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its Mission and Vision  
Statements for 2015-2020.

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## Advance Directives

by Shawna Strickland, PhD, RRT-NPS, FAARC

**T**he principle of autonomy, or the ability of a person to make decisions for him or herself,<sup>1</sup> is a major concept not only in health care but also in ethics and law. Health care providers collaborate with patients to obtain informed consent to ensure that the patient completely understands the proposed medical interventions and diagnostic procedures in an effort to ensure that the patient can accept or reject recommendations that are consistent with his or her personal values.<sup>2</sup> However, a person may anticipate a time when he or she may lose decisional capacity and will not be able to make medical decisions. To plan for the future, the patient may elect to prepare an advance directive that addresses concerns about how to direct medical care.

### Surrogate decision-making

An advance directive can assist in preparing the legal surrogate decision-maker for this important role and increase the likelihood that medical care is directed according to the patient's wishes. When a patient loses decisional capacity or the ability to make sound decisions based on the understanding of risks and benefits of recommended medical interventions and diagnostic procedures, the medical team will consult with the patient's surrogate decision-maker. This person, sometimes the next of kin, sometimes a legally appointed decision-maker, then has the responsibility of making health care decisions that are consistent with the patient's personal values and beliefs.<sup>2</sup> In many cases, the surrogate decision-maker is selected in a time of emergency and is the next of kin. This is not the ideal situation. The patient may not have been able to have the difficult conversations about health care and medical interventions with the next of kin prior to losing decisional capacity. The patient and next of kin may not share the same personal

beliefs or values about medical care. In some situations, the surrogate decision-maker could be someone who has no rights as the legal next of kin, such as an ex-spouse, creating a difficult situation for all involved. There are two common types of advance directives that are written by the patient prior to losing decisional capacity: durable power of attorney and the living will.

### Durable power of attorney

The durable power of attorney (DPOA) is a document that is written to appoint a specific person to make medical decisions when the patient loses decisional capacity. This document can be written with or without the aid of an attorney. Many states and patient advocacy groups provide a downloadable document through their websites to make this process convenient. The benefit of this document is that the patient has identified a specific person (and perhaps an alternate) who knows the preferences of the patient. The DPOA does not have to be the next of kin; in fact, the DPOA could be someone completely unrelated to the patient. The main point of appointing the DPOA is that the patient trusts this person to act in accordance to his or her personal values and beliefs. Unfortunately, there is a risk that the DPOA will not make the same decision that the patient would make. Perhaps the DPOA does not truly understand the patient's wishes or the patient and DPOA have not had a recent conversation about how the patient's wishes or beliefs have changed over time. It is for this reason that the patient should have frequent discussions with the DPOA regarding acceptable and unacceptable medical intervention. It is also advisable that the patient provides the DPOA with written guidance about specific medical interventions to avoid confusion in difficult situations.

### about the author...



Shawna Strickland, PhD, RRT-NPS, FAARC, is the AARC's associate executive director of education.

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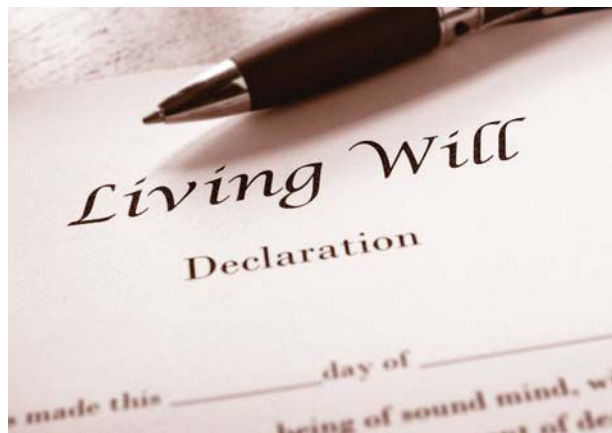
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### Living will

The living will is another document written by the patient prior to losing decisional capacity. The purpose of the living will is to allow the patient to anticipate a time when he or she cannot make medical decisions and direct what medical intervention is acceptable or unacceptable at that time. There are several challenges associated with living wills. Sometimes, these documents can be difficult to interpret both by medical professionals and the patient's next of kin. Some living wills use vague language or are not written clearly or in ways that medical professionals can interpret the meaning. Other times, the amount of time between the writing of the living will and the execution of the living will is extensive. Perhaps the patient has changed his or her mind regarding acceptable or unacceptable medical intervention or medical technology has advanced to a point that certain disease processes can be more effectively managed than was possible at the time of the living will. Medical professionals may find it very difficult to honor patient autonomy in these situations.

### Guardian

In some situations, the patient without decisional capacity does not have a DPOA, living will, or family



or friends able to make medical decisions. This patient could be a minor child or an adult lacking decisional capacity for a number of reasons. In these cases, the court can appoint a guardian to make health care and other quality-of-life decisions. This person is an appointed individual who advocates for the individual, which includes making decisions regarding medical interventions and diagnostic procedures.

The medical team defers to the guardian for all medical decisions. The guardian is under the direction of the court and may need to gain permission from the court to make certain decisions, especially in the case of withholding or withdrawing medical intervention or do-not-attempt resuscitation orders. In some cases, this can delay medical intervention or the discontinuation of medical intervention. Each state has specific policies, so it is important that the medical professional understand the limitations and legal boundaries of the guardian in that state.

### Role of the respiratory therapist

Confirming informed consent for major medical interventions and diagnostic procedures is important for all respiratory therapists who deliver direct patient care, regardless of venue. When the patient is unable to provide informed consent due to a lack of decisional capacity, a surrogate decision-maker is required. Regardless of type of advance directive or appointment of a guardian *ad litem*, the respiratory therapist must be aware of the patient's surrogate decision-maker to ensure effective and timely communication regarding medical intervention. As a direct patient care provider and a patient advocate, the respiratory therapist can have a significant impact on the quality of care provided to the patient by educating the patient's surrogate decision-maker as well as upholding patient autonomy. ■

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2. Lo B. Resolving ethical dilemmas: a guide for clinicians. Philadelphia PA: Wolters Kluwer Health; 2009.





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## Evaluating and Purchasing New Mechanical Ventilators

by Jeffrey Davis, BS, RRT

Every decade or so, respiratory care departments find the need to upgrade their fleet of mechanical ventilators in order to replace equipment that is at its end of life, to support new services, improve clinical outcomes, or meet general needs of the facility. Justification of such a large purchase is one of the greatest challenges of the process, and engagement with all the involved parties is necessary and challenging. This article will break down the components for purchasing new mechanical ventilators and discuss options found in the literature that hopefully will make the process smooth and successful the next time you are in the market.

### Initial selection

With such a wide variety of functionality and price, one of your first considerations must be your needs. What type of equipment do you require based on the level of care you provide? What is your patient population? These days, the high-functioning ventilators are designed to manage any patient from the neonatal ICU to the medical ICU — yet preference and quality may dictate a need for variety. So identify the equipment that you feel is the strongest for your primary patient population. What are you currently using? There is a certain amount of staff comfort in familiarity of equipment, and you may want to consider one platform for your entire patient population or multiple platforms based on a wide variety of patient needs. Consider the challenges of staff competency over multiple platforms compared to a single platform. It is absolutely necessary to engage with your clinical engineering department as it is likely they will need to maintain the equipment and perform either major or minor repairs and preventive maintenance. Finally, we will discuss the role of your hospital supply chain contract and how that may affect your purchasing decision and how staff and

physician engagement are so important in making a decision on ventilator purchases.

There should be a formal and objective process when planning the evaluation of new equipment. Preparation for equipment evaluation timelines, the length of

time for each evaluation, and stakeholder participation in advance will help to guide you in making the right choice. See the 2001 Chatburn article published in *RESPIRATORY CARE* titled “Decision Analysis for Large Capital Purchases: How To Buy a Ventilator.” In it Chatburn shares the systematic, formalized process for evaluating and purchasing mechanical ventilators that University Hospital of Cleveland used and how that process worked successfully even when one or two variables were reversed to test the procedure.

### Usability

Is your facility a tertiary care center caring for complex surgical and medical patients; or are you purchasing equipment for a lower acuity facility?

How autonomous is your RT department? While some departments have the ability to use all the resources that these next-generation ventilators have to offer, others are very physician directed and may not have such flexibility. Why would you spend the financial resources to purchase the “Cadillac” of ventilators, when the “Chevy” does the job you are asking it to do? This may very well be a question posed by your hospital finance department. We all want to be the best and most progressive RT department in the city, but having the most expensive equipment isn’t always the best move in a time of financial challenge for hospitals.

Do you expect your ventilator to “talk” to your electronic medical record (EMR)? If so, early engagement with your information technology department is crucial.

### about the author...



Jeffrey Davis, BS, RRT, is the director of respiratory therapy at Ronald Reagan UCLA Medical Center in Los Angeles, CA.



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At the University of California Los Angeles (UCLA), we have a middleware program called Capsule that extracts the chosen information from the ventilator and places it in the correct place in the EMR. That would have been a quick and painless project if we were mapping only one brand of ventilator. However, we have three distinct brands to map, and each ventilator relays information from different locations. Where spontaneous respiratory rate can be found in ventilator “A” is not the same location as ventilator “B,” nor is it even remotely the same in ventilator “C.” A significantly and unavoidably excessive amount of manpower hours was used in this mapping project that could have been avoided if we were a “one-ventilator house.” That cost aspect was not considered when we made that purchasing decision because the EMR used at the time did not communicate with technology like the current products.

### Role of bioengineering

One of the first rules of engagement when deciding on a ventilator purchase is to involve your clinical engineering (CE) department. They can be your best friend when determining which ventilator to evaluate and which ventilator to purchase. In an article published in the July 2013 issue of *AARC Times*, I wrote, “clinical engineering was developed over 50 years ago to ‘support and advance patient care by applying engineering and management skills to health care technology,’ according to the American College of Clinical Engineering. Currently, clinical engineers are an integral part of the health care team, ensuring technology used in the health care setting is safe, efficient, and value-added. Clinical engineers are much more than technicians charged with maintaining the safety of equipment. In this value-based period of health care, the clinical engineer is more of a ‘cradle to grave’ steward of medical equipment.”<sup>1</sup>

It is the clinical engineer who is likely to be performing all your preventive maintenance and repairs. The clinical engineers are the experts in negotiating and determining the best course to take regarding repairs — whether it is best to train the clinical engineer on the equipment or to have a service contract. CE also will be able to provide data on repair costs and vendor support, which is a necessary consideration during the selection process.

### Supply chain management and finance

The supply chain is also an early decision maker when it comes to choosing which ventilator to purchase. Nowadays, most hospitals are part of a larger purchasing platform and belong to supply chain systems for optimal price guarantees. This also may limit you to specific sup-

pliers and may exclude a number of brands; so be sure to see which companies are on contract, as pricing is then fixed and rarely negotiable beyond the contracts, assuring best pricing for you without contract negotiations. Supply chains can also provide cost analysis on disposables required, as that will be an ongoing departmental expense over the life of the equipment.

### Staff engagement

It is pretty obvious that the end users must play a major role in selecting a new ventilator. Have a wide variety of staff evaluate the equipment, and beware of the implication of bias. It is easy to be swayed by a sales person’s or educator’s presentation (or lack of a quality presentation) when making a decision. Use all the expert knowledge at your hands and, if possible, evaluate the ventilator as objectively as possible.

Remember to engage your medical staff from the very beginning, but beware of individual bias at all levels of the evaluation. You may also want to consider engaging nursing staff, depending on the culture of your facility.

If all parties mentioned in this article are appropriately engaged — from clinical engineering to supply chain, to the medical staff, and most especially to the RT staff — it seems the biggest challenge to making the right choice to purchase new mechanical ventilators could be personal bias. There is a dearth of literature on this topic, even less so on this particular issue. Consider the 2001 Chatburn article in *RESPIRATORY CARE*<sup>2</sup> when preparing to evaluate a new ventilator. While it is a very complex program that he put into place, they were able to successfully remove personal bias from the equation and purchase the best ventilator for their needs and budget.

Whether you are purchasing one or two ventilators or replacing an entire fleet, one is always concerned about making the correct decision and purchasing the right machine for their department’s needs. A great deal of effort is put into the project, and starting out on the right foot can make all the difference. Work with your CE department and make sure you know which brands of equipment are eligible for purchase through your supply chain. After that, it is time to study and evaluate. Engage the RT staff and work through personal biases, and you will make the right decision every time. ■

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# Meeting the Challenge of Assessing and Managing Staff Competencies

by Sherry Babic, RRT

Competence can be defined as having suitable or sufficient skill, knowledge, and experience for the purpose of a specific task.<sup>1</sup> Competencies are required to ensure patients are receiving the highest standard of care. Continuing Respiratory Care Education (CRCE) differs from competencies in that CRCE is a requirement of The National Board for Respiratory Care (NBRC) and state licensing boards to ensure that respiratory therapists gain knowledge of new technology and best practices. A wide variety of testing options, learning styles, budgets, time constraints, and advancing technology make developing and managing staff competencies a challenging task for any respiratory care department.

The Centers for Medicare and Medicaid Services (CMS) requires that a hospital's respiratory services be integrated into its hospital-wide Quality Assurance Performance Improvement (QAPI) program,<sup>2</sup> which ensures hospitals take a proactive approach to improve their performance and focus on improved patient care and safety — including the reduction and prevention of medical errors. CMS regulates all laboratory testing performed on humans through the Clinical Laboratory Improvement Amendments (CLIA), which requires that arterial blood gas puncture and analysis competencies are made yearly. The Joint Commission requires hospitals to assess and document staff competency during orientation and at a minimum of every three years or according to hospital policy if required sooner.<sup>3</sup> There are no other requirements as to the number or type of competencies that individual respiratory care departments must include in their yearly assessments.

### Selecting competencies for your department

Selection of yearly competencies should be based on services that individual departments provide. Emphasis needs to be placed on choosing procedures that are high risk, low volume, and problem prone. Invasive procedures such as arterial line insertion, bronchial alveolar lavage procedures, and tracheostomy tube changes are considered high risk. Low-volume procedures are those that are not frequently performed. While not a

regulatory or licensure requirement, consideration should also be given to those procedures for which the staff expresses a particular interest in reviewing. The CMS expects departments to provide additional education in the event of multiple medical errors involving a specific therapy.<sup>2</sup> This, of course, implies that medical errors are reported and reviewed periodically. Once a decision has been made regarding which procedures to include in yearly competencies, a department must decide what type of competency testing is best.

**Examples of competency testing:** Several methods may be used to test staff competency. Peer assessment involves fellow co-workers observing each other and documenting competency. However, this method

does not always provide a consistent evaluation in that the observer may show favoritism or simply assume the employee is competent without observing them. Computerized in-services and testing allows a department to assess the employees' theoretical knowledge (i.e., clinical practice guidelines, indications, contraindications, hazards) but lacks the ability to assess the

### about the author...



Sherry Babic, RRT, is a clinical instructor in the respiratory therapy department of the Respiratory Institute at Cleveland Clinic in Cleveland, OH.

employee's psychomotor skills needed to safely perform certain procedures. A benefit to this method is the feasibility for both high- and low-budget departments (i.e., it is relatively low cost). Removing employees from normal work schedules to perform all yearly competencies in one day (called "competency days") is another example of testing (similar to cardiopulmonary resuscitation training). This method ensures consistency in testing when only trained educators are used as the observers. Employee compliance is likely to improve due to the ability of completing a year's worth of competencies in one day.

Unfortunately, removing educators and employees from staffing results in decreased productivity and, therefore, may not be feasible for many departments. Simulation-based training has grown in popularity over the last few years. Simulators can range in complexity from a simple mathematical model (e.g., of patient-ventilator interaction) through physical models (spring-loaded bellows to represent lung compliance or resuscitation mannequins) and software simulations, on up to sophisticated computer-driven high-fidelity systems representing whole-body physiology. The use of simulators allows standardization of teaching procedures and ensures consistency of evaluation of all employees.

**Developing competencies to meet the learning needs of the clinician:** There are three ways in which people learn.<sup>4</sup> Visual learners do best by watching or reading a presentation (e.g., online slide shows or videos or demonstration of resuscitation techniques). Auditory learners prefer to listen to educational presentations with the opportunity to ask questions afterward (audio books and RESPIRATORY CARE podcasts). Kinesthetic learners excel at learning when given the chance to use the hands-on approach (e.g., using simulators such as a resuscitation mannequin). Recognizing these types of learners, departments should strive to include a variety of competency methods in order to suit the needs of all their clinicians.

### Challenges of developing competencies

**Meeting continuous learning requirements:** Competencies that are required today far exceed the competencies of the "oxygen technicians" during the 1950s. Over the last 10 years, the respiratory profession has progressed at a rapid pace and is expected to continue. As mechanical ventilation has become increasingly sophisticated, RTs will need to achieve a higher level of

competency. Changes in health care are being driven by the need to decrease costs and improve quality. The AARC, through its 2015 and Beyond Task Force, has stressed the need for the respiratory care profession to evolve in order to meet the changing clinical demands that are being placed on RTs. Disease management, lung protective ventilation, waveform analysis, application of mechanical ventilation, airway management, hemodynamic monitoring, bronchoscopy assistance, pharmacologic agents, and patient education are all areas in which the respiratory therapist will be expected to achieve a higher level of competence and demonstrate their value to their department and organization.

### Estimating time commitments for teachers and staff:

Staff education involves a great deal of time commitment. It is an ongoing process for educators to develop department-appropriate competencies. Once the competencies are developed, the staff members need time to review the material they will be tested on. Estimating time commitments can be a difficult task depending on the types of competencies a department utilizes; but generally the procedure involves:

- Determining the average time for a standardized competency review procedure (e.g., three hours for CPR training)
- Listing the number of yearly competencies required for each staff member
- Counting the number of staff members needing to complete competency training.

Then, the total time commitment is estimated by summing the total time for all competency procedures and multiplying that by the number of staff members (similar to calculating workload for productivity measures using the AARC's "Uniform Reporting Manual").

Computerized testing and in-services can be done during employee downtime to minimize the effect on departmental productivity. Planning for competency evaluation and concomitant-required documentation is an essential task for RT leaders and should be accounted for in the personnel budget.

**What to do if staff do not comply:** Employee compliance regarding competencies is of utmost importance. As mentioned above, CMS and The Joint Commission require that all employees complete designated competencies on a regular basis. Departments should determine which competencies will be required for the year

and notify all employees as early in the year as possible. This will allow the employees ample time to complete the requirements prior to the deadline. It is the responsibility of RT leaders to budget, manage, document, and report continuing education and competency assessment as an essential component of a high-quality RT department. Additionally, it is the RT leader's responsibility to provide the time and resources for clinical and supervisory staff to fulfill this essential function. If employees do not comply prior to the deadline, then the department's corrective action process should be enacted.

**Meeting the challenge**

With advancements in technology and changing health care requirements, respiratory therapy departments are facing the challenges of continual staff competencies. RTs are quickly gaining new responsibilities that will require education and competence. Regardless of the institution's budget, there are a variety of methods that can be used to educate and document staff competency. Departments are encouraged to develop new competencies that are in line with technological advancements and new services. ■

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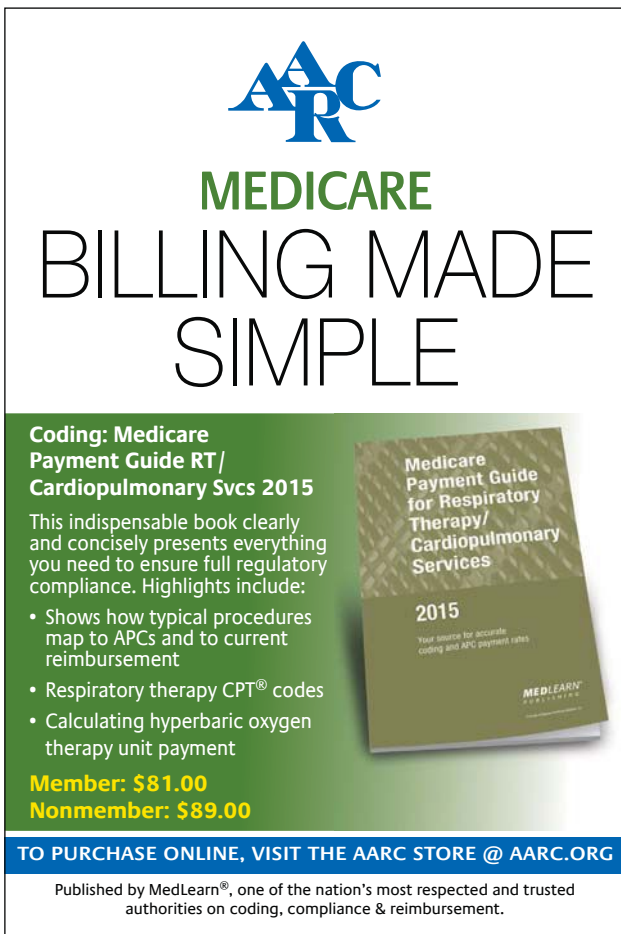
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## Sleep Waves

# Sleep Medicine Update

by Karla Smith, BSRT, RRT, RPSGT

Is there anyone out there who can truly say that they would embrace change **every time**? Probably not. In the case of sleep medicine and polysomnography, the definition of change can be to “make or become a different substance entirely: transform.”

Over the last 10 years, sleep medicine has seen some major transformation. This is evidenced by the fact that 10 years ago polysomnography (PSG) was the only way to confirm obstructive sleep apnea (OSA). However, with the advancement of home sleep testing (HST) and the decision by Medicare that this less expensive type of testing can be used to diagnose OSA, HST is being used more often at the request or demand of insurance companies to test patients who have symptoms suggestive of OSA. These include witnessed apnea, excessive daytime sleepiness, a body mass index greater than 35, and snoring.<sup>1</sup> In North Dakota, this has been very minimal, but we have had more denials of in-lab studies in the past couple of months than we had last year. What we are finding is that if the patient has a more complicated medical history, these same insurance providers are approving an in-lab study.

Additional evidence to support change in the field of sleep medicine is that staff at sleep centers must now also:

- Begin programs that help people maintain positive airway pressure (PAP) adherence
- Gain clearance for their commercial driver license (CDL)
- Test pediatric patients
- Screen patients preoperatively for risk of OSA
- Complete diagnostics and treatment of patients who have complex sleep disorders like overlap syndrome, neurological disorders, or central sleep apnea.

### Current reimbursement issues

Along with the above changes, there is the undeniable fact that reimbursement for diagnostic testing is decreasing significantly (see Table 1).<sup>2</sup> The data in the table is indicative of Medicare reimbursement nationally.

Note that reimbursement for HST is significantly less than PSG or PAP titration, but also note that HST reimbursement is 6% less than the year before, thus making HST even less profitable. However, because this is the diagnostic test of choice for many insurance companies, many sleep centers may not be able to survive on testing alone. This may mean that sleep centers need to transition to full-service sleep centers and consider other options for maintaining and even increasing revenue.

It is important to note that using HST on all patients is really doing them a disservice since HST is not specific enough to detect and diagnose any other sleep disorders other than OSA.

The American Academy of Sleep Medicine did determine that HST should not be used in OSA patients with significant co-morbidities such as COPD or congestive heart failure.<sup>3</sup> There was also discussion that HST should not be used in populations with other sleep disorders like central sleep

apnea, periodic limb movement disorder, or narcolepsy. In-lab studies should be performed on this patient population due to the complex nature of these disorders.<sup>3</sup>

### Full-service sleep centers

Sleep centers are now expected to be “full service” for reimbursement, thus forcing them to change operation style. Reimbursement is changing from fee for service and payment for procedures to payment for patient outcomes for each disease process.

### about the author...



Karla Smith, BSRT, RRT, RPSGT, is the sleep center coordinator at CHI St. Alexius Health in Bismarck, ND.

**Table 1. Reimbursement Decline for Diagnostic Testing**

95806	HST	\$172.16 (6%)
95810	PSG	\$618.08 (4%)
95811	PAP Titration	\$648.00 (4%)

What does this shift mean for sleep centers? If the payers are paying for outcomes, sleep centers will need to move from performing only diagnostics and PAP titrations to being able to team up with other medical professionals. In my opinion, this “super sleep team” will come together to produce positive patient outcomes by focusing on education, monitoring, and follow-up.

This will be accomplished by sleep centers expanding working relationships with dentists, primary care providers, and behavioral specialists. Respiratory therapists are a natural fit in this model shift because of their expertise in cardiopulmonary physiology and their ability to work closely with all health care providers, like pulmonologists, cardiologists, and neurologists.

It must be mentioned that while this forward progress is great for respiratory therapists who specialize in sleep, RTs involved in this new model need to have expanded clinical skills and knowledge of all aspects of sleep medicine as well as the ability to take care of complex patients.

The sleep center of the future would not only perform sleep testing but many more treatment modalities such as monitoring CDL drivers during treatment for their OSA, adding oral appliance therapy plus monitoring and

follow-up, beginning an insomnia program, assuring follow-up after CPAP initiation, and measuring outcomes to assure positive therapy for all OSA patients. This sleep center model is very similar to the model used by Dennis Hwang, MD, and associates at the sleep center at Kaiser Permanente Fontana Medical Center.<sup>4</sup>

According to “The Future of Sleep Technology: Report from an American Association of Sleep Technologists Summit Meeting” in the *Journal of Clinical Sleep Medicine*, there is evidence that more experienced practitioners will need to be educated in pre-test evaluation, diagnostic testing, provision of treatment, follow-up care, and long-term care.<sup>4</sup> Each area contains educational expertise that is already possessed by the respiratory therapist.

RTs have an opportunity to embrace this change and move forward as sleep medicine begins its newest transition. ■

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# Executive Office Update

## What Kind of Leader Are You?

by Thomas J. Kallstrom, MBA, RRT, FAARC

**S**trong and competent leadership in today’s health care environment is an important but sometimes elusive commodity. With the constant bombardment of challenges including reductions in reimbursement, budget cuts, hospital penalties for readmissions, and finding and keeping the most qualified and competent staff, it is no wonder that there is a definite strain on our hospitals and on our staff and our leaders. Whether you are a staff therapist or a director or somewhere in-between, your leadership or lack of leadership skills will impact your department operations. So what kind of leader are you?

With the challenges that we are faced with in health care, we are in need of strong leadership. Lets look at a few examples.

### Transactional leadership

Transactional leadership is the most common type of baseline management. A transactional leader sets goals and standards for a reward (a paycheck or perhaps a raise). This leader will also use negative reinforcement to help the employee change an action or expected performance. Generally this type of leadership just seeks to keep things running smoothly with no rocking of the boat. I am sure you have seen that type of leader before. They get the job done but often without much inspiration to others. This is the type of leader who needs to evolve to a higher level. If we strive for a higher level, our profession will need more than transactional leaders.

### Transformational leadership

A transformational leader is one who provides day-to-day guidance to the operation of their department, but they have established broader vision for their staff. The challenge for this leader is to sell this vision to their staff. An example of this is the director who understands

the necessity of employing protocols within their department. They understand how protocol implementation will result in better and more efficacious patient care while giving the RT the autonomy to carry it out. This leader must make sure their staff understands why this is important to patient care and the department and ultimately to the profession. Team building and collaboration are key ingredients for their success. During my time as a department leader, I quickly learned that to

be successful I couldn’t operate in a vacuum but rather in a collaborative fashion with other disciplines in the health care facility. United we stand, divided we fall.

### about the author...



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

### Adaptive leadership

Adaptive leaders are essential in today’s rapidly changing health care environment. This type of leader understands that health care is not on a static course. When unexpected challenges occur, the adaptive leader must work to understand the problem and then to creatively adapt to the change. Generally, an adaptive challenge occurs when beliefs and values lead to failures or when a competing value becomes more relevant.<sup>1</sup>

An adaptive leader will be able to help their staff overcome challenges that are created by change, and they do this in a collaborative fashion. This may involve adopting new values and changing behaviors, roles, and ways of doing things.<sup>1</sup> A great example of this is the leader who understands the hospital penalties that their employer may be subject to for any COPD patient who readmits within 30 days to the hospital. Proactively, this leader will work with their administrative and medical staff to establish a plan to better prepare patients for discharge using self-management education both in the hospital and post-discharge. Hopefully, they will take a lead role. For examples of successful

programs in preventing COPD readmissions, go to AAR-Connect (<http://connect.aarc.org>) and use the “search” function to locate “COPD Best Practices.”

### Servant leadership

The term servant leadership is a philosophy that goes back to the 1970s when it was first introduced by Robert K. Greenleaf.<sup>2</sup> In Greenleaf’s essay, he notes that a servant leader is a servant first and that true leadership emerges from those whose primary motivation is a deep desire to help others. It is simply putting the needs and well being of others first. A clinical servant leader essentially provides expected care to their patients and staff. This is an expectation and the reason why we are at the bedside.

Hospitals around the country are touting the fact that their staff are servant leaders. At first blush, one might think that this is a derogatory designation. Why would I ever want to be considered a servant in the 21st century? What does this have to do with providing quality care? These are good questions that need to be looked at closer.

Leadership in respiratory care must be owned — and not just by the department director, supervisor, or manager. According to James Alan Laub, EdD, servant leadership works to promote the valuing and development

of people, building the community, practice of authenticity, provision of leadership for the good of those led, and sharing power and status for the common good of each individual, the total organization, and those served by the organization.<sup>3</sup> While this seemingly new concept has been adopted by many health care systems, it is important that we truly understand and embrace this and not have this just be a marketing slogan.

Times are tough, and as my dad always told me, “that is when the tough get going.” As a profession, we must not be afraid of the complexities of change. We need to employ the learned skills that make leaders successful and be open to broadening our leadership skillset. If you are interesting in learning more, I would direct you to the AARC’s Leadership Institute where you will be taught the skills necessary to be a better manager and leader within your organization (<http://learning.aarc.org/store/semnar/semnar.php?semnar=33242>). ■

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# Making the Case and Developing a Model for an RT Population Manager

by John Sabo, MS, RRT, FAARC

**EDITOR'S NOTE:** In this issue, we introduce a new column to bring to the forefront new roles that respiratory therapists are taking on in this new age of health care. We encourage you to share your stories with us to let your colleagues know the kinds of responsibilities RTs are capable of today and how the RT's role is evolving.

**T**he Advisory Board Company identifies “the high-risk patient population’s costliest 5% of patients; those who have multiple, poorly controlled chronic conditions with psychosocial issues and nonclinical barriers further complicating their care.”<sup>1</sup>

The highest readmission rates (23%–26%) of any type of patient are heart failure and chronic obstructive pulmonary disease (COPD). These conditions account for 9% of all medical admissions.<sup>2</sup> Over half of patients with COPD and heart failure are readmitted to the hospital within 12 months.<sup>2</sup> Payors, especially Medicare, are denying coverage without detailed medical justification for 30-day readmission.<sup>3</sup>

It is estimated that 10%–50% of readmissions are considered to be potentially avoidable. Improved management of these conditions throughout the continuum potentially could prevent both the initial hospitalization as well as readmissions.<sup>3</sup>

In October 2012, part of the Affordable Care Act created the Hospital Readmissions Reduction Program with goals to improve health care quality and to reduce costs. The initial three conditions were acute myocardial infarction, heart failure, and pneumonia. If a patient was readmitted within 30 days of a previous discharge, a readmission penalty was assessed. In 2015, CMS has added three new conditions, COPD, elective total hip arthroplasty, and total knee arthroplasty.<sup>4</sup>

## An opportunity for our profession

The addition of COPD creates an opportunity for the profession of respiratory care. The respiratory therapist is the true non-physician expert in the management of pulmonary patients. In the role of a “Population Manager,” the RT caring for this patient population can establish a one-on-one relationship with this high-risk patient. The goal is to shift high-cost care to a lower-cost management level whenever possible, which includes preventing readmissions. A program at Baylor St. Luke’s Medical Center in Houston, TX, created a “Respiratory Therapist Population Manager” to work with COPD patients during their hospital stay.

In 2007, University HealthSystem Consortium (UHC) benchmark data indicated opportunities for improvement in cost per case and length of stay (LOS) for COPD (DRG 88) patients. A multidisciplinary team consisting of physicians, respiratory therapists, nurses, pharmacists, social workers, and case managers was formed that developed the strategic objective of improving or maintaining safe, quality care while improving financial outcomes. Utilizing the performance improvement methodology, the team identified the problem, current situation, benchmark standard,

discrepancy, and potential causes. Analysis of the root causes was performed; we defined short- and long-term countermeasures with specific responsibilities, expectations, and timelines to evaluate the success of the plan. A primary component of the pulmonary initiative was the development of the acute pulmonary unit (APU), which included telemetry and remote pulse oximetry technology and became the primary admission area for COPD and other pulmonary patients. The admission cri-

### about the author...



John Sabo, MS, RRT, FAARC, is the administrative director of respiratory care, sleep, and pulmonary services at CHI St. Luke’s Health in Houston, TX.

teria covered any patient with a pulmonary diagnosis, although there were some exclusions — including status asthmaticus and mechanical ventilation. A dedicated RT is then assigned to this area, performing the full range of services.

Other elements included a staff education program, scope of service criteria, a “pull” process identifying COPD patients early in their hospitalization to facilitate transfer to the APU, revitalization of the COPD pathway and order sets, development of a “60-second walk test” that evaluated patient functionality in limited spaces similar to the home environment, and an advanced role for respiratory therapists.

### Respiratory clinical specialist

This advanced role was to manage the population of COPD patients from their admission to discharge. The original description of the position was population manager. Due to lack of understanding at the time, the position was renamed respiratory clinical specialist. The concept of this position included facilitating/streamlining care with other professionals, performing patient/caregiver teaching, defining appropriate care/discharge needs, discharge follow-up, and case managing those patients with frequent readmissions. This role was to work in collaboration with physicians, nurses, pharmacists, social workers, and case managers to meet the specific clinical and psychosocial needs of the COPD patient.

The process includes the key components of managing COPD, assessing and monitoring the disease, reducing risk factors, managing stable COPD, and managing exacerbations. The 2007 Global Initiative for Chronic Obstructive Lung Disease<sup>5</sup> was used as a guideline for the development of these components. Upon admission, the respiratory population manager (RPM) screens the COPD patient. This screening includes documenting a full history, including co-morbidities, home and hospital medications, barriers to discharge, and a target discharge date.

Next, the patient is evaluated for smoking history, flu and pneumonia vaccination compliance, knowledge of appropriate hand washing, and awareness of avoidance of crowds in general but especially in flu season. The RPM equips the patient with the skill and knowledge to manage disease and improve overall health. An educational program was developed to include diet, exercise, medication compliance, lifestyle changes (smoking and alcohol consumption), regular physician visits, and involvement in support groups (Better Breathers Clubs). Patients are educated to respond appropriately to acute exacerbations and, when appropriate, they are encour-

aged to stop smoking. Should palliative care be required, a discussion of end-of-life issues and advanced directives is initiated.

The next step in the process is a discussion with the patient on how to manage acute exacerbations. This includes the increased frequency of using short-acting bronchodilators (preferably beta-2 agonists and anticholinergics), oral/IV corticosteroids, and antibiotics for increased dyspnea with increased and/or more purulent sputum, or for mechanical ventilation.

The RPM prepares the COPD patient for discharge daily, rounding with the discharge teams. The teams identify barriers to discharge that may include the physician, financial, home safety/homelessness, skilled nursing facility/long-term acute care appropriateness, or failed pulmonary rehabilitation, physical or occupational therapy. The RPM assists with respiratory discharge orders, home oxygen, continuous positive airway pressure/bi-level positive airway pressure, vibrating vest, and medications. A major part of this process is timely assessment of the patient’s oxygen dependence. Initially, 60-second walks are performed to determine how rapidly a patient desaturates with minimal to moderate activity. Evaluation of qualification for home oxygen is accomplished by a 6-minute walk assessing room air oxygen saturation of 88% or less.

### Post-discharge process

A post-discharge process was implemented to evaluate therapy compliance and any factors that may contribute to non-compliance possibly resulting in a readmission.

Upon discharge, the RPM makes a post-visit phone call within 72 hours to reconfirm discharge instructions, reduce patient anxiety, reduce complaints and claims, reinforce patient perception that excellent care has been provided, and offer an opportunity for quick service recovery. Questions asked include:

1. Does the patient have all of their discharge medications, including inhalers and nebulizers; do they know how to use them; and do they have enough to last until they see their physician?
2. Have they scheduled their follow-up appointments and lab work with the appropriate physicians?
3. Do they know when to seek medical attention?
4. Do they know when to seek emergency medical attention?

Information is provided regarding access to \$4 and \$5 programs at local pharmacies and medication assistance websites. A conversion with Medicare is initiated regarding changing from an inhaler to a nebulizer. The patient is informed that Medicare will pay for their nebulizer medications when delivered by a durable medical equipment provider but not when picked up in person at the pharmacy. The patient is also encouraged to ask their physician for free samples.

Barriers to care are discussed and solutions suggested regarding lack of transportation, lack of funds, inability to find a physician accepting new patients under their plan, finding the doctor’s contact information, forgetting to follow through on their medical care, and not knowing when to seek medical attention. The information discussed includes what to do should the following occur:

1. If their condition does not improve at all within the first few days
2. If it seems as if it’s more difficult to breathe or they get short of breath more easily and their breathing medications do not seem to be helping very much
3. If they start running a fever or coughing up sputum that is any color other than clear or white
4. If they are short of breath for more than a few minutes and their breathing does not get better when they use their breathing medications (bronchodilators like albuterol, levalbuterol, or ipratropium)
5. If they feel like they need to use their breathing medications much more frequently than what the physician has recommended or they do not feel like they are working at all to ease their breathing
6. If they notice their fingertips or lips turn blue or gray

7. If they have a sudden increase in confusion or feel unusually sleepy during times of the day when they usually do not sleep (in spite of getting a good night’s sleep).

**Bottom-line results**

When an analysis was performed comparing FY2008–FY2013 for COPD (DRG 88) with an increase in COPD admissions, the pulmonary initiative produced shortened COPD LOS, COPD ICU LOS, and a decreased cost/case (see Table 1). In conclusion, this team was able to positively impact LOS and hospital financial performance. Though not in the original matrix, there was a dramatic decrease of 21% in the 30-day readmission rate. There are still opportunities to improve, though we believe in our organized approach and that not one particular factor has contributed to the incremental success of this initiative. In our opinion, the respiratory therapist serving as population manager is instrumental in successfully managing the COPD high-risk patient. ■

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**Table 1. COPD Admissions FY2008 – FY2013**

DRG 88 January–December							
All Admissions	2008	2009	2010	2011	2012	2013	% Var 2008 vs 2013
Cases	356	351	419	428	404	448	26%
Average LOS	5.94	5.41	5.73	5.61	5.49	5.42	-9%
Average ICU LOS	0.65	0.48	0.56	0.42	0.49	0.60	-8%
Average Total Cost	\$9,930	\$9,193	\$9,440	\$9,075	\$9,417	\$9,763	-2%
Readmission Rate (30 Days)	9.6%	3.7%	7.9%	8.1%	9.5%	7.6%	-21%

ICU = intensive care unit  
 LOS = length of stay

## Says Who?

by Anthony L. DeWitt, JD, RRT, FAARC

One day all of us, no matter how much exercise we get or how many saturated fats we avoid, are going to die. Death and taxes are the two surest things in the world; and although we all live life as if the former will never happen, eventually it will. No one understands this better than clinicians who have seen all manner of people die.

You have worked hard for the things you've acquired. You've battled diseases and put up with snarling nurses, confused doctors, and patients who can't seem to cover their mouths when they cough. You are likely proud of all the things you've acquired.

Now imagine one day someone comes into your house and starts dividing up your things for you. That prized gun collection you intended to pass along to your son is handed off to your wife, who doesn't know a firing pin from a trigger. The money you had invested for your daughter's education is split between your daughter and your son. The money in your checking account goes to pay your doctors. At the end of the day, everything you own is in someone else's hands, and you got no say in the matter. How would you feel?

Doubtless you would not like the result because you have probably already made decisions about what you want done with your life's savings and the things you own, but if you haven't put those wishes into written form with a will or trust, the state — not you — will ultimately determine where things go.

### The state can make your will for you

Every state has something called an intestacy statute. That statute makes a will for you, whether you want it or not. It provides that upon your death certain things must be divided in certain ways, and it allows only one

year for your heirs to go to the courthouse and get your affairs settled. There is also a clause that permits a creditor to petition for an estate to be opened if they are owed money. Without a will or another instrument that divides your worldly goods, the law of intestacy controls.

There are three primary ways that people dispose of their worldly possessions. A will is a document written by a lawyer (although software exists to write a will that will hold up in all 50 states) and signed according to cer-

tain requirements (witnesses, notarial seals, etc.). It provides direction to your administrator of where your possessions should go, who should get them, and how your final bills should be paid.

A trust is an instrument drafted by a lawyer that places all of your assets into an entity that will administer them. A trust is created by a trustor, managed by a trustee, and provides for a beneficiary. A trust might place your cars, your home, your checking and savings accounts, and any other funds you have into a trust. As the "trustor" or "settlor," you say what goes into the trust. The "trustee" (which could be you or even another individual you appoint) manages the trust and decides what gets paid from its funds and what gets added to it. The beneficiary is the person who enjoys the proceeds from the trust. While a person lives, he or she can fill all three roles.

Trusts are often used to place assets beyond the reach of creditors after death and to prevent the state from seizing assets when a person must go into a nursing facility. In order to be effective, they must have been created a minimum of five years before the resident goes into skilled nursing care.

Wills and trusts both have an advantage over other methods in that they allow you to appoint, while you are

### about the author...



Anthony L. DeWitt, JD, RRT, FAARC, is an attorney and a partner in the firm Bartimus, Frickeleton, 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.

living, the person who will oversee the administration of your estate. Appointing an “administrator” or an “executor” is an important function of a will. Under the Health Insurance Portability and Accountability Act (HIPAA), your “personal representative” is the individual who can authorize release of your medical records and must be appointed by a probate court. The trustee for a trust is often the first choice as personal administrator because they are aware of the trust, its assets, and what other assets might be subject to probate disposition. In either setting, the biggest benefit is having someone you trust manage your affairs.

The final way a person takes care of their assets is through what are called “non-probate transfers” (e.g., titling your car in your name with a “transfer on death” that provides the car goes to your son or daughter on your death). Similarly, a beneficiary deed or titling the property with a “right of survivorship” in some states will allow a house to pass to a family member outside of probate. Bank accounts can be similarly arranged to pass outside of probate; and certain assets, like life insurance policies, never pass through probate unless they are directed to be paid to the estate of the decedent.

The problem with trying to handle all or even a large portion of your estate through these kinds of transfers is that sooner or later some piece of property will be missed, and most personal property (cameras, guns, pianos, artwork, etc.) cannot be disposed of through non-probate transfer. More importantly, without a per-

sonal administrator it may be impossible for relatives to know how to pay your bills and settle claims against you.

### Probate court

When a person dies without a will but with assets and significant liabilities, creditors often file claims with the probate court. If no estate is open, the creditors can open one; and the appointment of a personal representative or estate administrator is made by the court without knowledge of whom you deem most responsible. If family members do not step up, the court may appoint someone called the public administrator to deal with these issues. Again, your life’s work and assets will be controlled by someone you don’t know — and without your input.

When a will is probated, the local probate court handles the disposition of the assets, and the court fees are determined by the size of the estate. Additionally, taxes often apply when assets are disposed of via probate. For this reason, it is wise to get legal advice to determine if a will, a trust, or a series of non-probate transfers is the best way to avoid having to pay the state or local government for the privilege of passing down your property to your relatives and heirs.

The state bar in most states will provide some guidance in the form of pamphlets about how to get a will made, and most states have lawyer referral services to assist you in finding counsel. ■



Seek legal advice to determine if a will, a trust, or a series of non-probate transfers is the best way to avoid having to pay the state or local government for the privilege of passing down property to your heirs.

# Message to Congress: Telehealth Is the Future

AARC PACT heads to Washington, DC,  
to support telehealth legislation

by Debbie Bunch

AARC members from across the country will gather in Washington, DC, on March 18 for the Association's annual Capitol Hill Advocacy Day, bringing with them a new message to ensure quality care for patients with chronic lung disease.

"This year's Advocacy Day differs from those of recent years in that our mission will be to educate our members of Congress on legislation being supported not just by the AARC but by a range of groups and organizations interested in keeping patients out of the acute care hospital," says AARC Director of Government Affairs Cheryl West, MHA. "Focused on harnessing the power of telecommunications, the legislation would allow for a phased-in expansion of telehealth coverage under the Medicare program."

AARC President Frank Salvatore, Jr., MBA, RRT, FAARC, says it's about time. "In a world where you have smartphones that can help detect everything from atrial fibrillation to sleep-disordered breathing, it should be no surprise to anyone that technology has advanced to the point where providers of care do not have to be in the same physical space as patients to provide them

with the services they need to treat their conditions. Like many of our fellow organizations, the AARC believes telemedicine is the future; and our support of this legislation will ensure respiratory therapists are on the forefront of its delivery."

## More chronic care patients will benefit

Introduced into the last Congress as the Medicare Telehealth Parity Act (H.R. 5380), the legislation builds on current telehealth coverage under Medicare by adding sites of coverage, new covered services, and additional practitioners who can provide the services. "Right now, telehealth coverage is basically limited to patients in certain rural underserved areas," says West. "Under the new legislation, patients in other locations would gradually be added to the coverage, expanding the availability of telehealth services to those living in a county within a metropolitan statistical area with at least 100,000 population."

Most importantly for the profession, during the first phase of enactment, the bill would add respiratory therapists to the roster of practitioners who can provide telehealth services, along with



physical therapists, occupational therapists, speech language pathologists, audiologists, and certified diabetes educators. These practitioners would be able to furnish remote patient management services for specific chronic health conditions that include COPD, congestive heart failure, and diabetes care furnished by a Federally Qualified Health Center.

“Under remote patient monitoring, RTs would be able to provide a range of services that fall within their scope of practice,” says AARC Director of Regulatory Affairs Anne Marie Hummel. These services include:

- Patient monitoring
- Patient-training services
- Clinical observation
- Patient assessment
- Treatment.

During the second phase of enactment, the bill would add coverage of respiratory services and home telehealth services related to the provision of hospice care, home dialysis, home health services, and durable medical equipment. Hummel adds, “Coverage of these additional services opens the door to disease management services for many more patients than can be seen in the traditional hospital or clinic setting.” Services would be billed either by the physician or facility offering the telehealth services.

### Respiratory therapists gain recognition

Enactment of the Medicare Telehealth Parity Act would achieve a goal that the AARC has pursued throughout its legislative initiatives; that is, formal recognition of respiratory therapists in the Medicare statute. The telehealth legislation also calls for two studies by the Comptroller General that have the potential to demonstrate the value that RTs bring to the health care system and their patients who suffer from chronic respiratory disease, further recognizing the contribution RTs can make to improving quality of care.

One study will evaluate the effectiveness of remote patient monitoring on decreasing hospital readmissions to determine whether there are cost savings associated with such utilization and/or a potential to expand the services to include additional conditions such as asthma. The second study will evaluate the effectiveness of treating patients through telehealth and will utilize respiratory services and other new services added by the bill, as well as the practitioners such as RTs and others who furnish the services.



## Virtual Lobby Week: Your Chance To Do Your Part

Every year PACT members take time out of their busy schedules to meet with their members of Congress to support legislation important to the AARC and the patients we all serve. You can do your part to ensure a smoother path for these volunteers by writing to your own members of Congress during our Virtual Lobby Week to express your support for the legislation they'll be lobbying for in person on March 18.

This year we're kicking off the week on Friday, March 6, and asking members to continue flooding Congress with messages through Wednesday, March 18. The more your members of Congress hear from RTs around the country, the more responsive they'll be when our PACT representatives step through the doors of their offices.

So look for the announcement on [www.AARC.org](http://www.AARC.org) and then throw your support behind this year's key message — the Medicare Telehealth Parity Act. Virtual Lobby Week is everyone's chance to speak up for our profession and our patients! ■

### A step in the right direction

What are the chances the bill will be signed into law? As with all legislation, many factors will come into play; but with support from a number of influential organizations, including the American Telemedicine Association, the AARC believes the outlook is good. The fact that members of Congress on both sides of the aisle are backing the legislation bodes well, too. “The bill is one of the few that has bipartisan support,” emphasizes West, “and, at press time, it was expected to be reintroduced in the new Congress soon.”

AARC PACT members who will travel to Washington, DC, this year plan to do their part as well by educating their members of Congress on the merits of the bill and the role they and their colleagues across the country are ready to play in improving health care outcomes for people with chronic respiratory conditions. “Innovations in technology are making it possible to deliver quality health care to patients in remote locations, and expanding telehealth coverage under Medicare would ensure more patients have access to the services they need to remain as healthy as they can,” says Frank Salvatore. “The AARC’s support of the telehealth legislation is a step in that direction.” ■

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**Members of the  
Association’s Political  
Advocacy Contact  
Team are packing  
their bags right now  
for their annual trek  
up Capitol Hill.**

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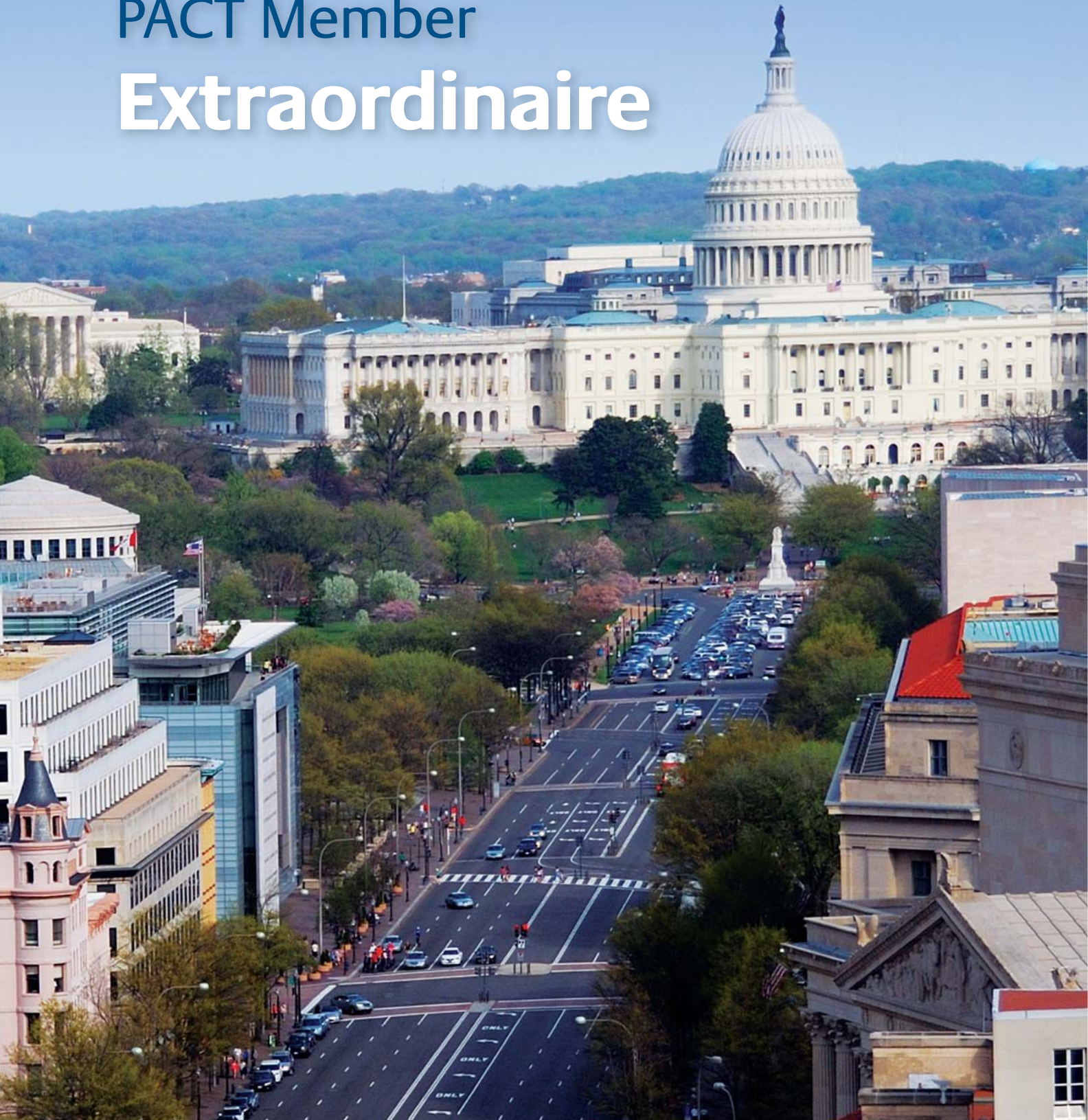


## Learn How To Be a Pulmonary Disease Educator

By expanding the availability of telehealth services, the Medicare Telehealth Parity Act would greatly increase the need for respiratory therapists with the knowledge and skills necessary to provide pulmonary disease management services. To ensure more RTs are prepared to deliver those services, the AARC is hosting a two-day Pulmonary Disease Educator Course in Washington, DC, on March 16–17, just prior to our annual Capitol Hill Advocacy Day on the 18th.

We invite all respiratory therapist and their colleagues in other disciplines involved in pulmonary disease management, to take advantage of this cutting-edge, multidisciplinary course. Featuring presenters from across the country with proven backgrounds in the subject area — along with topics covering a wide range of pulmonary disorders — the course promises to offer the information needed to be on the frontlines of pulmonary disease education — whether it’s delivered in person or using telehealth. Visit [www.AARC.org](http://www.AARC.org) today for more information. ■

# Carolyn Williams, PACT Member Extraordinaire





## AARC's Capitol Hill Advocacy Day benefits from support of long-time members like Williams

On March 18, members of the AARC's Political Advocacy Contact Team (PACT) will fan out across Washington, DC, to deliver important information to their members of Congress on legislation vital to the health and well-being of patients suffering from respiratory conditions. Front and center in this annual march to the Capitol will be a member from the Maryland/DC Society for Respiratory Care. Carolyn Williams, BS, RRT, a respiratory therapist at Children's National Medical Center in Washington, DC, has been a part of every AARC Advocacy Day since 2008; and her tireless volunteerism during the day itself and throughout the rest of the year stands as a testament to the idea that one person really *can* make a difference. In this interview, she talks about why she volunteers and what it has meant to her and the patients she serves.

**AARC Times:** How long have you been a respiratory therapist, and what drew you to the profession?

**Carolyn Williams:** I have been an RT for 30 years. My godson was a chronic asthmatic as a child, and I remember the many admissions he had to Walter Reed Army Medical Center. While watching the care he was given on a regular basis, I became interested in respiratory therapy. This was something I felt I could do. I was looking for a change in my life and looked into the program at the University of the District of Columbia. While researching the job possibilities in my local paper, I remember seeing a lot of open positions at many hospitals in the Washington, DC, area. This made the choice very appealing in terms of the possibility of securing a job upon graduation.

**AARC Times:** When and why did you decide to become involved in the AARC PACT?

**Williams:** I became involved in 2008. I remember reading the *AARC Times* several times and seeing the group picture of respiratory therapists in front of the Capitol building in Washington, DC. I was amazed to see therapists represented from so many states. As an RT and a native Washingtonian, I felt I should be involved in that endeavor representing my profession in my city. I contacted one of the RTs in the picture and asked how I could get involved. She advised me to contact our state society president, and I have been involved ever since.

**AARC Times:** How many PACT trips to Washington, DC, have you been on; and why do you volunteer to participate year after year?

**Williams:** I have participated in the AARC PACT trip seven times and will be there again this year on March 18 as well. I continue to participate year after year because I enjoy the interaction with our congressional leaders and their health policy staff. Most of our visits are actually with one of their staffers; however, we have learned that they are very knowledgeable about health care issues. They are interested in our concerns relating to the provision of respiratory care services to patients. It is our duty to advocate on behalf of our patients; and we want to ensure that our patients receive the proper training for their care at home by using RTs to educate them.

**Carolyn Williams has been charging up Capitol Hill with the Maryland/DC delegation since 2008.**





Congressman Roscoe Bartlett (standing in the back row in the suit) took time out for a photo with Carolyn Williams and her colleagues — including RT students from a local program and two patient advocates — in 2012.

**AARC Times:** Many long-time PACT members believe their regular attendance at the annual Advocacy Day event helps them build long-term relationships with their members of Congress. Have you found this to be the case for you? If so, why do you think it is important to establish this ongoing connection?

**Williams:** Yes, I have. It makes for a positive experience when contacting the offices of the members of Congress to schedule appointments for the next Advocacy Day. The members of Congress and their health policy advisors remember you and your issues that you are coming to speak about.

**AARC Times:** What have been some of the highlights of your PACT trips to DC over the years, and why do these instances stand out in your mind?

**Williams:** In 2010, a patient advocate and a personal friend of mine who was on home oxygen participated with us. She was able to speak about her experience involving the specialized care that she received from RTs as she battled a chronic illness. One legislative assistant was very interested in her comments. I did not realize that visit made a lasting impression on the legislative assistant until we returned in 2011 and she asked about the patient on home oxygen who came with us the previous year.

That same year we had an appointment to meet with the legislative assistant to Sen. Ben Cardin. To our surprise, the senator came out of his office and saw us sitting patiently in his office lounge. We greeted him and told him what organization we were representing. He smiled and said he had a little time before his next meeting and that he would love to speak with us. We met with him and explained our cause for the day. He appeared to be very interested in what we had to say and also took the time to take a group picture with us.

In 2012, we actually had an appointment with Rep. Roscoe Bartlett. He was pleased to see our group, which consisted of RTs, respiratory therapy students, and patient advocates. He showed a particular interest in the students and encouraged them to continue participating in these types of events after graduation.

**AARC Times:** What kind of progress have you made with your elected officials in terms of their support for respiratory care issues?

**Williams:** We have been able to get meetings with our members of Congress every year to educate them on our agenda. Most of our elected officials appear to be on board with our issues and agree that health care self-management of pulmonary patients is a priority in health care.

**AARC Times:** Do you feel like the annual PACT trip and your overall PACT involvement has raised awareness of respiratory therapists and respiratory patients among members of Congress?

**Williams:** Yes, I do. Members of Congress have seen RTs participating in our annual Advocacy Day for many years now. Most of them are aware of what we do as respiratory therapists, and we continue to bring with us patient advocates who also speak on our behalf. They have seen us with our patients on oxygen who speak about the care that we give them. They also see us with our patients who have had lung transplants, and they listen to them as they explain the value of an RT before and after their procedure.

**AARC Times:** This year, you and your fellow PACT members will be advocating for telehealth legislation that would include RTs as covered providers. Why do you believe it is important for this legislation to be enacted?

**Williams:** As respiratory therapists, we are direct caregivers for patients with respiratory issues. We see these patients when they are very sick, and we see them when they have improved in their illness. Since health care is a hot topic this year, it is more important than ever for our PACT to educate members of Congress about the value in patients having access to RTs who can give them the proper pulmonary self-education. This is critical so that patients are better able to manage their conditions at home. Having expanded telehealth legislation in place would be one way to reduce exacerbations and ultimately decrease hospital readmissions of pulmonary patients, allowing them to live a healthy life at home.

**AARC Times:** What would you like to say to your fellow AARC members about getting more involved?

**Williams:** Get involved at your state level *and* on the national level. Participate in the events where you have access to other respiratory therapists. Encourage your co-workers to participate with you. While it is understood that not everyone is able to go to Washington for the annual PACT Advocacy Day, there is *something* everyone can do.

Support the requests from AARC PACT members to write to your members of Congress during Virtual Lobby Week, which begins the week prior to our Advocacy Day. This is when we ask everyone to send emails to their members of Congress in support of the legislation for which we are trying to obtain co-sponsors. During this week, we need letters of support from respiratory therapists, patients, family members, caregivers, and physicians; and we rely on our fellow AARC members to get everyone on board. ■

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For more on the telehealth legislation and this year's AARC Advocacy Day goals, read "Message to Congress: Telehealth Is the Future" in this issue.

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## Enterovirus D68

Emily Wilkinson (front row, far right) and her colleagues at Children's Mercy went above and beyond the call of duty when their hospital was flooded with EV-D68 patients last summer and fall.



# Looking Back on a New Outbreak of an Old Infection

*Kansas City RTs were front and center in the 2014 resurgence of Enterovirus D68*

by Debbie Bunch

Business as usual went by the wayside last summer when respiratory therapists at Children's Mercy Hospital were deluged with patients suffering from EV-D68.

RTs who work in children's hospitals typically view their "busy season" as occurring during the winter months. That's when RSV and other respiratory illnesses generally send kids to the emergency department (ED) and fill up hospital beds. Summer is supposed to be slow — kids are still out of school, the weather is nice and warm, and respiratory bugs are on the downswing.

Such was not the case last year at Children's Mercy Hospital (CMH) in Kansas City, MO. In early August AARC member Emily Wilkinson, BHS, RRT-NPS, and her colleagues began to notice a spike in patients presenting with an unusually severe respiratory illness. Some kids were so bad off they even required admission to the pediatric ICU. Initial results on the respiratory polymerase chain reaction (PCR) panel raised the red flag; and Mary Anne Jackson, MD, the hospital's infectious disease director, contacted the Centers for Disease Control and Prevention (CDC).

Within days, this 265-bed facility was ground zero for a new and particularly dangerous outbreak of an old infection known as Enterovirus D68 (EV-D68) that would soon spread from coast to coast.

## **RTs in demand**

The outbreak put an immediate strain on the hospital. "We had patients boarded in our ED for hours waiting on inpatient beds to open up," says Wilkinson, a clini-

cal specialist at the facility. Staff members throughout the hospital stepped up to make sure patients would get the care they needed; and as key bedside caregivers for these children, staff in the RT department were in particular demand. Wilkinson and her colleagues lost no time rising to the occasion.

“We usually run only one respiratory therapist at a time in our ED. During the outbreak, we had approximately three to four therapists at any given time helping out,” she says. When even that was not enough, other RTs pitched in as they could. “At one point, our external transport team here at CMH saw the inpatient therapist struggling to get from one patient to the next in a timely manner; and some of the transport therapists took it upon themselves to come over and treat patients with our staff therapist. This is an example of how we all worked together to get our patients the great care they deserve.”

Physicians and nurses appreciated the effort; and they also reached out to the RT department, asking managers for ideas on what else they could do to help the hospital get through the crisis. One solution that proved especially useful was to send one of the department’s clinical specialists down to the emergency department to train ED nurses to deliver metered-dose inhaler treatments. That freed up therapists in the ED to focus on higher acuity care.

### **A team effort**

Department managers not only “talked the talk,” they “walked the walk” during the height of the outbreak as well. With a full patient census in the pediatric ICU and

Being on the leading edge of an infectious disease outbreak like this one definitely resulted in some “take-aways” for the respiratory care department.

on the medical/surgical floors, it quickly became apparent that regular bedside therapists could not handle the increasing number of patients on their own. The respiratory care leadership team headed out of their offices and into patients’ rooms to take up the slack. “The only way

to maintain the staffing that we needed in our ED and provide enough support for our inpatient areas was to pull our respiratory care leadership team from their office work and meetings to help the staff therapists with frontline patient care,” explains Wilkinson.



Administrators did their part by ensuring bedside therapists knew how valuable their contributions were to the team effort. Bonuses were offered for taking on extra shifts, and an emergency seasonal staffing plan went into effect to incentivize therapists to pick up those shifts. Department routines had to be adjusted as well. “We had people on orientation at the time of this outbreak,” says Wilkinson. While the department tried to keep those therapists on orientation as much as possible, the outbreak took precedence. “This did get us behind a little in the orientation process and forced us to play catch up after the outbreak subsided.”

### **500+ patients**

Wilkinson says she doesn’t know how many kids at her hospital actually had EV-D68 because not all of them were tested for the virus. Her gut feeling, however, is that the hospital saw well over 500 children with the virus during the outbreak. “The number being admitted to the hospital was at its peak between Aug. 22 up until Labor Day weekend,” says the therapist. “Our ED and urgent care visits remained at high volume until the middle of September.” She believes kids with any type of chronic condition were most affected.

What worked best in treating these children? Supportive care and giving children time to recover on their own appeared to be the key, even in the ICU. No children at her hospital were diagnosed with a bacterial super infection; and while they did have three kids with limb weakness meeting the CDC case definition, none of those children tested positive for EV-D68. The good news is, all of the children treated at CMH survived to discharge. “To our knowledge, we had no fatalities in patients with confirmed EV-D68; and we do not know of any long-term complications,” Wilkinson says.

### **Lessons learned**

Being on the leading edge of an infectious disease outbreak like this one definitely resulted in some “take-

aways” for the respiratory care department. “You learn your real potential when your limits are tested,” notes Wilkinson. “I learned that our respiratory care department at Children’s Mercy as a whole is a stronger and more supportive team than I could have imagined.” She believes the keys to their ability to successfully care for the surge in patients brought about by EV-D68 centered around the seasonal staffing process put into place, the department’s ability to delegate some responsibilities to the multidisciplinary team, and the willingness of department leadership to shift to the bedside. “I think our seasonal staffing process will be a good tool to use in the future when we have outbreaks such as this one that put a large strain on the staffing of respiratory therapists,” she says. “We have also learned how to utilize the multidisciplinary team to delegate some of our current processes that don’t absolutely require the presence of a respiratory therapist. We will continue to utilize our respiratory care leadership team for bedside care in times

of stressed staffing and increased workloads, with the mindset that projects and process improvement led by our leadership team will continue after the entire team works through these tough times together.”

#### Quelling the fear

Emily Wilkinson says caring for children affected by EV-D68 was an experience she won’t soon forget. “I remember taking care of a lot of kids who had never experienced the shortness of breath that goes along with this disease process. I remember a lot of patients who were scared and in desperate need of our care. I will always cherish the heartwarming feeling... when we are able to alleviate some of the fear, anxiety, and shortness of breath that affect our patients.” ■

# Be Our Guest!

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

The **International Fellowship Program** is a sponsored activity of the American Respiratory Care Foundation (ARCF). Since 1990, health professionals from more than 63 countries have shared experiences, knowledge and developed lasting friendships through this exceptional program.

The three-week program takes each participant to two host cities in the United States and concludes with attendance and acknowledgement at the AARC’s International Respiratory Congress. Learn more at: [www.arcfoundation.org/international/fellows/](http://www.arcfoundation.org/international/fellows/)



**For more information contact:**

April Lynch

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Phone: 972-243-2272

**APPLICATIONS ACCEPTED THROUGH JUNE 1**

**APPLY AT: [www.arcfoundation.org/international/fellows/](http://www.arcfoundation.org/international/fellows/)**



# Industry Watch

## UC San Diego launches PH registry

Thanks to a \$7.6 million grant from Bayer Healthcare Pharmaceuticals, the University of California San Diego Health System is launching the first national chronic thromboembolic pulmonary hypertension (CTEPH) registry to improve best practices and patient care for the condition. The centralized electronic database will involve 30 sites across the United States, allowing physicians to follow the short- and long-term outcomes of patients and to learn more about CTEPH. UC San Diego hopes to enroll 750 newly diagnosed patients over the next six years.

have progressed during or following treatment with platinum-based chemotherapy and is to be used in combination with docetaxel chemotherapy.

The approval was based on a clinical study of 1,253 participants with previously treated and progressive lung cancer. Results showed participants treated with Cyramza plus docetaxel survived an average of 10.5 months, compared to an average of 9.1 months for participants who received placebo plus docetaxel.

## Draeger ventilator cleared by the FDA

Draeger reports that

the FDA has cleared its Globe-Trotter GT5400 neonatal transport system. The system, which debuted at AARC Congress 2014 in Las Vegas, is designed to move effortlessly between helicopters, airplanes, and ambulances. The GT5400 meets global safety certifications and incorporates high-performance components considered critical for the care of neonatal patients. “The research, engineering, and safety testing that has been undertaken for the GT5400 is of paramount importance, and its introduction into the U.S. highlights Draeger’s ongoing commitment to providing safe and effective products for

neonatal treatment,” said Edwin Coombs, MA, RRT-NPS, FAARC, director of marketing for intensive care/neonatal care for North America.

## ZOLL Medical acquires Impact Instrumentation

ZOLL Medical Corporation, a manufacturer of medical devices for military applications, signed an agreement last fall to purchase substantially all of the assets of Impact Instrumentation Inc., a manufacturer of respiratory care products used aboard ships, aircraft, and other military medical and transport services. “ZOLL has partnered

## FDA expands use of new lung cancer drug for NSCLC

The FDA has expanded the approved use of Cyramza® (ramucirumab) to treat patients with metastatic non-small cell lung cancer. Cyramza works by blocking the blood supply that fuels tumor growth. It is intended for patients whose tumors



The FDA has cleared the Draeger Globe-Trotter GT5400.

with the U.S. military for over 30 years, with an emphasis on advancing resuscitation and critical care technology,” said ZOLL President Jonathan A. Rennert. “Impact’s strong alignment with ZOLL’s existing military sales channel allows us to further expand our efforts to provide products known for the highest reliability in clinical performance and versatility to those serving in the military.”

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### **Masimo’s Radius-7™ receives 510(k) clearance**

Masimo recently announced FDA 510(k) clearance for its Radius-7™ for the Root® patient monitoring and connectivity platform. Masimo notes this is the first and only wearable, wireless monitor with Masimo’s rainbow® SET® technology. It offers patients continuous monitoring with freedom of movement. With noninvasive measurements, Radius-7 with Root can alert clinicians of critical changes in a patient’s oxygen saturation and pulse rate, even during states of motion and low perfusion, as well as respiration through acoustic respiration rate. Studies have shown patient mobility is a key factor in more rapid patient recovery, and Radius-7 allows clinicians to continuously monitor their patients when they are mobile.

### **Welch Allyn and Gentag to market new technology**

Welch Allyn has entered into a strategic development agreement with Gentag Inc. to market near field communication technology for medical devices and sensors. “This collaborative opportunity will enable Welch Allyn to provide clinicians with smart monitoring solutions and improve patient access to cutting-edge diagnostics,” noted Welch Allyn President and CEO Stephen Meyer.

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### **TJC recognizes top hospitals**

The Joint Commission recognized 1,224 hospitals for its Top Performer on Key Quality Measures® Program at the end of the year, an 11% increase over 2013. Overall, nearly 37% of all Joint Commission-accredited hospitals reporting accountability measure performance data were deemed top performers. Another 718 hospitals narrowly missed the designation.

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### **International Biophysics enters supply agreement with VGM Group**

International Biophysics Corporation has entered into a new supply agreement with VGM Group Inc. for the patent-pending AffloVest®.

David Shockley, CEO and founder of International Biophysics, was quoted as saying, “We are proud to have partnered with VGM and their thousands of members. This supply partnership expands our distribution network, making the AffloVest accessible to patients nationwide.” VGM represents more than 2,000 home medical equipment providers throughout the United States.

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### **Nova Biomedical announces group purchasing agreement**

Nova Biomedical has been awarded a group purchasing agreement with Premier Inc. for its blood gas analyzer category. The new agreement allows Premier members to take advantage of special pricing and terms pre-negotiated by Premier for Nova Stat Profile® Prime and pHox® Ultra analyzers and associated consumables. “We at Nova Biomedical are extremely excited to make available our latest blood gas platform, the Stat Profile Prime CCS or critical care system, to the Premier membership, in addition to our comprehensive 20-test Stat Profile pHox Ultra analyser,” Brad Bullen, sales product line manager, core products, was quoted as saying. “Prime’s zero maintenance system allows

users to focus on what is important — patient care.”

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### **OxySure merges with Estill Medical Technologies**

OxySure Systems Inc., creator of the “oxygen from powder” technology, and Estill Medical Technologies, developer of the Thermal Angel Blood and IV Fluid Infusion Warmer, have announced a merger between the two companies. “Bringing our two companies together is a great development not only for us, but for our customers, who will benefit from our unique and innovative products, available through a broader, multi-channel, global distribution network,” said OxySure CEO Julian Ross. “This transaction represents the first step toward enhancing our platform of proven, life-saving products geared toward enabling first responders.”

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

# Industry Update

Featuring information on products and equipment from manufacturers

**HUDSON RCI**

Redefining patient humidification with every breath



**Neptune® Heated Humidifier**

Introducing ConchaSmart™ Technology

Learn more at [ActiveHumidification.com](http://ActiveHumidification.com)

**Teleflex®**

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**MASIMO**

Introducing **Rainbow Acoustic Monitoring™**

Respiration Rate Monitoring That Works Where and When You Need It



[www.masimo.com](http://www.masimo.com)  
800-257-3810

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**New Circuit Board**

Masimo's new MX-5 OEM circuit board utilizes approximately half the power of previously available rainbow® circuit boards to deliver breakthrough rainbow® Pulse CO-Oximetry noninvasive measurement performance. The MX-5 can dynamically scale power consumption even further, depending on the type of parameters being measured. The reduced power consumption is expected to facilitate integration into next-generation patient monitoring solutions that require a more efficient power profile to enable smaller, lighter, and more mobile battery-operated devices. [www.masimo.com](http://www.masimo.com)

**Mobile Medical Alert Service**

The Philips Lifeline GoSafe mobile medical alert service features the power of up to six location technologies. GoSafe gives seniors the assurance to get up and go while being protected by the 24/7, U.S.-based emergency call response center. Philips is the only mobile personal emergency response system to utilize this "hybrid" locating approach, which allows response center associates to locate seniors in need of assistance even in areas where GPS may not be available, such as indoors or in a parking garage. [www.philips.com](http://www.philips.com)

**EMS Airway**

The LMA Supreme® Next Generation EMS Supraglottic Airway from Teleflex is a single-use, gastric access laryngeal mask airway with a built-in drain tube. The LMA Supreme Airway is designed to fit properly and ventilate sufficiently due to its superior design and proven track record. It is the company's most advanced airway device for EMS airway needs. According to Teleflex, their mission is to provide solutions that enable health care providers to improve outcomes and enhance patient and provider safety. [www.teleflex.com](http://www.teleflex.com)

**Disposable Manual Suction Unit**

The Suction-Easy™ Emergency Disposable Suction Unit from EM Innovations provides a great solution when wall-mount suction is not available. A unique double-valved design allows continuous one-handed operation while the other hand directs the suction tip through the patient's oropharynx. A consistent vacuum force is applied with each squeeze of the bulb, and the material drawn into the bulb is expelled into a 1,000 cc collection bag. Suction-Easy allows excellent visibility to remain throughout the procedure. [www.eminnovations.com](http://www.eminnovations.com)

**Customized CPAP Therapy**

Human Design Medical LLC's Z1 Auto™ CPAP customizes therapy for each individual by monitoring pressure requirements thousands of times per night. Unlike fixed-pressure CPAP devices, the Z1 Auto automatically responds to changes in breathing patterns and delivers maximum comfort by using the lowest possible therapy pressure throughout the sleep cycle. The Z1 Auto is paired with a revolutionary new iOS App called Nitelog™ that syncs most iOS devices upon command with the Z1 Auto to display immediate and complete therapy results. [www.hdmusa.com](http://www.hdmusa.com)

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



# RC Currents

IN THE NEWS

## Multidisciplinary Course Addresses Pulmonary Disease Education

As more and more focus is placed on reducing hospital readmissions, RTs are increasingly working with the multidisciplinary team to provide pulmonary disease management services. In collaboration with several other organizations, the AARC is launching a Pulmonary Disease Educator Course (March 16–17 in Washington, DC) aimed at covering key components of pulmonary disease education for COPD, pulmonary fibrosis, asthma, pulmonary hypertension, and cystic fibrosis.

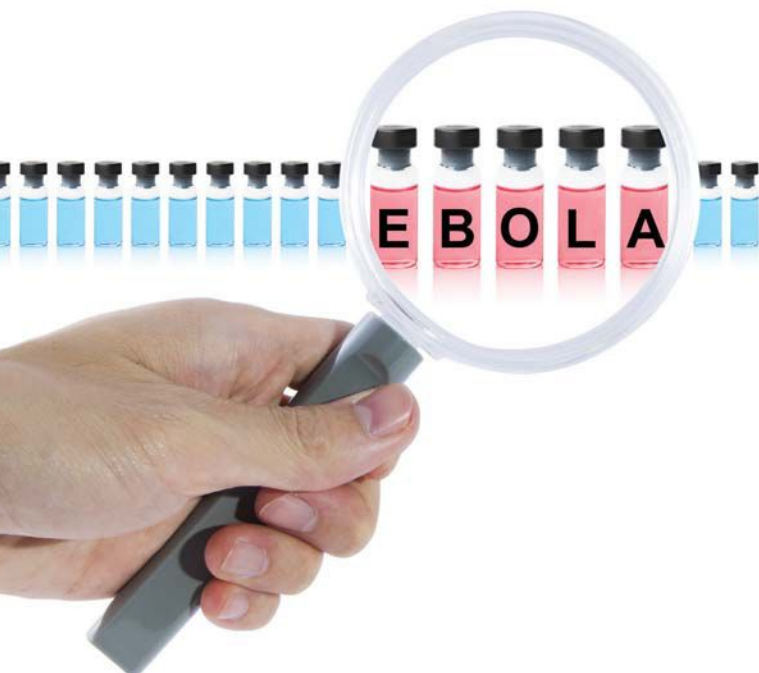
Developed in conjunction with the Allergy and Asthma Network: Mothers of Asthmatics, COPD Foundation, American Association of Cardiovascular and Pulmonary Rehabilitation, Pulmonary Fibrosis Foundation, and



Cystic Fibrosis Foundation, the 12.45 CRCE course is designed to improve pulmonary disease care delivered by all the members of the interprofessional team.

“Our patients with chronic pulmonary disease require more rounded clinicians who are able to assess and determine their individual needs,” says AARC CEO and Executive Director Thomas J. Kallstrom, MBA, RRT, FAARC. “By collaborating on this course, the AARC and our partner organizations are ensuring that everyone on the team has access to the same high-quality education that can lead to improved patient self-management of chronic pulmonary disease.”

See [http://c.aarc.org/education/meetings/pdec\\_2015/index.cfm](http://c.aarc.org/education/meetings/pdec_2015/index.cfm) for more information. ■



## RTs Among Clinicians Named “Midlanders of the Year”

Every year the editors of the Omaha, NE, *World-Herald* do a feature story on the person(s) who made the biggest impact on their community in the past 12 months. In 2014 the honor went to the brave clinicians at the Nebraska Medical Center who make up the center’s biocontainment unit.

The newspaper officially honored “22 nurses, 10 lab workers, six respiratory therapists, five care techs, and dozens of physicians” for the role they played in caring for three Ebola patients last fall. Among the AARC members in the group were Jean Bellinghausen, RRT; Susan Denny, RRT; Frank Freihaut, BS, RRT, AE-C; and Deborah Ray, BS, RRT.

This same hospital was spotlighted in an AARC special Web feature last fall at <http://c.aarc.org/headlines/14/10/ebola/nebraska.cfm>. ■



## Check Out Our New Members List Online

The “New Members” column can now be accessed at [http://c.AARC.org/new\\_members](http://c.AARC.org/new_members). Current AARC members are encouraged to check this site on the first of each month to view the names of individuals who have been approved as “Active Members” of the Association. Any current member may object to a new membership by filing a written objection with the AARC Executive Office at [info@aarc.org](mailto:info@aarc.org) within 30 days. ■

## ARCF Now Accepting Applications for the 2015 International Fellowship Program

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

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

The three-week program takes each participant to two host cities in the United States and concludes with attendance and acknowledgement at AARC Congress 2015 to be held Nov. 7–10 in Tampa, FL.

Learn more and apply by **June 1** at [www.arcfoundation.org/international/fellows/](http://www.arcfoundation.org/international/fellows/). For more information, contact April Lynch at [lynch@aarc.org](mailto:lynch@aarc.org). ■



## Educators: Help Recognize Outstanding Students

The American Respiratory Care Foundation (ARCF) is accepting applications for its undergraduate and postgraduate Education Recognition Awards now through **June 15** and is asking RC educators to help get the word out 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 2015.

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

— 2015 —

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

# The AARC'S CORPORATE PARTNERS

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

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



*Changing lives  
with every breath*

APPLY BY  
**JUNE 1**

## International Fellowship Program Looking for City Hosts

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

Learn more about the program and apply by the **June 1** deadline at [www.arcfoundation.org/international/fellows/city\\_host.cfm](http://www.arcfoundation.org/international/fellows/city_host.cfm). The fellowships take place in the fall just prior to AARC Congress 2015, scheduled this year for Nov. 7–10 in Tampa, FL.

For more information, contact April Lynch at [lynch@aacr.org](mailto:lynch@aacr.org). ■



## Call for **OPEN FORUM** Abstracts for AARC Congress 2015

The AARC invites you to submit abstracts for the **OPEN FORUM** at AARC Congress 2015. Considered by many to be the premier event at the AARC Congress, the **OPEN FORUM** is your opportunity to gain recognition for your research in cardiorespiratory care by submitting an abstract for presentation at the Congress and having it published in **RESPIRATORY CARE**. We now have three different ways you can present your poster at AARC. See <https://aacr2015.abstractcentral.com> for more details. The deadline to submit abstracts for the **OPEN FORUM** is **May 1, 2015**. ■

## AARC Leaders Attend Meetings

Throughout the year, AARC leaders and members of the Executive Office staff attend meetings of the Association's state societies as well as other special meetings. In addition to making AARC representatives available for speaking engagements at meetings, the Association funds a special program to help some state societies partially pay for the travel costs of the speakers. Below are some activities AARC representatives are involved in:

### **Frank R. Salvatore, Jr., AARC President**

- Participating in the AARC's legislative advocacy trip to Washington, DC, March 17–18
- Representing the AARC at the COPD Foundation's Readmissions Summit in Washington, DC, March 26–27
- Presenting an AARC update on our 2015 goals at the Louisiana Society for Respiratory Care's conference in Baton Rouge, LA, on April 9.



### **Thomas J. Kallstrom, AARC Executive Director/CEO**

- Speaking at the COPD Foundation's Readmissions Summit in Washington, DC, March 26–27
- Presenting Keynote Address at the 2015 Kansas Respiratory Care Society's annual education seminar April 9 in Wichita, KS.



### **Douglas S. Laher, AARC Associate Executive Director**

- Speaking at the California SRC in Torrance March 12–13.
- Presenting at the Michigan SRC's Spring Conference, April 13–15, in Grand Rapids



### **Shawna Strickland, Associate Executive Director of Education**

- Speaking at the Louisiana Society for Respiratory Care's 45th educational meeting in Baton Rouge on April 8–10
- Speaking at the Respiratory Care Society of Washington State's meeting in Seattle on April 13–14
- Speaking at the Missouri 44th Annual Conference & Business Meeting in Osage Beach on April 22–23





## As Seen on AARConnect

Have you looked at what your colleagues are talking about on the AARConnect discussion lists? You might find an interesting tidbit you can use in your area of respiratory care or maybe answer a question someone has asked. Here is an example of a dialogue we found on AARConnect while preparing this edition of the magazine.

# AARConnect...

maximizing your membership

## Phase 3 — Self Charting

*Does anyone have their Phase III patients do their own check in and charting on their exercise? Do you make it part of the medical record? Do they chart in ink or pencil?*

**Lisa Flynn, RRT, CPFT**  
St. Vincent Health — Indianapolis, IN

*We do not have them do their own charting, but we purchased a kiosk with software that we can use to build a workout program for them. It is tracked with a key that they can use to put in most of the equipment and we can also add other exercises to the list with time. When they check in, the key is updated; and when they check out, they put down what they did outside of the equipment, and the equipment saves their workout information to our system. It is not part of the patient's medical record, but we do keep it in our system. The system also helps them look at goals and allows us to congratulate them when they reach personal goals.*

**Tony Garberg, RRT**  
Good Shepherd Health Care Systems —  
Hermiston, OR

*We have a Phase III program and the patients check themselves in, check their saturations, and chart their workout on their own. This teaches them how to self-manage their home exercise program.*

**Sharon Tucker, CRT**  
Sunrise Pulmonary Group — Hollywood, FL

## Researchers Say Quitting May Be All in the Head

Respiratory therapists have long known some smokers quit much easier than others. Now researchers from the University of Pennsylvania are helping to explain why. In a study involving 80 smokers who underwent functional magnetic resonance imaging, they found those who relapsed within seven days of their targeted quit date had specific disruptions in the brain's working memory system during abstinence that separated them from the group who successfully quit.

The investigators believe this neural activity could help distinguish quitters bound for success from quitters destined to fail. It may also serve as a potential therapeutic target for novel treatments aimed at improving quit rates among people with these characteristics. "This is the first time abstinence-induced changes in the working memory have been shown to accurately predict relapse in smokers," said senior author Caryn Lerman, PhD. The study was published in a recent issue of *Neuropsychopharmacology*.

## Contribute to Our "Transitions" Column

The AARC "Transitions" column will now be devoted to sharing news about the passing of AARC members.

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

## Scientists Are Unraveling the Causes of Pulmonary Fibrosis



The fibrotic tissue that is the hallmark of pulmonary fibrosis may be caused by both direct damage of lung tissue by too much fat and immune cells that initiate the scarring process, say investigators from Thomas Jefferson University who looked at a mouse model of the disease.

The research began with the observation that excessive amounts of lipids were accumulating within the airspaces of the lung where oxygen is absorbed. Further investigation revealed that in response to stress,

the cells producing the lubricant were depositing their lipid stores into the lungs while failing to mop up the excess. The excess lipids then reacted with oxygen to create a form of fat that acts as an inflammatory signal, similar to the events that initiate atherosclerosis.

From there, they found that macrophages began gobbling up the excess fat in the lungs; loaded with this oxidized fat, they turned on a program that helps heal wounded tissue. The consequence to this adaptive response was the development of fibrotic lung disease.

“These results show for the first time that a breakdown of normal lipid handling may be behind this lung disease,” study author Ross Summer, MD, was quoted as saying. “If we prove that the same process holds true in humans, it suggests that we could prevent or mitigate the disease by simply clearing out the excess oxidized lipids from the lungs.” The research was published in a recent issue of the *American Journal of Respiratory Cell and Molecular Biology*. ■

## Strange But True...

**Social media for the social good:** We all know that high air pollution days can be dangerous for people with respiratory problems. Computer science researchers from the University of Wisconsin are using social media to help identify it and warn of exposure. Using a machine-based learning model, they identified real-time air pollution severity from a Twitter-like social media platform in China. They believe the program can be used to help alert people when pollution is especially bad.

**There’s a first time for everything:** According to a recent report in the *Annals of the American Thoracic Society*, an interventional pulmonology team recently became the first to perform therapeutic bronchoscopy on a bottlenose dolphin that had developed breathing problems. A year later, she was still doing well. ■

## National Health Observances

- **National Sleep Awareness Week;** March 2–8; National Sleep Foundation; (703) 243-1697; [www.sleepfoundation.org](http://www.sleepfoundation.org)
- **Pulmonary Rehabilitation Week;** March 8–14; American Association of Cardiovascular and Pulmonary Rehabilitation; [www.aacvpr.org](http://www.aacvpr.org)
- **World Tuberculosis Day;** March 24; World Health Organization; [www.stoptb.org/events/world\\_tb\\_day](http://www.stoptb.org/events/world_tb_day)
- **Air Quality Awareness Week;** April 27 – May 1; National Oceanic and Atmospheric Administration National Weather Service; [www.airquality.noaa.gov](http://www.airquality.noaa.gov)

## HHS Reports Hospitals Are Getting Safer

According to a recent report from the Department of Health and Human Services (HHS), patient deaths from hospital-acquired conditions dropped by 50,000 between 2010–2013 for a cost savings of about \$12 billion. Overall, 1.3 million fewer hospital-acquired conditions were noted, translating into a 17% decline over the three-year study period.

The HHS authors attribute these positive results to several factors, including the HHS partnership for patients initiative; the implementation of patient safety improvement tools such as the Comprehensive Unit-based Safety Program, Re-Engineered Discharge Toolkit, and TeamSTEPPs; and provisions in the Affordable Care Act to improve the quality of care. ■



## SDB and Short Sleep Linked to Childhood Obesity

Children who suffer from sleep disordered breathing (SDB) and chronic lack of sleep may be at increased risk of developing obesity, report Albert Einstein College of Medicine investigators publishing in a recent issue of *The Journal of Pediatrics*.

The researchers based their findings on data collected on 1,899 British children whose parents answered questionnaires about their children's sleep and SDB symptoms from birth through age 6.75 years. Body mass index data were recorded in the research clinics.

Children with the most severe SDB were twice as likely to be obese by ages seven, 10, and 15 as children with no symptoms of SDB. Children with short sleep durations at age five and six — defined as sleeping 90% or less of the time of their peers, or 10.5 hours or less per night — had a 60%–100% increased risk of being obese at age 15. Interestingly, SDB and short sleep duration were independent of each other when it came to raising the risk for obesity. Children with one condition were not more likely to have the other. ■

## Roundabout with the Flu Virus

Influenza drugs are designed to attack the virus itself. Researchers from the University of Wisconsin-Madison believe they may have found a different way to rid the body of the infection. By combing through the cellular machinery, they identified 1,300 host cell proteins the virus may use to bind to and enter the cell, travel around inside the cell, replicate, and/or exit the cell. Of that number, 91 showed the potential to be reduced inside cells, leading to lower concentrations of infecting virus but little or no cell death.

Using these candidates, the investigators mapped each protein to its role in the viral infection cycle, providing a much greater understanding of how an influenza virus works inside cells and a platform for further exploration. Then they combed through drug databases to identify compounds that may suppress the cellular targets and shut down flu virus infection.

They came up with several possible drugs — including two the researchers would never have suspected of being capable of inhibiting host cell proteins based on what is currently known about them. The study was published in the November issue of *Cell Host and Microbe*. ■





## Introducing the “Model G”

Researchers at Henry Ford Hospital in Detroit are debuting a new hospital gown they believe will greatly enhance patient satisfaction with the attire handed out in the hospital. Dubbed the “Model G” in deference to Henry Ford’s iconic “Model T” automobile, the gown is uniquely designed to completely cover the patient’s back while still allowing medical personnel full access to the patient’s entire body.

The initial run of 35,000 was expected to be ready for patients across the health system’s 29 medical centers and six hospitals early this year. “There’s a real sense of a loss of privacy and dignity in the hospital,” noted one patient who participated in the clinical trial on the gown. “I was here for many days and many nights, and that new hospital gown was maybe a little thing; but it had a big effect on making me feel more comfortable, like I was wearing something that I might even wear at home.” ■

## Genetic Damage from Asthma Travels to the Bloodstream

Asthma may come with genetic damage that could lead to other diseases outside of the lungs. That’s the take-home message from UCLA researchers who recently looked for the overexpression of interleukin 13 (IL-13), a cytokine known to mediate inflammation, in an animal model that mimicked human asthma. IL-13 increased important elements of the inflammatory response, including reactive oxygen species (ROS) molecules. Specifically, ROS-derived oxidative stress induced genetic damage, with four types of systemic effects in the peripheral blood: oxidative DNA damage, single and double DNA strand break, micronucleus formation, and protein damage.

Investigators believe these effects caused the chromosomes to become unstable, opening the door to other diseases. “This could indicate that other organs in asthmatics have a higher risk of developing disease,” noted study author Robert Schiestl, PhD. “This is important because it shows a whole-body effect from asthma, not just damage in the lungs.” The study appeared in a recent issue of *Mutation Research/Fundamental and Molecular Mechanisms of Mutagenesis*. ■

## Nasal Spray Vaccine for Ebola Shows Promise

A nasal spray vaccine for Ebola in development at the University of Texas provided long-term protection against the virus in non-human primates in a small, pre-clinical study. The results are the first to suggest a single dose of a non-injectable vaccine platform for Ebola is long lasting, a development that could have significant global implications. The nasal formulation improved survival of immunized non-human primates from 67%–100% after challenge with 1,000 plaque-forming units of Ebola Zaire 150 days after immunization. Only 50% of the primates given the vaccine by intramuscular injection survived challenge.

“The main advantage of our vaccine platform over the others in clinical testing is the long-lasting protection after a single intranasal dose,” according to study author Kristina Jonsson-Schmunk. “This is important since the longevity of other vaccines for Ebola that are currently being evaluated is not fully understood.” She also explained that the nasal spray immunization method is more attractive than a needle vaccine given the costs associated with syringe distribution and safety. They presented the study at the American Association of Pharmaceutical Scientists meeting late last year. ■



# Classifieds

ADVERTISING SECTION

## **AARC Times Classified Advertising Information & Requirements:**

**Classified Word Advertisements**  
AARC Members: \$50 for 50 words or less; each additional word, \$1. Free Internet placement. Nonmembers: \$60 for 50 words or less; each additional word, \$1.20. Listings are categorized by state. Following the state listings are United States/International, For Sale/For Rent, Miscellaneous, and Situations Wanted. All copy should be typed double-spaced. All ads will be set in 8-point type. To calculate the cost per advertisement, a "word" is considered to be one or more letters, numbers, or special characters with a space before and after. Ads are featured on the AARC website for one month after publication. Ad may only be placed on the website with an insertion order for placement in an AARC publication. Ad is noncancelable after placement on the website. NOTE: *AARC Times* reserves the right to refuse any advertisement not directly relevant to respiratory care. *AARC Times* does not endorse any advertiser, its positions, practices, services, or products.

We reserve the right to make editorial changes for reasons of clarity and consistency. Every effort is taken to avoid mistakes, but *AARC Times* cannot be responsible for clerical or printing errors. **Deadline for Ad Placement/Cancellation** Deadline for ad placement and written cancellations for the next available issue is Feb 20. Blind ads available. **For Recruitment Advertising Information, Contact AARC Respiratory Jobs** • Respiratory.Jobs@aarc.org • (972) 243-2272 • Fax (972) 484-2720 • 4925 N. MacArthur Blvd., Ste. 100, Irving, TX 75063

### **Recruitment Display Advertisements**

For Recruitment Display Ad Rates, go to [www.aarc.org/marketplace/media\\_kit/media\\_planner\\_2015.pdf](http://www.aarc.org/marketplace/media_kit/media_planner_2015.pdf), or contact AARC Respiratory Jobs • Respiratory.Jobs@aarc.org • (972) 243-2272 • Fax (972) 484-2720 • 4925 N. MacArthur Blvd., Ste. 100, Irving, TX 75063



**National Park Community College,  
Hot Springs Arkansas is seeking a  
Respiratory Therapy Program Director:**

Applicant must meet COARC standards and is responsible for administration, continuous review and analysis, meeting classroom and lab learning activities, student advising, and committee work. This 12 month position reports to the Chair of Health Sciences and includes a generous benefit package.

Applicant should submit a letter of interest, resume, transcripts and the names, addresses, and telephone numbers of at least three professional references electronically to [humanresources@npcc.edu](mailto:humanresources@npcc.edu).

Visit our website; [www.npcc.edu/jobs](http://www.npcc.edu/jobs)  
Position will remain open until filled. AA/EOE

NPCC, located in Hot Springs National Park, affords varied recreational activities, outstanding health care facilities, and cultural events...a great place to call home.

*National Park Community College: Learning is our focus:  
Student success is our goal!*



**Become a Better  
Therapist with  
[www.AARC.org/](http://www.AARC.org/)  
Resources**



# Calendar of Events

# Advertiser Index

## AARC & State Society Programs

**April 9-10**

Ogden, Utah

Utah Society for Respiratory Care Annual Conference at Weber State University

Contact: Kim Bennion, (801) 347-1269, Kim.Bennion@imail.org

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**April 15**

Missoula, Montana

41st annual MSRC Convention of Respiratory Care

Contact: Pattie Stefans, (406) 563-8680, pstefans@chofa.net

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## Other Meetings

**April 30 – May 1**

Columbus, Ohio

6th Annual Pediatric Asthma Conference

Contact: Nationwide Children's Hospital, (614) 355-0676 or www.NationwideChildrens.org/conferences

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**May 15-20**

Denver, Colorado

ATS 2015: Pulmonary, Critical Care, and Sleep Medicine

Contact: <http://conference.thoracic.org/2015/>

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Submissions for the next available issue are due Feb. 25.

For information on submitting calendar events, contact: Beth Binkley, AARC Times 9425 N. MacArthur Blvd, Suite 100, Irving, TX 75063-4706 (972) 243-2272 Fax (972) 484-2720 E-mail [binkley@aacr.org](mailto:binkley@aacr.org)

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