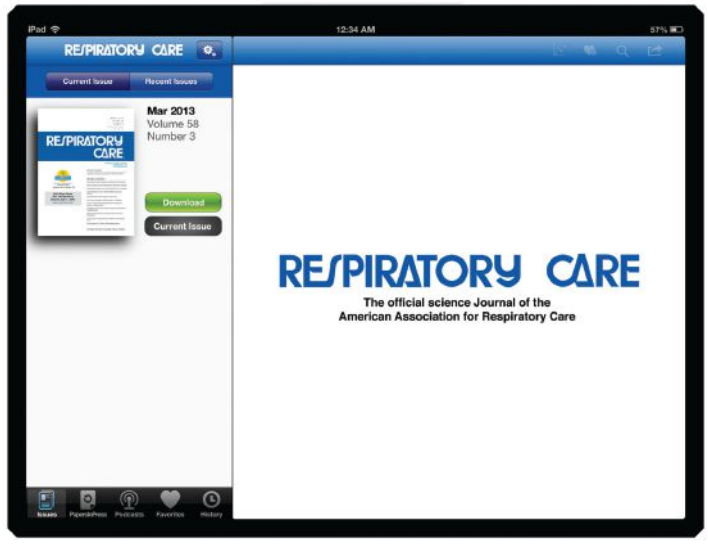

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interacted about the likelihood that a minimally competent specialist would select the keyed response to each item. Each study participant documented his or her final estimate for each item after cycling through the items twice.

The first day on which candidates could take the RRT-ACCS examination was July 17, 2012. These first candidates did NOT receive their score reports from the testing centers. We had to accumulate responses from a few dozen candidates so the examination committee could assess whether candidates had reacted to each item as expected. At the conclusion of this process, we were confident that the set of keys for each test form had been validated. Upon comparing the final distribution of test scores to passing-point study results, the examination committee selected a passing point for each test form. Trustees of the NBRC officially affirmed each passing point.

In October 2012, the test forms were launched again with the updated and validated set of keys. From this point forward, each candidate has received his or her score report from the testing center at the point the test closes. Because each test form includes 20 items in pretest status, we intend to perpetuate the instant-scoring feature going forward as test forms move into and out of circulation.

Results — As of this writing, 273 candidates have each made his or her first attempt at the examination. From this group, 85% passed on their first attempt. Thirteen candidates have made a repeat attempt, of which 31% passed. After nearly nine months of examination administrations, 236 specialists have initially documented their competencies within the RRT-ACCS program and earned the credential.

Summary

For more information about the RRT-ACCS credential or to apply for the examination, please visit www.nbrc.org.

The NBRC Board of Trustees and its committees are interested in your questions, comments, and concerns. You may also contact the NBRC by email at nbrc-info@nbrc.org or by phone at (888) 341-4811. ■

AARC Times

Photo Contest

Call for Entries

Go to
http://tinyurl.com/72qfqt5

- Take the photo at your highest quality setting
- Email your photo to knauf@aarc.org or send a CD to:
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- You must be an AARC member.
- Contest finalists will receive one year *FREE DUES* on membership renewal.
- Finalists will be in the Dec. 2013 issue for members to vote on.
- The winning photo will be on the March 2014 cover.
- All photos become the property of the AARC.
- You must provide a signed release form for everyone in the photo.
- Go to www.aarc.org and type *photo release* in the search box or have Karen fax you one. Call (972) 406-4661.
- If you have a story for the photo, please send that, too.

Industry Watch

CPF, PFF, ATS partner on PF research

The Coalition for Pulmonary Fibrosis (CPF), the Pulmonary Fibrosis Foundation (PFF), and the American Thoracic Society (ATS) have entered into a partnership to fund pulmonary fibrosis research. The patient organizations will each commit $20,000 per year to fund a two-year research grant to be awarded in 2013. The ATS will provide partial funding and management of the grant. This is the seventh partnership grant between the three organizations. "We cannot advance in the area of pulmonary fibrosis treatment without sophisticated research," Jesse Roman, MD, member of the ATS Scientific Advisory Committee, was quoted as saying. "This important work may lead to new approaches to the treatment of this devastating disease."

AMGA releases COPD best practices

The American Medical Group Association (AMGA) has released its "Best Practices in Managing Patients with Chronic Obstructive Pulmonary Disease Compendium." The compendium includes case studies from medical groups, independent practice associations, academic practices, and integrated delivery systems that have incorporated the management of COPD into their chronic care models. The case studies outline the particular interventions and how they worked to make progress toward common goals such as early identification, improved medication adherence, continuity of care, better self-management of symptoms, improved health and well-being, and improved physician/patient relationships.

FDA accepts new COPD combo by GSK, Theravance

According to GlaxoSmithKline plc and Theravance Inc., their New Drug Application for the investigational once-daily LAMA/LABA combination medicine, UMEC/VI, for patients with COPD, has been accepted by the FDA. The Prescription Drug User Fee Act goal date has also been confirmed as Dec. 18 of this year. UMEC/VI, with a proposed brand name ANORO™, is a combination of two investigational bronchodilator molecules — GSK573719 or umeclidinium bromide (UMEC), a long-acting muscarinic antagonist, and vilanterol (VI), a long-acting beta-2 agonist — administered using the ELLIPTA™ inhaler.

Ares Life Sciences to acquire Albion Medical Holdings

Ares Life Sciences, a health care-focused investment group, has signed a definitive agreement to acquire 100% of the share capital of Albion Medical Holdings Inc., including its wholly owned subsidiary GREER® Laboratories Inc., which specializes in allergy immunotherapy in the United States. GREER's clinical development programs have been focused on the company's investigational sublingual allergy immunotherapy liquid called SAIL™. The company says it recently completed a successful Phase III study evaluating the efficacy and safety of GREER SAIL™ as a treatment for adults with short ragweed allergies.

NIH grant issued for development of wearable lung

University of Pittsburg researchers have received a $3.4 million grant from the National Institutes of Health to develop an artificial lung that patients can wear, allowing them to get up and move within the hospital. The paracorporeal ambulatory assist lung is intended as a bridge to transplant or recovery for patients with acute and chronic lung failure.

Research platform releases clinical trials tool

The U.S.-based patient network and real-time research platform PatientsLikeMe unveiled its global clinical trials tool at Europe's Healthcare Innovation Expo 2013 in March. The free tool draws on open data to match patients from around the globe with clinical trials based on their condition and location. The U.S. prototype was launched last year to help patients find suitable clinical trials. The tool is now available at www.patientslikeme.com/clinical_trials.

FDA clears assay for detection of RSV

Quidel Corporation has received 510(k) clearance from the FDA for its Quidel Molecular RSV + hMPV assay for the detection of respiratory syncytial virus and human metapneumovirus (hMPV). The assay distinguishes between RSV and hMPV, two different viruses that cause respiratory infections with very similar symptoms. The FDA's 510(k) clearance grants Quidel authorization to market its Quidel Molecular RSV + hMPV assay in the United States. The product launched in Europe shortly after receiving the CE Mark in March of 2012.

Asthmapolis announces study results

According to Asthmapolis, a study found improved asthma control and a decline in day-to-day asthma symptoms for participants receiving Asthmapolis' weekly email reports and online charts summarizing inhaler use and location. The FDA-cleared mobile health solution is designed to improve the care of people with asthma, advance understanding of symptoms and triggers, and help patients achieve control of the disease. According to the company, it uses a novel combination of smartphone applications and snap-on sensors that track when and how often patients use their inhaled medications. The research was published in *PLOS ONE*.

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

RC Currents

IN THE NEWS

COPD Research: A Call to Action

The COPD Foundation is leading the charge to increase research funding for COPD and is asking AARC members to join in the fight by contacting their members of Congress to let them know COPD is an urgent public health concern that needs to be aggressively addressed.

You can use the Action Alert on the COPD Foundation website (www.capwiz.com/copdfoundation/issues/alert/?alertid=61045226) to quickly and easily email your members of Congress. Be sure to edit the information in the letter to reflect that you are a respiratory therapist advocating on behalf of your patients.

By supporting COPD patients in their request for additional research funding, we can help send a strong message to Congress that respiratory care is a profession that cares about its patients and is willing to go the extra mile to help find new and better treatments for their disease. ■

SSA Seeks Input from AARC on Respiratory Disorders

The Social Security Administration (SSA) recently issued a proposed rule to revise the criteria it uses to evaluate claims involving respiratory disorders in adults and children for the purpose of making disability determinations. The proposed revisions reflect program experience, advances in medical knowledge, and comments SSA received from medical experts at an outreach policy conference several years ago. The agency contacted AARC specifically for comment.

For the most part, SSA's medical criteria looks at defining certain types of tests and the requirements needed for an acceptable test and report. For respiratory disorders, SSA describes what each one is and how they evaluate it for purposes of determining disability. Examples of some of the disorders consist of chronic respiratory disorders (including COPD and pulmonary fibrosis), asthma, cystic fibrosis, bronchiectasis, chronic pulmonary hypertension due to any cause, lung transplantation, and respiratory failure.

AARC submitted comments to SSA on April 4 (see www.aarc.org/headlines/13/04/ssa/). Our comments focused on documentation requirements for spirometry calibration and spirometry tracings, differences between pulmonary function tests and devices used for monitoring, and evaluating a child's disability via spirometry testing using criteria for chronic respiratory disorders and asthma. ■

AARC Now Accepting Applications for the 2013 International Fellowship Program

If you provide respiratory care outside of the United States and would like to share and expand your knowledge, please consider applying for our International Fellowship Program.

The International Fellowship Program is a sponsored activity of the AARC. Since 1990, health professionals from more than 50 countries have shared experiences, knowledge, and lasting friendships through this exceptional program.

The three-week program takes each participant to two host cities in the United States and concludes with attendance and acknowledgement at AARC Congress 2013 to be held Nov. 16–19 in Anaheim, CA.

Learn more and apply by **June 1, 2013**, at www.aarc.org/resources/international_fellows/. For more information, contact April Lynch at lynch@aarc.org. ■

"New Members" Column Now Online

The "New Members" column can be accessed at www.AARC.org/new_members. Current AARC members are encouraged to check this site on the first of each month to view the names of individuals who have been approved as "Active Members" of the Association. Any current member may object to a new membership by filing a written objection with the AARC Executive Office at info@aarc.org within 30 days. ■

Educators: Help Recognize Outstanding Students

The American Respiratory Care Foundation (ARCF) is accepting applications for its undergraduate and postgraduate Education Recognition Awards now through June 15 and is asking RC educators to help spread the word to their students. Check out the list of available awards and then encourage your best and brightest students to apply.

The ARCF offers awards to students who are currently enrolled in accredited respiratory care educational programs and to respiratory therapists who are pursuing an advanced degree. Awards include registration and airfare to attend AARC Congress 2013, to be held Nov. 16–19 in Anaheim, CA.

To see all of the awards bestowed by the ARCF every year, go to the Foundation's Grants, Awards and Fellowships page at www.arcfoundation.org/awards/. For more information, contact April Lynch at lynch@aarc.org. ■

Read the Rest of the Story at www.AARC.org

- LSRC gets home town time with senator — www.aarc.org/headlines/13/04/vitter
- PepsiCo partners with AARC for COPD awareness — www.aarc.org/headlines/13/04/copd_awareness/

Essay Contest Sends RT Student to DC with the PACT

Respiratory therapy student Nehal Patel (center) with AARC Executive Director Thomas Kallstrom, MBA, RRT, FAARC, and AARC President George Gaebler, MSEd, RRT, FAARC.

Much is said in the respiratory care profession about the need to mentor the next generation of leaders, but finding creative ways to make that happen can be a challenge. The New York State Society for Respiratory Care (NYSSRC) came up with a clever idea earlier this year when they decided to sponsor an essay writing contest aimed at getting students to consider how they will contribute to their professional organizations once they graduate. The prize was a trip to Washington, DC, in March to see the AARC's Political Advocacy Contact Team (PACT) in action.

"Students from two area colleges were asked to write brief, 750–1,000 word essays on the importance of being involved in your professional organization, why they would like to participate, and the impact or benefit their participation might have," explains New York PACT member Sheri Tooley, BSRT, RRT-NPS, FAARC, from Rochester General Hospital. They also received a copy of the PACT information that had been supplied to the state society in advance of the Capitol Hill Lobby Day, as well as the access code to the PACT website so they could familiarize themselves with the goals of the group.

A number of students entered the competition, and Nehal Patel was selected as the winner. A second-year student at Genesee Community College in Batavia at the time (she graduated in May), Patel says she grew up playing with the stethoscope in her Sesame Street doctor kit and knew she wanted to enter a health care profession. "My uncle is a cardiologist and my sister is in medical school. These familial connections afforded me the opportunity to shadow several health care careers," explains the AARC member. Ultimately, she says her heart drove her to "pick a profession in which I can do what I love and get that instant gratification that I've helped someone." That was respiratory care.

Patel says winning the trip to DC with the NYSSRC PACT members was a once-in-a-lifetime experience she'll never forget. "I was eager to meet and thank our AARC leadership who have been working diligently on our behalf to bolster the profession," she says.

The day included a whirlwind of activities, as Patel accompanied Tooley and the other New York PACT member, Ron Jacobs, MBA, RRT-NPS, on visits to the offices of Sen. Charles Schumer, Congresswoman Louise Slaughter, and others from all over New York. "We had to explain to these politicians what respiratory therapists do and why it is important that we are covered under Medicare," she says. "I learned that it is crucial to our profession that we have passionate and enthusiastic leaders to keep our profession on the rise in today's health care-reforming environment."

She says the most exciting part of the trip was watching all of the other AARC PACT representatives from around the country who came together in our nation's capital in March to educate members of Congress about issues important to respiratory care and the patients it serves. "Seeing how hard they work to broaden the future for our health care profession was truly inspirational," says Patel. "I was very lucky to have such great mentors like Sheri Tooley and Ron Jacobs to shadow during Lobby Day because they have taught me a great deal about the Political Advocacy Contact Team and how this plays an important part in our professional organization."

Now that she has graduated from her RC program, Patel plans to take what she learned during this year's Lobby Day and put it to work in her own career. "I strive to have increased involvement in my professional organization," she says. "I hope that my participation, awareness, and action will not only have a positive impact on my future as a respiratory therapist, but help us all to deliver the highest quality patient care with the wisest utilization of health care resources." ■

Enter the 2013 AARC Photo Contest

AARC Times is looking for creative members to enter our AARC Photo Contest. Finalists will receive a free one-year membership renewal and have their photo entered into our Photo-of-the-Year Contest with the chance of it being chosen to appear on the March 2014 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 to submit photos is **Oct. 15, 2013**. ■

International Fellowship Program Looking for City Hosts

Every year the AARC sponsors an International Fellowship Program that brings physicians, therapists, and nurses from other countries to our shores to learn more about American-style respiratory care in two cities. It cannot happen without city hosts in each of the localities, and now is the time to step up and volunteer.

Learn more about the program and apply by the **June 1 deadline** at www.aarc.org/resources/international_fellows/. The fellowships take place in the fall just prior to AARC Congress 2013, scheduled this year for Nov. 16–19 in Anaheim, CA.

For more information, contact April Lynch at lynch@aarc.org. ■

RT Student Members: Send Us Your Stories and Editorials

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

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

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

Send in Your Open Forum Abstracts for AARC Congress 2013 by June 1

The AARC invites you to submit abstracts for the Open Forum at AARC Congress 2013. Considered by many to be the premier event at the AARC Congress, the Open Forum is your opportunity to gain national and international recognition for your research in cardiorespiratory care by submitting an original abstract for presentation at the Congress and having it published in Respiratory Care. The deadline to submit abstracts for the Open Forum is **June 1** at http://aarc2013.abstractcentral.com/. ■

Pneumonia Takes a Toll on the Body, Even Years Later

Patients who suffer a heart attack or stroke are known to suffer long-term effects of the condition. New research out of the University of Michigan and University of Washington suggests the same is true for people who are hospitalized with a bout of pneumonia.

According to the study, people who were treated for pneumonia over a nine-year period, including those who did not require critical care, were more than twice as likely to develop new cognitive impairments that often led to disability or nursing home admissions in older adults. They also had nearly double the risk of substantial depressive symptoms and an increased risk of losing the ability to maintain daily life activities such as walking, cooking meals, or being able to use the bathroom without assistance.

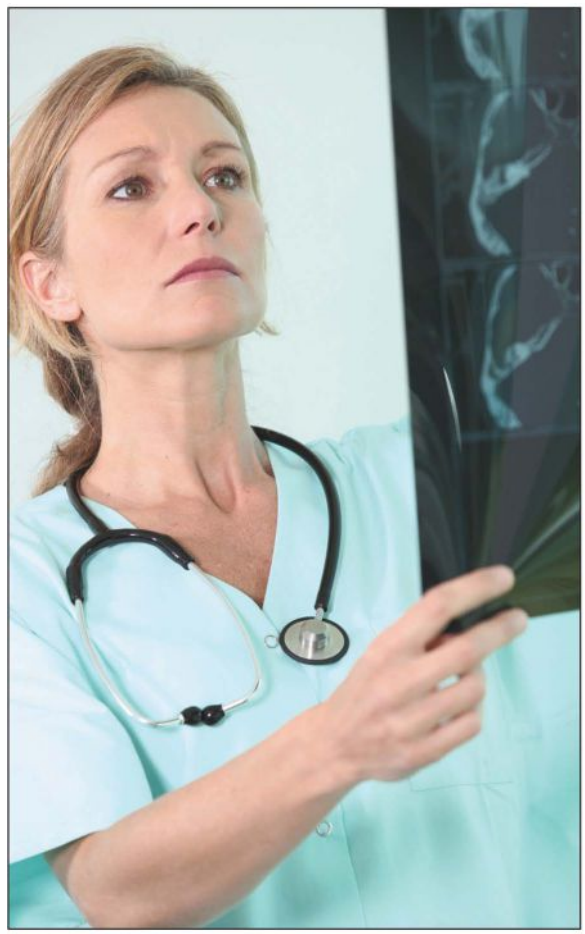
"Even non-critical pneumonia hospitalization can lead to long-term adverse outcomes at a magnitude much greater than we previously thought," study author Dimitry S. Davydow, MD, MPH, was quoted as saying. "Pneumonia prevention and interventions are crucial, given the costly and detrimental consequences for patients." The investigators published their findings in a recent issue of the *American Journal of Medicine*. ■

▶ Transitions

Mari Jones Hopper, RRT, ARNP, AE-C, FAARC, passed away in March. A respiratory therapist and nurse practitioner from Wichita, KS, she was a former member of the AARC Board of Directors and chaired the AARC Program Committee for several years.

Sheila Eno, CRT, passed away earlier this year. She had spent 31 years as a respiratory therapist at Saint Mary's Regional Medical Center in Russellville, AR.

You can submit news about AARC members by going to www.AARC.org/transitions. ■



A Salute to our 2013 Corporate Partners

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

The combined efforts between the respiratory care profession and manufacturers in seeking ways to improve the quality and outcomes of our patients make us natural partners in today's healthcare continuum.

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

Smoking a Bigger Problem for the Mentally Ill

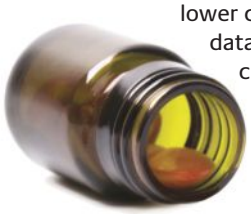
According to the Substance Abuse and Mental Health Services Administration (SAMHSA), adults with mental illness and/or a substance-use disorder make up a disproportionate share of the smoking population. Statistics from the government agency show that while these individuals account for only 24.8% of the population as a whole, they consume 39.6% of all cigarettes smoked.

Overall, 38.3% of adults with mental illnesses or substance-use disorders are current smokers compared to 19.7% of adults without these conditions. "We need to continue to strengthen efforts to figure out what works to reduce and prevent smoking for people with mental health conditions," says SAMHSA Administrator Pamela S. Hyde. ■

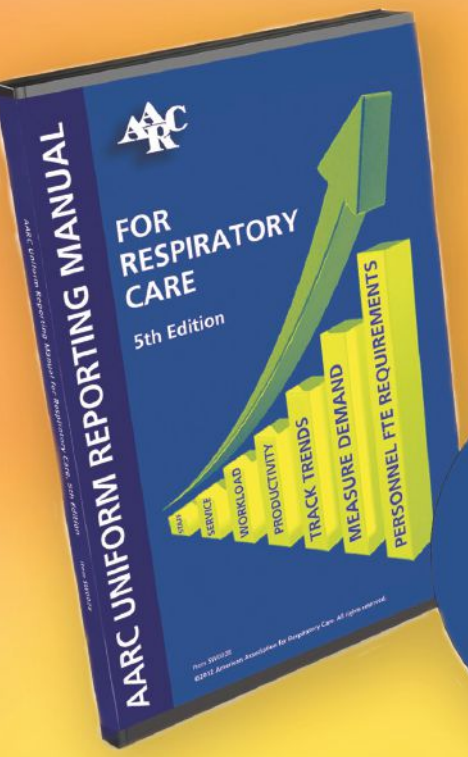
Low Vitamin D Linked to Tobacco-related Cancers

Vitamin D levels may play a role in the development of tobacco-related cancers, report Danish researchers publishing in an online edition of *Clinical Chemistry* last spring. They measured plasma vitamin D levels in blood samples collected in 1981–1983 from 10,000 Danes from the general population and then followed the study participants for up to 28 years through the Danish Cancer Registry.

A tobacco-related cancer eventually developed in 1,081 of the participants. The median vitamin D concentration among these individuals was 14.8 ng/mL versus 16.4 ng/mL in the group overall. The authors believe these findings are the first to show that the risk of tobacco-related cancers is associated with lower concentrations of vitamin D. The data also indicate that tobacco smoke chemicals may influence vitamin D metabolism and function, while vitamin D may conversely modify the carcinogenicity of tobacco smoke chemicals. ■



Tools to Make Respiratory Management Easier



AARC Uniform Reporting Manual for Respiratory Care, 5th Edition

This updated edition is an invaluable resource to analyze productivity, track trends in the utilization of services, establish FTE requirements, and measure demand and intensity of services. Compares activities based on relative workload intensity, providing an objective means of assessing staffing needs. Extending beyond inpatient services, this URM also provides current standards for clinical activities for additional services frequently directed by RTs and includes: Echo/Non-invasive Cardiology Labs; Blood Gas Labs; Pulmonary Diagnostic Labs; Sleep Disorders Labs; Hyperbaric Medicine; and Pulmonary Rehabilitation Services. Standardized worksheets are included for each productivity system. Copyright 2012 AARC.

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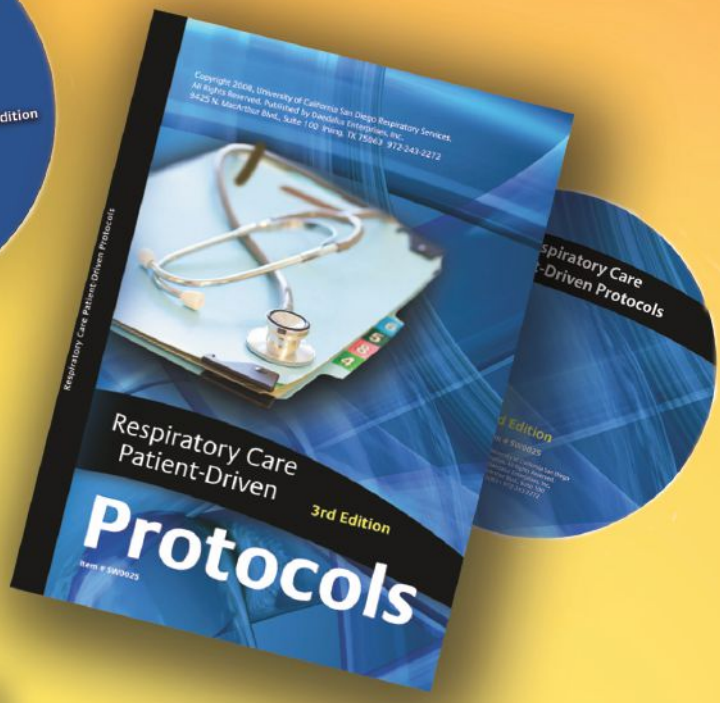

Respiratory Care Patient-Driven Protocols, 3rd Edition

The pressure is on to efficiently operate a respiratory care department more economically. One of the most significant ways to accomplish safe and effective cost savings is through the use of protocols by respiratory therapists. Protocols have been scientifically validated as an effective method to reduce expenses and this manual is an excellent resource for the development, implementation, or refinement of care plans. Contains algorithms with each protocol. Copyright 2008 University of California San Diego, Respiratory Services.

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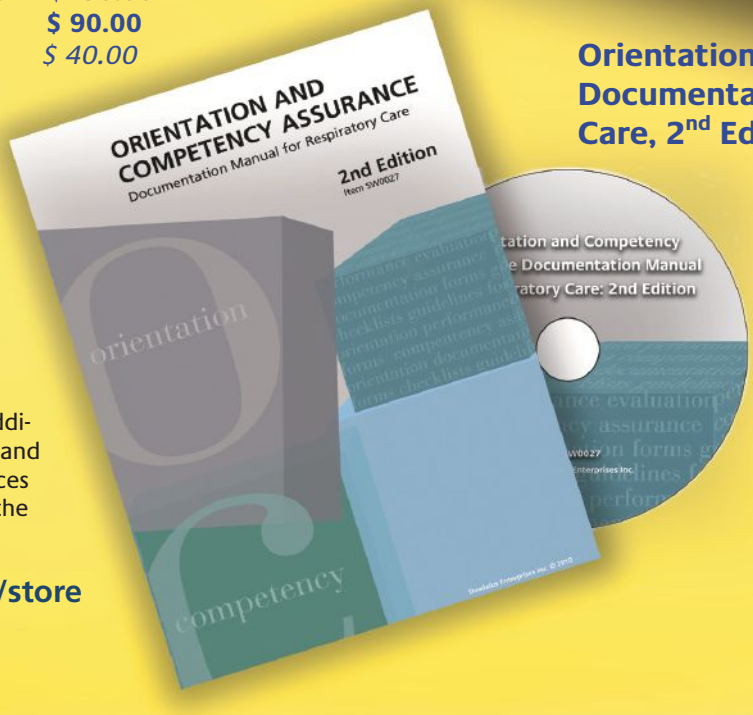

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Diuretics Common in BPD Patients

Long-term use of diuretic medications in preterm infants requiring breathing support is common in the nation's NICUs, despite little scientific evidence on the efficacy of the treatment or side effects. That's the take-home message from Nationwide Children's Hospital researchers who evaluated data on 1,429 infants with bronchopulmonary dysplasia (BPD) over a 54-month period at 35 U.S. children's hospitals.

In hospitals with at least 15 BPD patients, the percentage of infants receiving a diuretic course of longer than five days ranged from 4%–86%. Overall, 86% of the infants received a diuretic, with 84% receiving at least one course of the drug for five days or less, and 40% receiving courses for longer than five consecutive days.

The greatest predictor of diuretic medication use was length of time the infant required on mechanical ventilation. Overall, diuretic courses of less than five days were more common during the first month of life, while courses of more than five days were more common thereafter. "Our baseline findings can serve as the foundation for a prospective comparative effectiveness study to determine whether long-term use of diuretics in BPD patients is truly beneficial," says study author Jonathan Slaughter, MD, MPH. "Additionally, the variations also indicate a real need for guidelines around the use of diuretics in this patient population." The study was published in the March issue of *Pediatrics*. ■

CPAP + Weight Loss = Lower Blood Pressure

Weight loss is known to lower blood pressure, and continuous positive airway pressure (CPAP) therapy in people with obstructive sleep apnea (OSA) can do the same. A new study out of the Perelman School of Medicine at the University of Pennsylvania finds combining the two treatments provides even more advantages.

Investigators randomized 181 subjects with obesity, moderate-to-severe OSA, and high levels of C-reactive protein to one of three arms: CPAP therapy, a weight-loss intervention, or a combination of the two interventions. Brachial systolic blood pressure and brachial pulse pressure were measured in all the participants; and in a subset of subjects, the authors also measured aortic arterial pressure using arterial tonometry.

As expected, subjects randomized to CPAP alone did not experience weight loss, whereas subjects randomized to weight loss or combination therapy experienced a significant reduction in body weight and body mass index. In intent-to-treat analyses after 24 weeks of therapy, reductions in brachial systolic pressure were observed in all three groups; however, the reduction in brachial pulse pressure reached statistical significance only in combination therapy. Among compliant subjects, the reduction in brachial systolic blood pressure was significantly larger in the combination therapy arm (14.1 mm Hg) compared to either CPAP alone (3 mm Hg) or weight loss alone (6.8 mm Hg).

Interestingly, CPAP also induced a reduction in central pulse pressure, which was not evident from brachial pulse pressure measurements. The study was presented at the recent meeting of the American College of Cardiology. ■

Waste Not, Want Not: Smokers Often Relight

Tough economic times are causing more and more people to relight the ends of cigarettes that had previously been put out, report researchers from The Cancer Institute of New Jersey. So while statistics show that more people are smoking fewer cigarettes due to cost concerns, they may actually be exposing themselves to just as many toxins.

The study explored relighting behavior among 496 smokers seeking tobacco-dependence treatment. Forty-six percent reported relighting cigarettes, and this group did smoke fewer cigarettes per day — 16 on average versus 20 among the group that did not relight. Researchers report relighting was more common among women, African-Americans, and smokers who were divorced, widowed, or separated. The behavior was also more prevalent among smokers who started smoking at younger ages, those who had fewer cigarettes to smoke per day, those who smoked menthol cigarettes, and those who reported waking up at night to smoke.

People who were unemployed, sick, or disabled, or who had a high school degree or less, were more likely to relight as well. The study was presented earlier this year at the meeting of the Society for Research on Nicotine and Tobacco. ■

Steroids Linked to Shorter Stay for Pneumonia

Adding steroids to antibiotics and supportive care for older people with pneumonia may shorten the overall length of hospital stay. That's the key finding from a new study out of the Mayo Clinic that reviewed eight clinical trials involving more than 1,100 patients. While the mortality rate did not drop for patients treated with steroids, they did get out of the hospital an average of 1.21 days quicker than patients not treated with steroids.

The authors stop short of recommending steroids on a routine basis but believe these findings warrant more study. "Given that the average hospital stay for community-acquired pneumonia can range from nine to 23 days, the prospect of speeding recovery, even by a day or two, is helpful," study author M. Rizwan Sohail, MD, was quoted as saying. The study was published in the March issue of the *Journal of Hospital Medicine*. ■

Combo Flu Vaccine May Offer Long-lasting Protection, Say Researchers

Investigators from the Perelman School of Medicine at the University of Pennsylvania are working on a novel influenza vaccine that could potentially offer long-lasting protection against the virus. Specifically, they are combining the virus-specific CD8 T cells and non-neutralizing antibodies to cooperatively elicit robust protective immunity.

"The two-pronged approach is synergistic; so by enlisting two suboptimal vaccine approaches, we achieved a better effect than each alone in an experimental model," study author E. John Wherry, PhD, was quoted as saying. "Now, we are rethinking past approaches and looking for ways to combine T-cell vaccines and antibody vaccines to make a more effective combined vaccine."

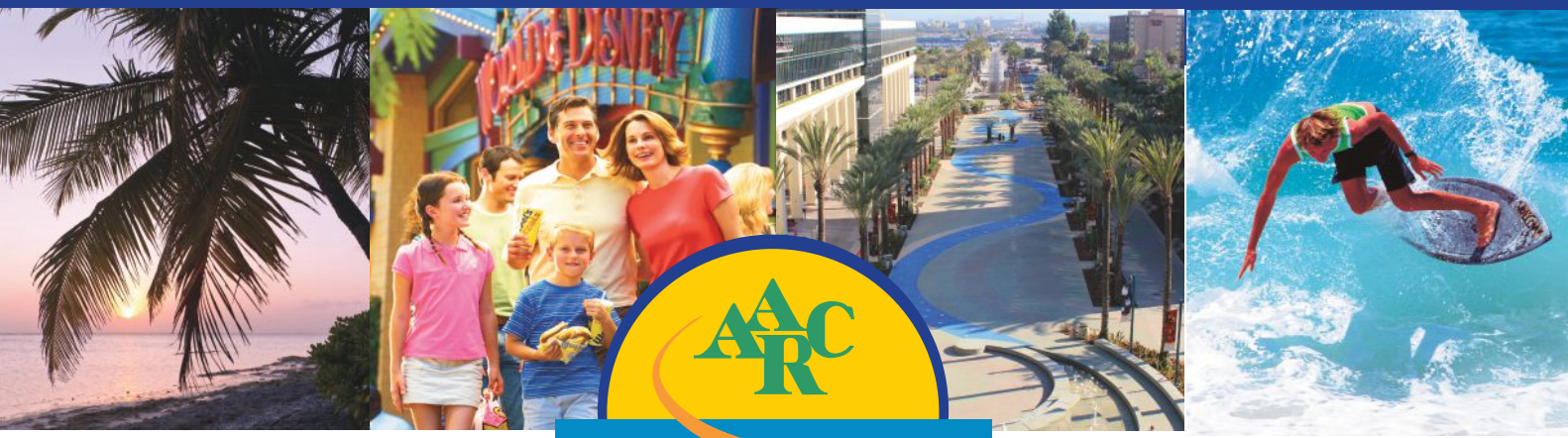
The researchers published their results in a recent issue of *PLOS Pathogens*. ■

Lung Function in Infancy Associated with Wheeze at Age 18

Reduced lung function in infancy can lead to long-lasting problems with wheeze, find Australian researchers publishing online in *JAMA Pediatrics*. The study included participants from a birth cohort who had been followed from one month to 18 years. At age 18, 150 participants were assessed; and 37, or 25%, had recent wheeze. Twenty, or 13%, were diagnosed with asthma.

Compared with the no-wheeze group, persistent wheeze was independently associated with a mean reduction of 43% in percentage of predicted maximal flow at functional residual capacity. Persistent wheeze was also associated with atopy in infancy and active smoking.

"These results suggest that reduced early airway function and later exposures such as smoking are important to the cause of obstructive respiratory diseases in young adults," write the authors. "Interventions aimed at preventing young children with asthma symptoms and reduced lung function from smoking might prevent persisting symptoms of obstructive airways disease." ■



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Calendar of Events

AARC & State Society Programs

May 15–16
Bangor, ME
MSRC's The Maine Event
Contact: Norma Hay at (207) 799-0611 or normahay@hotmail.com

May 29–31
Riverdale, IL
Illinois Society for Respiratory Care's Annual Conference and Exhibition
Contact: Douglas McQueary, (773) 962-4086

June 6–7
Round Top, NY
NYSSRC's 26th Annual Respiratory Care Managers/Educators Conference
Contact: www.nyssrc.com or Ken Wyka at (518) 744-2347

June 13–14
Shawnee, OK
OSRC's 49th Annual Meeting
Contact: Patrina Nesbitt, pnesbitt@chcares.com

July 15–17
Orlando, FL
AARC Summer Forum
Contact: AARC, (972) 243-2272, www.aarc.org/education/meetings

July 24–26
Biloxi, MS
42nd Annual TriState Respiratory Care Conference
Contact: TSRCC Registrar, www.tsrcc.net

July 29–30
Columbus, OH
Ohio Society for Respiratory Care's 35th Annual State Meeting
Contact: Joe Huff, www.osrc.org

September 25–26
Sturbridge, MA
MSRC's 36th Annual Meeting
Contact: Valeri-Ann Bolduc, O2val@aol.com

September 25–27
Hot Springs, AR
42nd Annual ASRC State Meeting and Educational Seminar
Contact: John Lindsey, (501) 620-3281

September 26–27
Mars, PA
PSRC's Western Regional Conference
Contact: Thomas Lamphere, (215) 687-2904, www.psrc.net

September 30 – October 1
Frankenmuth, MI
Michigan Society for Respiratory Care's Fall Conference
Contact: (866) 989-6772

October 3–4
Indianapolis, IN
Indiana Society for Respiratory Care's 39th Annual Fall Seminar
Contact: Pat Ingle, (317) 962-5058

October 20–26
Respiratory Care Week
Contact: AARC, (972) 243-2272, www.aarc.org/rcweek

October 23
Lung Health Day
Contact: AARC, (972) 243-2272, www.aarc.org

November 1
Urbandale, IA
Iowa Society for Respiratory Care's Annual Meeting
Contact: Amy Weiford, (319) 296-2329

November 16–19 (Saturday–Tuesday)
Anaheim, CA
AARC Congress 2013
Contact: AARC, (972) 243-2272, www.aarc.org/education/meetings

December 5–6
Springfield, MO
MSRC's 9th Annual Fall Specialty Conference
Contact: Christopher Cox, (417) 659-6590

Other Meetings

June 14–15
Chicago, IL
COPD8USA
Conference sponsored by COPD Foundation, Respiratory Health Association, and University of Nebraska Medical Center
Contact: (866) 316-COPD (2673) or info@copdfoundation.org

Submissions for the next available issue are due June 19.

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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[1] EMMA Users Manual.