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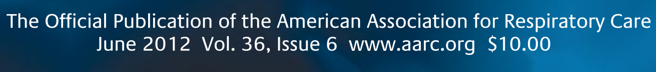
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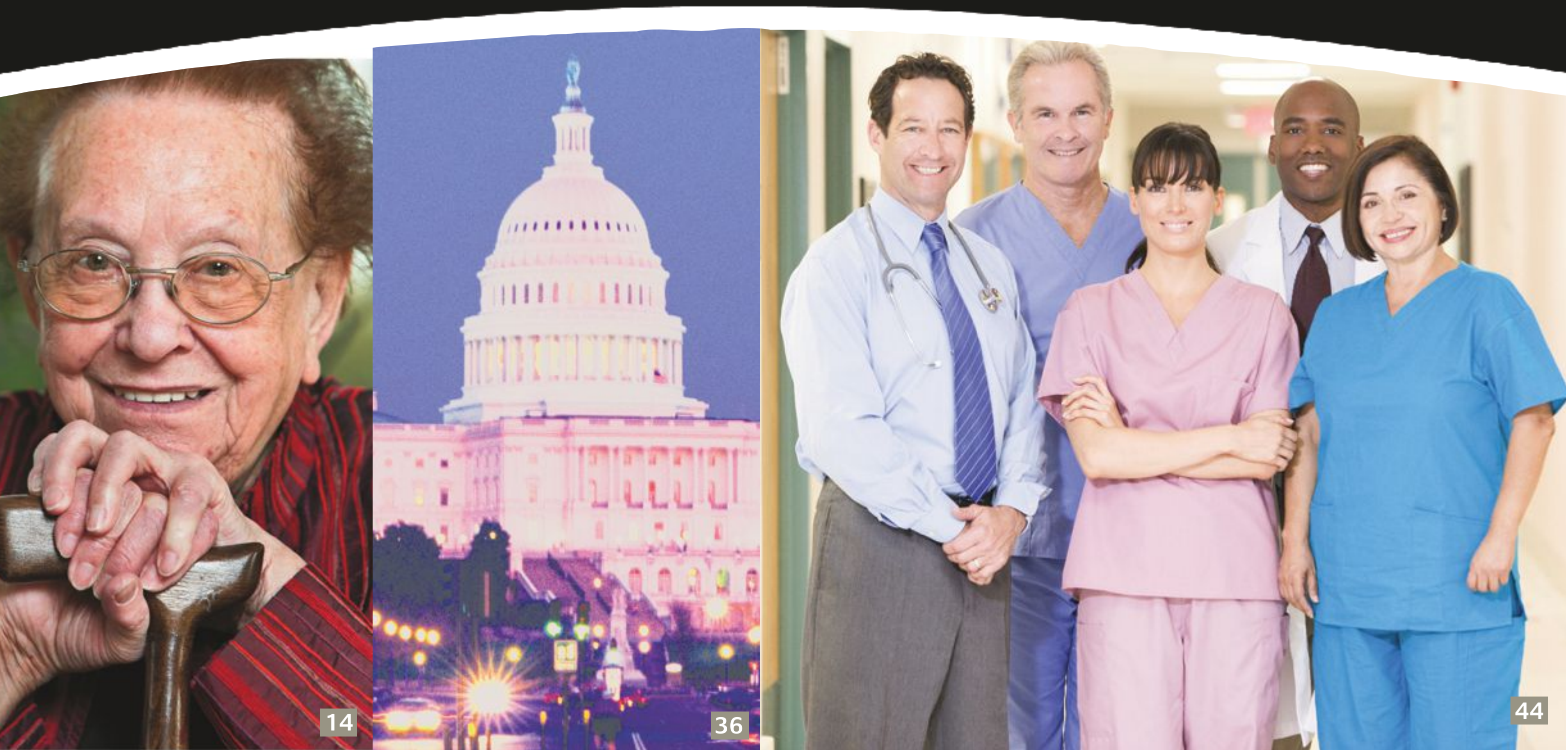

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AARC Strategic Plan

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

AARC Strategic Objectives

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

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

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

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

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

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The AARC represents you at various state and federal regulatory agencies including the Centers for Disease Control and Prevention working group on VAP Surveillance. AARC member and Respiratory Care journal Editor in Chief Dean Hess, PhD, RRT, FAARC, is the AARC representative to this CDC group, which is part of the National Healthcare Safety Network. Learn more on page 62 of this issue.

Information Resource

The AARC website is your resource for all things respiratory. It is where you will find research, networking, *AARC Times* magazine, Respiratory Care journal, links to state societies, connections to federal regulatory agencies, continuing education, advocacy, community outreach programs, professional assistance, patient support, links to other professional organizations, and much more. Find it all at http://www.aarc.org/

Personal Insurance

Your AARC membership can help you protect your assets. That is why the AARC teamed up with GEICO to offer insurance products at a savings for AARC members. Check it out at http://www.geico.com/disc/aarc

The Clinician's Guide to PAP Adherence

The AARC has developed the PAP Adherence Guide to help respiratory therapists better communicate with sleep-disordered breathing patients, identify why adherence is poor, and intercede with interventions that may improve compliance. 4.0 CRCE. Free to AARC members. Find the Guide at http://www.aarc.org/education/pap_adherence/

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AARC Members

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, because this is a profession that nurtures friendship and a sense of community.

AARC membership continues to grow; and as we send this issue to the printer, we're over 52,000 members. Turn to our cover story, the "AARC 2011 Annual Report of Activities and Finances," to learn all about what your professional association has been doing for respiratory therapists and patients over the past year.

If you have not recently looked at the AARC benefits and services, please look again, because they continually change to meet the needs of RTs around the world. We value your membership in the AARC and look forward to continuing this important relationship throughout this, our 65th year of service to the respiratory care profession, and beyond. You make it happen — thank you! ■

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A Salute to our 2012 Corporate Partners

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

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

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

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The Path to the Dark Side

by Anthony L. DeWitt, JD, RRT, FAARC

"But beware. Anger, fear, aggression. The dark side are they. Once you start down the dark path, forever will it dominate your destiny."

– Yoda to Luke Skywalker

When I was a child, I could never understand why my mother was not around. I knew she loved me because she would always tell me that when she would from time to time see me. But I wondered what it was about me that made it so hard for her to spend time with me. My mother was an alcoholic. Try as hard as she might, and she tried hard for many years, the vicious cycle of addiction held her firm in its grasp and seldom let her lead a normal life. It was not until I was well into my teens that my mother kicked her drinking problem and went on to do so many great things. But when Yoda spoke those lines in "Return of the Jedi," I knew immediately what he was talking about. For those who have the gene for addiction, the path to the dark side comes in bottles, vials, and pills.

Disciplinary actions

From time to time when I speak to groups of therapists all over the country, I talk about the problems that get therapists' licenses sanctioned. I use the great database of disciplinary actions from a Western state as an example. It is impossible to read through the disciplinary actions without recognizing that the single greatest cause of therapist discipline in that state and most other states is alcohol or drug abuse.

While alcohol is a legal substance, far too many therapists, in order to cope with some of the horrors they see on a daily basis, resort to it for comfort. They consume too much, and frequently they make bad decisions. Sometimes those decisions involve driving. Often these therapists lose their lives or kill others while under the influence. Even those who survive such an event are never the same.

Other times those alcohol-influenced decisions involve taking out their unrestrained anger on those they love and those closest to them. Often the police are called. And true to form every one of them wakes up the next morning truly and heartily sorry… until the next time. More marriages are destroyed by alcohol, and more children's lives are ruined by it than can ever be captured by statistics.

Alcoholics are also great manipulators. They know how to hide their habit, they know how to explain it, they offer convincing excuses, and they frequently are very likeable and loveable people when they are not consuming. And so when others get chastised for being late, the "good old boys" are frequently excused. Everyone knows that Jim Bob is going to be a little late for report on a Sunday morning shift. Jim Bob always stays out late on Saturdays!

Those of us who do that — and yes, I've been as guilty as anyone out there — are enablers. We hold these folks to a lower standard. We try to be "understanding," but alcoholism is a zero-tolerance disease. People only get better through tough love. And if you don't hold everyone to the same standards in your organization, if you play favorites, you're inviting a discrimination lawsuit. You are also jeopardizing patients!

Drug addicts are also great at camouflaging their disease. They become adept at scooping up the unused vial of meperidine or diazepam when no one's looking. They

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.

work in a hospital; they have access to lots of clean syringes. They are the first to volunteer to dispose of narcotics. They are more than happy to get a drug out of the Pyxis unit for someone else. They can be cruel too, refilling narcotic vials with sterile water to cover their usage. Often they do not get caught until they go down themselves from an overdose. But like a bartender with a drinking problem, a drug addict working at a hospital is floating in a sea of temptation. One client once described it as being like a diabetic working in a candy store. The temptations are always there. Recidivism is very likely.

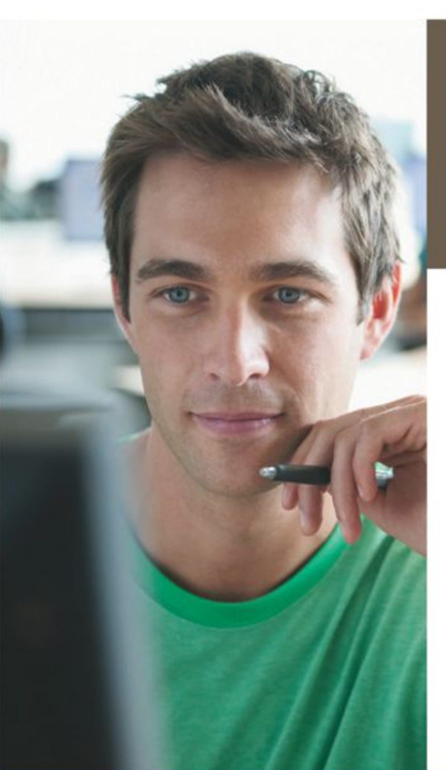
Who suffers?

Obviously, the patients do. For every therapist or nurse who is discovered to have a drug problem or an alcohol problem, there are a dozen or more co-workers who knew and who tried to help them cover it up. There are scores of small errors, some caught and some never caught, that created risks for patients. But everyone kept their mouths shut. They didn't want to see their friends get in trouble. Most never stopped to consider if the patients entrusted to the caregiver were in fact getting the care they deserved.

No one likes whistleblowers. No one likes "rats" or "squealers." But when you signed on to a profession, you agreed to put what was best for you behind what was best for your patients. You agreed to be responsible not just for yourself, but to be your brother's keeper, too. And in most states, if you know of an impaired caregiver and take no action, you are committing an act that could cause your license to be disciplined.

The hardest thing in the world is to take someone who is genuinely likable and tell them that they have to get professional help before they come back to work. You'll get anger, resentment, and sometimes, outright panic from the person you thought of as your friend. But if you really want to do what's right for your friend and your patients, you have a moral and a legal responsibility not to let impaired caregivers work.

The patients, and their families, will respect you for doing the right thing even if your co-worker does not. It is far easier to lose a friend than to watch a friend lose his life to alcohol or drugs… or to hire someone like me to defend your license because you looked the other way. ■



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The "Pulmonary Rehabilitation Toolkit" and How *You* Can Play an Important Role in Fixing the Pulmonary Rehabilitation Payment Problem

by Anne Marie Hummel

If you are a respiratory therapist working in a hospital outpatient pulmonary rehabilitation (PR) program, you are most likely aware that Medicare payment for these PR programs was dramatically reduced at the beginning of this year. Why is the payment so low? In order to understand the problem today, you need to know what happened in the past.

Let's take a step back to January 2010 when the PR benefit went into effect and the Centers for Medicare and Medicaid Services (CMS) assigned the new bundled code G0424 to report and bill claims. "Bundled" means G0424 is a single code that takes into account multiple services that previously would have been reported under several existing codes before the PR benefit went into effect.

According to CMS, creation of a new bundled code was necessary because CMS "did not assume that the charge reported on any *one* of the previously existing HCPCS codes under which pulmonary treatments were reported would *represent the full charge* for the comprehensive pulmonary rehabilitation service." Because the benefit was just getting started, CMS did not have any data on the new code G0424, so they created a "proxy," or simulated model, of what they believed was the best estimate of the expected cost of a PR session under the new benefit. Understanding how they set the payment rates the first two years of the benefit is important to understanding what happened in calendar year (CY) 2012 when payment took a dramatic downturn.

To set the payment rate for CY 2010, CMS looked at claims that contained at least one unit of Healthcare Common Procedure Coding System (HCPCS) code G0239, (the respiratory group code, which has no time duration assigned to it) and at least one unit of either G0237 or G0238 (respiratory codes that require individual face-to-face interaction with the patient reported in 15-minute increments).

CMS's review of the data concluded that on a single date of service, patients received some individual and some group services and that their findings were consistent with public comments provided by the AARC and other pulmonary societies. Those statements said that while PR is often provided in group sessions in the hospital outpatient department, it is common for patients to require additional one-on-one care in order to fully participate in the program.

about the author...

Anne Marie Hummel is the AARC's director of regulatory affairs in Washington, DC.

In addition to these services, CMS also included in their "proxy" model all costs of the related tests and assessment services, and all the costs of all Current Procedural Terminology (CPT) codes for established patient clinic visits when such codes showed up on the same date of service as HCPCS codes G0237, G0238, and G0239. For example, services CMS considered included CPT codes:

- 94620, pulmonary stress testing; simple (e.g., 6-minute walk test, prolonged exercise test for bronchospasm with pre- and post-spirometry and oximetry);
- 94664, demonstration and/or evaluation of patient utilization of an aerosol generator, nebulizer, metered-dose inhaler or IPPB device; and

- 94667, manipulation chest wall, such as cupping, percussion and vibration to facilitate lung function; initial demonstration and/or evaluation.

Without going into all the technical details as to how all this affects setting a payment rate, suffice it to say that the services that comprise a comprehensive PR program as envisioned under the new benefit resulted in a payment rate per session of approximately $50 for the first year of the program. And since it takes data a couple of years to catch up in the system, for CY 2011 CMS followed the same "proxy" model in setting the payment rate per session at $63.

Present day reality

When CY 2012 rolled around, however, it was a different story. Despite recommendations from the pulmonary multi-societies — AARC, American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR), American Thoracic Society, American College of Chest Physicians, and National Association for Medical Direction of Respiratory Care — that they stay with the simulated model at least one more year to give hospitals a chance to get over the learning curve of dealing with a new bundled code for PR, CMS decided it now had sufficient claims and cost data using HCPCS G0424 to move away from the "proxy" model.

Using its standard process for determining payment rates, CMS found the median charge for one unit of G0424 to be approximately $150. The median charge is a very important element of the cost methodology CMS uses to come up with a payment rate. Therefore, the fact that the CY 2010 median charge hospitals reported appears to be very low accounts in part for why the payment rate ended up at $37. In pointing out the differences in this year's rate versus the previous two years, CMS notes that it assumed hospitals would include charges for all the services that comprise a comprehensive PR program, which had been reported separately when they submitted charges for HCPCS code G0424. Obviously, that did not happen. Also, we can assume that CMS did not overestimate the payment rates it set initially using the "proxy" method.

Therefore, *we have to look to the hospitals' misunderstanding of the pricing methodology used to determine the bundled services in reporting charges for HCPCS G0424 as the single most important reason why the payment rate took such a significant drop this year.*

It all comes down to the fact that the charge hospitals submitted on their claims form (UB-04) under-represents the cost of providing the individual services described by the new bundled code G0424.

So, what is the answer to fixing the problem? Educating hospitals on where they went wrong and what they need to do in the future to ensure their claims accurately reflect what it takes to run a PR program. Of course, over 1,000 hospitals reported claims for G0424 to CMS for CY 2010, and it will be no small task to educate the staff who set the charges in these hospitals. That is where respiratory therapists and the new "Pulmonary Rehabilitation Toolkit" can help.

An educational resource you need to know about

The PR payment reduction has had a devastating effect on some programs that have been forced to close, and we all know that patient access can be compromised if things do not change. Unfortunately, there is no short-term solution. However, with a concerted effort by PR professionals who are members of the pulmonary multi-societies mentioned above and others, we can make a difference and set future payments on the right course.

That is why AARC is calling on its respiratory therapists who work in PR programs across the country to get involved. You are the most knowledgeable about what it takes to provide PR services, and you are the best advocate for the patient.

The **Toolkit** is available on the AARC website (www.aarc.org/resources/pulmonary_rehab_toolkit/) together with other resource documents, including CMS regulations that explain in detail the process they used to set the payment rates. If you are still not certain you understand the problem after reading the information in the Toolkit or are uncertain about the role you can play in helping to implement it in your facility, you can contact one or more of the individuals listed in the Toolkit for further assistance (through *AARConnect*). Gerilyn Connors, BS, RRT, FAARC; Debbie Koehl, MS, RRT-NPS, AE-C; and Trina Limberg, BS, RRT, FAARC, are AARC members.

Here are the key components of the Toolkit:

Checklist: A key element in the Toolkit is a checklist that every PR program should follow in establishing charges for the single bundled code HCPCS G0424. Since the multi-societies do not have access to the data submitted to CMS, we do not know what hospitals considered in establishing the charges for their PR services. There are a lot of variables to consider. The Toolkit outlines the steps to get answers, such as finding out who is responsible for computing your hospital's charges (e.g., the chief financial officer, compliance officer, or other administrative

position within the hospital) and scheduling an appointment with that person.

Services, Equipment and Supplies: Knowing which services the hospital is providing that it would charge for separately if allowed is vital to developing an accurate charge for HCPCS G0424. The Toolkit lists as many as 27 possible codes that fall into this category. For example, does your program have a physical therapist who is part of the multi-disciplinary team and may be called upon to evaluate a patient and assist in the treatment plan? Do you or another RT in the program provide smoking-cessation services? Does the hospital consider these services when it sets the charge for G0424? Because the bundled code covers a broad spectrum of Medicare beneficiaries who have moderate, severe, and very severe COPD, each individual treatment plan can vary in the degree and types of services that are furnished within the program, even though the payment rate is the same for each. The Toolkit gives you a glimpse at the various resources and utilization intensities that are characteristic of the services relative to the severity of the patient's condition. Your program should consider this spectrum of care when developing its charges.

Services are just one aspect that a hospital should consider when developing the charges for G0424. Do not forget that supplies and equipment are also integral to the program and should be part of any computation of charges for PR services. The Toolkit provides an extensive list of supplies and equipment covering exercise equipment, department equipment and supplies, software, written supplies, books, and department furniture and accessories.

Methodology To Establish an Appropriate Charge for G0424: The Toolkit guides you through each step of the process in calculating an appropriate charge for G0424. This item was suggested by those hospitals that participated in the beta testing of the Toolkit prior to its nationwide release. It was important to find out if what the multi-societies established made sense when developing this Toolkit, and it was something that hospitals felt comfortable using. At least 15–20 diverse programs representing a cross-section of urban and rural, large, and small programs were randomly selected to evaluate the Toolkit.

How you can help your PR programs and your patients

It will take a massive effort to convince hospitals that they need to make changes to the claims data they send to CMS so that future payments are based on accurate information. The sooner we get started, the sooner CMS will have better data. Here are some suggestions on how you can help:

- If you work in a hospital outpatient PR program, read the Toolkit as soon as possible and familiarize yourself with the educational initiative. If you know of other RTs who work in these programs, contact them and get them involved.

- Work with your PR program director or find out who in your hospital is responsible for establishing your program's charges, then follow the checklist in the Toolkit for guidance in scheduling a meeting with that individual to discuss the problem. Hospitals typically have their own unique pricing methods, and they can work with you to help establish the appropriate charges for the individual services that comprise the comprehensive PR program.

- Do not hesitate to contact one of the resource personnel listed in the Toolkit, who can help answer your questions if you are unclear how to proceed.

Because of the lag in the data CMS uses to compute its payment rates, we most likely will not see any significant change in payment until CMS announces the proposed CY 2014 rates in July 2013. However, it will take time for the effort to produce outcomes, perhaps anywhere from 6–18 months. That is why you and others need to get involved as soon as possible.

The AARC held a webcast for its members on March 28 to provide step-by-step instructions on how you can educate your finance department on the combination of services involved in G0424. Almost 500 participants were on the call. If you missed the program, you can still view it in the **AARC Webcast Central Archive** (www.aarc.org/education/webcast_central/past_programs.cfm). Also, thanks to our Bonus Webcast Program for Specialty Section members, as a Continuing Care/Rehabilitation Section member, you can still earn one free continuing respiratory care education (CRCE) credit for viewing the webcast and passing a short post-test.

We cannot emphasize enough the importance of this initiative, so we are counting on you to spread the word. You CAN make a difference! So get on the bandwagon to get better payment for the care of your patients. ■

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Age-specific Care for the Elderly Patient

by Mary Hart, MS, RRT, FAARC

Let's say you are told during report that you will be caring for a patient with no hair on his head who does not speak. Do you have a mental picture of this patient? Do you imagine a newborn? A brain-injured teenager post neurosurgery? A middle-aged man who has received surgical and chemotherapy treatments? An elderly man who has had a cerebrovascular accident? The description might fit any of those patients. However, you care for each one quite differently because each age group has unique characteristics and needs: physical, psychosocial, cognitive, and major fears. Age-specific categories are designated as neonatal and infant, child and adolescent, adult and geriatric. In some aspects of care, actions vary greatly with the age of the patient:[1]

- Performing physical assessment and interpreting the findings
- Administering medications
- Assessing and addressing nutritional status
- Communicating with or encouraging the patient, using appropriate style and complexity of language, oral and written, explaining interventions/procedures
- Involving the patient in care and decision making
- Providing instruction and education; choosing appropriate techniques and tools
- Selecting medical equipment and supplies
- Assisting the patient to cope with illness
- Assessing risk for injury and instituting preventive measures.

This article will focus on geriatric age-specific care.

Mary Hart, MS, RRT, FAARC, is manager of the Martha Foster Lung Care Center at Baylor University Medical Center in Dallas, TX, and chair of the AARC Geriatrics Roundtable.

Effective communication skills

Baby boomers are aging and the number of elderly patients increasing. Respiratory therapists need the skills and tools to perform thorough evaluations and to be very competent in their ability to communicate with their elderly patients. Good communication skills include the ability to:[1]

- Carefully assess and validate the need for modified communication techniques (dementia, vision, hearing, and cognitive functioning).
- Communicate respectfully and in a manner that preserves dignity. Ask the patient how they prefer to be addressed. Avoid terms such as honey, sweetie, and dear.
- Use communication strategies to meet patients' needs. Speak slowly at an adequate volume needed to ensure effective communication. High-pitched sounds such as women's and children's voices are the first tones to be lost. Lowering the tone of your voice will enhance the ability to be heard. Face the patient, speak slowly and distinctly. Use closed-ended questions. Communicate one thought at a time and allow adequate time for your patient to process the thought.
- Provide adequate time for decision making and problem solving.
- Assure participation in decision making: advance directives, do not resuscitate (DNR), informed consent.
- Assess barriers (drug interactions, dementia, delirium, disease state, hypoxia, depression) that impact patients' understanding of information, following directions, and expressing needs.

- Demonstrate familiarity with adaptive devices (hearing aid) and assure the use of needed communication aids, including glasses or magnifiers.
- Direct instructions/information to patient/family/care partner.
- Communicate respectfully and preserve their dignity when performing physical care.

Common age-related changes for the elderly

Our bodies change with age, and more dramatic changes may be seen when disease is present. Impaired vision, hearing, nutrition, cognition, ability to perform activities of daily living (ADLs) are a few. Further discussion and assessment tools are listed below:

Vision impairment: Those with visual impairment are twice as likely to have difficulties performing ADLs. Changes in vision affect quality of life, mental health, home and community activities. They have difficulty reading prescription labels and handling personal finances. The most common causes of vision impairment in older persons include presbyopia, glaucoma, diabetic retinopathy, cataracts, and age-related macular degeneration.[2]

Hearing impairment: Hearing loss prohibits patients from understanding conversations, contributes to cognitive decline, and leads to social isolation. It is the third most chronic impairment for older people. Screening methods include the "Whisper Test" that can be performed with the person at a fixed distance *behind* the patient's ear and whispering a short set of random words.[3] If the patient can repeat less than half the words, a formal examination is indicated.[4]

Mobility: Balance and gait disorders affect 10–15% of elderly patients who suffer increased risk for falling. Billions of dollars are spent annually to care for patients with fall-related fractures. Performance of ADLs depends on the patient's ability to maneuver safely in their environment. The "Get Up and Go Test" evaluates gait and balance.[3] The patient is asked to stand up from a chair, walk a short distance, turn around, return to the chair, and sit down again. A 5-point scoring scale is used with a higher score indicating greater gait and balance problems, and increased risk.

Cognitive function: Dementia is the most common cause of cognitive decline among the elderly. Alzheimer's is associated with physical decline, increased risk for falling, delirium, and depression. Decreasing functional ability often necessitates the need for acute and long-term care. With no cure for most, it is important to identify the disease in the early stages so that treatment can be instituted and factors that are reversible can be treated. One easy assessment tool to identify dementia is the "Clock Drawing Test."[3] The patient is given a sheet of paper with a large circle on it, instructed to draw numbers in the circle to make it look more like the face of a clock and then to draw the hands on the clock to read "10 after 11." Rating score is 1–6. A score of 3 or greater represents a cognitive deficit. Examples of errors include drawing numbers outside the circle, writing "10 after 11," poor spacing, or no attempt at all.

Depression: A large number of elderly patients have undiagnosed depression. The Geriatric Depression Scale, a self-reported questionnaire, can be used to screen for depression.[3] Scoring is based on answers to specific questions. A score of 5 or greater suggests depression.

Nutrition: Determining malnutrition in the elderly is not easy. A useful indicator is a loss of weight from baseline or the development of anorexia. Weight loss of more than 5% of total body weight, or five pounds in one month, or 10% or 10 pounds in six months is significant. Combining information about changes in weight, appetite, and a

change in how clothing fits may be the best way to assess nutritional status of the elderly patient.

Two National Patient Safety Goals that are critical to caring for the elderly are identifying patients at risk for falling and reconciliation of patient medications.[5]

Falls present a serious threat to the elderly patient. Patients who have fallen previously have an increased risk for future falls: 70% of all persons dying as a result of a fall are elderly; 50% die within a year from suffering a hip fracture if they are 75 years of age and older. According to Mezey, elderly patients are at higher risk for falling because the following factors are likely to be present:[6]

- Cognitive impairment
- Medications that can cause disorientation, hypotension, hypoglycemia, or weakness
- Impaired mobility
- Elimination problems
- Acute illness (pneumonia, urinary tract infection)
- Mobility or cognitive limitations due to disease or treatment
- Unsafe environment — throw rugs, inadequate lighting, cluttered walkways, absence of grab bars, unstable railings, unstable tables and chairs, hard-to-reach cupboards and light switches, uneven floor or wet surfaces
- Sensory deficits
- Alcohol use
- Postural hypotension
- Depression
- Assistive devices
- Frailty

Hospitals have fall prevention measures in place that all health care providers and visitors should follow. Actions you can take to prevent the patient from falling in the hospital include keeping the room free of clutter, keeping the call bell within reach, and reminding the patient to call for help to get out of bed.

Medication reconciliation

Many of us deal with medication reconciliation for our patients and are familiar with the large number of medications being prescribed by multiple physicians for elderly patients. Although medication reconciliation is a national patient safety goal for all health care providers, the record is often incomplete. The list of prescribed and over-the-counter medications allows us to closely monitor for drug interactions and adverse effects related to decreased clearance of drugs in the elderly.

Assessing, evaluating, and educating

In summary, age-specific care for the elderly requires skills in assessing and evaluating each patient, using standard age-related evaluation tools, developing an individualized care plan, and educating the patient. Most importantly, clinicians must be able to communicate with patients and families/care partners effectively. ■

REFERENCES

1. RN.com (AMN Healthcare Education Services) website. Age specific considerations in patient care. Available at: www.RN.com *Accessed Jan. 10, 2012*
2. Elsawy B, Higgins KE. The geriatric assessment. Am Fam Physician 2011; 83(1):48-56.
3. The University of Iowa (Iowa Geriatric Education Center) website. Geriatric assessment tools. Available at: www.healthcare.uiowa.edu/igec/tools *Accessed Jan. 10, 2012*
4. Miller KE, Zylstra RG, Standridge JB. The geriatric patient: a systematic approach to maintaining health. Am Fam Physician 2000; 61(4):1089-1104.
5. The Joint Commission website. National patient safety goals. Available at: www.jointcommission.org *Accessed Jan. 10, 2012*
6. Mezey MD, Rauckhorst LH, Stokes SA. Health assessment of the older individual, 2nd ed. New York: Springer Publishing Company; 1993.

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Hospital to Home Transitions: COPD Best Practices

The model of healthcare is rapidly changing. Hospitals will now be held accountable for outcomes of patients following discharge. Therefore, hospital-based RTs and home care RTs must collaborate to optimize the care of the patient while in the home. This symposium will provide practical opportunities and best practices to better provide care of the COPD patient in the hospital and in the home.

Lung Protective Ventilation

While ventilators are used for healing purposes, they can also cause harm to the patient if not ventilated properly. This symposium will address the concern for lung injury during mechanical ventilation and steps on how to avoid it. Internationally recognized experts will discuss ideal PEEP, tidal volume, and targets for gas exchange, while the 4th speaker will discuss lung protective opportunities with newer, advanced modes of ventilation.

* Topics are subject to change

Find out more and register at www.AARC.org/education/meetings.

Management of Cystic Fibrosis

by Ginger Browning, BS, RRT

Cystic fibrosis (CF) is an inherited chronic disease that affects about 30,000 children and adults in the United States (70,000 worldwide). CF is an autosomal genetic disease affecting most critically the lungs and also the pancreas, liver, and intestine. It is characterized by abnormal transport of chloride and sodium across epithelium, leading to thick, viscous secretions.[1]

The name *cystic fibrosis* refers to the characteristic scarring (fibrosis) and cyst formation within the pancreas, first recognized in the 1930s. Difficulty breathing is the most serious symptom and results from frequent lung infections that are treated with antibiotics and other medications. Other symptoms, including sinus infections, poor growth, diarrhea, and infertility affect other parts of the body.[1]

CF is caused by a mutation in the gene for the protein cystic fibrosis transmembrane conductance regulator (CFTR). This protein is required to regulate the components of sweat, digestive fluids, and mucus. Although most people without CF have two working copies of the CFTR gene, only one is needed to prevent cystic fibrosis. CF develops when neither gene works normally and, therefore, has autosomal recessive inheritance.[1]

In the early 1950s, few children with cystic fibrosis lived to attend elementary school. Today, advances in research and medical treatments have further enhanced and extended life for children and adults with CF. Many people with the disease can now expect to live into their 30s, 40s, and beyond.[1]

What has changed in the last decade in CF management?

Thanks to novel therapies such as specialized care centers and newborn screening programs, patients are living well into middle age. The establishment of a network of CF centers has led to more appropriate and aggressive care by physician specialists dedicated to cystic fibrosis. Furthermore, a multidisciplinary approach to treatment involving teams of caregivers has become routine in the large CF center. Newborn screening impacts early recognition of children with cystic fibrosis and provides a greater opportunity for amelioration of the disease and prevention of secondary complications.[2]

Experts say that the age of survival will continue to increase with the development of new drugs that could control the symptoms of CF or possibly cure it. There has been a shift in the outlook of CF in the past 15 years. That shift stems largely from more effective medications that combat the thick mucus that builds up inside the body and impairs vital organs like the lungs and pancreas. If their mucus becomes difficult to clear, the lungs get obstructed, infected, and inflamed.[3]

A string of new inhaled medications makes it easier for patients to clear the mucus out of the airways, avoid infections, and treat chronic and acute infections. Pulmozyme® (dornase alfa), introduced in 1994, thins mucus by breaking down the protein so it can be expectorated more easily. A few years later, inhaled tobramycin (Tobi®) was approved. This is an antibiotic used to fight off infections caused by *Pseudomonas aeruginosa*, the most common source of chronic lung infections. In 2004, hypertonic saline was introduced into the CF airway-clearance regimen after showing some benefit in this population. Hypertonic saline helps clear mucus by pulling salt and water back into dehydrated airways. According to a study in the *New England Journal of Medicine*, the drug cuts pulmonary flare-ups in half.[4]

The most recent medication approved by the U.S. Food and Drug Administration is Kalydeco™. Kalydeco (iva-

about the author...

Ginger Browning, BS, RRT, is an airway clearance specialist in the respiratory care division and pulmonary department at Cincinnati Children's Hospital in Cincinnati, OH.

caftor) is a new groundbreaking medication in pill form. Kalydeco is designed to correct a specific CF mutation, G551D, which affects only about 4% of the U.S. cystic fibrosis population.[1] The Cystic Fibrosis Foundation is supporting new clinical trials that couple Kalydeco with other potential drugs that aim to address the disease in a larger CF population.

Medications are only one piece of the puzzle — airway clearance is another. Airway clearance therapies have been considered the most fundamental tool in the management of CF lung disease. Airway clearance techniques break up the think sticky mucus in the lungs so the patient can cough it out more easily.[3] There are now a variety of airway clearance modalities available to CF patients. Several of these modalities that were developed over the past 10 years have made it more convenient for patients to perform their own chest physiotherapy, making them less dependent on parents and caregivers as they enter adolescence and adulthood. Some airway clearance techniques (e.g., positive expiratory pressure, acapella®, or Flutter®) are intrusive and require a considerable amount of time and effort, and it is important that an RT recommend appropriate techniques for the patient.[5] Some things to consider when choosing the best technique for a patient are:

- Age of patient
- Patient preference
- Severity of disease in terms of lung function impairment
- Caregiver availability
- Efficiency of technique and cognitive ability.

Ginger Browning assists a patient with her breathing treatment.

Patient using a vibratory PEP device for airway clearance.

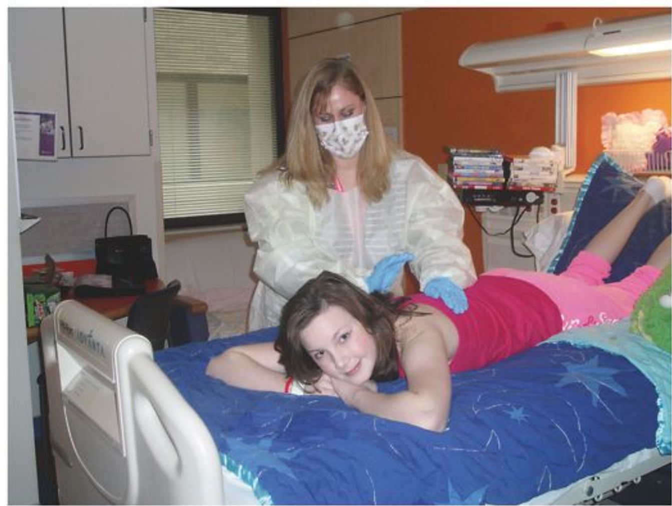
Therapies may change as the patient's situation changes, and the efficiency and appropriateness of technique should be assessed annually by an RT.[5]

What is the evidence for airway clearance methods?

Airway clearance is highly recommended for CF patients and should be performed one to two times daily and increased as needed on a regular basis for all patients. There are no airway clearance techniques superior to others, and they should be individualized for each patient. Aerobic exercise is recommended as an adjunctive therapy for airway clearance and overall health benefit.[5]

What do patients deal with today?

Medical treatment for CF patients is demanding, and adherence to medical treatment is crucial because poor adherence may imply poor health outcomes.[6] Rates of adherence to CF treatment are generally low and vary depending on the types of treatment, age, and gender of the patient. Poor adherence is notably a problem with adolescent patients.[6] Some etiologies of nonadherence to airway clearance are perceived therapeutic ineffectiveness and problems fitting it into their lifestyle. The family and atmosphere of the patient are also important. One study suggests that older children and adolescents who come from families experiencing unhappy or conflicted relationships may have a greater risk of poor adherence to treatment. Higher levels of family cohesion and families with a greater balance of cohesion and flexibility seem to show higher rates of adherence.[6]



Ginger Browning delivers chest percussion to a CF patient.

Cystic Fibrosis Statistics

- About 1,000 new cases of cystic fibrosis are diagnosed yearly.
- More than 70% of patients are diagnosed by age two.
- Over 47% of the CF patient population is age 18 or older.
- In 1986, the median predicted age of survival was 27; in 2010 it was 38.3.

SOURCE: Cystic Fibrosis Foundation website. Available at: http://cff.org

The three most common barriers that patients and parents encounter are lack of time, forgetfulness, and unwillingness to take medications in public.[6]

What do RTs need to know about preparing patients for discharge?

When a patient is being prepared for discharge, respiratory therapists can help the patient and family prepare for self-management at home by determining if the patient is on the best form of airway clearance for them and if they are using proper technique. The RT should discuss with the patient and family how their home equipment is operating to ensure it is working properly. They should also discuss with the patient and family their daily routine to help them determine where their airway clearance and inhaled medication treatments will fit into it best. Airway clearance and inhaled medications can be a burden to a patient and their family, so as RTs it is our job to ensure the patient has the proper education and equipment needed to make their precious time doing treatments well spent, not wasted. ■

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REFERENCES

1. Cystic Fibrosis Foundation website. Available at: http://cff.org *Accessed March 30, 2012*
2. Blythe SA, Farrell PM. Advances in the diagnosis and management of cystic fibrosis. Clin Biochem 1984; 17(5): 277-283.
3. The New York Times website. Sayre C. A brighter outlook for cystic fibrosis patients. Available at: www.nytimes.com/ref/health/healthguide/esn-cystic-fibrosis-ess.html *Accessed April 2, 2012*
4. Elkins MR, Robinson M, Rose BR, et al. A controlled trial of long-term inhaled hypertonic saline in patients with cystic fibrosis. N Engl J Med 2006; 354(3):229-240.
5. Flume PA, Robinson KA, O'Sullivan BP, et al. Cystic fibrosis pulmonary guidelines: airway clearance therapies. Respir Care 2009; 54(4):522-537.
6. Bregnballe V, Schiotz PO, Boisen KA, et al. Barriers to adherence in adolescents and young adults with cystic fibrosis: a questionnaire study in young patients and their parents. Patient Prefer Adherence 2011; 5:507-515.

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Looking at the Evidence for Ventilator Weaning Protocols

by Keith D. Lamb, RRT

Mechanical ventilation is commonly used in the ICU to support critically injured and/or ill patients. In its invasive form, discontinuance in a timely manner has been associated with lower morbidity, mortality, and cost. Duration of mechanical ventilation, length of ICU and hospital stay, mortality, ventilator-associated pneumonia (VAP), resource utilization, and patient comfort are all measures that have been studied and monitored in an attempt to improve patient care.[1,2]

Weaning

"Weaning" suggests that support is decreased incrementally until there is none and then discontinued. It has been proposed that the term "weaning" be abandoned and something more appropriate be used in its place. Many have advocated the phrase "liberation from mechanical ventilation." Despite this, many still use the term weaning in their writings, and it remains the most commonly used description of what we perform while moving toward discontinuance of mechanical ventilation. Failing to remove a patient from mechanical ventilation when it is no longer needed increases the risk for complications and adverse outcomes.

There is no clear consensus on a best method for liberating someone from mechanical ventilation. There is, however, strong evidence that the use of standard local protocols and guidelines has impacted patient care and improved all of the measures of quality care that were mentioned above.[3]

From the beginning

Most consider their weaning strategy right from the beginning. Once a patient is intubated and mechanical ventilation is instituted, it is the multidisciplinary team's job to begin the early planning stages of liberation. To some this may mean early tracheotomy as in the severely brain-injured patient, and in others it may simply mean allowing the patient to spontaneously breathe right from the start. Either way, having a game plan and a guideline to follow that discourages wide variations in local practice seems to be the key. These wide variations have been proven to cause delay and confusion during the liberation process.

about the author…

Keith D. Lamb, RRT, is an RT II in surgical critical care at Christiana Care Health System in Newark, DE, and chair of the AARC Adult Acute Care Section.

Complications of prolonged ventilation

There are many potential negative sequelae and complications that are associated with prolonged positive pressure ventilation. These consequences not only affect the patient directly but also can consume system resources unnecessarily. These sequelae and complications include but are not limited to:

- Prolonged use of sedation and analgesia (which may increase the incidence of VAP and drug dependence and impede the clinician's ability to assess neurologic status)
- Prolonged bed rest
- Increased opportunity for VAP
- Increased opportunity for other hospital-acquired infections
- Increased opportunity for developing a deep vein thrombosis (DVT)
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- Increased opportunity for accidental loss of airway
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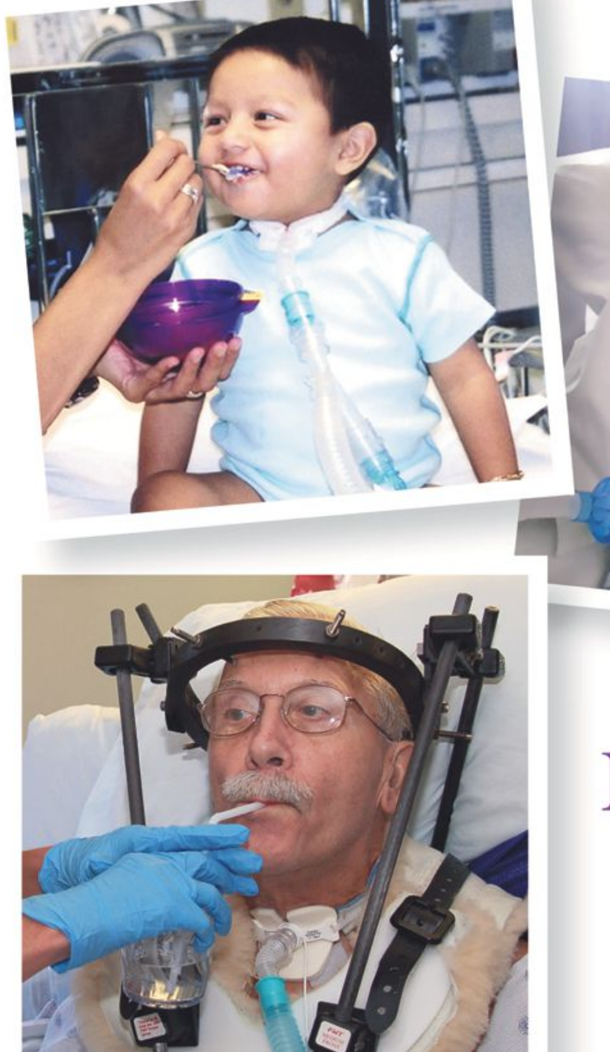

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- Increased potential for respiratory muscle wasting
- Delay in post critical care rehabilitation
- Adverse effect on cardiac and hemodynamic function as well as other organ systems
- Increased incidence of skin breakdown
- Increased mortality.

Methods of discontinuing mechanical ventilation

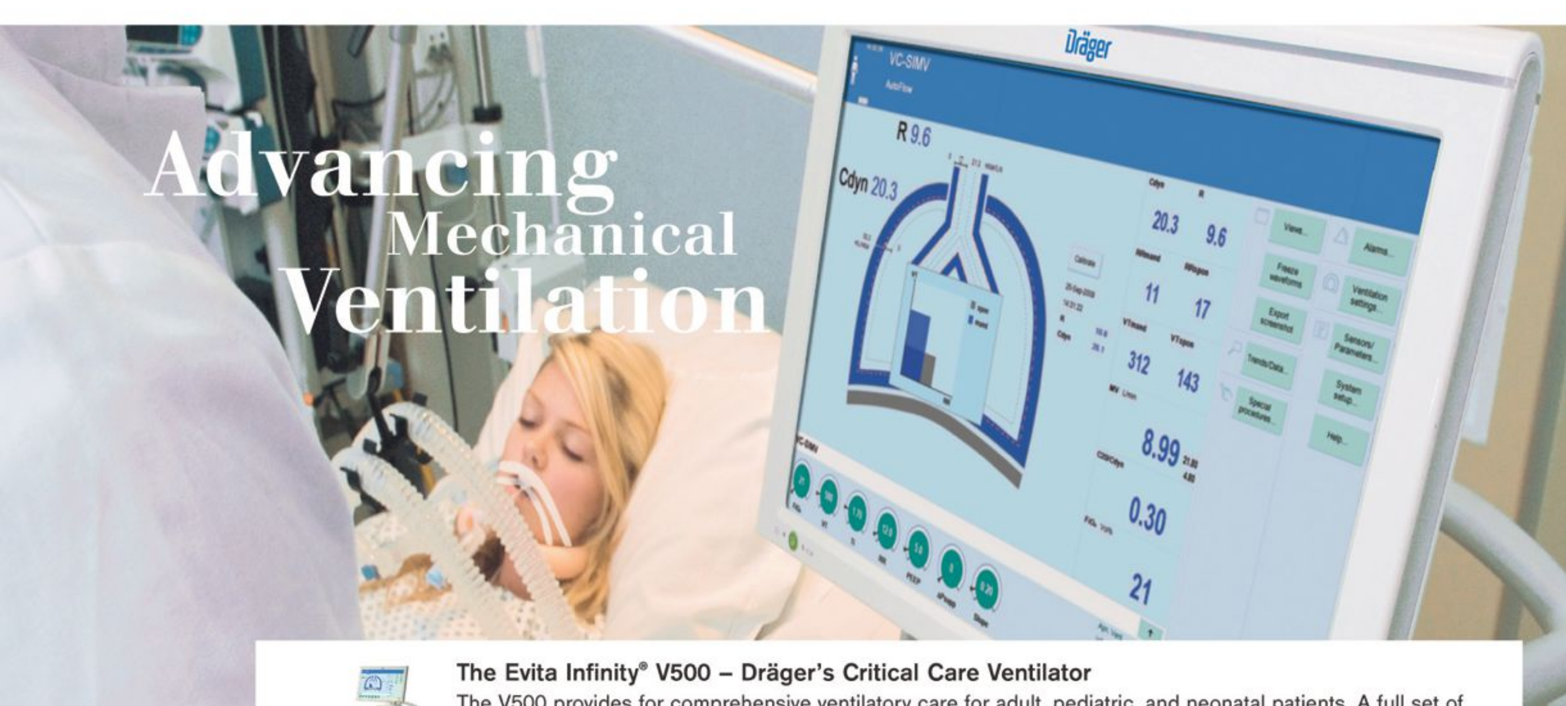
As previously eluded to, there is no strong evidence supporting one specific weaning strategy over another. Whether CPAP, CPAP with PSV, T-Piece, or closed-loop computer automated management is used, none have been proven consistently superior.[4,5] To this end, many investigators have focused their efforts on proving or disproving that elimination of unwarranted variation accomplished by the use of protocols has a desired effect on the care of mechanically ventilated patients.

In 2011, the *British Medical Journal* published a Cochrane review and meta-analysis comparing 11 separate randomized controlled trials (RCTs) spanning 1993–2009.[6] Although there was much variation in the methodology used to institute a weaning process, this study concluded that those institutions that implemented a protocol ensuring consistency resulted in a decrease in total ventilation duration and length of ICU stay.

In 2008, an article published in the *Lancet* looked at the efficacy and safety of using paired sedation and weaning protocols to help liberate patients from mechanical ventilation.[7] Also known as the "Wake-up and Breathe" trial, this study demonstrated that when a coordinated effort was made to pair a spontaneous breathing trial (SBT) with a spontaneous awakening trial (sedation holiday), the duration of mechanical ventilation, ICU stay, and hospital stay were all reduced. In addition, there was an improvement in one-year survival.

Personnel responsible for implementing and following weaning protocols have also been investigated. In an earlier 2001 paper published in *Chest*, Ely et al reviewed the evidence pertaining to mechanical ventilation weaning protocols that are driven by non-physician health care professionals.[8] As a result of this landmark data review, several recommendations were made pertaining to liberation from mechanical ventilation:

Recommendation 1 — Based on evidence from randomized trials, we recommend that non-physician health care practitioners be included in the development and



utilization of respiratory care protocols (not confined to liberation from mechanical ventilation or MV).

Recommendation 2 — Based on evidence from RCTs, we recommend that ICU clinicians utilize protocols for liberating patients from MV in order to safely reduce the duration of MV.

Recommendation 3 — Based on evidence from randomized trials, we recommend at least once daily SBTs to identify patients who are ready for liberation from the ventilator.

Recommendation 4 — When patients fail an SBT, we recommend the following assessments and interventions, based on varying levels of evidence:

a. All remediable factors should be addressed to enhance the prospects of successful liberation from MV (e.g., electrolyte derangements, bronchospasm, malnutrition, patient positioning, or excess secretions).
b. The patient should be placed in an upright position on a comfortable, safe, and well-monitored mode of MV (such as pressure support ventilation).
c. An SBT should be performed at least once daily. Few data support multiple manipulations of ventilator settings each day in an effort to wean or "train" the patient. For clinicians who prefer stepwise reductions in MV, both multiple daily SBTs and weaning pressure support ventilation appear to be superior to gradually reducing support using intermittent mandatory ventilation.
d. In the face of repeated failures at daily SBTs, clinicians should consider longer term options, including both tracheotomy and a long-term acute care or step-down ventilator facility.

Recommendation 5 — Based on the sum of evidence from randomized trials and observational studies, we recommend that when patients have passed an SBT, clinicians seriously consider prompt extubation.

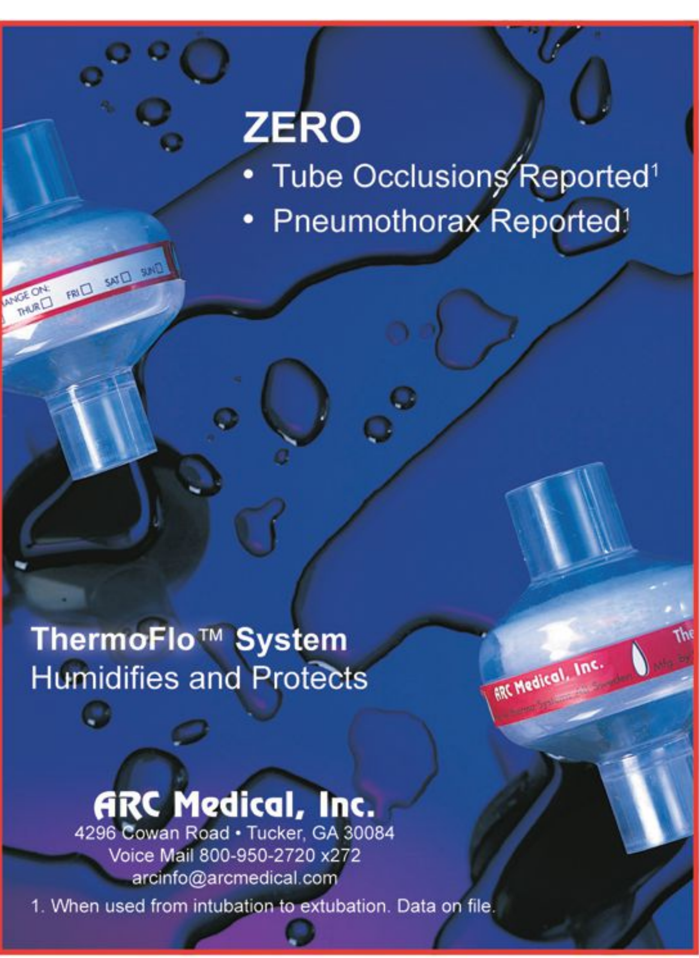
The majority of modern day liberation protocols are developed with the above recommendations in mind, and they have become the essence of today's strategies.

Protocols are ideal

The evidence clearly supports the use of ventilator weaning or liberation protocols. Protocolized liberation from mechanical ventilation has been proven to eliminate unwarranted management variation, reduce complications, save money, and improve outcomes. Although there is no clear consensus on specific weaning modalities, it is clear that a strategy using gradual reduction in ventilatory support is inferior and that daily SBTs paired with sedation holidays are a pivotal part of any successful plan.[1-8] ■

REFERENCES

1. Dries DJ, McGonigal MD, Malian MS, et al. Protocol-driven ventilator weaning reduces use of mechanical ventilation, rate of early reintubation, and ventilator-associated pneumonia. J Trauma 2004; 56(5):943-952.
2. Blackwood B, Alderdice F, Burns KE, et al. Protocolized vs. non-protocolized weaning for reducing the duration of mechanical ventilation in critically ill adult patients: Cochrane review protocol. J Adv Nurs 2009; 65(5):957-964.
3. Girard TD, Ely EW. Protocol-driven ventilator weaning: reviewing the evidence. Clin Chest Med 2008; 29(2):241-252.
4. Schneider K, Oehmichen F, Pohl M, Ragaller M. Implementation of a standardized weaning protocol in patients with prolonged mechanical ventilation in a post-acute care ICU. Crit Care 2010; 14(Suppl 1):P236.
5. Hess DR, MacIntyre NR. Ventilator discontinuation: why are we still weaning? Am J Respir Crit Care Med 2011; 184(4):392-394.
6. Blackwood B, Alderdice F, Burns K, et al. Use of weaning protocols for reducing duration of mechanical ventilation in critically ill adult patients: Cochrane systematic review and meta-analysis. BMJ 2011; 342:c7237.
7. Girard TD, Kress JP, Fuchs BD, et al. Efficacy and safety of a paired sedation and ventilator weaning protocol for mechanically ventilated patients in intensive care (Awakening and Breathing Controlled trial): a randomised controlled trial. Lancet 2008; 371(9607):126-134.
8. Ely EW, Meade MO, Haponik EF, et al. Mechanical ventilator weaning protocols driven by nonphysician health-care professionals: evidence-based clinical practice guidelines. Chest 2001; 120(6 Suppl):454S-463S.



Value of Using Auto-adjusting CPAP in the Inpatient Setting

by Douglas S. Laher, MBA, RRT

Use of continuous positive airway pressure (CPAP) machines is widely considered the "gold standard" for the treatment of obstructive sleep apnea (OSA). This is considered true in both the hospital and the home. The most successful means, however, of treating OSA is through dramatic lifestyle changes aimed at weight loss and the avoidance of alcohol or other sedatives before bedtime. Other treatment options include oropharyngeal surgery and customized dental devices meant to reposition the mandible. Until meaningful steps are taken to address the underlying cause of OSA, treatment will address only the symptoms of the patient.

Inpatient concerns

However, this is not necessarily the case for the treatment of OSA in the hospital. Those with OSA risk factors but who are asymptomatic in the home may find themselves at higher risk of death, hospital readmissions, longer length of stays, and adverse events upon admittance to the hospital — primarily for those patients who are exposed to general anesthesia. Use of opioids in the hospital inhibits the muscles of the upper airway and may induce or worsen airway collapse. Exposure to these analgesics (while brief, and typically with a short half-life) can have devastating effects if not treated properly. While treatment may be brief, it is for these reasons that there is a heightened level of awareness for at-risk patients — so much so that the American Society of Anesthesiologists and American Academy of Sleep Medicine have published clinical practice guidelines (CPGs) for the perioperative management of OSA patients.[1-3] Recommendations from these CPGs focus on drug/dose selection, availability of oxygen and reversal agents, the importance of monitoring (both perioperatively and post-operatively), as well as the role of noninvasive ventilation. The Joint Commission has also considered OSA-related harm as a National Patient Safety Goal.[4]

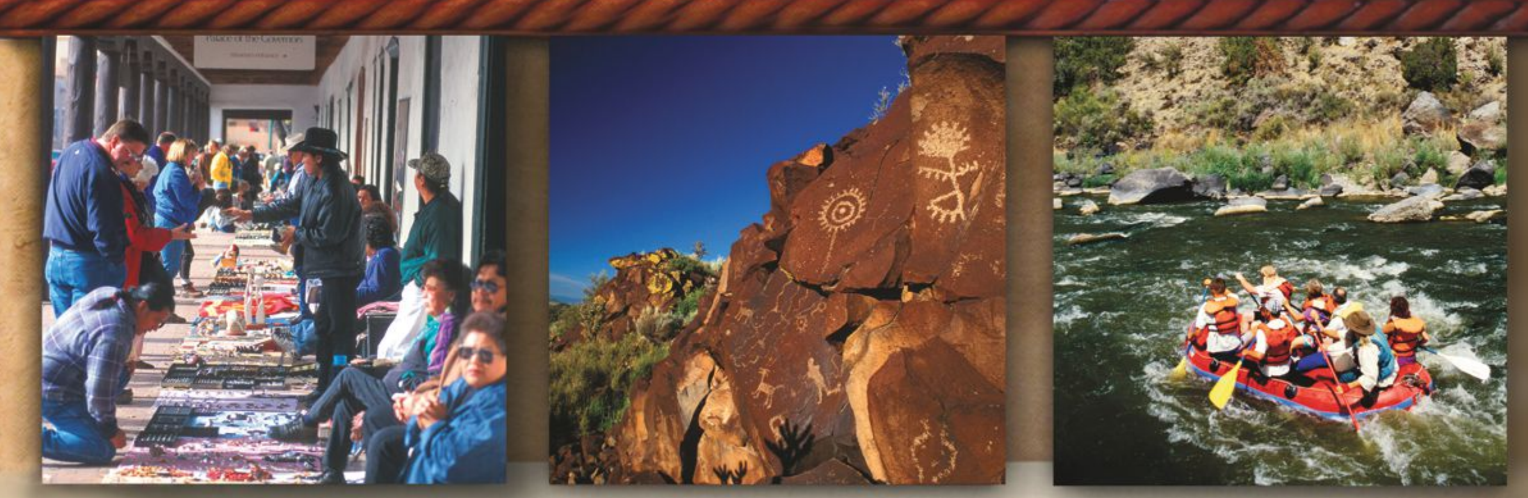
General anesthesia is not the only concern for hospitalized patients. Physicians and other caregivers providing single-dose bolusing and analgesics should closely monitor patients for signs of respiratory depression; however, more concerning is the use of patient-controlled analgesia (PCA) in which the patient (with limits) controls the frequency in which analgesia is delivered. PCA use on post-surgical nursing floors is not an uncommon occurrence; therefore, proactive monitoring policies should be in place. Use of telemetry monitoring equipment should be considered.

about the author...

Douglas S. Laher, MBA, RRT, is associate executive director of the AARC.

Challenges

Increased need for and utilization of CPAP machines in the hospital pose many challenges for respiratory therapy departments. Equipment rooms may be limited in size and capacity. Financial constraints may impact the ability to purchase or rent additional CPAP machines. Without a documented sleep study, prescribing appropriate expiratory pressure settings (EPAP) may be a gamble at best. For those patients who do use CPAP machines at home and prefer to use their own units, issues with electrical operation, safety, and cross-contamination are of great concern for bioengineering and infection-control departments. As a result, many hospitals have established policies that prevent patients from bringing their own CPAP machines with them into the hospital or, at the very least, require the patient to sign a liability waiver if they're insistent on using their own device. Because of the personalization of these devices, the comfort and security it provides during



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sleep, and the customization of a personally fitted mask, many patients become angered and upset at the thought of not being allowed to use their own machine. Some patients become so angered that they will refuse therapy if they're unable to use their own device. And so go the challenges of hospitals trying to balance regulatory and safety issues versus satisfying their patients. This is especially important in the new world of transparency and HCAHPS scores that can negatively impact reimbursement.

Opportunity

Should budgetary spending allow, one such alternative RC managers may consider is the use of auto-titrating CPAP machines. While they may not address the personalized needs of the patient, they do mitigate risk and concerns for patient safety by the hospital. The brilliance of these devices is that the prescriber does not need to randomly guess at an EPAP setting based on the patient's condition, history, neck size, or body mass index (BMI). Auto-titrating CPAP units use highly sophisticated algorithms to monitor the patient's inspiratory flow-time curve, preemptively adjusting EPAP settings before an apnea, hypopnea, or snore takes place. For respiratory events that take place without warning, the auto-titrating CPAP machine will adjust EPAP in response to the severity of the apnea. While each company uses its own proprietary algorithm and may "brand" its technology as different and unique, most auto-titrating CPAP machines are designed to meet the same end-goal of preventing or responding to unwanted apneas.

Benefits

This "one-stop shop" approach for CPAP use in the hospital serves many purposes and reaps several benefits.

1. Its use eliminates the guesswork of prescribing accurate EPAP settings.
2. The CPAP machine will automatically titrate EPAP pressures as the patient's condition changes, including the ability to deliver EPAP above and beyond what the patient may otherwise be prescribed for in the home (ideal for post-surgical patients).
3. It eliminates frequent setting changes by the respiratory therapist.
4. Improved patient adherence because the CPAP machine delivers the lowest required EPAP necessary to avoid apneas/hypopneas.
5. RTs can download utilization reports from the CPAP machine to identify patient EPAP needs and frequency of apneas/hypopneas.
6. Alerts previously diagnosed OSA patients to changes in condition; potentially requiring a re-titration in an outpatient sleep lab.

Financial and clinical opportunities

For departments seeking additional ways to generate revenue, auto-titrating CPAP machines may help. In addition to the clinical benefits described above, these machines are ideal at identifying undiagnosed OSA patients. Once identified, these patients may be referred to a hospital-based outpatient sleep lab for polysomnography and/or titration. These financial benefits are, of course, secondary to the real benefit of providing appropriate and improved care to the patient.

In turn, the use of auto-titrating CPAP machines is also an effective adjunct therapy in stroke centers, cardiology units, and heart failure clinics. It is speculated that as many as 60% of stroke patients,[5] one-third of patients with hypertension, and 50% of patients with congestive heart failure suffer from diagnosed/undiagnosed sleep apnea.[6,7] This is caused by the abnormal strain placed on the left ventricle to pump blood during periods of apnea — leading to ischemia, tachycardia, hypertension, and increased myocardial oxygen demand.

Using diagnostic tools such as the Epworth Sleepiness Scale to screen these patients is an effective way to identify those at risk for undiagnosed sleep apnea. Once identified, auto-titrating CPAP machines can be used to capture the prevalence of apneas/hypopneas during sleep. Following a polysomnography test, those patients with confirmed OSA and compliant in their treatment would likely see an improvement in their cardiology symptoms.

Drawbacks

While multiple studies have shown that auto-titrating CPAP therapy is as equally effective as conventional continuous-flow CPAP,[8-11] there are drawbacks.

1. Mask fit is very important for these patients as excessive leaks may cause under-estimation in pressure and airflow. RTs should receive proper training and maintain competence in sizing patients for appropriate mask size. Chinstraps also may be necessary to prevent leaks originating from the mouth.
2. Extended periods requiring high EPAP pressure may potentiate leaks and increase sleep disturbances.
3. If sleep-disordered breathing is in the form of central sleep apnea rather than obstructive sleep

apnea, CPAP machines (auto-titrating or otherwise) will provide no benefit to the patient. These patients require bi-level PAP with an apnea backup.

An alternative… but not a magic pill

Auto-titrating CPAP therapy is not a cure-all for patients with obstructive sleep apnea, and it is not a magic pill for department managers looking for an improved means to treat these patients. Further studies are necessary to evaluate the effectiveness of this technology. However, auto-titrating CPAP therapy is but one alternative available that can assist respiratory therapists with the operational, financial, and clinical challenges faced in caring for this patient population. ■

REFERENCES

1. Benumof JL. Obstructive sleep apnea in the adult obese patient: implications for airway management. Anesthesiol Clin North America 2002; 20(4):789-811.
2. Meoli AL, Rosen CL, Kristo D, et al. Upper airway management of the adult patient with obstructive sleep apnea in the perioperative period — avoiding complications. Sleep 2003; 26(8):1060-1065.
3. Gross JB, Bachenberg KL, Benumof JL, et al. Practice guidelines for the perioperative management of patients with obstructive sleep apnea: a report by the American Society of Anesthesiologists Task Force on Perioperative Management of patients with obstructive sleep apnea. Anesthesiology 2006; 104(5):1081-1093.
4. HCPro website. Sleep apnea among proposed National Patient Safety Goals. Available at: www.hcpro.com/NRS-66500-975/Sleep-apnea-among-proposed-National-Patient-Safety-Goals.html *Accessed Dec. 27, 2011*
5. Dyken ME, Somers VK, Yamada T, et al. Investigating the relationship between stroke and obstructive sleep apnea. Stroke 1996; 27(3):401-407.
6. Javaheri S, Parker TJ, Liming JD, et al. Sleep apnea in 81 ambulatory male patients with stable heart failure. Types and their prevalences, consequences, and presentations. Circulation 1998; 97(21):2154–2159.
7. Ferrier K, Campbell A, Yee B, et al. Sleep-disordered breathing occurs frequently in stable outpatients with congestive heart failure. Chest 2005; 128(4):2116–2122.
8. Meurice JC, Marc I, Series F. Efficacy of auto-CPAP in the treatment of obstructive sleep apnea/hypopnea syndrome. Am J Respir Crit Care Med 1996; 153(2):794-798.
9. Hukins C. Comparative study of autotitrating and fixed-pressure CPAP in the home: a randomized, single-blind crossover trial. Sleep 2004; 27(8):1512-1517.
10. Senn O, Brack T, Matthews F, et al. Randomized short-term trial of two autoCPAP devices versus fixed continuous positive airway pressure for the treatment of sleep apnea. Am J Respir Crit Care Med 2003; 168(12):1506-1511.
11. Nussbaumer Y, Bloch KE, Genser T, Thurnheer R. Equivalence of autoadjusted and constant continuous positive airway pressure in home treatment of sleep apnea. Chest 2006; 129(3):638-643.

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Quality of Life in Chronic Illness

by Sam P. Giordano, MBA, RRT, FAARC

As we continue on a society-wide basis to curb health care costs while expanding access to health care services and experts, it seems as though recently we attempt to take two steps forward but eventually end up taking one and a half steps backward… if we're lucky. Why can't we, as a society, rationalize (not ration) access to manage the use of our health care resources?

Virtually all of the professional health care provider workforce (me and you included), were conditioned, educated, and trained to treat disease or exacerbations of chronic diseases. Yes, we were all trained to identify the sick as early as possible in order to get them under treatment as necessary and hopefully enable them to have a higher quality of life and a greater sense of well-being.

As a system, as a country, and as a profession, I believe we all know what it takes to successfully manage down health care costs while not compromising access as well as clinical and economic outcome goals. The problem is, rather than organize services based on achieving the aforementioned goals, our services are left to be organized along the lines of payment for activities and interventions. Thus, even after decades of admitting that we need to do better in managing our most profound health care cost drivers — the chronically ill population — we could save money, avoid cutting corners, and not work in a system that has to deny needed clinical services just because of the cost of those services.

All health care professionals treat acute and chronically ill patients, and we do an outstanding job of resolving acute clinical episodes and exacerbations related to the chronically ill. But we are not allowed (given the current payment system) to take that next step with the chronically ill to assure they continue to understand the overall treatment plan to manage their chronic disease:

1. That they know what their responsibilities are with regard to the plan,
2. That there is a mechanism for health care professionals (such as you) to maintain communication with the chronically ill so that you can assure compliance with the treatment plan, and
3. That you can monitor the clinical condition with traditional measures while monitoring the patient's perception of well-being by actually engaging them in individual conversations that revolve around their lifestyle and their world.

about the author…

Sam P. Giordano, MBA, RRT, FAARC, is the former AARC executive director. He can be reached at giordano@aarc.org.

Communication

We all know patients are not like cars, so they cannot be taken in to be fixed and then shoved out the door without another layer of activity taking place — and that element is the one that involves communication between two human beings. This communication must be based on mutual trust and respect. Heaven knows there are not enough hours in the day for physicians to sit with their patients, establish a rapport, and form (from that initial engagement) an ongoing relationship that involves periodic, yet frequent, communication. Physicians, as captains of the health care team, increasingly need to draw upon qualified allied health professionals like respiratory therapists to supplement their activities as part of their practice. Expanding the role of RTs saves money, yet it is still a challenge to prove the obvious to policy makers since they look at what they know and what they see today and are unwilling to un-

dertake "dynamic" costing and scoring offsets similar to what we would do in a real business.

Our patients' needs are generally still unmet. Therefore, our needs are by and large still unmet. We are not baseball players; but the one thing we have in common with baseball players is that in order to make the play, we first have to be put in a position to make it. We are not there yet but must continue our efforts to get there. Respiratory therapists are far more valuable than some of the roles into which they are locked. RTs can avoid nosocomial infections, have been shown to contribute to shorter times of ventilator dependency, and are outstanding in treating exacerbation of chronic illnesses. Now is the time for both the health care system and our profession to make the pivot without relinquishing any of the aforementioned roles and expand our activities to help fill the void of meaningful communication and relationship building between professional health care providers — such as RTs — and patients with chronic pulmonary diseases (e.g., emphysema, chronic bronchitis, asthma, neuromuscular disease).

We are almost there

We are about to turn a significant corner as a health care system and as a profession. We'll need your help to get it done. I've heard from many of you regarding your forward-thinking approaches to improving management of patients with chronic pulmonary diseases. Please continue to think outside the box, but don't forget to keep score. Good decisions are in most instances driven to some extent by data. We need more data that show, not that RTs do a good job of resolving exacerbations, not that RTs do a fantastic job in terms of ventilatory management and support, but that RTs are a more rounded profession capable of influencing the health care well-being of their patients through increased utilization of a high-touch, low-tech intervention. Engaging with patients in between health care events has and will continue to show that meaningful consultations can lengthen the time between exacerbations, emergency department visits, and hospitalizations.

All players, including patients, are looking for improvement. Let's not sit back and disappoint them. Let's run with the ideas we already know will complement previous efforts to treat the sick and yield the benefits of less health care resource consumption. Now's the time to step up and improve care of our chronically ill. ■

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Susceptibility of Chronic Lung Disease Patients to Hospital-acquired and Community-acquired Pneumonia

Patients with chronic lung disease are at risk for both hospital-acquired pneumonia (HAP) and community-acquired pneumonia (CAP). Understanding the prevalence of these conditions and what may be causing them is important to ensuring a comprehensive continuum of care.

Hospital-acquired pneumonia

According to the Centers for Disease Control and Prevention (CDC), pneumonia accounts for about 15% of all hospital-associated infections and is second only to urinary tract infections in prevalence. Nosocomial pneumonia has been linked to high mortality rates, with one study attributing 60% of all nosocomial infection deaths to nosocomial pneumonia.[1] Major risk factors for nosocomial pneumonia include: post-operative infection, advanced age, endotracheal intubation and/or mechanical ventilation, a depressed level of consciousness, and a previous history of large-volume aspiration.

Chronic lung disease is also considered a major risk factor, and the risk may extend past the ICU into the pulmonary rehabilitation setting. A 2008 study conducted by Italian researchers found nine of 143 patients being treated in their pulmonary rehabilitation unit developed HAP, for an incidence rate of 6.3%. The authors note this was considerably higher than the 0.5–1% rate previously noted in hospitalized subjects outside of the ICU.[2] While all nine patients recovered, two required treatment with modification of the antibiotic regimen following the discovery of resistant bacteria in their sputum cultures.

Pneumonia contracted in the hospital setting has significant implications for both patient outcome and resource use. Respiratory therapists need to be aware that the CDC estimates pneumonia may prolong hospitalization by four to nine days, at a cost of $1.2 billion per year. According to the government agency, preventing nosocomial pneumonia requires:

1. Ongoing staff education and infection surveillance
2. Interruption of transmission of microorganisms by eradicating infecting microorganisms from their epidemiologically important reservoirs and/or preventing person-to-person transmission
3. Modifying host risk for infection.[1]

Community-acquired pneumonia

Chronic lung disease patients are also at increased risk for developing CAP. The most common type of pneumonia, CAP affects between 2–4 million Americans every year and leads to 600,000 hospitalizations. Those who have COPD have the highest risk for contracting CAP, but other chronic lung diseases put people at risk as well, including bronchiectasis and interstitial lung diseases.[3]

The chronic lung disease patient's underlying condition leads to an increased risk for CAP, as noted in a 2005 study published in CHEST that looked at the risk of various comorbidities among British patients with chronic lung diseases. When compared to people without COPD, those with COPD had a higher rate of pneumonia, with a relative risk of 16.0.[4] The American Lung Association recommends an annual flu shot and the pneumococcal pneumonia vaccine for everyone considered at high risk for pneumonia, as well as other types of chronic disease. Common sense infection-control practices, such as frequent hand washing, should be instituted as well; and, of course, people who smoke should quit.[5]

However, while chronic lung disease itself is a risk factor for pneumonia, a number of studies conducted over the past decade suggest prolonged use of inhaled corticosteroids (ICS) may be exacerbating the problem. The issue was first raised by the "Towards a Revolution in COPD Health" (TORCH) study published in 2007.[6] Patients who received inhaled propionate of fluticasone alone or in combination with salmeterol were found to be significantly more likely to develop CAP when compared with patients in a placebo arm, 18.3% and 19.6% versus 12.3%, respectively. However, most of the patients were diagnosed without benefit of radiographic confirmation.

In the study titled "Investigating New Standards for Prophylaxis in Reduction of Exacerbations" (INSPIRE), researchers compared salmeterol plus fluticasone propi-

CDC Guidelines for Preventing Nosocomial Pneumonia

The Centers for Disease Control and Prevention (CDC) has published an extensive document outlining measures aimed at preventing nosocomial pneumonia in the nation's health care facilities. "Guidelines for Prevention of Nosocomial Pneumonia" provides an overview of bacterial pneumonia, Legionnaires' disease, aspergillosis, respiratory syncytial virus infection, and influenza. From there, the authors offer extensive recommendations on prevention, touching on staff education and infection surveillance, interruption of transmission of microorganisms, and modifying host risk for infection. The existing scientific evidence is categorized into four categories according to the strength of the evidence. You can access the guidelines at www.cdc.gov/mmwr/preview/mmwrhtml/00045365.htm. ■

onate 50/500 µg twice daily with tiotropium 18 µg once a day.[7] Their results showed more pneumonias in the salmeterol/fluticasone propionate group, but the overall exacerbation rate was similar and mortality was lower in the salmeterol/fluticasone propionate patients.

A post ad hoc analysis of pneumonia cases in the INSPIRE study found a similar rate of *de novo* pneumonias in patients on salmeterol/fluticasone propionate and tiotropium. However, further analysis suggested patients on the inhaled corticosteroid were more likely to develop pneumonia after a treated or untreated unresolved exacerbation. This led the investigators to conclude, "Earlier identification and treatment of these events to prevent pneumonia merits further investigation."[8]

Additional data on the ICS link

As part of the "Community-Acquired Pneumonia in Catalan Countries" study published in 2010, Spanish investigators used a case-control model to look at all incident cases of confirmed CAP that occurred over a one-year period in patients with chronic bronchitis (CB), COPD, or asthma.[9] These patients were compared to CB, COPD, and asthma controls.

After adjusting for the effect of other respiratory diseases and their concomitant treatments, the researchers found the use of inhaled steroids raised the risk of CAP in COPD patients. Inhaled anticholinergics raised the risk in asthma patients. However, no increased risk was seen in CB patients with any inhaler use. Inhaled beta-2 agonists were not associated with a higher risk for CAP in any of the patients. The authors qualified their results by noting that, "It is difficult to differentiate the effect of inhaled therapy from the effect of COPD or asthma severity on the risk of CAP, and these relationships may not be causal but could call attention to inhaled therapy in COPD and asthma patients."

British researchers publishing in 2011 found no evidence that inhaled steroid use worsens CAP outcomes in COPD patients.[10] The study involved 490 COPD patients who were hospitalized with CAP. About three-fourths of the patients were ICS users, and these patients were more likely to have higher GOLD-stage COPD. No significant differences were noted in pneumonia severity or markers of systemic inflammation between the ICS and non-ICS patients, and a multivariable analysis that adjusted the findings for COPD severity and the pneumonia severity index found no differences in 30-day or six-month mortality, requirement for mechanical ventilation or inotropic support, or development of complicated pneumonia.

A meta-analysis of studies on long-term inhaled corticosteroid use and pneumonia in people with COPD that was published by Johns Hopkins researchers in 2010 concluded that there is a significantly increased risk of pneumonia with the use of ICS drugs but no corresponding increase in mortality.[11] The investigators looked at 24 long-term randomized, controlled trials conducted among 23,096 patients. The highest risk for pneumonia was seen in elderly patients and in those with more severe disease and lower FEV_1. Overall findings were insufficient to come to any definitive conclusions on the relative risk of one drug over another. These authors write, "Adequately powered long-term head-to-head trials with objective pneumonia definitions, active ascertainment, and radiologic and microbiologic confirmation are needed to clarify any intra-class differences in the risk of pneumonia."

Start the discussion

Clearly, preventing hospital-acquired pneumonia requires increased vigilance by respiratory therapists and their colleagues at the bedside to ensure proper infection-control procedures are carried out without fail. Preventing community-acquired pneumonia can certainly benefit from good infection control as well. Respiratory therapists are advised to familiarize themselves with the CDC's "Guidelines for Prevention of Nosocomial Pneumonia" (see sidebar) to ensure they are up to speed on the latest recommendations for preventing the development of pneumonia in their facilities.

However, as the research has shown, chronic lung disease patients may also be facing an increased risk from the medications they take on a daily basis to treat their lung conditions. More study is clearly needed to fully understand and continually monitor the link between common medications for chronic lung disease and pneumonia risk to reduce that risk wherever possible.

As frontline respiratory care providers, RTs can play a major role in reducing the incidence of both HAP and CAP among their patients. Start the discussion on AARConnect to find out how your colleagues are addressing HAP and CAP in their facilities. ■

REFERENCES

1. CDC (Centers for Disease Control and Prevention) website. Guidelines for prevention of nosocomial pneumonia. Available at: www.cdc.gov/mmwr/preview/mmwrhtml/00045365.htm *March 21, 2012*
2. Incorvaia C, Riario-Sforza GG, Pravettoni C, et al. Incidence and characteristics of hospital-acquired pneumonia in a pulmonary rehabilitation setting. Med Sci Monit 2008; 14(4):CR196-198.
3. University of Maryland Medical Center website. Pneumonia — risk factors. Available at: www.umm.edu/patiented/articles/who_gets_pneumonia_000064_5.htm *March 21, 2012*
4. Soriano JB, Visick GT, Muellerova H, et al. Patterns of comorbidities in newly diagnosed COPD and asthma in primary care. Chest 2005; 128(4):2099-2107.
5. American Lung Association website. Prevent pneumonia. Available at: www.lung.org/lung-disease/pneumonia/prevent-pneumonia.html *March 21, 2012*
6. Calverley PMA, Anderson JA, Celli B, et al. Salmeterol and fluticasone propionate and survival in chronic obstructive pulmonary disease. N Engl J Med 2007; 356(8):775-789.
7. Wedzicha JA, Calverley PMA, Seemungal TA. The prevention of chronic obstructive pulmonary disease exacerbations by salmeterol/fluticasone propionate or tiotropium bromide. Am J Respir Crit Care Med 2008; 177(1):19-26.
8. Calverley PM, Stockley RA, Seemungal TA, et al. Reported pneumonia in patients with COPD: findings from the INSPIRE study. Chest 2011; 139(3):505-512.
9. Almirall J, Bolíbar I, Serra-Prat M, et al. Inhaled drugs as risk factors for community-acquired pneumonia. Eur Respir J 2010; 36(5):1080-1087.
10. Singanayagam A, Chalmers JD, Akram AR, Hill AT. Impact of inhaled corticosteroid use on outcome in COPD patients admitted with pneumonia. Eur Respir J 2011; 38(1):36-41.
11. Singh S, Loke YK. Risk of pneumonia associated with long-term use of inhaled corticosteroids in chronic obstructive pulmonary disease: a critical review and update. Curr Opin Pulm Med 2010; 16(2):118-122.

AARC Summer Meetings

Hilton Santa Fe Golf Resort & Spa at Buffalo Thunder • Santa Fe, NM

Maximize Your Attendance at Summer Forum with these Pre/Post Courses

www.AARC.org/education/meetings

■ Building a Simulation Toolbox

Thursday, July 12, 2012
1:00 – 5:05 pm
AARC Summer Forum Pre-Course

Use of simulation technology has exploded over the last several years. This pre-course will provide an overview of simulation technology and its role in respiratory education/competency testing. Is simulation really necessary or just an expensive replacement to live clinician and patient interaction? Attend this pre-course and learn how educators and managers alike can utilize simulation technology to verify competence of students and staff.

Approved for up to 3.66 CRCE® credits.

■ Getting the Best Return on Your Investment (ROI): Maximizing Patient Education

Sunday, July 15, 2012
1:30 – 5:00 pm
AARC Summer Forum Post-Course

Students must learn the skill of patient education; the bedside clinician must master it. As the US moves forward with the Patient Protection and Affordable Care Act, department managers must identify new nontraditional roles for the RT which focus on prevention rather than wellness, disease management and patient education. This course provides necessary skills to educators and managers on how to develop these patient education responsibilities.

Approved for up to 3.25 CRCE® credits.

Supported by an unrestricted educational grant from

Pre-registration is required for both courses. Registration deadline is Thursday, June 21, 2012.

See page 27 for more information about AARC Summer Forum.

American Association for Respiratory Care

AARC

We Have Been Listening To You!

AARC Membership Dues are Changing

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American Association for Respiratory Care (972) 243-2272 • www.aarc.org • email: info@aarc.org

Respiratory Therapy Was *in the House* (and Senate) in March

by Debbie Bunch

2012 AARC PACT Lobby Day reaches 300+ congressional offices

More than 135 AARC members descended on Capitol Hill on March 6 to advocate for greater pulmonary patient access to respiratory therapists under the Medicare Program.

Hawaii

Wisconsin

Kansas Patient

Washington State

Members of the AARC's Political Advocacy Contact Team (PACT) came together in Washington, DC, for their 13th annual Capitol Hill Lobby Day on March 6. PACT members scheduled 339 Hill meetings — the most ever — with their own members of Congress, both House of Representatives and Senate. They were there to garner support for the AARC's Medicare Respiratory Therapy Initiative legislation that would allow qualified respiratory therapists to provide their clinical services in a physician's office without needing a physician present on site, a major change from current Medicare law.

While the legislation is currently pending in the House as H.R. 941, it has yet to be introduced into the Senate; and a major stumbling block has been a higher than acceptable score from the Congressional Budget Office (CBO), which the AARC believes paints an unrealistic picture of the true costs of the legislation. For that reason, much of the PACT's time this year was spent soliciting support from members to insist that the CBO recalculate the cost of our bill.

Vermont-New Hampshire

New York,
New Jersey,
South Dakota,
Indiana,
New Hampshire

Good headway

PACT members made good headway on educating their congressional members about the legislation and its issues. "We made appointments with both Senate offices and with all 15 of our congressional district offices," says Teena Culhane, RRT, a PACT member from Michigan. "We actually met with Rep. Bill Huizenga this year, who appeared to be very surprised with our stats on the number of people in Michigan with chronic lung disease and the fact that COPD is now the third leading cause of death. He was not familiar with our profession and seemed genuinely interested."

Their other visits were carried out mainly with legislative health staff, who were quite familiar with the profession from previous PACT visits to the Hill. "Overall, every single office was in agreement that our bill cannot move forward with a high CBO score and were willing to at least look into the possibility of helping AARC get a new score," says Culhane.

PACT member Jerry Bridgers, AASD, CRT, from Mississippi, says his group was able to meet with all but one of their congressmen and senators and visited all of their legislative offices to ask for help with both a "CBO rescore" and setting up a potential meeting with CBO. They received good support for a CBO review from all concerned.

"We talked about the need for H.R. 941 and how it would increase the quality of care the patient would receive and help stop the revolving door of patient readmissions, which can ultimately help reduce cost," he says. "We also talked about the need for possible help in arranging a meeting between the AARC and CBO to try to correct the cost they are showing, which we feel is incorrect. All six of our legislative offices told us they would see what they could do to help."

Keith Siegel, RRT, CPFT, AE-C, and his delegation from Maine asked for advice on getting the CBO meeting, too, and weren't disappointed. "We visited the offices of both of our representatives and both senators. Mostly, we met with the members' health legislative aides, but we had a face-to-face visit with Sen. Susan Collins," he says. "In addition to discussing H.R. 941 and the need for a Senate companion bill, we sought advice on how to get the CBO to sit down with the AARC to discuss the erroneous score that they gave our bill." They came away with some good tips on making the meeting a reality.

Patient presence is priceless

Capitol Hill Lobby Day is a jointly funded event between the AARC and the state respiratory therapy societies; and nearly every state sends at least one, if not two or more, PACT members to visit their members of Congress every year. Serving a multi-year commitment on behalf of their states, these PACT members are knowledgeable about the issues and are able to build on previous visits to promote the respiratory therapy profession's goals. Over the past several years, respiratory patients have traveled with them to DC to drive home the message that they need full access to the services of respiratory therapists.

AARC Director of Government Affairs Cheryl West, MHA, credits this invaluable patient presence to the AARC's growing partnership with patient advocacy organizations such as the COPD Foundation, Alpha-1 Foundation, Alpha-1 Association, and this year the Pulmonary Hypertension Association as well. All have funded patient advocates to join the AARC's PACT members at their congressional visits.

"Meeting individuals who are directly impacted by the laws made by Congress sends a powerful message," says West. "We think this kind of partnership between the profession and the patient will bring us greater success."

AARC PACT members in Washington, DC

The AARC made sure all the volunteers — RTs and patients alike — had what they needed to make a big impact during their visits.

Maryland/DC

Kentucky

Pennsylvania

More AARC PACT members in Washington, DC

The annual trek up Capitol Hill by the AARC PACT is essential to the Association's ability to advocate for legislative changes that will ultimately improve the lives of respiratory patients.

Florida

Nebraska

Kansas

Teena Culhane and Jerry Bridgers saw how this patient-RT partnership plays out first hand during their sessions in March. "Jeannette Therrian was our patient advocate from Clarkston, MI," says Culhane. "She has alpha-1 and was supported by the Alpha-1 Association." Culhane says preparation is key in helping patients make the most of the experience. "I spoke with Jeannette prior to our trip and asked her to think of one or two personal stories or examples of how an RT has helped her with her illness," she says. "She was able to accompany us to most of our meetings and share her perspective, which was very powerful and memorable. She definitely made an impact and left an impression with the Hill staffers we met."

The Mississippi delegation was accompanied by Alex Flipse, a patient from the Pulmonary Hypertension Association who made it to most of their scheduled visits. "When Alex told one congressman and his staffer about the cost of one of the medications she was taking, they were in total amazement," says Bridgers. "They could not believe it was so high." The drug in question costs nearly $5,000 per month. "I think those who heard Alex were touched and concerned about her problem."

West says the 2012 event benefited from the attendance of 32 patients, who, like Jeannette and Alex, were able to emphasize the importance of chronic disease management services such as those that could be more easily provided by RRTs in the physician office should the Medicare Respiratory Therapy Initiative be signed into law. "Our bill would do wonders for patients who need ongoing help and assistance in the physician office setting to manage their chronic respiratory conditions," says West. "The patients who joined our PACT members on the Hill in March were able to convey that message in a way that respiratory therapists themselves could never get across."

You helped, too

The annual trek up Capitol Hill by the AARC PACT is essential to the Association's ability to advocate for legislative changes that will ultimately improve the lives of respiratory patients. But RTs back home do their part as well, through our Virtual Lobby Week, which has

More AARC PACT members in Washington, DC

The AARC urges everyone to learn more about the issues and then use the AARC's Capitol Connection site to email your congressional members.

Go to http://capwiz.com/aarc/issues

California

Oregon

New York

been taking place the week before the PACT meetings for the past several years. "By going to a special webpage set up for the event, this year supporters sent in more than 12,000 emails to their members of Congress asking for support of H.R. 941 just prior to our Hill Day," says West. "All these messages to the Hill helped assure that when your respiratory therapists sat down to go over our issues, the congressional member and his/her staff were well aware of the support from 'back home.'"

Frank Salvatore, Jr., MBA, RRT, FAARC, who chairs the AARC's Federal Government Affairs Committee, says he was impressed with the effort. "We keep getting better every year." But he emphasizes the mission does not end with the last Lobby Day visit for the year, and he encourages everyone to keep those emails flowing into Congress. "We've heard from legislators, and they've asked us to keep the emails coming since they are going to try to help us get a new CBO score or perhaps facilitate a meeting with the CBO on our Medicare Respiratory Therapy Initiative," he says. "Some have also given us the impression that they would sign on as co-sponsors; and, indeed, we gained 12 new co-sponsors within hours of completing Hill Day. Messages going to DC will keep the pressure on them to keep their commitments."

Do it for your patients

West urges everyone to learn more about the issues — which you can do on the Government Advocacy Web page at www.AARC.org — and then use the AARC's Capitol Connection site to email your congressional members. The Association makes it easy by providing an email template you can customize to your own situation, as well as direct links to the email addresses of your members of Congress. If you don't do it for your profession, says West, do it for your patients.

"The purpose of the AARC's public policy agenda, whether it is at the state or federal level, is to address the needs of our patients," she says. "We are especially sensitive to the fact that our patients have little or no voice in health policy, and it is a core mission for the AARC to provide that voice to them when others will not." ■

In Their Own Words

Advocating for legislation — respiratory or otherwise — is often a marathon rather than a sprint, and our members who make the PACT trip year after year know they're in it for the long haul. We asked the three PACT members we interviewed for this article why they do it and what they took away from this year's session that will keep them coming back for more. Here's what they had to say:

Who: Teena Culhane, RRT

Where: Michigan Society for Respiratory Care

Why she volunteers: I have always been interested in what I can personally do to help in the promotion and advancement of our profession and how we can better serve our patients. I truly believe in "grassroots efforts," and this is an excellent forum to promote our profession. I truly feel as though I am making a difference in our profession and in the lives of our patients.

Highlight of the 2012 trip: When asking the staffers if they were familiar with our profession, after five years of doing this, it was refreshing to finally not have to provide RT 101! Most of the staffers knew what we did and how we serve our patients. To me that means everything because it is very challenging to ask for support on a piece of legislation when the legislator doesn't understanding the basics. This also provided us more time to "get to the point" and focus on H.R. 941.

Who: Jerry Bridgers, AASD, CRT

Where: Mississippi Society for Respiratory Care

Why he volunteers: I volunteer for this effort because I love this profession, which has put food in my stomach, clothes on my back, and a roof over my head for 49 years. I am obligated to help where I can and when I am needed.

Highlight of the 2012 trip: I think this was one of the very best meetings we ever had, and I think all this occurred because of the relationships we have built over the years as we see the same people each year. There is some trust built by getting to know each other. The folks we met with also picked up on our concern for the cost of care and what we are trying to do to help bring it down. They know who we are now and are willing to listen.

Who: Keith Siegel, RRT, CPFT, AE-C

Where: Maine Society for Respiratory Care

Why he volunteers: This is my sixth year going to DC with my colleague and fellow Maine PACT representative Jack Higgins, RRT. I am a firm believer in the power of advocacy, as evidenced by our success a few years back with the pulmonary rehabilitation legislation.

Highlight of the 2012 trip: It has been amazing over the last six years that I have been going to DC to see how our relationships with our members of Congress and their staffs have grown. When we first started going, we had to explain what a respiratory therapist was. Now they know us and are very familiar with our issues. Both of our representatives are now co-sponsors of H.R. 941, and our two senators are supportive as well. We have made tremendous progress.

Arkansas

West Virginia

Georgia

Utah

Pennsylvania

Preparing the Profession for the Changing World of Health Care

Association puts its shoulder to the wheel to ensure RTs have what they need to care for their patients

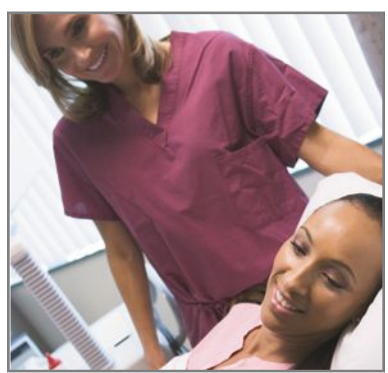
by Debbie Bunch

2011 in Words and Pictures

In the news

The AARC PACT made another successful trip to Washington, DC, to educate members of Congress on the Medicare Respiratory Therapy Initiative and other important legislation.

Respiratory professionals look back on 2011



Our goals continue to strengthen the RT's position as the premier provider of respiratory care services.

Fireworks created by the major economic news of late 2008 and the Patient Protection and Affordable Care Act of 2010 may have eased up by the time we entered 2011, but with significant provisions of the new law set to go into effect in 2013 and beyond, health care providers everywhere continued to put their shoulders to the wheel to ensure they would be ready.

The AARC fell right into step with this philosophy, redoubling its efforts to ensure respiratory therapists would have the representation, tools, and support they would need to thrive under the new paradigm. "As we mark our 65th anniversary, we know we have arrived as a profession," says AARC President Karen Stewart, MSc, RRT, FAARC. "Our goals continue to strengthen the RT's position as the premier provider of respiratory care services across the continuum of care and improve care for our patients."

On the following pages you'll see our major accomplishments for 2011. We think you'll agree — it was a year defined by an ongoing commitment to creating a stable future for your profession. ■

Members James Ginda, MA, RRT, AE-C, and Patty Resnik, MBA, RRT-NPS, FACHE, testified before a Senate hearing on air quality and children's health.

Preparing for Health Care Reform

With provisions of the Affordable Care Act clearly geared to breaking down the barriers between care providers, the AARC redoubled its efforts last year (through AARC Congress 2011, the Summer Forum, webcasts, and press releases) to position RTs for success under a more fully integrated health care system where facilities will be rewarded for coordinating care across the continuum and penalized for maintaining silos of care that don't take the patient's whole experience into account. Chief among the Association's concerns: new Medicare rules that will reduce reimbursement for hospitals with excessively high readmissions for patients with certain chronic conditions, such as pneumonia. Several initiatives, both ongoing and new, directly and indirectly addressed this area in 2011 and continue to do so today:

- **Medicare Respiratory Therapy Initiative:** Our continuing mission to pass legislation in Congress to allow qualified RRTs (RRT with bachelor's degree) to provide services in the physician's office setting under Part B Medicare would benefit the entire health care continuum by making it easier for physicians to use respiratory therapists to provide chronic disease management services. By teaching patients how to manage their conditions, use their inhaled medication devices correctly, and adopt smoking-cessation steps, office-based RTs would be able to help more patients stay at home and out of the costly acute care setting and, thus, become better self managers of their disease. The legislation already had the support of several of our sponsoring organizations, and the Cystic Fibrosis Foundation and Cystic Fibrosis Institute added their names to the list of supporters in 2011 as well, with letters to Congress.

- **"Hospital to Home" Project:** A joint effort between the AARC's Management and Home Care Sections, this project kicked off with a survey of acute care RC department managers to gauge their current role in reducing pulmonary-related readmissions and the extent to which they partner with local home care providers to ensure chronic disease management services extend into the home. The project continues this year as members of both sections work to develop programs to assist in the transition from hospital to home for respiratory patients. Later in 2012 webcasts will be made available to members describing this in more detail.

- **In-Hospital COPD Management Protocol:** The AARC joined colleagues from the American College of Chest Physicians, Society of Hospital Medicine, American Academy of Nurse Practitioners, and American College of Emergency Physicians in launching a new project that will ultimately result in an in-hospital protocol for COPD management that will include an evidence-based critical pathway. This pathway is designed to ensure more patients receive the guidance-based care, discharge planning, and timely and appropriate follow-up they need to recover from their acute exacerbations and make a successful transition to home without a readmission. ■

2011 in Words and Pictures

In the news worldwide

Grace Anne Dorney Koppel

enthralled attendees at AARC Congress 2011 with her inspiring story of living with COPD.

More Ways To Connect

Digital connections continued to take center stage at the AARC in 2011, as the Association built on the success of AARConnect, our social networking site for AARC members that launched in 2010. The Adult Acute Care and Transport Sections became the first to debut new and improved portals on the site, and all of the section and other discussion lists grew as more and more members took advantage of the opportunity to network with their peers.

We also began work on a new mobile app for AARConnect, which went live earlier this year. With the M2 app, Association members can access right on their phones all of their discussion lists, contacts, messages, and AARConnect profile, plus news from the AARC and upcoming events.

New apps also found their way to our two major meetings of the year. The Summer Forum in July was the first to test an app that delivered the program and everything else attendees needed to know about the meeting directly to their phones. A similar app was offered to attendees at AARC Congress 2011 last November.

We also launched an AARC YouTube channel last year to serve as a repository for videos related to the Association and the profession. But perhaps the biggest digital news of the year came when Respiratory Care® introduced several new digital features in March. First, the Journal joined *AARC Times* in producing a flipbook-style digital publication that provides readers with the same reading experience they receive when they turn the pages of the printed version. A new HTML format with cross-linking to references was also unveiled, giving readers instant access to the abstracts of papers cited in Journal articles. And an "ePub ahead of print" function now offers members the opportunity to read Journal articles months before they appear in the printed version, enhancing rapid dissemination of the most recent scientific evidence in the profession. ■

The 57th International

Respiratory Convention & Exhibition in Tampa last November attracted thousands of respiratory professionals from all over the world.

Getting Lung Health into the Public Eye

Over the last year, AARC members have been doing their part to raise awareness of lung health and the RC profession, as evidenced by the 250+ members who were featured in our regular "Good Press: AARC Members in the News" feature on www.AARC.org. The Association lent its support to several public relations efforts, including:

■ **DRIVE4COPD:** This nationwide program reached its initial objective of screening one million people for COPD in February, and the AARC played a big part in helping the program reach that goal by promoting screening events in communities throughout the United States. By spring we had taken our involvement to the next level, launching an Adopt-a-Company campaign to encourage AARC members to partner with employers in their area to deliver COPD education and screening to the people who need it most: working Americans who may have COPD but don't know it. The campaign reached hundreds of workers in states from Maine to California who not only learned more about COPD but also learned that RTs are specially trained health professionals who care about their lung health.

■ **24M Monument:** Another new aspect of DRIVE4COPD in 2011 was the unveiling of the 24M Monument by renowned international artist Michael Kalish. When the monument — which represents the 24 million undiagnosed Americans with COPD through a large, colorful pinwheel display — was introduced at the State Fair of Texas, AARC COO Thomas Kallstrom, MBA, RRT, FAARC, explained to a reporter from the Dallas CBS affiliate TV station why COPD and early detection is critical. He also discussed the role of the RT in COPD management and diagnosis. The monument was also on display during AARC Congress 2011 in Tampa, FL, and Association leaders attended that unveiling as well.

■ **Great American Screen Off:** DRIVE4COPD was back in the spotlight on Nov. 4, when AARC members supported the day-long effort to get the word out about the importance of early screening for COPD. You could find them tweeting about it and posting Facebook status updates throughout the day.

■ **YourLungHealth:** The AARC's website for consumers (www.YourLungHealth.org) continued to provide trusted information on lung health to patients and families dealing with respiratory conditions. We also added a new Prescription Assistance Program webpage to the site to help people who have a hard time affording their respiratory medications. The webpage was especially welcomed by consumers struggling to cope with the final phase-out of less expensive chlorofluorocarbon inhalers.

■ **HOSA Conference:** California members served as the AARC's ambassadors at the annual Health Occupations Students of America conference, which took place in Anaheim last year. RTs made sure high school students interested in pursuing health careers got a good overview of what the respiratory care profession has to offer. ■

2011 in Words and Pictures

California members represented the AARC at the annual Health Occupations Students of America conference.

Continuing Education: What You Need, When You Need It

Continuing education is always a top priority at the AARC, and 2011 was no exception. Our International Respiratory Convention & Exhibition® and Summer Meetings provided opportunities to learn the latest in respiratory care in a collegial setting, and our growing array of webcasts and other online programs made it easy to keep up with new developments at home and at work. We added several new programs to the list last year:

■ **VAP Workshops:** RTs in several states learned how to become ventilator-associated pneumonia (VAP) management leaders during workshops in several states. The workshops formed the basis for the development of our new online course, "Empowering the Respiratory Therapist To Be the VAP Expert," which debuted in February of this year and is now available to respiratory therapists nationwide.

■ **Interdisciplinary Team Education:** The AARC reached out to our colleagues on the health care team with the introduction of "Guide to Aerosol Delivery Devices for Physicians, Nurses, Pharmacists, and Other Health Care Professionals" in November. The booklet, which is available for free download, includes vital information to ensure our fellow clinicians are up to speed on the latest aerosol delivery information.

■ **International Exchange:** The AARC strengthened its place as an international association with an "exchange agreement" with the European Respiratory Society in which three international speakers from Italy and the United Kingdom addressed attendees at AARC Congress 2011 on invasive and noninvasive ventilatory strategies. AARC representatives also spoke at the ERS meeting in Amsterdam, Netherlands.

■ **Italian Translation:** As the interdisciplinary aerosol delivery guide was being finalized, AARC leaders were also working with colleagues in Italy to make our "Guide to Aerosol Delivery Devices for Respiratory Therapists" available to clinicians in Italy. The Italian translation joins Chinese, Arabic, and Spanish versions of this AARC guide, which are available for download on the International Council for Respiratory Care™ website.

■ **Alpha-1:** Also in the works last year was our new "Emerging Roles for the Respiratory Therapist in Alpha-1 Antitrypsin Deficiency" course. The online course debuted this February and is designed to provide RTs with a better understanding of alpha-1 and who should be tested for it.

Every year the Association offers more than enough continuing education credits (CRCEs) — most of them free of charge to members — to meet all licensure requirements. ■

The Iowa Society

was one of several state societies that benefited from a strategic planning session facilitated by the AARC.

Supporting Your Professional Practice

The AARC serves as an advocate for respiratory therapists, and nowhere is that more important than on the job. Whether it's a new resource, a voice to address regulators or other groups and associations, or representation on Capitol Hill, we're in your corner. Take a look at some of the major ways AARC has protected your professional practice over the past year:

■ **Medicare Recognition:** As noted earlier in this report, the AARC's Medicare Respiratory Therapy Initiative, currently pending in Congress, will advance the profession one step further by establishing a beachhead for RTs under Medicare law. It's a first step, but ultimately all RTs (and our pulmonary patients) will benefit from the recognition of our profession as the value of our clinical knowledge and assessment skills will finally be documented. We need your continued help to push members of Congress to support this initiative. Go to http://capwiz.com/aarc/issues/ and let your members of Congress know you support this important advancement for your profession.

■ **Pulmonary Rehabilitation:** Addressing ongoing issues with reimbursement for pulmonary rehabilitation under the new Medicare benefit topped the AARC's regulatory goals in 2011, as the Association worked closely with other organizations to convince the Centers for Medicare and Medicaid Services to institute a reasonable and fair reimbursement rate for these vital services. AARC and its partners are committed to finding a solution that will ensure people with chronic lung disease have access to pulmonary rehab programs nationwide. Part of the solution is a Pulmonary Rehabilitation Toolkit designed to help hospitals accurately report their pulmonary rehab charges. AARC launched the toolkit in March 2012.

■ **Disaster Response:** Working closely with government officials in the National Disaster Medical System (NDMS), the AARC continued to promote respiratory therapist involvement on Disaster Medical Assistance Teams and other teams that ensure our nation is prepared for any disaster that might come its way.

■ **30-Minute Medication Rule:** Long-running concerns over Medicare's 30-minute window for the administration of respiratory medications got a boost last year when the Institute for Safe Medication Practices (ISMP) finalized new guidelines calling for changes that would give facilities the flexibility to establish more realistic and safer goals for timely medication administration. The guidelines grew out of an AARC Position Statement on the rule that was accepted by Medicare and subsequently published by the ISMP.

■ **VAP Bundle:** The RT's voice was added to the development of a new VAP-prevention bundle funded by the National Heart, Lung, and Blood Institute when developers from Johns Hopkins reached out to the AARC for input. Recognized experts in ventilator care, Dean Hess, PhD,

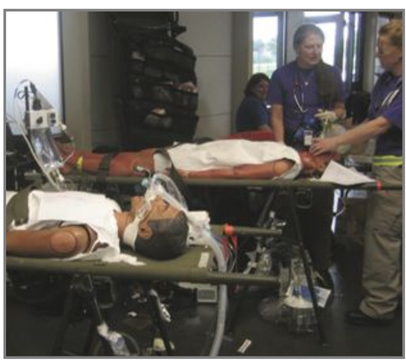
2011 in Words and Pictures

The University of New Mexico Hospital became the latest facility to receive the AARC's Asthma Self-Management Education certification.

RRT, FAARC, Richard Branson, MSc, RRT, FAARC, and Richard Kallet, MS, RRT, FAARC, are representing the respiratory care profession in the initiative.

■ **Clinical Alarms Survey:** When the Healthcare Technology Foundation (HTC) got ready to conduct its latest survey on clinical alarm issues, it turned to the AARC to marshal RT support. You answered the call. Respiratory therapists comprised nearly half of the total survey response, ensuring RT concerns will be taken into consideration as the HTF and its partners work to improve response to clinical alarms in the nation's hospitals.

■ **Competency Assurance Manual:** The Association offered its new "Orientation and Competency Assurance Documentation Manual for Respiratory Care, 2nd Edition," in March to provide an updated resource on the development of an orientation and competency assurance system for RC departments. Offered on CD, the manual reflects regulatory standards from Medicare and The Joint Commission, along with multiple



state respiratory care licensure laws. More than 90 useful forms are also included in the manual.

■ **Safety First:** AARC took the pledge to improve patient safety by joining Partnership for Patients, a new initiative sponsored by Medicare that will begin with two new patient safety goals: decrease preventable hospital-acquired conditions by 40% and reduce preventable complications during the transition from one care setting to another so that hospital readmissions would be reduced by 20%. These initiatives were soon supported by the development of two Patient Safety Checklists. One addresses the oxygenation of adults and children and the other is on the oxygenation of neonates during intra-hospital transport. The AARC offered them early this year.

The AARC also:

- Coordinated your participation in the online Health and Safety Practices Survey of Healthcare Workers sponsored by the National Institute for Occupational Safety and Health.
- Supported legislation in Congress to repeal home care competitive bidding.
- Assisted the Centers for Disease Control and Prevention in a Student Vaccination Survey.
- Networked with Medicare about the confusion over who can write respiratory care orders. According to the American Hospital Association, Medicare issued clarification early this year stating that such orders can be written by non-privileged practitioners in accordance with state license/scope of practice laws and written hospital policy.
- Wrote letters to Congress and federal agencies in support of asthma control, tobacco control, air pollution regulations, pulmonary fibrosis, and other issues important to respiratory health. ■

AARC Executive Director/CEO Thomas Kallstrom, MBA, RRT, FAARC, explained the Association's relationship to DRIVE4COPD's 24M Monument to a Dallas TV reporter.

Other AARC Activities of 2011

Here are just a few of the other things we did last year:

- Revised criteria for the Fellow of the American Association for Respiratory Care (FAARC) designation to include new provisions aimed at strengthening the quality of the award.
- Welcomed to our roster of international affiliates the Saudi Society for Respiratory Care.
- Sent leaders to speak at the annual Gulf Thoracic Society meeting in Dubai, United Arab Emirates, in March. They also presented an asthma workshop as a post-graduate course.
- Opened the AARC Disaster Fund to help members who had become tornado victims in the spring, and also for hurricane and wildfire victims in early fall. Member contributions to this fund totaled $34,190, and $19,527 was distributed to AARC members in need. ■

FIGURE 1. TOTAL REVENUES IN 2011 (Excluding Investments)

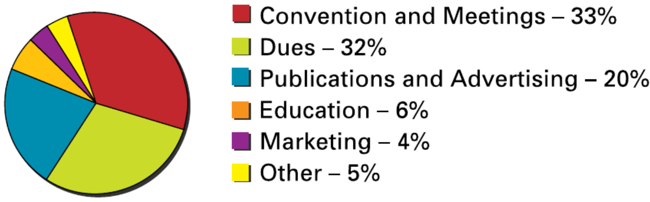
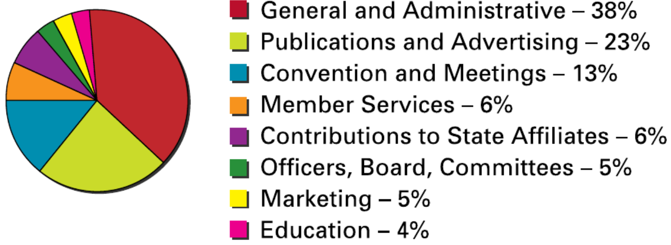


FIGURE 2. TOTAL EXPENSES IN 2011



2011 Annual Financial Report

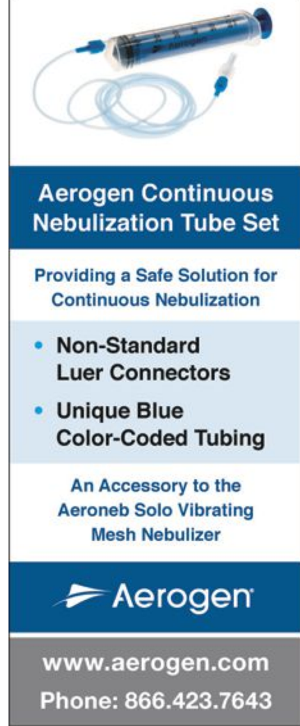
In February 2011, the AARC engaged the public accounting firm SalmonBeach and Associates to conduct an audit of its financial operations. It issued an unqualified opinion stating that the AARC's financial statements were presented fairly and conform with generally accepted accounting principles. In 2011, AARC's total revenues (excluding investments) were $9,504,000; total expenses were $8,924,000. Figures 1 and 2 highlight the sources of 2011 revenues and expenses. Net assets at the end of 2011 were $18,777,000. ■

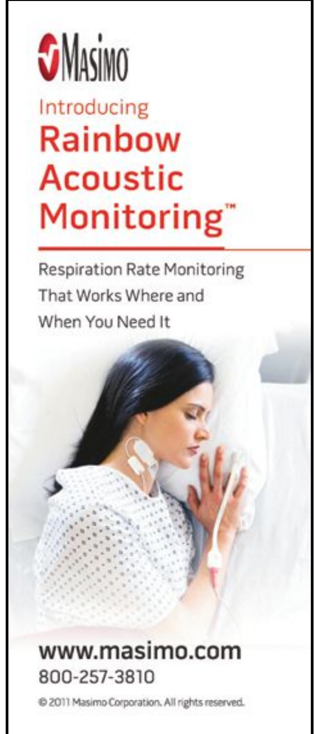
2011 in Words and Pictures

Our DRIVE4COPD Adopt-a-Company campaign delivered COPD screening to employers in several states, including Texas and Kansas.

Marketplace

Featuring information on products and equipment from manufacturers





Airway Pressure Monitor

The Vortran®-APM (Airway Pressure Monitor) can change the way the Vortran Automatic Resuscitator (VAR®) is used and valued. For a small investment you can use the VAR for inter- or intra-hospital transport, MRI/CT ventilation, as a backup ventilator for overflow of patients, and for disaster preparedness. Four different connection kits are available to meet a wide range of needs, and the APM also comes equipped with three visual and audible alarms to increase the safety for your patients, including high rate, high PIP, and a non-cycling alarm. www.vortran.com

▶ **Press releases and photos on new products are welcome. Send to Marsha Cathcart, *AARC Times* editor, at cathcart@aarc.org.**

NBRC Adult Critical Care Specialty Examination Set To Launch

by Lori M. Tinkler, MBA

The NBRC is pleased to announce that the Adult Critical Care Specialty (ACCS) Examination launch date is set for **July 17, 2012**. This new specialty examination is designed to objectively measure essential knowledge, skills, and abilities required of respiratory therapists working in adult critical care settings. The American Association for Respiratory Care (AARC) requested that the NBRC determine the desirability and feasibility of developing a specialty examination for respiratory therapists working in this specialty area, and the research concluded that there was a definite need and desire for this specialty credential.

To be eligible to take the Adult Critical Care Specialty Examination, a candidate must be an RRT with at least one year of experience in an adult critical care setting. This can include, but is not limited to, an intensive care unit, emergency room, long-term acute care setting, or post-anesthesia recovery room. This experience must be at least 21 hours per week in a calendar year and under medical supervision.

Because candidates for the Adult Critical Care Specialty Examination have already demonstrated advanced knowledge of basic respiratory care concepts by earning the RRT credential, the ACCS Examination will only test competencies that are unique to the adult critical care setting. The complete detailed content outline is available on the ACCS page of the NBRC website at www.nbrc.org, but the main content areas and cognitive level specifications are shown in Figure 1.

The Adult Critical Care Specialty Examination also includes two sets of secondary test specifications. One set will engage candidates' thinking about ethics, and the other is defined by patient condition. Each examination form includes five items that will contain an ethical component necessary to answer the question correctly. This component was included because it was determined that ethical considerations are part of what it means to be a specialist working in critical care. Specifications regarding patient condition are critical to aligning examination content with activities of specialists and standardizing test forms among candidates. The breakdown of patient conditions for each test form is shown in Figure 2.

To help candidates prepare for this examination, the NBRC has developed a free, 50-item practice examination that is available from the ACCS page of the NBRC website. This examination covers the content domains and cognitive level item types in the same proportions as the live examinations will cover. A full-length NBRC Self-Assessment Examination (SAE) is available for purchase on the NBRC website at www.nbrc.org. The SAE is the same length as the live examinations and provides explanations for each option and the correct answer. The NBRC Adult Critical Care Examination Committee developed both examinations.

NBRC examination candidates who apply for and schedule to test before **Aug. 31, 2012,** will receive a free NBRC Self-Assessment Examination. The free SAE will be provided upon the NBRC's acceptance of the application and scheduling of the examination appointment. The NBRC began accepting applications for this examination on **May 1, 2012**.

Candidates will have four hours to complete the 170-item examination that includes 150 scored items and 20 pretest items. The ACCS page on the NBRC website provides more detailed information regarding the applica-

about the author...

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

Figure 1. ACCS Examination Matrix

Adult Critical Care Specialist (ACCS)

Adult Critical Care Specialty Examination Matrix

Content Area	Recall	Application	Analysis	Number of Items
I. RESPIRATORY CRITICAL CARE	**5**	**18**	**35**	**58**
A. Manage Airways	1	3	6	10
B. Administer Specialty Gases	0	2	2	4
C. Manage Ventilation	4	12	24	40
D. Deliver Pharmacologic Agents	0	1	3	4
II. GENERAL CRITICAL CARE	**7**	**27**	**58**	**92**
A. Assess Patient Status and Changes in Status	0	5	22	27
B. Anticipate Care Based on Laboratory Results	1	3	6	10
C. Anticipate Care Based on Imaging and Reports of Imaging	1	2	4	7
D. Anticipate Effects of Pharmacologic Agents	1	3	7	11
E. Anticipate Care Based on Nutritional Status	1	2	1	4
F. Prevent Ventilator Associated Pneumonia	2	2	3	7
G. Recognize and Manage Patients with Infections and Sepsis	0	3	4	7
H. Manage End-of-Life Care	0	1	3	4
I. Prepare for Disasters	1	1	1	3
J. Interact with Members of an Interdisciplinary Team	0	1	2	3
K. Perform Procedures	0	1	1	2
L. Troubleshoot Systems	0	3	4	7
Totals	**12**	**45**	**93**	**150**

tion process, admission requirements, and other frequently asked questions.

The NBRC Board of Trustees and its committees are interested in your comments, questions, and concerns. You may contact the NBRC at 18000 W. 105th St., Olathe, KS 66061, by email at nbrc-info@nbrc.org, by phone at (888) 341-4811, or visit www.nbrc.org. ■

Figure 2. Secondary Test Specifications

Item content also will be classified by the condition or disorder described for each patient

Conditions or Disorders	Item Counts Across the Examination		
	Target	Acceptable Range for Each Test Form: Minimum	Maximum
General *No specific condition or disorder*	36	30	42
ALI / ARDS	15	11	19
COPD	13	10	16
Cardiac	13	10	16
Post-Surgical	11	8	14
Asthma	11	8	14
Trauma	10	7	13
Neurologic	7	5	9
Shock	7	5	9
Pulmonary Embolism	7	5	9
Immunocompromised	6	4	8
Pulmonary Hypertension	4	2	6
Bariatric	4	2	6
Burn / Inhalation Injury	3	1	5
Psychiatric	2	1	3
Cystic Fibrosis	1	0	1
Total	**150**		

Industry Watch

Discovery Laboratories receives FDA approval for Surfaxin

Discovery Laboratories Inc. has received FDA approval for Surfaxin® (lucinactant) for the prevention of respiratory distress syndrome in premature infants at high risk for RDS. The company anticipates that Surfaxin will be commercially available in the United States in late 2012. "The approval of Surfaxin is an important medical advancement for the neonatology community and parents of preterm infants, who will soon have an effective alternative to animal-derived surfactants to prevent the development of RDS," W. Thomas Amick, chairman of the board and CEO, was quoted as saying.

Dräger launches new continuing education program

Dräger has announced that, as part of its ongoing commitment to training and education, it has released an innovative online educational program titled "Dräger Academy — Basics of Respiration and Ventilation." The company worked with industry leaders in respiratory care management and education to develop the complementary educational program, which covers the fundamentals of respiratory physiology and mechanical ventilation. "Our customers demand not only high-quality products but also comprehensive and flexible training," Ed Coombs, MA, RRT-NPS, CPFT, regional marketing director for Draeger Medical Inc., was quoted as saying. "This new Dräger Academy program is interactive and Web-based, so it can be completed at the convenience of the clinician's schedule."

Covidien can market Nellcor software, sensor

According to Covidien, the FDA has granted 510(k) clearance to the company to market the Covidien Nellcor™ Respiration Rate Version 1.0 software and the Adult Respiratory Sensor. In late 2011, Covidien labeled the respiratory monitoring platform with the CE Mark and began to market it throughout the European economic area. A limited market release was implemented in the United States in April, allowing select hospitals to be the first to use the new technology.

Researcher receives Gates Foundation grant to study TB

Dr. David Alland, professor of medicine, chief of infectious diseases, and director of the Center for Emerging and Re-Emerging Pathogens at The University of Medicine and Dentistry of New Jersey (UMDNJ) has received a tuberculosis biomarkers grant from the Bill & Melinda Gates Foundation's Grand Challenges in Global Health program. The program's goal is to overcome persistent bottlenecks in creating new tools that can radically improve health in the developing world. Dr. Alland's project, which will attempt to identify and validate TB biomarkers, is titled "Permeable Magnetic Nanoparticles for Point-of-Care Tuberculosis Diagnosis."

Apria announces leadership changes

In an effort to operate its two business units more autonomously, Apria Healthcare Group Inc. has appointed separate CEOs for each. Daniel J. Starck has joined the company as CEO of Apria Healthcare Inc., the company's respiratory therapy home medical equipment operating unit. Daniel E. Greenleaf, who served in a dual role as AHI's COO and Coram Inc.'s president and COO, will become CEO of the company's Coram Inc. Specialty Infusion Services operating unit. Norman C. Payson, MD, will continue to serve as CEO and executive chairman of Apria Healthcare Group Inc., the parent company of both operating units.

Royal Philips Electronics makes progress in green product sales

According to Royal Philips Electronics, its green product sales in 2011 totaled 39% and are on track to reach the target of 50% in 2015. The company's health care sector achieved the highest green product nominal sales growth with 25%. The wearable IntelliVue MX40 Patient Monitor, which assists clinicians in managing patient alerts and uses 85% less power, was one of the products in the

health care sector that helped the company achieve its sales goal. Green products are part of the company's EcoVision program, which has set sustainability performance targets for the end of 2015.

COPD Foundation reaches thousands with information line

According to the COPD Foundation, its toll-free, HIPAA-compliant Call Our Patients Direct (C.O.P.D.) Information Line reached 30,000 individuals in 2011, communicating in 175+ languages. It provides one-on-one assistance to individuals with COPD, their family members, and caregivers. Operated by a team of professional, highly trained, peer-to-peer patients and caregivers, the contact center provides secure, confidential assistance, education, and support to individuals who want to learn more about COPD and its treatments, including pulmonary rehabilitation, compliance, and disease management. The C.O.P.D. Information Line, (866) 316-COPD (2673), operates 9 a.m. to 9 p.m. (EST), Monday through Friday.

ImThera Medical receives CE Mark approval for OSA treatment

ImThera Medical Inc. has received European CE Mark approval for its aura6000™ system for the treatment of obstructive sleep apnea. The system uses ImThera Medical's patented Targeted Hypoglossal Neurostimulation (THN Sleep Therapy™) method to focus neurostimulation on certain muscles of the tongue during sleep and has proven efficient in OSA patients who cannot comply with CPAP. The system is not yet available in America.

Kimberly-Clark launches patient safety education program

Kimberly-Clark has launched the QR (Quick Response) Code Patient Safety Education Program in collaboration with the Safe Care Campaign to provide hospitals with free patient and caregiver education at the bedside. The Patient Safety Education Program poster features "quick response" bar codes that offer instant access via a QR reader app or text message to educational vignettes on insisting proper hand hygiene from caregivers, preventing medication errors, and safety when a loved one is on a ventilator.

Merck details Phase III study results for allergy tablet

Results from a Phase III clinical study of Merck's investigational allergy immunotherapy tablet (AIT) for ragweed pollen show use of ragweed AIT significantly reduced the total combined score measuring nasal and eye symptoms and use of rescue allergy medicines (compared to placebo) in ragweed-allergic adults with or without asthma. The study, which was conducted during peak ragweed pollen season, was presented at the American Academy of Allergy, Asthma & Immunology meeting in Orlando. The company plans to file a New Drug Application for the AIT with the FDA in 2013.

Meda reports good results for MP29-02

Meda has announced positive results from three studies of MP29-02 (tentatively called Dymista), a novel intranasal formulation of azelastine hydrochloride and fluticasone propionate. In the first study, continuous treatment with MP29-02 for one year was well tolerated in patients with chronic allergic or nonallergic rhinitis, and MP29-02-treated patients experienced consistently greater relief from their nasal symptoms than fluticasone treated patients.

The second and third studies, which were conducted among patients with seasonal allergic rhinitis (SAR), found MP29-02 demonstrated significantly more effective relief of nasal symptoms versus azelastine, fluticasone, and placebo, and significantly greater ocular benefits versus placebo over a two-week study period. The studies were presented at the American Academy of Allergy Asthma and Immunology meeting in Orlando, FL. MP29-02 is currently under review by the FDA for the treatment of SAR.

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

New Members

Welcome to the AARC

U.S. Members

Dixon, Joann, Fairbanks, Ak*

Besant, Karon, Tuscaloosa, Al
Cobb, Terri, Daphne, Al*

Austin, Angela, Clarkridge, Ar*
Dailey, Rhonda, White Hall, Ar*
Herreid, Denise, Cabot, Ar*
Privett, Julie, Mammoth Spring, Ar
Starnes, Gloria, Harrison, Ar*

Blackstone, Amy, Phoenix, Az*
Carson, Lori, Phoenix, Az*
Gray, Tonya, Prescott, Az*
Griffith, Christine, Phoenix, Az*
Harvey, Leah, Fort Defiance, Az
Klein, Brandon, Peoria, Az
Lenik, Steven, Gilbert, Az*
Pauli, William, Scottsdale, Az*
Ross, Nadiya, Gilbert, Az*
Scholz, Samantha, Chandler, Az*
Ugarte, Jeanne, Phoenix, Az*
Wilson, Daniel, Peoria, Az*

Acord, Sherry, Ventura, Ca*
Alali, Fatima M, Loma Linda, Ca
Alharbi, Areej A, Loma Linda, Ca
Alnashwan, Arwa I, Loma Linda, Ca
Alvarez, Shelley, Burbank, Ca
Anderson, Eric, Rancho Palos Verdes, Ca*
Argaw, Sosena, North Hollywood, Ca
Arnolde, Vickie, San Jose, Ca*
Baldinger, Caryn, San Jose, Ca*
Baluyut, Pablo, Fremont, Ca*
Beltran, Natalie M, Loma Linda, Ca
Bibera, Wilberto, Cerritos, Ca*
Borro, Daniel Joven C, Porter Ranch, Ca*
Cavalier, Mona, Sherman Oaks, Ca
Chaidez, Jesus, South Gate, Ca*
Cobangbang, Bryan, Northridge, Ca
Crownover, Michelle, Soulsbyville, Ca*
Dacuag, Fernando, Sun Valley, Ca*
David, Sheila, Arleta, Ca
Devenere, Mark, San Diego, Ca*
Diaz, Alexis, Daly City, Ca*
Dority, Jackie, Chula Vista, Ca*
Duran, John, North Hollywood, Ca
Dzimiri, Edward, Beaumont, Ca
Dzimiri, Tafadzwa, Beaumont, Ca
Egbert, Michael, Hollister, Ca*
Farrah, Steven, Torrance, Ca*
Gallegos, Brenda, San Francisco, Ca*
Gandionco, Rowena, Burbank, Ca*
Gaos, Charles, Stevenson Ranch, Ca*
Garcia, Misael, Pacoima, Ca
Glickman, Diane, Vallejo, Ca*
Goeting, Raffaello, Yucaipa, Ca*
Greenwalt, Sandra, Lakeside, Ca*
Gutierrez, Marie, Pacoima, Ca
Habell, Sheena M, Claremont, Ca
Haile, Hadis, Sherman Oaks, Ca
Hajjam, Nada M, Loma Linda, Ca
Hatcher, Brian, Huntington Beach, Ca
Hernandez, John M, San Bernardino, Ca
Herrera, Jose Manuel, Winnetka, Ca
Hummel, Ryan, Galt, Ca*
Ibarra, Eduardo, San Bernardino, Ca
Ivanov, Ivan, Sherman Oaks, Ca
Jessen, Katharine, Oakland, Ca*
Kaufman, Lisa, Moreno Valley, Ca*
Kellond, Thomas, Mountain View, Ca*
Koenig, Mindy, Modesto, Ca*
Koski, Linda, Brentwood, Ca*
Lee, Polly, Rosemead, Ca
Lindert, Alex, Elk Grove, Ca*
Long, Catherin, Santa Ana, Ca*
Mandap, Mary-Ann, Sylmar, Ca
Mangona, Allan, Panorama City, Ca
Manshadi, Reza, Van Nuys, Ca
Martinez, Ivette, North Hollywood, Ca
McGregor, Fernando, Rosamond, Ca
McLeod, Melana, El Cajon, Ca*
Meloy, Karen, Palm Desert, Ca*
Nena, Eric, Stevenson Ranch, Ca*
Nikkel, Michael, Sherman Oaks, Ca*
Nuno, David, Van Nuys, Ca
Nutting, Morgan, Mount Aukum, Ca*
Obeyesekere, Rajitha, Pasadena, Ca*
Ocampo, Olga, Panorama City, Ca
Oneal, Erin, Lancaster, Ca
Ostering, Linda, Modesto, Ca*
Ovando, Richard, Los Angeles, Ca*
Paguio, Mariela, Van Nuys, Ca
Palacios, Michelle, Sylmar, Ca
Pardon, Kimberley, Winnetka, Ca
Peacock, Janet, South Lake Tahoe, Ca*
Peterson, Ute, Hesperia, Ca*
Petrosyan, Arpine, Glendale, Ca
Postma, Jason, Bakersfield, Ca*
Rojas, Ernest, Lompoc, Ca*
Rosen, Mitchell, Glendale, Ca
Ruelas, Marisela, Van Nuys, Ca
Schaffer, Vanessa, North Highlands, Ca*
Shahjahanian Zarneh, Roubina, Glendale, Ca
Sidabutar, David, Redlands, Ca*
Skinner, Terrel, Van Nuys, Ca
Spears, O B, Yucaipa, Ca*
Stefero, Larissa, Anaheim, Ca*
Tabaei, Elly, Montrose, Ca*
Teears, Andrew, Bakersfield, Ca*
Teshaye, Meheret, Panorama City, Ca
Touzani, Ali, Cerritos, Ca
Tov, Seyla, Rosemead, Ca
Tremaine, Jody, Quartz Hill, Ca*
Tybursky, Jaclynn, Union City, Ca*
Vanvleet, Joseph, Los Angeles, Ca
Velis, Reyes, Hollywood, Ca
Walker, Patricia, Visalia, Ca*
Warner, Danica, Murrieta, Ca*
Watchinda, Sombat, Arleta, Ca
Wilson, Christopher, Visalia, Ca*
Xu, Ying, South San Francisco, Ca*
Yap, James, Diamond Bar, Ca*
Zenkus, Kenneth, Poway, Ca*

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Bell, Kasey, Usafa, Co*
Berryman, Cherease, Aurora, Co
Clem, Paul, Arvada, Co*
Coash, Elizabeth, Nederland, Co*
Esperanza, Miriame, Broomfield, Co
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Gadash, Callie, Lamar, Co*
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Morrison, Wendy, Denver, Co*
Olson, Jesse, Alamosa, Co*
Rodriguez, Martha, Lafayette, Co
Sardi, L, Palmer Lake, Co
Smoot, Jessica, Westminster, Co
Swain, Chris, Greeley, Co

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Cayon, Allison, Windsor, Ct*
Chinyumba, Dorcas, Bridgeport, Ct
Coyer, Ashley, Yantic, Ct
Kirchner, Rachel, Harwinton, Ct*
Laliberte, Cassandra, Ellington, Ct
Levine, Adam, Newington, Ct*
O'Brien, Peter, Norfolk, Ct*
Paruolo, Sharmaine, Manchester, Ct*
Vojick, Wayne, Norwich, Ct*

Bieber, Jeff, Milford, De*
Dixon, Demarques, Newark, De*
McCartney, Paul, New Castle, De*
Octavio, Michelle, Lewes, De*

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Arnold, Heather, Lynn Haven, Fl*
Avariano, Alexander, Cutler Bay, Fl
Betts, Jodi, Apollo Beach, Fl*
Brown, Sheheed, Lauderdale Lakes, Fl
Cummings, Bakir, Coral Springs, Fl*
Fowler, Donald, Niceville, Fl*
Gipson, Dorothy, Homestead, Fl*
Guerrier, Nadine, Hallandale, Fl
Hans, Mitchell, Delray Beach, Fl*
Herrera, Leonardo, Miami, Fl
Krenzer, Kirsten, Orlando, Fl*
Lanoue, Stephanie, Orlando, Fl*
Lee, Beth, Safety Harbor, Fl*
Leon, Irving, Fort Pierce, Fl*
Leonberger, Travis, Gulfport, Fl*

These individuals have been approved for membership in the AARC. Any member may object to a new membership by filing a written objection with the Executive Office within 30 days. *Active Members

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Velis, Patrick, Kamuela, Hi*

Nevins, Shawna, Ankeny, Ia

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Gunderson, Maiki, Boise, Id
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Williams, Josh, Kuna, Id

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Boone, Honey, Swansea, Il*
Boulware, Dede, Bloomington, Il
Bruck, Laura, Chicago, Il
Castelli, Anita, Evergreen Park, Il*
Castillo, Veronica, Chicago, Il
Dilger, Kathryne, Stewardson, Il
Estrada, Jesus, Steamwood, Il*
Estrada, Rosanna, Streamwood, Il*
Jacklin, Patricia, Downers Grove, Il*
Jerfita, Mike, Orland Park, Il*
Johnson, Louann, Winneabego, Il
Kamathia, Sheetal, Chicago, Il

Koshy, Jacob, Tinley Park, Il*
Laugges, Adam, Champaign, Il
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Odunewu, Oladipupo, Chicago, Il*
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Pascale, Maryellen, Des Plaines, Il*
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Skweres, Jennifer, Chicago, Il*
Tengler, Eric, Chicago, Il*
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Thayer, Nathan, Mattoon, Il
Tinoco, Lourdes, Burbank, Il*
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Weinmann, Marge, Downers Grove, Il*
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Whiteside, Amy, Chicago, Il*

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McClain, Tonja, Redkey, In*
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Rairdon, Matthew, Speedway, In*
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Toussaint, Shelia, Fishers, In*

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Kline, Katrina, Liberal, Ks*
Lanter, Scott, Wilson, Ks*
Nguyen, Haylee, Topeka, Ks
Rumold, Brittany, Topeka, Ks
Segura, Janet, Shawnee, Ks*
Skinner, Vyn, Topeka, Ks*
Smith, Ashley, Topeka, Ks

Alexander, Amanda, Lexington, Ky*
Badami, Don, Louisville, Ky*
Edwards, Lois, Richmond, Ky*
Embry McRae, Melissa, Brandenburg, Ky*
Folckemer, Nancy, Richmond, Ky*
Gravley, Kashonda, Gracey, Ky
Guyse, Nancy, Brandenburg, Ky*
Harris, Kara, Lexington, Ky*
Lebrun, David, Van Lear, Ky*
Nobrega, Sheila, Morehead, Ky*
Overbee, Michael, Nicholasville, Ky
Pacheco, Cynthia, Lexington, Ky
Preece, Tracye, Louisa, Ky
Roley, Jeffrey, Erlanger, Ky
Vance, Valerie, Blaine, Ky
Witt, Danielle, Alexandria, Ky

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Brodnax, Peggy, Pineville, La
Broussard, Pashine, Crowley, La*
Byrum, Brandi, Belle Chasse, La*
Coyer, Ian, Shreveport, La
Cutts, Suzanne, Pineville, La
Henry, Joseph, West Monroe, La
King, Brandon, Pollock, La
Leary, Delana, Haughton, La
Lowens, Kasata, Bossier, La*

Mayeux, Charles, Harahan, La*
Roberts, Matthew, Shreveport, La
Steiner, Joseph, West Monroe, La
Taylor, Malissia, Springhill, La
Trosclair, Adam, Marrero, La*
Tyson, Kayla, Haughton, La

Antista Finkelstein, Della, Elliott City, Ma*
Arbuzova, Ludmila, Springfield, Ma
Charles, Darly, Cambridge, Ma*
Chaudhry, Umar, Weymouth, Ma
Clark, Oliva, Hampden, Ma
Darosa, Sandra, Haverhill, Ma*
Davis, Ryan, Palmer, Ma
Falbo, Kristen, Sharon, Ma*
Ferreira, Sheri, Taunton, Ma
Gordievsky, Galina, Palmer, Ma
Green, Kaylina, Springfield, Ma
Hill, Rachel, South Grafton, Ma*
Jensen, Regina, Dorchester, Ma
Kaiser, Jason, Turners Falls, Ma
Kaletina, Anna, Chicopee, Ma
Korobkov, Rudolf, West Springfield, Ma
Lyubezhanin, Aleksandr, Feeding Hills, Ma
McCall, Maura, Lynn, Ma*
Mitchell, Catherine, Dedham, Ma
Molina, Ivette, Topsfield, Ma*
Oconnor, Kim, Westfield, Ma*
Reidister, Margaret, Winthrop, Ma*
Saunders, Rachael, Holyoke, Ma
St Laurent, Michael, North Dartmouth, Ma*
Thompson, J Beno, Brookline, Ma*

Ahmed, Ekram, Silver Spring, Md*
Babauta, Allen, Brandywine, Md*
Burgess, Jaime, Timonium, Md*
Butler, Troy, Waldorf, Md*
Carter, Mary Catherine, Westminster, Md*
Collins, Leon, Frederick, Md*
Hazlett, Katherine, Abingdon, Md*
Kahl, Greg, Bel Air, Md*
King, Cathleen, Frederick, Md*
Michaels, Tyler, Mount Savage, Md*
Neshawat, Michelle, Frederick, Md*

Cain, Ashley, South Portland, Me*
Ottmann, David, Lagrange, Me*

Aldridge, Eric, Traverse City, Mi*
Arnett, Brenda, Athens, Mi*
Cabalum, Michelle, Sterling Heights, Mi*
Feldkamp, Kari, Adrian, Mi*
Gellani, Abdulwahab, Dearborn, Mi
Glynn, Brandy, Fruitport, Mi*
Hall, Tammy, Monroe, Mi*
Howard, Rebecca, Wyandotte, Mi
Hoyt, Daniel, Portage, Mi*
Lippard, Heidi, Clinton Township, Mi*
Loy, Lindsey, Davison, Mi*
Mathison, Paul, Harrison Township, Mi*
Moore, Tina, Portage, Mi*
Vandenberg, Mariah, Grand Rapids, Mi*
Willis, Michael, Jackson, Mi*
Wisor, Matthew, Greenville, Mi*
Yost, Mark, Kalamazoo, Mi*

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Birkeland, Lindsey, East Grand Forks, Mn
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Bourgois, Lacey, East Grand Forks, Mn
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Eirten, Jonathan, Minneapolis, Mn*
Eirten, Tamera, Minneapolis, Mn*
Gritzmacher, Samantha, East Grand Forks, Mn

Heichel, Julie, East Grand Forks, Mn
Hoefs, Kirsten, East Grand Forks, Mn
Irby, Megan, East Grand Forks, Mn
Jensen, James, East Grand Forks, Mn
Johnsen, Ellie, Wyoming, Mn*
Johnson, Erica, East Grand Forks, Mn
Landgren, Lucus, East Grand Forks, Mn
Mumm, Kevin, East Grand Forks, Mn
Mutnansky, Kristen, East Grand Forks, Mn
Ness, Alex, East Grand Forks, Mn
Noss, Kelsey, East Grand Forks, Mn
Post, Karen, Lakeville, Mn*
Rosenau, Savanna, East Grand Forks, Mn
Simmons, William, Duluth, Mn*
Smith, Linda, Cloquet, Mn*

Bradley, Mandy, Summersville, Mo
Chickvary, Hollie, West Plains, Mo
Clentimack, Ciji, Thayer, Mo
Collins, Nicole, Pottersville, Mo
Deshazo, Nathan, West Plains, Mo
Dragon, Mark, Oxly, Mo*
Falls-Ary, Kristi, West Plains, Mo
Gerbasi, Carol, Ava, Mo
Grunau, Randy, Columbia, Mo*
Hall, Britany, Springfield, Mo
Jegel, Michelle, Saint Louis, Mo*
Kinder, Daniel, West Plains, Mo
Lincoln, Brittany, Fenton, Mo*
McCullough, Ashley, Thayer, Mo
McCullough, Howard, Kansas City, Mo*
McInturff, M Christine, O Fallon, Mo*
Montague, Rozanna, West Plains, Mo
Norberg, Jessica, West Plains, Mo*
Renshaw, Erika, Willow Springs, Mo
Rodery, Tiffany, Kennett, Mo*
Schulz, Susan, West Plains, Mo
Smith, Caprice, Saint Louis, Mo
Snyder, Amber, West Plains, Mo
Stanfield, Amy, Lees Summit, Mo*
Taylor, Wendy, Willow Springs, Mo
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Thomas, Lesley, Saint Joseph, Mo*
Voyles, Gina, Nixa, Mo*
Watkins, Ashley, West Plains, Mo
White, Kambri, Mountain Grove, Mo
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Hignight, Sara, Olive Branch, Ms
Underwood, Kimberly, Sumrall, Ms*

Cole, Roberta, Helena, Mt*
Corbett, Blanca, Great Falls, Mt*
Crites, Leanne, Bozeman, Mt*
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Moseley, Maryanne, Missoula, Mt*
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Cadle, Evelyn, Conover, NC*
Chacko, Reji, Morrisville, NC
Davis, Larry, Swansboro, NC*
Garner, Craig, Winterville, NC*
Holly, Pamela, Catawba, NC*
Hujar, Daniel, Cary, NC*
Hutchins Hill, Robin, Mount Airy, NC*
Kirkpatrick, Domonique, Candler, NC*
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Chapin, Janina, Lincoln, Ne*
Goodner, Cindy, Elm Creek, Ne*
Naeve, Anna, Omaha, Ne*
Turman, Joyce, Lincoln, Ne*

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Buntele, Thomas, Dumont, NJ*
Callan, Graham, Secaucus, NJ*
Degregory, Kimberly, Red Bank, NJ*
Dewitt, Madeleine, Piscataway, NJ*
Gaines, Colette, Cherry Hill, NJ*
Louis, Patrick, East Orange, NJ*
Mandal, Jayvee, Edison, NJ*
Moreno, Nicole, Hackensack, NJ*
Pape, Edward, Pitman, NJ*
Paredes, Eddy, Edison, NJ*
Rainey, Renee, Piscataway, NJ*
Stewart, Carolyn, Clifton, NJ*
Szymanski, Robert, Bradley Beach, NJ*
Turner, Elvis, Mount Laurel, NJ*
Vasios, Alexa, Riverdale, NJ*
Vincent, Meuvz, Livingston, NJ*
Watts, Diane, Colonia, NJ*

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Garringer, Samantha, Rio Rancho, NM
Noble, Francis, Los Lunas, NM*

Palumbo, Gary, Reno, Nv*

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Addo, Rosemary, Bronx, NY
Baranov, Artem, Brooklyn, NY*
Boland, Charlie, Troy, NY
Brown, Mark Lovell, Brooklyn, NY*
Bucci, Robert, Corfu, NY
Chin, Camille, Brooklyn, NY*
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Clark, Kimberly, Rochester, NY
Clarke, Philip, Leroy, NY*
Cook, Matthew, Rochester, NY
Cosgrave, Pamela, Schodack Landing, NY*
Crepulja, Marko, Rochester, NY
Cyr, John, Fairport, NY
Darius, Marvin, Brooklyn, NY*
Dobosz, Hanna, Walworth, NY
Dorrough, April, Rochester, NY
Foos, Evan, Churchville, NY
Francabandiero, Michelle, Lake Katrine, NY*
Frank, Stacey, Rochester, NY*
Furlong, Cheryl, Darien Center, NY*
Gelin, Savenise, Brooklyn, NY*
Gentile, Carey, Valley Falls, NY
Halse, Sabrina, Mechanicville, NY*
Hamilton, Robbie, Penn Yan, NY
Hazlett, Jennifer, Fort Plain, NY
Holtermann, Peter, Clifton Park, NY*
Jack, Joyce, Howard Beach, NY*
Jimerson, Darlene, Perry, NY
Koeth, Jessica, Corfu, NY
Kurshuk, Christopher, Islip Terrace, NY*
Lajoie, Lindsey, Hornell, NY
Leighton, Andrew, Rochester, NY
Luk, Yola, New York, NY*
Major Olivant, Dianne, Harrison, NY*
Mank, Katie, Tonawanda, NY
Marshall, Jennifer, Rochester, NY
Martin, Joseph, Wynantskill, NY
Martyniak, Marcella, Mahopac, NY*
McGuire, Robert, Lynbrook, NY*

Mendoza, Maria, Cohoes, NY*
Moroz, Pavel, Brooklyn, NY*
Page, Brigitte, Fayetteville, NY*
Palacio, Maria, Le Roy, NY
Palermo, Mark Earoll, Albany, NY*
Patel, Nehal, West Henrietta, NY
Powers, Michael, Hornell, NY
Rapple, Lisa, Malta, NY*
Read, Darren, Town, NY
Rings, Jeffrey, Delmar, NY
Sargent, Edwin, Batavia, NY
Schultz, Taylor, Kendall, NY
Schumacher, Angela, Kendall, NY
Seda, Kelly, Bronx, NY*
Sexton, Wendy, Livonia, NY
Sherman, Cynthia, Rochester, NY
Spurling, Richard, Mexico, NY*
Wolfe, Tracy, Hudson, NY*

Adams, Tiffany, Bethel, Oh
Aqel, Maysa, Westerville, Oh
Baird, Sarah, Batavia, Oh
Baldwin-Miller, Teri, Wadsworth, Oh*
Barrows, Akeisha, Reynoldsburg, Oh
Bechkowiak, Elizabeth, Chardon, Oh*
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Blair, Penny, Middletown, Oh*
Blower, Walter, Cincinnati, Oh*
Bolinski, Susan, Andover, Oh*
Bosongo, Miphie M, Columbus, Oh
Boylan, Anne, Columbus, Oh
Burke, Andrea, Cincinnati, Oh
Clark, James, Galloway, Oh
Clingerman, Brenda, Gahanna, Oh
Coppus, Haley, Findlay, Oh
Crawford, Bobbi, Toledo, Oh*
D'alessandris, Eileen, Akron, Oh*
Davis, Ann, Xenia, Oh*
Davis, Charlotte, Brunswick, Oh
Deatsman, Ben, Milford, Oh
Dorband, Christopher, Vaughnsville, Oh*
Eckel, Lindy, Bethel, Oh
Edwards, Lisa, Batavia, Oh
Egresi, Kara, Columbus, Oh
Evans, Ben, Batavia, Oh
Faulhaber, Kevin, Sheffield Lake, Oh*
Filbrun, Cindy, Springfield, Oh*
Franklin, Clay, Antwerp, Oh
Gilbride, Carrie, Wadsworth, Oh*
Gradert, Amanda, Broadview Heights, Oh*
Greenlee, Leigh, Barnesville, Oh*
Gundrum, Ethan, Columbus, Oh
Hawkins, Cynthia, Parma, Oh*
Hayward, James, Cincinnati, Oh
Held, Carolyn, Brunswick, Oh
Heyman, Cecil, Hilliard, Oh*
Hiltibran, Jeffrey, Mason, Oh
Hoffman, Steven, Westlake, Oh*
Holtz, Melissa, Cincinnati, Oh
Inghram, Cheryl, Chardon, Oh
James, Christopher, Cincinnati, Oh
Jody, Hayslip, Bethel, Oh
Jordan, Sheila, Columbus, Oh
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Keith, Renee, Avon Lake, Oh*
Klaty, Robert, Batavia, Oh
Klausing, Courtney, Spencerville, Oh*
Klimek, Elizabeth, Pickerington, Oh
Lamb, Staci, Lima, Oh*
Lansaw, Ahern, Franklin, Oh
Lutz, Betty, Lancaster, Oh
Lyons, Patty, Westerville, Oh
Mackeverican, Kari, Grove City, Oh
McCaleb, Jazmine, Columbus, Oh

Melillo, Rose, Niles, Oh
Miles, Olivia, Columbus, Oh
Mills, Benjamin, Cincinnati, Oh*
Nathan, Brock, Amelia, Oh
Paris, Elaine, Bexley, Oh
Pat-Aklibosu, Isaac, Blacklick, Oh
Pelfrey, Robert, Amherst, Oh*
Piet, Erica, Eastlake, Oh*
Regnold, Lisa, Cincinnati, Oh*
Rosser, Rhiannon, Columbus, Oh
Ruffin, Cassandra, Cleveland, Oh*
Saint, Julie, Grove City, Oh
Sarka, Heather, Fort Jennings, Oh*
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Schwier, Sarah, Milford, Oh
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Simpson, Jason, Amelia, Oh*
Steele, Evanda, Cincinnati, Oh
Stetter, Stacy, Cincinnati, Oh*
Thacker, Kendra, Lancaster, Oh
Thompson, Benjamin, Cincinnati, Oh
Wang, Eric, Columbus, Oh
Weir, Thomas, Kettering, Oh*
Whitt, Arnetta, Dayton, Oh*
Withrow, Stacy, Louisville, Oh*
Wright, Nathaniel, Batavia, Oh

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Harrington, Patricia, Miami, Ok*

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Gardner, Jennifer, Eugene, Or*
Thurow, Kathy, Portland, Or*

Appenzeller, Ethel, Philadelphia, Pa*
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Barlow, David, Munhall, Pa*
Bell, Ycedra, Kunkletown, Pa*
Billedo, Michael, Monroeville, Pa*
Blessing, David, Mechanicsburg, Pa*
Burke, Stacey, Montoursville, Pa*
Cates, Charles, Mohrsville, Pa*
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Harmison, Deborah, Burgetttown, Pa*
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Hufman, Stacey, Sidman, Pa*
Instone, John, Johnstown, Pa*
Keck, Jason, Bethlehem, Pa
Khazal, Rula, Narberth, Pa*
Kolvites, Grace, Mahanoy City, Pa*
Margetan, Robert, Conemaugh, Pa
Merritt, Charles, Sharpsville, Pa*
Mitchell, Joy, Saegertown, Pa*
Neff, Patricia, Glen Mills, Pa*
Rajabi, Laila, Newtown Suqare, Pa*
Richards, Olivia, Philadelphia, Pa
Saint Eustache, Roberto, Philadelphia, Pa
Schroeder, Kelly-Ann, Bethlehem, Pa*
Tucker, Maureen, Glenside, Pa
Vavick, Michael, Latrobe, Pa*
Yarkosky, Lyndsi, McMurray, Pa*
Zingani, Earl, Newtown Square, Pa*

Lozada, Nivea, Gurabo, PR

Cortes, Magaly, North Providence, RI*
Iavarone, Stephen, Cumberland, RI*
Levesque, David, Lincoln, RI*

Alvarenga, Karen, Piedmont, SC*
Bruton, Jamel, McCormick, SC*
Downes, William, Landrum, SC*
Duncan, Tracey, Greenville, SC*
Evatt, Rhonda, Pendleton, SC*
Smith, Lydia, Summerville, SC*
Young, Michael, Piedmont, SC*

Croston, Betsy, Baltic, SD*

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Gilbert, Heather, Chattanooga, Tn*
Hampton, Edward, Memphis, Tn*
Hipshire, Kasey, Surgoinsville, Tn*
Muthu, Endumathi, Nashville, Tn

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Almaguer, Ashley, San Antonio, Tx
Avila, Juan, San Antonio, Tx
Castro, Wendy, Fort Worth, Tx*
Clark, Jennifer, Weatherford, Tx*
Davis, Marvin, Arlington, Tx*
Fabian, Leslie, Humble, Tx
Fontenette, Darryl, Tomball, Tx*
Galloway, Heidi, Sunray, Tx*
Gaudin, Andrew, Dallas, Tx*
Gilpin, Terry, Fort Worth, Tx*
Gonzalez, Carol, Round Rock, Tx*
Hall, Stacey, Lumberton, Tx
Harper, Wallace, Garland, Tx*
Hickman, Philip, Euless, Tx*
Howard, Aniska, San Antonio, Tx
Kayinza, Ritta, Houston, Tx
Kuruvilla, Thomas, San Antonio, Tx*
Lowery, Joseph, Kingwood, Tx*
Martin, Wanda, Palestine, Tx*
Mathew, Sibu, Mesquite, Tx*
McHorse, Claire, San Antonio, Tx
Mills, Robin, Ft Worth, Tx*
Morello, Priscilla, Huffman, Tx
Oliapurath, Kruvila, Irving, Tx*
Ombati, Everline, Arlington, Tx*
Osei-Sarfo, Lydia, North Richland Hills, Tx*
Panek, Anna, San Antonio, Tx
Patel, Shravan, Fort Worth, Tx*
Plain, Kimberly, Conroe, Tx*
Pope, Teresa, Eagle Pass, Tx*
Smith, Rick, Round Rock, Tx*
Temam, Muna, Wylie, Tx*
Vadakkan, Janet, Frisco, Tx
White, Danny, Arlington, Tx*
White, Erica, Plano, Tx*
Williams, Wanda, Houston, Tx*
Zapata, Sergio, El Paso, Tx*

Akana, Craig, Sandy, Ut*
Bashaw, Brooke, South Jordan, Ut
Hardy, Monica, Springville, Ut
Morrill, Martina, Roy, Ut*
Neumeyer, Trisha, Farr West, Ut*
Schacht, Julee, West Jordan, Ut
Schaffer, Stacey, Clearfield, Ut*
Stevenson, Lesley, Pleasant Grove, Ut
Thurgood, Jeremy, Saint George, Ut
Walker, Kaisha, Woods Cross, Ut
White, Brett, Riverton, Ut
Winfield, Ruth, Syracuse, Ut*

Bickerton, Mark, Barhamsville, Va*
Boyd, Yolanda, Danville, Va*
Gates, Robert, Manassas, Va
McMaster, Julie, Virginia Beach, Va*
Price, Melinda, Woodbridge, Va*
Weir, Kristin, Mechanicsville, Va*

Coutu, Courntey, Saint Albans, Vt*
Knapp, Randall, Quechee, Vt*
McMann, Angela, Warren, Vt
Rowell, Janet, Middlebury, Vt*

Ashifi, Rose, Auburn, Wa
Foster, Nancy, Fort Lewis, Wa*
Foubare, Donald, Federal Way, Wa*
Havner, Claudia, Kennewick, Wa*
Huynh, Lan, Seattle, Wa
Jenkins, Melissa, Renton, Wa
Kiruki, Lucy, Auburn, Wa
Lee, Daniel, Seattle, Wa*
Levene, Sarah, Yakima, Wa*
Liles, Ryan, College Place, Wa*
Nguyen, Nhanthanh, Kent, Wa
Nguyen, Thuong, Burien, Wa
Petlig, Jennifer, Auburn, Wa*
Reich, Deborah, Nine Mile Falls, Wa*
Sherrodd, Sandy, Liberty Lake, Wa*
Stimpson, Claudia, Kirkland, Wa*
Tachinskaya, Alla, Federal Way, Wa
Thuline, Sheri, Puyallup, Wa*
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Dryer, Jennifer, De Pere, Wi
Fleischfresser, Sara, West Allis, Wi*
Hetrick, Tiffany, Green Bay, Wi
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Olson, Jessica, Marathon, Wi
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RC Currents

IN THE NEWS

Educators: Help Recognize Outstanding Students

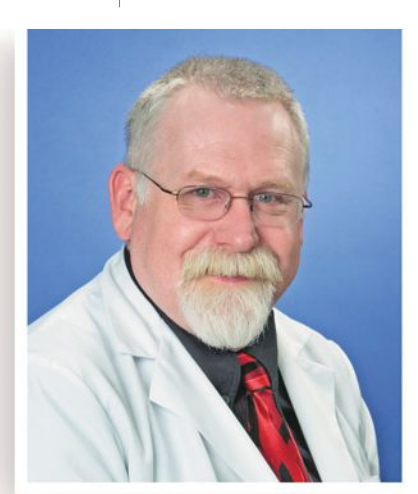
The American Respiratory Care Foundation (ARCF) is accepting applications for its undergraduate and postgraduate Education Recognition Awards (www.arcfoundation.org/awards/) now through June 15 and is asking RC educators to spread the word to their students. So check out the list of available awards 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 2012 in New Orleans, LA, Nov. 10–13. ■

Dr. Dean Hess To Represent AARC on CDC Working Group on VAP Surveillance

The Centers for Disease Control and Prevention (CDC) has asked the AARC to serve on a working group on ventilator-associated pneumonia (VAP) surveillance. Dean Hess, PhD, RRT, FAARC, has been named as our representative to this working group, which is part of the National Healthcare Safety Network. Dr. Hess currently serves as editor in chief of our science journal Respiratory Care, as well as assistant director of respiratory care at Massachusetts General Hospital in Boston, and associate professor of anesthesia at Harvard Medical School.

The CDC notes that health care-associated infections (HAIs) are an important cause of preventable harm in hospitalized patients. Although VAP is among the most common HAIs, accurate surveillance for VAP is difficult because of the lack of objective, reliable, valid definitions.



As the AARC's representative to the VAP Surveillance Definition Working Group, Dr. Hess will join representatives from six other organizations who have already started working in close collaboration with the CDC to improve surveillance for ventilator-associated events in adult patients. Included in the effort are the Critical Care Societies Collaborative, Association for Professionals in Infection Control and Epidemiology, Council of State and Territorial Epidemiologists, Healthcare Infection Control Practices Advisory Committee Surveillance Working Group, Infectious Diseases Society of America, and Society for Healthcare Epidemiology of America.

The CDC working group has developed a new approach to surveillance for ventilator-associated conditions and complications that acknowledges the inaccuracies inherent in the diagnosis of VAP today and focuses instead on more general, objectively defined measures of ventilator-associated conditions and complications.

The proposed new surveillance definition algorithm for ventilator-associated events is expected to be implemented in the CDC's HAI surveillance system, the National Healthcare Safety Network, in 2013. The new surveillance definition algorithm is not intended for use in the clinical management of patients.

For additional information, please contact Bill Dubbs at the AARC Executive Office at dubbs@aarc.org or (972) 243-2272. ■

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

- AARC participated in Hospital Care Collaborative meeting — www.aarc.org/headlines/12/04/hcc.cfm
- CDC campaign hits smokers hard — www.aarc.org/headlines/12/03/former_smokers.cfm

“All Aboard” for the AARC Summer Meetings

It’s not too late to reserve your place at the premier respiratory care education event of the summer at Hilton Santa Fe Golf Resort & Spa at Buffalo Thunder, one of America’s top vacation destinations in Santa Fe, NM, July 12–15. In addition to our classic Summer Forum are three pre-Summer Forum sessions on July 12 and a post-Summer Forum session on July 15:

- AARC’s Building a Simulation Toolbox
- AARC’s Getting the Best Return on Your Investment: Maximizing Patient Education
- NBRC’s Item Writing Workshop
- CoARC’s Meet the Commission

Getting from the Albuquerque airport to Santa Fe can be half the fun. Catch the New Mexico Rail Runner Express — a high-speed commuter train named after the state bird — and enjoy your ride through the southwestern countryside to the Santa Fe Depot. The Buffalo Thunder Hilton Santa Fe Resort will pick you up and return you to the depot (10-day advance reservations required).

For more information on the Rail Runner Express and details on the AARC Summer Meetings, log on to www.AARC.org/education/meetings/summer_forum/index.cfm. ■

Photo courtesy of Ernie Montoya

Request for Open Forum Abstracts at AARC Congress 2012

The AARC invites you to submit abstracts for the Open Forum at AARC Congress 2012. 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://aarc2012.abstractcentral.com/. ■

Enter the 2012 AARC Photo Contest

AARC Times is looking for creative members to enter our AARC Photo Contest. Winners 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 February 2013 cover. For instructions and guidelines, select the *AARC Times* icon on www.AARC.org and click on the “Photo-of-the-Year Contest” link. Deadline is Oct. 1, 2012. ■

AARC Member Wins Quality Award

Timothy Myers (left) nominated Kathleen Deakins for a new award being bestowed by their hospital, and she was selected to receive the honor earlier this year.

A newly established award to honor health care professionals who have excelled in the area of continuous quality improvement (CQI) at University Hospitals in Cleveland, OH, has gone to AARC member Kathleen Deakins, MSHA, RRT-NPS, FAARC. Deakins received the Sally Ann Shipley Award recently at an award recognition ceremony.

The award was established to honor the memory of Shipley, a registered nurse who played a vital role in continuous process improvement efforts, patient satisfaction, and quality of care measures through her work at the hospital's Quality Center.

Deakins was nominated for the award by her department manager Timothy Myers, MBA, RRT-NPS. "When I received the announcement for the award, I immediately thought of Kathy and her accomplishments not just over the past year but over many years," he says.

Despite her full workload as clinical manager of women's and children's respiratory and pediatric pulmonary function, Deakins has spearheaded numerous CQI projects focusing on everything from reducing the incidence of unplanned extubations in the neonatal ICU, to implementation of a ventilator-associated pneumonia checklist, to improving the recognition of ventilator alarms on home mechanical ventilators. "Having known Sally for 16 years, I knew these two extraordinary ladies both maintained the same focus and intensity to make a difference in patients' lives through relevant continuous quality improvement initiatives," says Myers.

Deakins says she was surprised to be nominated and even more surprised to be selected as the winner. "Anytime I get to represent our group is a great opportunity for all of us," she says. "I am so extremely delighted to represent all of the respiratory therapists and our collaborative teams of nurses that make it all happen."

James E. Arnold, MD, Julius W. McCall Professor and Chair in the department of otolaryngology – head and neck surgery at the hospital, congratulated Deakins on the honor. "Kathy is absolutely terrific to work with. She is incredibly knowledgeable and has taught me a lot. I could not do what I do without Kathy and the rest of our respiratory therapists."

Deakins says her passion for CQI grew out of a negative patient safety experience early in her career that made her change the way she looked at things. "I feel that it is my duty to keep moving forward to learn and improve what we are doing to maintain credibility, explore and influence best practices, and above all make patient care safe, effective, and efficient," she says. "The team of collaborative caregivers is so vitally important and impacts whether the process moves in the right direction or not." ■

Lung-protective Ventilation Improves Long-term Survival

Acute lung injury (ALI) patients who are ventilated with lung-protective ventilator settings are significantly more likely to survive over the long term, find Johns Hopkins researchers publishing in the March 27 online edition of the *British Medical Journal*. In the most comprehensive study of its kind, Dale Needham, MD, PhD, and his colleagues noted an 18% jump in mortality over two years for every one-unit increase in tidal volume delivered during the ICU stay.

"Adjusting the ventilator to keep the breath size and lung pressures lower can have a dramatic effect on whether or not a patient dies from their lung injury, even long after they leave the ICU," noted Dr. Needham. "Using a smaller breath size simply places less stress on the lungs."

The study followed 485 men and women mostly age 50 and over with ALI who spent at least a week in the ICU at four Baltimore-area hospitals. Only 41% of the 6,240 ventilator settings reviewed by the investigators were adherent with lung-protective ventilation strategies.

Dr. Needham cites a number of barriers to more fully implementing lung-protective ventilation in the nation's ICUs, including the failure to quickly recognize ALI in ICU patients so that these strategies can be implemented and the tendency to miscalculate the correct tidal volume setting, which should be based on predicted rather than actual body weight. With as many as two-thirds of ICU patients now overweight, the latter problem is increasing in significance.

"Such details can have lasting effects," says Dr. Needham. "Critical care practitioners have to refocus our efforts on not simply getting patients out of the ICU alive but on changing traditional medical care in the ICU to improve patients' recovery over the longer term."

Dr. Needham was a previous presenter of the Phil Kittredge Memorial Lecture at AARC Congress 2009, the 55th International Respiratory Congress of the Association, held in San Antonio, TX. His presentation was on "Patient Safety, Quality of Care, and Knowledge Translation in the ICU." ■

▶ Transitions

Melissa Dinsmore, MPH, RRT, has been appointed to the Kansas Commission on Emergency Planning and Response (CEPR) by Gov. Sam Brownback. The CEPR oversees 105 Local Emergency Planning Committees and supports communities, industries, and government agencies by facilitating a coordinated effort in disaster preparedness, response, and recovery as defined by the Kansas Emergency Management Act. Dinsmore is project development coordinator for Susan B. Allen Memorial Hospital in Wichita.

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

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

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

RT Student Members: Send Us Your Stories and Editorials

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

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

Alabama RC Students Warn Children About Tobacco Abuse

The Campaign for Tobacco-Free Kids (www.tobaccofreekids.org) sponsors a national "Kick Butts Day," each year to raise awareness among children and teenagers about the dangers of tobacco. University of Alabama at Birmingham respiratory students (Janie Huddleston, Sterling Wimbish, Mandy Robinson, Shundale Thomas, Justin Wyatt) and faculty (Jonathan Waugh, PhD, RRT, FAARC) visited two local elementary schools to help third and fifth grade students learn about health risks associated with tobacco and how to protect their lung health. "Kick Butts Day" was March 21 during the week these two schools had Spring Break, so Dr. Waugh and his students gave their presentation the previous Friday.

Information from the American College of Chest Physicians was presented, and activities helped the students understand how smoking can change their bodies. Some activities included the students simulating smoking-related changes using cotton balls to visually simulate lungs. Glue and cornstarch powder were added to the cotton balls to show how tar from tobacco sticks in the lungs. As the students tried to blow off the powder from the cotton ball, they soon realized how much stayed on the cotton ball simulating how tar attaches to the lungs after smoking.

Another activity allowed students to feel how smoking can impact breathing by doing a walking exercise with and

without props to simulate breathing limitation. In this activity they walked normally from one side of the room to another once, and then they walked back across the room heel-to-toe while holding their nose and breathing through a straw to simulate how smoking-related lung changes make activity more difficult.

Many of these students already knew about tobacco, mainly due to relatives who used tobacco. It was quite eye-opening to many of the students to find out the types of chemicals and materials used in cigarettes that are also in common household items. The statistics shared about the addicting element of nicotine was also another fact that many of these students did not realize and gave them a better understanding why those who smoke find it hard to quit. The students were eager to learn and were especially interested to know how they could help family members to quit smoking.

Find out more about tobacco-dependence prevention and intervention at www.AARC.org/resources/tobacco/index.asp and join the Tobacco-Free Lifestyle roundtable at AARC Connect. ■

Crucial Controller Medications Used by Only Half of Asthma Patients

Results from the Comprehensive Survey of Healthcare Professionals and Asthma Patients Offering Insight on Current Treatment Gaps and Emerging Device Options, or "CHOICE" survey, show 49% of all children and adults with persistent asthma are not using controller medications. Of the 51% who are using controllers, 86% report poorly controlled asthma.

Patients with uncontrolled asthma were more likely to have a poorer quality of life and a higher risk for ED visits and hospitalizations. Those with severe persistent asthma that was uncontrolled reported feeling more isolated, fearful, depressed, and tired.

The survey was conducted among 1,000 people with asthma, 79% of whom had persistent asthma. Findings were published in the March issue of the *Annals of Allergy, Asthma & Immunology*. ■

▶ Strange But True…

Chain reaction: The world's longest living-donor kidney transplant chain was completed earlier this year at Loyola University Medical Center as 30 recipients received new kidneys from 30 donors in surgeries that took place in 17 hospitals across the United States. The previous record for a kidney transplant chain was 23, set in 2010.

Power cycling: Somebody had a bright idea when they retrofitted exercise bikes that gym patrons are now using to generate energy at 70 gyms across North America. Over the course of a year, one gym can generate enough power to light 72 homes for a month while reducing 5,000 pounds of carbon dioxide.

Music allergy? A dermatologist presenting at the recent American Academy of Dermatology meeting notes musical instruments can be a cause of contact dermatitis. At fault: the metals, woods, and other substances used to make everything from trumpets to clarinets to violins.

Add and stir: A new field known as "bioorthogonal chemistry" is investigating the possibility of using the human body as a "factory" to make medicines. Researchers at the University of California, Berkeley, are testing methods wherein the individual ingredients for a new drug would be given to patients separately, then combined inside the body to produce the desired medication. The tactic could help get vital medications that aren't absorbed well by the body in their combined form to places where they are needed.

New brew: Researchers from the University of Scranton have found good results for a weight-loss pill made from green coffee beans. People who took a daily capsule filled with the coffee bean powder lost about 10% of their body weight and 16% of their body fat over 22 weeks.

iWait: Those dog-eared magazines typically found in hospital waiting rooms may be the next casualty in the digital revolution. Families in the surgical waiting areas at the University of Michigan Cardiovascular Center can borrow an iPad to listen to music or play Sudoku while they're waiting to see their loved ones. ■

Biomarkers Improve COPD Prognosis

Harvard investigators have identified a panel of biomarkers that significantly improves the ability of clinical variables to predict mortality in people with COPD. The study used data from 1,843 COPD patients who took part in the Evaluation of COPD Longitudinally To Identify Predictive Surrogate Endpoints (ECLIPSE) study. Overall, 168, or 9.1%, of the patients died during the three-year follow-up.

Clinical predictors of mortality included age, the BODE index, and the incidence of hospitalizations due to exacerbations of COPD in the year prior to the study. A predictive model for mortality using these clinical variables had a C-statistic of 0.686. The C-statistic measures how well a clinical prediction rule can correctly rank-order patients by risk.

Adding interleukin-6 (IL-6) to the predictive model significantly improved the C-statistic to 0.708, and the addition of a panel of biomarkers that included white blood cell counts, IL-6, C-reactive protein, interleukin-8, fibrinogen, chemokine ligand 18, and surfactant protein D further improved the C-statistic to 0.726.

"This panel of selected biomarkers was not only elevated in non-survivors in our cohort but was associated with mortality over three years of follow up after adjusting for clinical variables known to predict mortality in patients with COPD," lead author Bartolome Celli, MD, was quoted as saying. "Except for IL-6, these biomarkers improved the predictive value of our model only marginally when considered individually, but they improved the model significantly when analyzed as a group."

The study is the first to show that the addition of biomarker levels to clinical predictors can assist in determining prognosis for COPD patients. The research appeared in the March issue of the *American Journal of Respiratory and Critical Care Medicine*. ■

Aggressive Antibiotics: Good or Bad for CF Patients?

Aggressive use of antibiotics to curb bacterial infections in people with cystic fibrosis (CF) has been called into question by researchers from the University of Michigan. In a decade-long study published in the *Proceedings of the National Academy of Sciences* in March, they suggest liberal antibiotic use in these patients may be contributing to the development of more virulent strains of bacteria that lead to more deadly exacerbations. Allowing a more diverse community of bacteria to live in the lungs of CF patients could provide more competition between bacteria and thus keep the more virulent strains in check.

The study was conducted among six patients who were followed for eight to nine years. DNA analysis was conducted on bacteria in 126 sputum samples collected at regular intervals during the study period. Results showed that while bacterial diversity in the lungs of these patients declined over time, the overall bacterial load remained fairly constant, suggesting a small number of organisms had multiplied to replace those that died due to antibiotic treatment. The investigators also found that exacerbations couldn't be linked to any specific changes in bacterial communities. A follow-up study is now underway to look for more subtle signals that may precede or accompany flare-ups. ■

iNO Common Among NICUs Around the U.S.

Even though off-label use of inhaled nitric oxide (iNO) in premature infants who require respiratory support has not been supported by the medical evidence, iNO is still commonly used in NICUs across the nation, according to a new study.

Researchers from Nationwide Children's Hospital set out to characterize variation in recent practice in a study conducted with members of the Ohio Perinatal Research Network. Using the Child Health Corporation of America's Pediatric Health Information Database, they retrospectively analyzed data on a cohort of 22,699 premature infants born at less than 34 weeks gestation who were admitted to NICUs in 37 U.S. children's hospitals during a three-and-a-half-year period. Results showed:

- A substantial variation in the age of initiation of iNO treatment and the average number of days of use.
- Hospitals that used iNO in more patients also used iNO for a longer duration.
- Higher volume NICUs used less iNO and had lower mortality rates.
- Northeastern hospitals reported less use of iNO.
- Infants who received iNO were less likely to survive, suggesting iNO is used in infants already at high risk of death.

The authors note documented care was delivered immediately before the National Institutes of Health and the Agency for Healthcare Research and Quality released statements concluding there is no evidence to support the routine use of iNO in preterm infants who require respiratory support.

"Overall, we found that there is a pervasive lack of standardization in iNO use across NICUs," study author Michael R. Stenger, MD, was quoted as saying. "Adherence to National Institutes of Health consensus guidelines may decrease variation in iNO use." The study appeared in the March issue of *Pediatrics*. ■

Out-of-Pocket Costs Have Minor Effect on Asthma Medication Use in Children

Higher out-of-pocket costs have only minor effects on medication use among children with asthma, report University of Minnesota researchers. However, overall rates of medication use are still too low, suggesting other strategies are needed to ensure adequate medication treatment in these kids.

The investigators obtained data on pharmacy and medical claims for 37 geographically diverse U.S. employers and conducted an analysis of insurance claims for 8,834 children with asthma who initiated asthma control therapy between 1997–2007. The average out-of-pocket cost of asthma medications per year was $154 among kids ages 5–18 and $151 among those younger than five. Among children ages 5–18, filled asthma prescriptions covered an average of 40.9% of days. An average of 46.2% of days were covered for children younger than five. Children under age five were more likely to visit the emergency department or be hospitalized for their asthma than kids ages 5–18, 7.9% and 4.7%, respectively versus 3.7% and 2.1%, respectively.

An increase in out-of-pocket medication costs from the 25th to the 75th percentile was associated with a slight reduction in adjusted medication use among children ages 5–18, 41.7% versus 40.3% of days. However, no change was seen among younger children. Adjusted rates of asthma-related hospitalizations were higher for children ages 5–18 years in the highest quartile of out-of-pocket asthma medication costs compared with the lowest quartile, 2.4 versus 1.7 hospitalizations per 100 children. No statistically significant difference across quartiles was found for children younger than five. Annual adjusted rates of ED use did not vary across out-of-pocket quartiles for either age group.

Given the overall low rate of asthma medication use in this study, the authors suggest other strategies to improve medication use, such as “routine access to primary care and pulmonary specialists, written plans of care for families, and regularly scheduled follow-up appointments,” are needed. The study was published in the March 28 edition of JAMA. ■

Two Studies Shed Light on Maintaining Mild-to-moderate Sedation Among Mechanically Ventilated Patients in the ICU

Two new studies out of Switzerland find dexmedetomidine is equal to midazolam and propofol in maintaining mild-to-moderate sedation in mechanical ventilation patients and also offers benefits in terms of outcomes in the ICU.

The MIDEX trial compared midazolam with dexmedetomidine in 44 centers in nine European countries. The PRODEX trial compared propofol with dexmedetomidine in 31 centers in six European countries and two centers in Russia. Patients were adults on mechanical ventilation who needed light-to-moderate sedation for more than 24 hours; 251 in the midazolam group versus 249 in the dexmedetomidine group, and 247 in the propofol group versus 251 in the dexmedetomidine group.

Long-term sedation was similarly achieved with all three drugs, but dexmedetomidine appeared to shorten the duration of ventilation compared with midazolam. Time to extubation was reduced with dexmedetomidine compared with both midazolam and propofol; and patients receiving dexmedetomidine were also more arousable, more cooperative, and better able to communicate their pain than patients receiving either midazolam or propofol.

However, both hypotension and bradycardia were more frequent in the dexmedetomidine versus midazolam patients, 20.6% versus 11.6%, respectively, and 14.2% versus 5.2%, respectively. Length of ICU and hospital stay and mortality were similar between all three drugs.

In an accompanying editorial, Hannah Wunsch, MD, MSc, of Columbia University, notes these two randomized controlled trials suggest dexmedetomidine is effective and may decrease time to extubation and improve communication with patients, but the higher cost of the drug may preclude broader use. However, she notes dexmedetomidine comes off patent in 2013. “When there is no longer a need to weigh the drug-acquisition costs, even uncertain improvements in the patient experience should be justification enough for broader use of dexmedetomidine in the ICU,” she writes.

Both the studies and editorial were published in the March 21 edition of JAMA. ■

Classifieds

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Applications will be reviewed beginning April 22, 2012 and will be accepted until position is filled (projected to begin fall semester, August 2012). **For information and application instructions, please visit www.umt.edu/jobs**

Contact Maryann Robison maryann.robison@umontana.edu or 406.243.7868 for more information.

RT PUBLISHING OPPORTUNITIES

RCECS (a division of Western Schools) is a publisher and nationally accredited provider of continuing respiratory care education (CRCE) home-study courses for respiratory practitioners.

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CONTENT EDITORS: Review and revise manuscripts in your area of expertise. *Required:* active RT license; previous publishing experience. Work-from-home. Payment is on a per project basis.

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Contact AARC, (972) 243-2272,
www.aarc.org/education/meetings

Submissions for the next available issue are due June 17.

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 Email binkley@aarc.org

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