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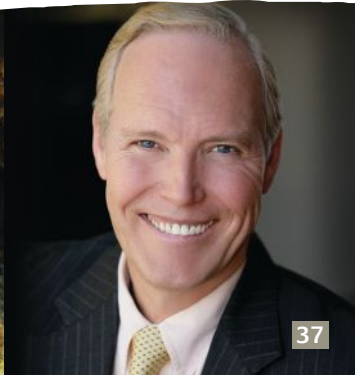
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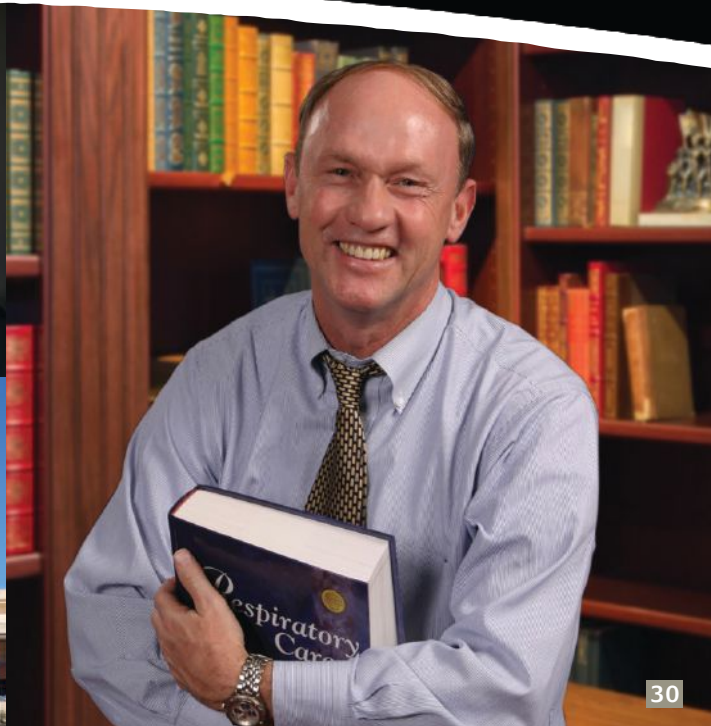
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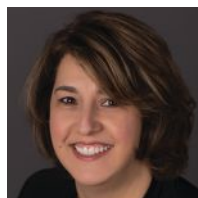
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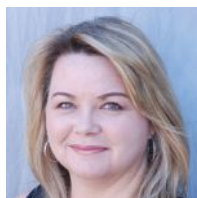
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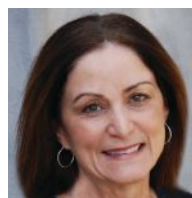
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Transporting the Mechanically Ventilated Patient

by Billy L. Hutchison, BA, RRT-NPS

The transport of a critically ill, mechanically ventilated patient carries many inherent risks. There are numerous keys to success in this type of transport and none greater than a properly trained staff. Team composition, transport protocols/practices, proper equipment, and team competencies are all major components in successfully transporting mechanically ventilated patients. Commonly there are two types of transports used with these patients. There is the intra-hospital transport that takes the critically ill, mechanically ventilated patient to another area of the hospital (such as diagnostic imaging or surgery); and there is the inter-hospital transport, which involves the transport team traveling to an outside facility to move a patient to a higher level of care. In each situation, the team has to be properly trained to deal with sudden and, many times, tense situations.

Choosing the team

In choosing and training the transport team, the equipment to be used along with the skills of the team needed in dealing with sudden and difficult situations must be evaluated. In my experience, I have seen more transports requiring the use of advanced ventilator modes and lung protection strategies being employed. As more technical and advanced ventilation strategies are being utilized on transport, the respiratory therapist is a very valuable resource. The development of transport ventilators with advanced modes has made it safer and easier to move the critically ill patient, but it has also increased the risks and dangers due to the severity of the patient. RTs are a valuable resource for airway management when sophisticated equipment is needed for the critically ill patient.

Choosing the equipment and supplies

The equipment being used is very important in transferring these patients; and with advanced portable monitors and improved transport ventilators, the team can now

bring a mobile ICU to the patient. What else is needed to safely transport these critical patients? The current medications that the patient requires are necessary; but along with that, additional emergency/code medications are a must. Code medications can vary by institution and medical direction and are usually determined by a medical committee. These are very important to have on a checklist as no transport should be done without access to them. Of course, we need to ensure that there is plenty of oxygen and to have alternate ways to oxygenate and ventilate the patient if their airway becomes compromised. Therefore, a bag and mask must be on every transport. In inter-hospital transports, the need to perform and work in small, cramped, and less-than-optimal situations adds up to greater risks; therefore, more intense training and competencies should be required. Transport equipment has been optimized for space, giving transport teams the ability to carry more equipment by ground ambulance, fixed-wing aircraft, or helicopters than in the past.

Another key piece of equipment is a “bag of goodies.” Commonly referred to as a procedure bag, it contains the necessary items to perform invasive and noninvasive procedures on a critical patient in any transport. With intra-hospital transport, this bag is not as necessary as this equipment can be obtained quickly from many locations in the hospital. However, various hospitals have implemented the use of a procedure bag to allow staff to have the necessary medications and equipment readily available while off the unit.

Checklists are a must for every successful transport. We would not think of leaving on vacation without going over everything in our minds or on paper before starting the car. In the transport of a critically ill patient, it is even more important. Imagine arriving at a referral facility and suddenly realizing you have no circuit, a monitor without leads, or no blood pressure cuff. An even more serious transgression

about the author...



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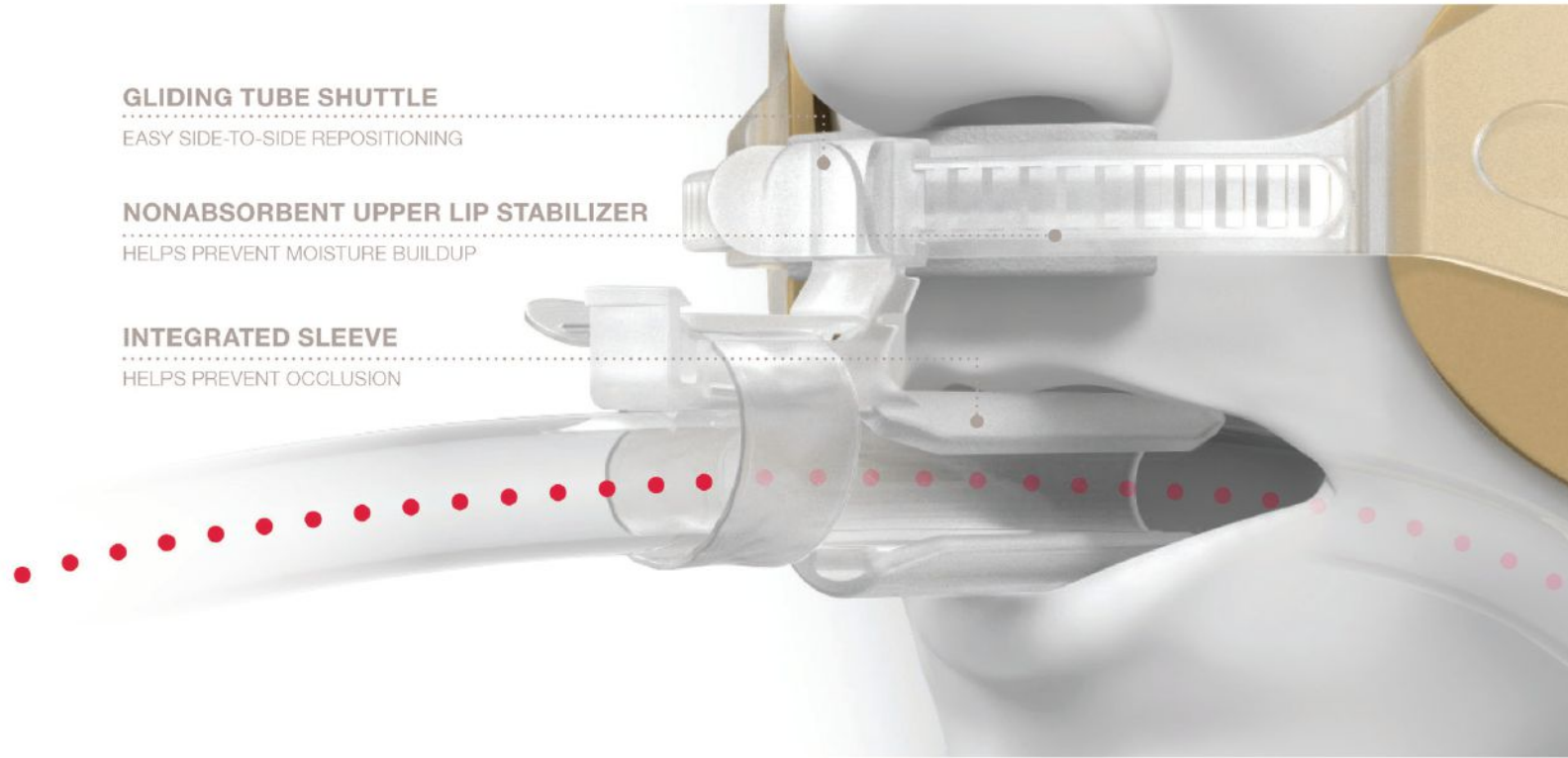
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would be if the medication bag were left behind with all the code medications. These lists are extremely important in every mode of transport. Leaving an ICU for in-house testing, checklists are completed. Leaving a hospital for ground or air transport, a checklist should be completed. Therefore, part of any continuing educational training and orientation should include a very thorough checklist that is always reviewed by each team member prior to transport.

When asked what type of equipment should be taken, think of yourself as a mini ICU where you will need to monitor, support, and stabilize the patient in any situation. There are many types of checklists being used, from small laminated index cards to three or four pages of laminated sheets. These include all medications, monitors, ventilators, oxygen and delivery methods, along with nebulizer kits, I.V. equipment, and fluids. As you see, there are many items to be considered, which is why each institution develops their own checklist according to their needs.

Team composition

Team composition is usually decided by need and, at times, costs. Most independent programs, which are teams outside of a hospital umbrella, utilize a nurse/paramedic configuration. Adult hospital-based programs can vary from nurse/nurse to nurse/paramedic to paramedic/paramedic. Many specialty teams such as neonatal-pediatric programs utilize a respiratory therapist on each transport. The RTs are a valuable resource in airway management and the use of sophisticated equipment in treating these small and delicate patients. With the neonatal-pediatric teams, it is better to take the ICU to the patient than rushing the patient to the ICU, as shown in the article written by Orr et al.¹ There are many programs that will utilize the respiratory therapist in situations requiring advanced ventilation modes such as high-frequency or specialty gases (nitric oxide) being delivered. The newer transport ventilators — such as the Hamilton-T1, CareFusion ReVel™, and the HT70 by Covidien — have many newer and advanced modes to better meet the needs of the critically ill transported patient, according to the manufacturers. A greater understanding of these modes and the proper training will lead to more successful outcomes. I have recently observed the addition of a respiratory therapist to the education staff of many transport teams to offer training and continuing education on mechanical ventilation to all the transport staff from that program. This has been very effective in teaching paramedics and nurses advanced modes of ventilation and to assure better outcomes.

Of course, all the training is done through the medical director for each facility or team, and competency check-offs are done according to guidelines by the program. Some competency evaluations are performed semi-annually, and some are performed quarterly. Whether an RT, nurse, or paramedic is using the ventilator, they are operating under the license of a physician in charge and properly trained. That is why some nurse/paramedic programs are using RTs to properly train their staffs in mechanical ventilation.

Transport challenges

In discussing the different types of transports, it's proper to also look at some of the challenges faced by the team. When moving intra-hospital patients, sometimes the biggest challenge is people/equipment in the hallways and issues with the elevators; but a properly trained and smaller team can overcome these obstacles.

Now with inter-hospital transports, working space is usually the biggest challenge. Flight physiology and gas laws are also an important part of the training in preparation for air medical transports. The respiratory therapist is trained in gas laws while in school and is an excellent resource for educating the other team members.

In review, proper training and planning can lead to a successful transport. Teamwork and education are critical parts of any transport whether in the hospital or out in the elements. The transport of the critically ill mechanically ventilated patient carries many risks and uncertainties; but guidelines and protocols, along with the proper equipment, promote and ensure safe patient transports when the staff is properly educated. Patient safety and successful transports are accomplished with the establishment of an organized, efficient process supported by the appropriate equipment and personnel.²

The role of the respiratory therapist in transport varies from institution to institution and state to state. However, there is no one more qualified to maintain a patent airway and provide the oxygenation and ventilation support to sustain the life of a critically ill patient on a mechanical ventilator. ■

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Chronic Disease Management Through Local Centers Outside the Hospital

by Joseph P. Buhain, EdD, RRT, FAARC

Chronic obstructive pulmonary disease is a multi-stage and “progressive” state of breathlessness that affects a multitude of individuals regardless of race, age, sex, or lifestyle. COPD includes diseases or conditions such as chronic bronchitis, emphysema, chronic asthma, or a combination of any of these. The U.S. Centers for Disease Control and Prevention uses four cross-cutting strategies to help sustain the issues, risk factors, and conditions that can help address these issues. These issues are now compelling ideas for medical practitioners in a diverse avenue of post-hospital care awareness and developmental treatment plans for successful strategies of chronic care management.¹

The health care industry is starting to create better awareness and is evolving from a mentality of acute care to chronic care stability or chronic care management. Solving the question of chronic care management is a multifaceted outlook that must utilize a collaboration of specialized groups while implementing specific strategies in unison. There is compelling evidence that improving management post-hospitalization within chronic diseases such as diabetes, congestive heart failure, and COPD — while getting patients to adhere to best-practice methodology — holds potential success for improving quality of care and lowering overall costs.²

With the increased awareness of chronic disease management and laws currently underway and developed to assist respiratory care providers in assessment and care, two of the biggest factors are self-care awareness and self-care intervention. The idea for most pro-

viders is to help patients understand their disability and become more proactive in their intervention process. The key is often considered the bridge of awareness or lack of awareness. Lorig et al outlines in a 2001 article that the tool of self-management intervention is an important role in success strategies for educational awareness and can provide cost-effective strategies for hospital and patient savings.³

Patient-to-provider interaction is an important concept that must be uniformly done and systematically delivered. Much too often, many companies, hospitals, and organizations are forced with time crunches, cost-factor analysis, and overloading patients with post-discharge instructions. The information is often funneled and dumped on a patient at discharge — often with too much data in a short period of time, including patient-care techniques such as metered-dose inhalers, dry-powder inhalers, nebulizer tasks, or tracheostomy management. In years past, the general concept seemed to be the most efficient (given the time factor) but has proven to be very flawed. The information given to a patient must be limited as too much information can be overwhelming and create a negative or unwilling learner. This issue then poses the risk of increased dis-

ease and preventable issues that could become chronic, ill-fated negligence on both parties. Making information available based on the speed of the patient’s need is critical. It is important to give only the information necessary at the time and to continue providing information so that data is acquired rather than overloaded.

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Joseph P. Buhain, EdD, RRT, FAARC, is the program respiratory director and campus naval liaison officer at Saint Paul College in Saint Paul, MN.



Changes in lifestyle creates ownership

Even with lifestyle changes and awareness, there is still the issue of readmission post-discharge. In a recent article by the Center for Healthcare Quality and Payment Reform, research studies and quality-reporting initiatives around the country show that 15%–25% of people who are discharged from the hospital will be readmitted within 30 days or less and that many of these readmissions are preventable.⁴ Patients certainly would not mind having fewer hospitalizations, and billions of dollars in spending on hospital stays could be saved if these hospitalizations could be avoided. In other words, reducing readmissions is a win-win for both cost and quality and without a hint of rationing. Moreover, savings can be achieved rapidly since the principal focus is on a short-term outcome: readmissions within 30 days.⁴ The data suggest that hospitals are looking for areas to improve cost factor analysis in this readmission issue. With hospitals, insurance companies including Medicare are now reevaluating how outside contributions can help with readmission factors.

Local centers have started developing outcomes to help support patients with chronic disease, including organizations such as local primary care clinics,

the YMCA, veterans' clinics, insurance organizations, and local area support systems. However, integration of chronic care management outside the hospital has proven to be more difficult for organizations looking for funding reimbursement. Clinics are providing educational classes. Hospitals are providing awareness on post-discharge instructions, including online help resources and local community organizations. Some of these organizations look for monetary gain to support the continued outcomes while others are based on general support or awareness/prevention. Education is difficult because it requires unique self-intervention awareness of that organization and patient.

Demanding the most of each respiratory therapist

Respiratory therapists have many avenues for multidisciplinary care. In areas such as chronic care management, RTs can be a valuable resource to manage and train those with debilitating diseases. One of the most popular and pervasive models for framing disease management programs is the Chronic Care Model (CCM), which has influenced and been influenced by disease management programs. The CCM summarized the basic



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elements for improving care in health care systems at the community, organization, practice, and patient levels. The model, developed in the United States by Dr. Edward Wagner in the 1900s, synthesized the components of disease management.⁵ Since then, in 2006, the new regulated market in health care reforms created a need to adapt this model to challenges and continues to emphasize its importance, calling for more projects or proposals to help better develop chronic care disease management. This idea, as well as others, helped launch North Dakota's implementation in 2011 for better management of chronic care.

One of the most current implementations for out-of-hospital chronic care management is telehealth. Telemedicine is an integration of phone calls or even video chats with providers. The providers can range from primary insurance companies or hospital groups, home health agencies, or even local medical organizations. One of the greatest benefits with insurance programs is this implementation as it allows the provider to address insurance issues routinely.

Pulmonary rehabilitation is a therapy typically provided in the hospital. However, many hospitals and clinics now provide outpatient visits for pulmonary rehabilitation. Some area organizations have now recognized the need for wellness exercise and health planning, so organizations and companies such as the YMCA, local gyms, and personal fitness organizations are creating awareness for chronic disease patients. Many local organizations provide routine blood pressure checks and cholesterol screenings to prevent severe heart disease.

Many guidelines have been implemented to help support COPD awareness, reestablishing the Global Initiative for Chronic Lung Disease (GOLD) formula. In collaboration with the World Health Organization and the National Heart, Lung, and Blood Institute, the primary objective is to improve COPD. Many changes occurred since the 2001 guidelines. Approximately half of the recommendations from the 2011 GOLD standards were implemented with graded level supporting evidence from results-based guidelines and were built on randomized controlled trials that differed from 2001. With these new standards, the hope is that patients and providers will work together to help deliver the appropriate therapy regimen and give the patients some evidence-based conformity for success.⁶

Supporting legislation toward change in 21st century health care

In conclusion, the United States continues to review policies and procedures for better ways to implement management of outside hospital resources. The role of patient care teams coordinated by individuals assume the best for patients; but much too often, reinforcement is needed. With the ageing population and the advancement of chronic diseases, teamwork in the context of knowledge-based information is important; and diagnosis is a continued reexamination toward patient structure and function. Effective chronic illness interventions require a multidisciplinary care team at the appropriate time for patient understanding. ■

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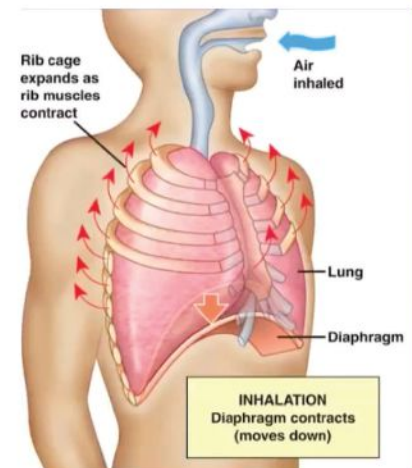
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Coming of Age

Neuromuscular Disease in the 50+ Patient

by Garner Faulkner II, BSRC, RRT, AE-C

Based on a census projection, there were over 108.7 million Americans age 50 and older as of 2014. It is estimated that number will grow by another 10 million by 2020. In part, this large group of people is secondary to the baby boomer generation (1946–1964).¹ With current medical science/advances along with changes in lifestyles and demographics, there has been a rapid increase in the number of people living with one or more chronic illnesses.² More than 70 million Americans over the age of 50 suffer from at least one chronic condition, and greater than 10 million Americans suffer from more than five.² Neuromuscular disease (NMD) is a chronic illness that patients 50+ may be at risk of developing; and if they do develop it, they may be prone to complications such as respiratory compromise because of their age.

Why worry about neuromuscular disease?

Diseases of (or that affect) the cortex, brainstem/basal ganglia, spinal cord, motor nerves, neuromuscular junction, and muscles can potentially cause dysfunction of the respiratory system.^{3,4} Secondary to this, these neurologic diseases are often referred to synonymously with the term neuromuscular disease.³⁻⁵ In general, most NMDs are distinguished by progressive muscle impairment, often leading to loss of ambulation and causing swallowing difficulties, respiratory muscle weakness, and possibly death (likely from respiratory compromise).⁶ Reduction in inspiratory muscle strength, expiratory muscle weakness, and difficulty clearing airway secretions lead to chronic respiratory insufficiency as well as potential life-threatening problems.³ NMD may also be associated with a higher incidence of sleep-disordered breathing (SDB).⁵


Neuromuscular diseases seen in the 50+ patient

Ischemic stroke can result in weak ventilatory motor function and control of breathing, plus a higher risk of SDB.⁵ One such example is known as the “locked-in syndrome” in which the patient suffers total muscle paralysis and loses control of voluntary breathing.³ In regards to who is prone to strokes, age is the single most important risk factor. For each 10 years after 55, the chance of developing a stroke more than doubles in both men and women.⁷

Parkinson’s disease is a progressive disorder of the nervous system that affects one’s voluntary movements.⁸ Parkinson’s can also negatively affect voluntary breathing and can present clinically as a Cheyne-Stokes respiratory pattern.^{3,5} Also, Parkinson’s patients who have autonomic dysfunction have a higher incidence of SDB as well as central hypoventilation syndrome.⁵ The risk of developing Parkinson’s disease increases with age, with a median age at onset of around 60.⁸

Myotonic dystrophy (DM) is a type of muscular dystrophy that is the most commonly inherited NMD in adults.⁹ There are two major classes of DM, Type 1 and Type 2. Type 1 presents at birth through adulthood while Type 2 has been seen only in adult onset.³ SDB, risk of aspiration, diaphragm weakness, daytime hypercapnia, and cardiac arrhythmias are all common concerns in DM patients. The majority of these patients (about 63%) die between ages 50–65. Pneumonia is one of the most frequent causes of death, occurring in 30% of patients.⁹

about the author...



Garner Faulkner II, BSRC, RRT, AE-C, is a respiratory care practitioner for the department of respiratory care/pulmonary function lab and serves as the clinic liaison for the ALS and Airway Education Clinics at UC San Diego Health System in San Diego, CA.

Amyotrophic lateral sclerosis (ALS) is a progressive neurodegenerative disease that affects nerve cells in the brain and spinal cord. The progressive degeneration of the motor neurons in ALS eventually leads to muscle failure. After the motor neurons die, the brain loses the ability to initiate and control muscle movement. Since voluntary muscle action progressively worsens in ALS, people may lose the ability to speak, eat, move, and breathe. Most people who develop ALS are between the ages of 40–70, with an average age of 55 at the time of diagnosis.¹⁰

Guillain-Barré syndrome (GBS) is a disorder in which a person's own immune system damages their nerve cells, causing muscle weakness and possible paralysis. Anyone can develop GBS, but it is more common among older adults. People older than 50 years are at greatest risk for developing GBS. Between 25%–50% of Guillain-Barré syndrome patients require intubation and mechanical ventilation. In GBS patients, intubation may be associated with excessive complications.¹¹

Myasthenia gravis (MG) is a chronic autoimmune neuromuscular disease characterized by varying degrees of weakness of the skeletal (voluntary) muscles of the body. MG most commonly affects younger adult women and older men (over 60).¹² An acute crisis of MG can result in respiratory failure and even death.³

Post-polio syndrome (PPS) typically involves a group of potentially disabling manifestations that on average appear some 30–40 years after the initial polio illness. Typical symptoms of PPS are: progressive muscle/joint weakness, fatigue or becoming easily exhausted, muscle atrophy, breathing problems, and swallowing difficulties.¹³ SDB (obstructive and central sleep apnea) is also noted to be a common occurrence in PPS.³

Who ya gonna call?

As mentioned earlier, patients with NMD are often at risk for various complications related to the respiratory system. These complications may affect ventilation both at night and during the day as well as impair cough.³ This has RTs' names written all over it since we are the experts in ventilation, breathing, airway clearance, and protection. NMD patients often require many interventions such as invasive ventilation, tracheostomy, non-invasive ventilation, and various secretion-clearance techniques/modalities.

Thorough assessment, follow-up, and treatment of respiratory concerns by RTs and other health care providers can both improve quality as well as length of life.³ When assessing NMD patients, one can consider four factors that may contribute to respiratory failure/compromise:¹⁴

1. Upper airway compromise: Shows risk of aspiration. Typically it's the bulbar (facial, oropharyngeal, and laryngeal) muscles that are involved in protecting the airways.^{6,15}
2. Inspiratory muscle weakness: Results in insufficient lung expansion causing ventilation-perfusion (V/Q) mismatch. The inspiratory muscles contribute mostly to ventilatory function.^{3,6}
3. Expiratory muscle weakness: Prevents adequate/effective cough and secretion clearance.^{6,15}
4. Pulmonary complications: Includes pneumonia or pulmonary embolus.

The first three factors encompass respiratory muscles. Dysfunction or impairment of/to any/all of these three may contribute to respiratory failure leading to morbidity and mortality in the NMD patient.^{3,6} One area of impairment, such as inspiratory muscles, may be seen with a given NMD; or all three areas may be affected at once (as seen in ALS).^{3,6} Effective evaluation/monitoring of these areas are vital in caring for NMD patients and should be done with each evaluation/assessment.

Respiratory mechanics

Lung function measurements are useful both in stable NMD to diagnose and monitor progression of respiratory muscle weakness and in the acute care setting to determine the need for mechanical ventilation (invasive or noninvasive).⁴ Since no one specific test predicts the course of NMD, it is suggested that multiple modalities be used to increase the precision of diagnosis.^{3,4} The following are common measurements of respiratory function used in patients with NMD:^{3,4}

- Forced vital capacity: Supine and upright (evaluate need for ventilation).
- Maximum inspiratory pressure (MIP)/maximum expiratory pressure (MEP): MIP reflects the strength of the diaphragm, external intercostal muscles, and accessory muscles. The MEP represents expiratory muscles/cough strength.
- SNIP: Sniff nasal inspiratory pressure.
- Peak cough flow: Ability to effectively cough.

Other types of testing that may be helpful/needed in NMD management are: arterial blood gases, capnography, polysomnography, and nocturnal pulse oximetry.^{3,4}

Noninvasive positive pressure ventilation

Noninvasive positive pressure ventilation (NPPV) is becoming more and more the staple of therapeutic care for NMD patients.^{3,16} Several studies have suggested NPPV to improve length of life as well as quality of life in patients with ALS or NMD.^{3,4,16} NPPV in NMD patients

is commonly used for both treatment of symptoms/ventilator support during the day as well as at night.^{3,16} Because of the higher incidence of SDB in NMD patients and the risk of hypoventilation, nocturnal use of NPPV has been reported to improve overall fatigue, daytime sleepiness, morning headaches, and gas exchange.³ NPPV is typically delivered either via nasal mask, full face mask, or mouth piece.^{3,16} The mouth-piece delivery of NPPV is also known as “sip and puff” ventilation and is common for daytime use.^{3,16} Often patients will have dual settings on NPPV: one for volume recruitment therapy/symptoms during the day and the second for nocturnal use.^{3,16}

More to come?

Overall, what complicates chronic NMD and may lead to the demise of the patient is the potential for acute respiratory failure/compromise. Breathing disorders are widely recognized as a main cause of mortality in the NMD patient population.^{3,5} Many neuromuscular disorders are seen in the 50+ patient. With medical advances, life expectancies of other NMD patients may continue to increase into the later years of life, making the 50+ population at higher risk. The RT plays a vital role in detection, evaluation/assessment, respiratory monitoring, and therapeutic support of the NMD patient. Noninvasive ventilation (both night and day), lung function testing, assisted cough modalities, and secretion clearance modalities are all potential respiratory interventions the NMD patient may require to increase their life expectancy. The RT’s knowledge of NMD and which interventions may be needed is key in aiding in the care of this patient population. ■

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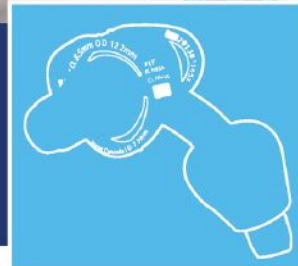
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The Sub-agencies of the FDA

by Cheryl West, MHA

From time to time, the Government Affairs column focuses on a particular federal government department, bureau, or agency with the objective of providing respiratory therapists with more in-depth information and background on the types of resources and information available from less-known entities that exist within the larger and more well-known “mother” agencies.

This column will look at some of the “sub-agencies” of the U.S. Food and Drug Administration (FDA) (www.fda.gov), another department/agency under the overall auspices of the massive U.S. Department of Health & Human Services (HHS). As with other agencies, there’s a lot more going on at the FDA than what is usually reported in the general media (“FDA has approved a new drug...”, “FDA has banned/recalled a drug or device...”, etc.). According to the FDA, its key mission is “...protecting the public health by assuring the safety, effectiveness, quality, and security of human and veterinary drugs, vaccines and other biological products, and medical devices. The FDA is also responsible for the safety and security of most of our nation’s food supply, all cosmetics, dietary supplements and products that give off radiation.” That’s quite a mission for the nearly 15,000 FTEs employed under this one agency.

If you look at the tool bar on their main website, you can go to individual departments or sub-agencies such as: food, drugs, medical devices, radiation-emitting products, vaccines/blood/biologicals, animal/veterinary, cosmetics, and tobacco.

To handle these rather sweeping topics, the FDA further breaks out these departments based on just what or whom “you” are. Are you a consumer/patient or a scientist/researcher? Are you from industry,

manufacturing, or health care? Whatever you are, the FDA site crafts and organizes the information in each category for that audience. For example, if you go to the food department, you’ll find a wide swath of general food topics. However, if you click on the link for health professionals from this main site (www.fda.gov/food/ResourcesForYou/HealthCareProfessionals/default.htm), it takes you to the food and food safety topics that

have been distilled and directed for health professionals, a very different set of information than if you clicked on the consumer button from the main food site (www.fda.gov/Food/ResourcesForYou/Consumers/default.htm).

Medical devices

Take a look at the section on medical devices, something that RTs would more than likely be interested in (www.fda.gov/medicaldevices/default.htm). There is information on device approvals and clearances and, for manufacturers, a “how to” guide to apply for required device approvals. On the other hand, the same department also provides recall alerts for devices. For health care practitioners such as RTs, there is a particularly useful site called MedWatch (www.fda.gov/Safety/MedWatch/default.htm) that provides both safety information on serious problems with devices (or “human medical products,” as the FDA terms it) and a method to report adverse events. There is even a mobile app for this information.

Federal law requires manufacturers, importers, and facility users (such as hospitals) to report device-related adverse events. Health care practitioners are urged to voluntarily report such occurrences (www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm).

about the author...



Cheryl West, MHA, serves as director of government affairs for the AARC.

Drugs

What if you're interested in finding out if there is a shortage of a particular drug? There is a link for that at: www.accessdata.fda.gov/scripts/drugshortages/default.cfm.

In the drugs category, there is a link to pages specifically aimed at consumers that, for example, will review the pros and cons of buying drugs over the Internet or purchasing drugs outside the United States.

Tobacco regulation

Another key area under the FDA's purview is tobacco regulation (www.fda.gov/TobaccoProducts/AboutCTP/ucm383225.htm). When seeking information and guidance on tobacco issues, the government sites that immediately come to mind are the Surgeon General's Office or the Centers for Disease Control and Prevention (CDC). However, while these sites can provide great guidance, support, and recommendations, the FDA has been empowered by an act of Congress to actually regulate tobacco products. This came about through a landmark law passed in 2010 amid much opposition from tobacco

interests that gave the FDA expansive authority to regulate nearly all forms of tobacco products — up to and including the latest trend of e-cigarettes and vaporizing devices. The April 2015 Government Advocacy column explored in more depth the new tobacco-control regulations.

In this digital age, the FDA hasn't missed the boat here either. There is a Facebook page, a Twitter and Flickr account, a blog, and the FDA videos posted on YouTube. From the home page, you can access all of this; and from various webpages you can sign up for e-alerts, notices, or join list serves and view webinars that might be of interest.

Clearly, the FDA site and all its sub-departments provide a wealth of information to expand the knowledge base of respiratory therapists; and in your role as patient advocates, you can educate and direct your patients to reliable FDA information sites. ■

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Executive Office Update

Support RTs Beyond Hospital Walls via the 2015 Telehealth Parity Act

by Thomas J. Kallstrom, MBA, RRT, FAARC

On July 7, 2015, Rep. Mike Thompson (California), Rep. Gregg Harper (Mississippi), Rep. Diane Black (Tennessee), and Rep. Peter Welch (Vermont) introduced into the U.S. House of Representatives a critical piece of legislation — The Medicare Telehealth Parity Act of 2015 (H.R. 2948). This bill will not only benefit the pulmonary patient but will enhance the role of the respiratory therapist in providing telehealth services. There are a number of significant provisions of H.R. 2948, including the expansion of the care sites or facilities where Medicare beneficiaries may receive telehealth services (including the home) as well as allowing remote patient monitoring as a covered telehealth service for COPD. Even more noteworthy to our profession is that the language of this bill specifies that a licensed respiratory therapist would be listed as one of the professionals recognized to be a telehealth provider.

Telehealth is a logical extension of the care, assessment, and self-management education that was provided in the hospital by qualified clinicians who can now do the same long distance into the home environment. This is great news — but there is much work to be done to make this a reality, and it will require your help as well! The AARC will be working closely with each state society's Political Advocacy Contact Team (PACT) respiratory therapist representative and the leadership of the state societies this summer and throughout the year to ensure that our members, patients, families, and friends are made aware and that they support H.R. 2948 by contacting their elected officials.

Positioning RTs locally

While we will continue to advocate for the respiratory therapist in our efforts in Washington, DC, we cannot

forget about the local perspective in positioning the RT in the provision of disease management and telehealth with third-party payers and Medicaid. Earlier this year, AARC President Frank Salvatore, Jr., MBA, RRT, FAARC, assembled a small ad hoc committee whose members either work for their state health department, have had success in implementing respiratory care services through Medicaid, or have been successful in implementing programs with Medicaid. The expectation is that by working with these experts the AARC and the local state affiliates could petition Medicaid providers to consider using the services of a respiratory therapist to provide disease management.

We intend to ask Medicaid to consider a number of demonstration projects that focus on COPD patients. There certainly are other chronic pulmonary diseases that could fall under this umbrella at a later time. The intended outcomes of such demonstration projects will be to determine cost offsets, improvement to patients' quality of life, and hopefully a reduction in hospital readmissions. The expectation would be that the RT would educate,

assess, manage/coach, and follow up with patients post-discharge. These disease management programs would be an outreach of the hospital using existing hospital respiratory services departments or could include RTs employed by the hospital but practicing under an agreed arrangement to the hospital-owned physician practices. It could also include positioning the RT in the physician practice as a standalone entity.

Why is this important? The cost in the United States for health care services for Americans with COPD is rising.¹ COPD costs in 2010 were estimated at \$32.1 billion, with projected costs to reach \$49 billion by 2020. And

about the author...



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

with the growing number of baby boomers falling into an age where chronic conditions and comorbidities are the norm, this number is likely to go even higher. Approximately 25% of costs of care for COPD patients are borne by state Medicaid programs. This is no small amount of money; and with a quarter of all COPD care provided by Medicaid, it makes it all the more important to approach this at a state level.

What is even more compelling is that according to the Agency for Healthcare Research and Quality's Healthcare Cost and Utilization Project (HCUP), a 25% hospital readmission rate within a 30-day period for Medicaid recipients is the highest among all insurance groups.²

Collaborating to lower exacerbations and readmissions

It is the AARC's objective to shift this paradigm. With the support and assistance of state Medicaid programs, the AARC seeks to collaborate to drive down the Medi-

caid beneficiary readmission rate and its associated expense and, more importantly, the rate of exacerbations, which serves as the underlying cause of the readmission trigger. You will likely be hearing more about this in the coming months; and it is our hope that we are successful in these pilot projects, which at the end of the day will demonstrate that the respiratory therapist plays a vital role in keeping our COPD patients' disease under control as well as improving their quality of life. ■

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Conflicts of Interest

by Anthony L. DeWitt, JD, RRT, FAARC

As professions go, law has more regulations, rules, and restrictions than just about any industry outside of nuclear power. Because lawyers have a “fiduciary duty” to their clients — what one judge described as “the duty of an honor most sensitive” — the things that a lawyer can never do include putting a lawyer’s interests in front of a client’s interests. So, for example, a bankruptcy attorney can never use information obtained from a client to secretly make a bid on the client’s house. The lawyer’s interests conflict with those of his client in that situation.

In the clinical world, therapists also have a duty to their patients. One of those is confidentiality. Therapists cannot discuss their patient’s issues with someone who has no clinical need to know. Therapists cannot take advantage of vulnerable patients, for example, by asking patients for dates while they are still under their care.

Yet, among the most insidious of conflicts of interest that exist in the clinical world is the conflict of interest that exists between speakers and the products that they speak about. Scientific ethics demand that before providing scientific research and conclusions, listeners must have all the facts necessary to evaluate potential conflicts of interest.

Any remuneration will do

Suppose Joe believes that the Cylon 1000 ventilator is the best mechanical ventilator in the free world. He does a presentation at the state society meeting about the Cylon 1000; and Julie, the product development manager at Cylon Corporation, hears about it. She sends Joe a gift of steaks from the Omaha Steak Company as a thank you. Her note says, “There’s more where this comes from.”

Now, every time Joe makes a presentation about the Cylon, the best parts of an Angus steer arrive a few days later in dry ice on his front doorstep. Joe has never changed his presentation, and he’s never allowed Cylon to edit it. He tells the good with the bad. Does Joe have a conflict of interest that should be disclosed as a speaker?

From a strictly technical point of view, Joe doesn’t have a conflict of interest. But if you were listening to Joe expound on the virtues of the Cylon ventilator, would you want to know that the Nebraska cattle population routinely drops as a result? Likely you would, because it might lead you to question whether or to what extent Joe’s views on the ventilator have been influenced by the gifts he has received.

The issue with a conflict of interest is this: If you obtain some benefit or if your interests are advanced in any way by a presentation you do for fellow therapists, nurses, or physicians, then you have a conflict of interest. Even an indirect benefit is sufficient for disclosure purposes.

Indirect benefit

Suppose you own 1,000 shares of Cylon Corporation stock. You write a very balanced review of the ventilator for a trade publication. Do you need to disclose your stock interests? The rules on this are murky. Unless there are only 10,000 shares of stock in Cylon Corporation (and there are likely millions), then your 1,000 shares are hardly likely to be positively impacted by your article. However, from a strictly ethical point of view, your ownership of stock suggests, at the very least, that you believe the company to be doing important work that may have an economic payoff for you later.

about the author...



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Patients at risk

Consider what happened in Jacksonville, FL, as just one of the more insidious effects of conflicts of interest. According to a report in the *New York Times*, a patient named Carolyn Markland suffered from degenerative disk disease and sometimes used a spray form of fentanyl called SUBSYS®. Her family doctor recommended against taking it. So did her pharmacist. But her pain management physician told her it was the best thing for her. After a dose of this medicine, followed by an injection of fentanyl during a procedure, the woman came home, went to bed, and never woke up. Her death was a result of respiratory depression. By any measure, her death was a tragedy; but the tragedy is compounded in this case by what the patient did not know about the relationship between her doctor and the drug company that supplied the SUBSYS drug. According to the *New York Times*, Markland's doctor received \$18,874.03 by the manufacturer to travel and speak to fellow physicians about the drug.

I am frequently asked to speak about various topics at different state society meetings. Sometimes a seminar coordinator will ask me: "Does anyone routinely sponsor you?" The answer is no, because I do not routinely speak on topics that benefit any particular product. But the question is more troubling. If people are routinely sponsored, does that indicate that certain speakers advance agendas for companies at the expense of candor? Are these routine sponsorship arrangements disclosed?

If they are not, they should be. While a speaker may truly believe that a product or service is a great benefit to therapists, if they are routinely having travel, lodging, and other expenses paid by a corporation, there is certainly a reason for a listener to be skeptical of that viewpoint.

Therapists who speak on technical subjects, particularly those subjects that involve specific brands and types of equipment, have an obligation to disclose not only who has sponsored their lecture but the extent to which any conflict of interest exists. A statement on the disclosure form that "Cylon Corporation routinely pays for my travel when I speak on the Cylon 1000" is sufficient to put listeners on notice that there is a potential conflict of interest. "I own shares of Cylon stock" is similarly sufficient. A mere disclaimer that "The speaker does not intend to advocate for any particular product" is not a substitute for a complete disclosure of the interests of the speaker in the product or service. What a speaker may intend may be different from how the lecture is perceived by listeners.

Law provides another useful example here, too. In jury selection — a process called *voir dire*, meaning "to speak the truth" — jurors are asked about biases.

Recently, in trial a gentleman explained that he believed nursing homes were "just awful places." We asked him, "knowing how you feel about nursing homes, do you think you would be the best person to be on a nursing home case?" He admitted he was not.

Would you want to know?

Adopting that model as a guideline, here is what I suggest. If you would be skeptical of the opinion of someone else who received from a company what you are receiving, or what you have received in the past, then you need to make a disclosure on your speaker forms.

Having an interest in technology, and especially owning stock in major corporations, does not disqualify you from speaking; it just requires that this information be provided to listeners so that they can form their own opinions about whether and to what extent you may be unknowingly biased or, in more remote circumstances, putting your interests ahead of the interests of science. ■



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Caregiver Training for the Tracheostomy Patient

by Linda Dean, RRT

Increasingly over the past 20 years, patients of all ages and various medical complications are safely discharged to home. Homes foster nurturing environments and usually improve quality of life for patients and families. Early discharge planning to transition to the home care environment also decreases prolonged hospital stays that are associated with increased care costs.

The goals of a home care plan are to minimize hospital readmission and to provide safe, cost-effective care optimizing the patient's health and functionality. Early considerations regarding the complexity of the patient care needs, the availability and learning willingness of home caregivers, and home safety and accessibility are all very important in formulating discharge plans. Since not all homes and family members are capable of providing total care for complex patients, evaluation of the family home should begin well in advance of discharge.

Potential caregivers must be willing, available, at least 18 years of age, and able to perform multiple tasks required to provide safe, competent care for the tracheostomized patient: tracheostomy care, suctioning, and the ability to operate multiple medical devices. An effective program evaluates the home and its location. Proper square footage to hold medical supplies, nearby access to emergency care, and adequate infrastructure of essential utilities are areas of evaluation.

Discharge plan

Once the decision is reached to transition the patient to the home environment, a comprehensive, multidisciplinary discharge caregiver plan begins. A vital component of the discharge plan includes consistent educa-

tion, demonstration, and caregiver return demonstration of the skills required. One primary care provider (PCP), who is most often a respiratory therapist, orchestrates the most successful teaching strategies. That PCP must assess the family's learning abilities/preferences so they are taught in a manner in which they can learn.

Pre-tracheostomy teaching is a great time to review the basic anatomy and physiology of the airway, ex-

plain the risks and benefits of tracheostomy, and inform them of what to expect post-operatively. Information should include the ramifications of bypassing the upper airway: inability to vocalize, the possibility of a compromised swallow that may require a feeding tube, loss of the natural airway heat and humidification, and the inability to perform a Valsalva maneuver (which impacts spontaneous secretions clearance, bowel habits, and mobility and postural control). Early intervention by the multidisciplinary team should include assessment and introduction of speaking valves, which can help restore upper airway airflow and correct many problems associated with tracheostomy.

Because there is a lot to learn, post-tracheostomy teaching should begin as soon as possible. Families with patients discharged with tracheostomy tubes may also need to learn about mechanical ventilators if

the patient requires the assistance of one. A plethora of other medical equipment — and the skills to operate and maintain that equipment — can be daunting: enteral feeding tubes, wound care, I.V. tubing care, medication management, CPR, suctioning, nebulizers, oxygen, etc. It is critical to teach caregivers assessment skills so they know when to call 911, when to suction, when and how to change the tracheostomy tube, etc.

about the author...



Linda Dean, RRT, is a clinical specialist at Passy-Muir Inc., in Irvine, CA. She has also served as a clinical instructor at Northern Virginia Community College in Annandale, VA, and as a staff RRT in several hospitals in Virginia, South Carolina, and Illinois.

Early, consistent bedside teaching by one PCP is the key to any successful transition to home and why the respiratory therapist is perfectly positioned to excel in this role.

RTs key to a successful transition

For these reasons, consistent bedside teaching by one PCP is the key to any successful transition to home and why the respiratory therapist is perfectly positioned to excel in this role. The discharge plan of care should address acute and long-term changes, as well as chronic conditions. The PCP defines all medical issues and plans teaching accordingly. Those medical issues may include:

- nutrition (oral, enteral, parenteral, g-tube, j-tube),
- respiratory (tracheostomy, ventilator, oxygen, nebulizers, secretion removal),
- medication (maintain a current list of medications and assure timely refills),
- mobility (skin breakdown, infections, osteoporosis, contractures, range-of-motion exercises, toileting, muscle mass loss),
- pain medications,
- special transportation needs,
- and preventive vaccinations.

The PCP will teach and demonstrate all equipment and skills associated with managing that equipment. There should be standard criteria and ongoing competencies with return skill demonstrations. The caregivers will need to demonstrate competency for each task and piece of equipment. Prior to discharge, allow the family caregivers one or two days of providing total care in the hospital while support staff remain nearby.

The PCP ensures all necessary supplies are ordered and delivered in-house so caregivers are trained on the same equipment they will have at home. Prior to home discharge, a home check is completed to ensure all necessary equipment has been delivered to the home. Follow-up physician's appointments will most likely require special planning to accommodate any special needs of the patient and/or family.

Home care transitional teaching has proven to be very effective and safe, while decreasing the rate of readmissions and empowering families to care for their loved ones. The most common reasons a home care trial fails is not the lack of education or proficiency of skills; it is due to lack of community support, nursing shortages, availability of high-tech equipment approved for home care, and lack of funding. Not all communities offer

early intervention programs for children, adaptive recreational opportunities, job training, or religious support.

No one knows exactly how many tracheostomy and/or ventilator patients are cared for in their homes. Nevertheless, we can rest assured that a respiratory therapist was very involved in that successful transition to home. ■

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ALL-STAR EDUCATOR TAKES A BOW


by Debbie Bunch

Bill Galvin's penchant for education has served the Association well

Ask Bill Galvin, MEd, RRT, CPFT, AE-C, FAARC, what he was passionate about as a kid, and he'll tell you it was sports. Of course, growing up in the Philadelphia suburbs with five brothers and one sister who felt the same, there was always a game of some sort going on. Baseball was the hands-down favorite, though Galvin played football and basketball in high school and lettered in cross-country running.

However, it is baseball that gets the credit for building in him the skills he says have served him well on and off the playing field ever since. "I was a catcher, and I suspect this was the start of my leadership skills and belief in the value and importance of teamwork," says this year's Jimmy A. Young Medalist. "Baseball taught me how to get along with





This year's Jimmy A. Young Medalist has dedicated his life to training others to do the work that defines the profession.

others, to work on a team, to be a leader, and to do your best with the skills and talents you have.”

Those skills, coupled with a strong religious foundation and work ethic provided by his parents and the parochial schools he attended, set the stage for what would become a stellar career in respiratory care education. His introduction to health care in general, however, is another story; and one many therapists of his generation can no doubt relate to as well.

Life lessons

“My very first job was as an orderly,” explains Galvin. “I was probably just 16, and this taught me life lessons about caring for the ill and marginalized.” He worked the job throughout high school and college, serving on the 11 p.m.–7 a.m. shift and then heading straight to class. “I was exposed to many behind-the-scenes events in medicine and health care — experienced death and severe trauma at a relatively young age,” he says. “I worked in the ER, critical care, and most other areas of the hospital.”

When he went off to La Salle University, however, he majored in political science and says he still has a passion for politics (his favorite Sunday morning activity is to settle in with a cup of coffee after early morning Mass to watch “Meet the Press” and the other political talk shows). Indeed, he expresses great acclaim for the value and criticality of a liberal arts education in general. “There simply is no substitute for an education rich in the liberal disciplines,” he explains. “It deepens one’s critical thinking and human relations skills and is precisely what is needed in today’s world.” Galvin endorses the findings of the AARC’s 2015 and Beyond conferences partly for that reason and feels “we need to aggressively seek solutions and be all-inclusive in actualizing the findings.”

Health care soon came back into his life, however, when he went into the military after graduation and studied laboratory technology at Brooke Army Medical Center at Fort Sam Houston, TX. He was eventually assigned to the 348th General Hospital back in Pennsylvania, where his interest in health care continued.

Working in the lab soon lost its luster, however, as he saw direct patient care happening all around him. “I stumbled upon respiratory almost by



Galvin explains x-ray results to a student.



A group of students listens closely as Galvin explains the goals behind a human patient simulator session.

accident — there was an advanced standing program at the local community college, and I applied and was accepted,” he says. “Seven months or so later I was RRT-eligible. Shortly thereafter I became registered, and that began my growth and advancement in the profession.”

Galvin’s first job in the profession was as a staff therapist at Lankenau Hospital in Philadelphia. His first boss was a legend in the field at the time. “George Jester was a pioneer — registry number was 49, I think,” he says now. “I remember my interview with him.” Galvin says he sat across the desk from Jester, nervous because he was seeking employment in a profession in which he had no real clinical experience at all — the accelerated RT program he attended didn’t include a clinical component.

He asked Jester to give him a chance. “He looked at me over his half glasses with a pause that seemed like eternity and said, ‘OK, I’ll give you an opportunity. Come in next Monday,’” says Galvin. Since he was about to get married at the time and didn’t have a job, he says he worked really hard to make sure Jester wouldn’t be sorry. He wasn’t, and Galvin credits his first mentor in the profession for investing the time and energy into him.

“Every day at the end of the shift George would take me into the equipment room and drill me on some pulmonary concept or piece of equipment. Two hours later, I would walk out thinking to myself that he is the smartest RT I ever met,” he recalls. That first mentor was followed by many others — Galvin lists Bruce Toben, Ron Brunner, Barbara Schuster, Ann Cusano, and Thomas Lamphere as just a few. They have been immensely supportive and more valuable to me than they know.”

Go-to guy

Galvin’s hard work at Lankenau paid off. After four years as a critical care therapist, he became assistant director of respiratory care services under Brunner; and it was that job that really set him on the path he would follow for the rest of his career. “Ron was busy with the day-to-day operation of the department, so he always had me do the teaching,” he explains. “Our department taught in the nursing school, the nurse anesthetist program, the critical care course, the radiology and lab tech programs, and had clinical affiliations with local RT schools. I was the ‘go-to guy’ for teaching and discovered that I really enjoyed it.”

Of course, he knew he’d likely need to further his education to really make an impact as an educator, so he went back to school and earned a master’s degree in education with a concentration in health from St. Joseph’s University. He was offered several full-time teaching positions when he graduated and ultimately settled on the one from Gwynedd Mercy University, where he’s still program director today. “While it offered the lowest salary, I could see opportunity and I connected with the place,” he says. The school was founded and sponsored by the Sisters of Mercy, and their mission and philosophy fit with his upbringing. It also appeared committed to growing its RT education program.

It was the right move. “I was allowed to transition from a one-year certificate program to a 1+1 program, to a 2+1+1 for students with a bachelor’s degree, to a 3+1, which is where we are today.” Thanks in part to the findings from the AARC 2015 and Beyond conferences, he believes a four-year baccalaureate degree is only a short time away.



A small group session on nebulizers gives Galvin a chance to ensure his students truly understand the material.

Gwynedd Mercy helped strengthen and hone his teaching skills through the Teacher Improvement Project System (TIPS) as well. “I arrived on campus with considerable clinical experience and professional expertise and wonderful foundation skills in the art and science of teaching,” Galvin explains. “However, they needed cultivating; and the TIPS Program, pioneered and directed by Sr. Madeleine Smith and developed at the University of Kentucky for aspiring teachers in the health disciplines, was just the means to do this.”

Galvin considers Sr. Madeleine a mentor and highly influential figure in his teaching career, crediting her not only with teaching him the finer parts of teaching and learning but also recommending him as a keynote speaker for one of the Annual TIPS Conferences. “I was scared to death,” says the educator, “because I was to present to the experts — the regional leaders of the TIPS Program.” Sr. Madeleine insisted he was up to the task and nurtured and supported him throughout the process. “She was a stellar role model and a great friend,” says Galvin. “She taught me more than she will ever know.”

The mentoring he received from Sr. Madeline and others has helped define his own philosophies about teaching. “Teaching is an awesome responsibility; and to do it and do it well takes considerable energy and effort,” says the educator. “You can truly make



Graduation is always a special time for the long-time educator.

a difference. You can mold, shape, and develop professionalism in a person. There is no greater calling,” says Galvin. “Students can be our best teachers — challenging us to better explain complex concepts, clarify theories, and question some of our most fundamental beliefs.”

Galvin has taken that commitment to respiratory care education and applied it in virtually all of his AARC activities as well. He first joined the Association in 1974 and quickly became actively involved in the

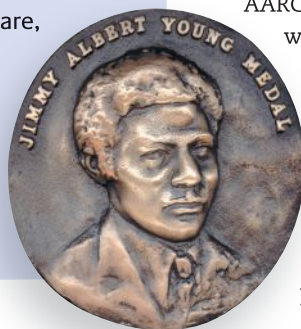
Pennsylvania Society for Respiratory Care (PSRC) and its precursors. “It seems like about four decades ago — and it was — that I met Bill at the Delaware Valley Chapter of the AARC,” says his longtime friend and colleague Garry Kauffman, MPA, RRT, FAARC. “Bill was at the head of the room talking to the students and attendees about why they should be AARC members... nothing has changed, other than the year. Bill is still preaching the value of being an AARC member and a professional.”

Thomas Lamphere, BS, RRT-ACCS, FAARC, executive director of the PSRC, has known Galvin since he was a student in the Gwynedd Valley RT program and now teaches alongside him in the program on a part-time basis. “In my position as executive director for the PSRC, I have Bill on my list of speakers whom I know I can count on to deliver an excellent lecture that the audience will both enjoy and learn from,” he says. “It would be extremely hard to find someone more passionate about the respiratory care profession and education in general than Bill Galvin. He literally eats, sleeps, and drinks those two areas.”

Jimmy A. Young Medal

Every year the AARC bestows the Jimmy A. Young Medal on a member of the profession who has exceeded all expectations for meritorious service to the AARC and advancement of the respiratory care profession. The award was created in 1976 to honor the memory of Jimmy A. Young, MEd, RRT, an exemplary member of the profession and AARC leader who died suddenly at the age of 40.

Among his many accomplishments were serving as director of the first “inhalation therapy” department at Massachusetts General Hospital in Boston, co-authoring one of the first textbooks on respiratory care, “Principles and Practice of Inhalation Therapy,” and serving as the 22nd president of the AARC. ■



Galvin’s early work with the PSRC soon segued into involvement at the national level as well, most specifically as a member of the AARC Program Committee, a role where many believe he’s made his major mark on the profession. “I met Ray Masferrer, RRT, FAARC, then associate executive director of the AARC, at a Summer Forum meeting at the Don CeSar Hotel in St. Pete Beach,” he recalls. “At that time I was serving as chair of the Program and Education Committee for the PSRC.” He wanted to tap into Masferrer’s expertise and found him not only extremely helpful but eager to begin a professional relationship that would culminate with his own appointment to the national program committee in 1986.

Galvin has been a constant presence on the AARC Program Committee ever since. “During my 52 years in respiratory therapy, I feel I have met the best and the brightest, the ones who care for others more than they care for themselves, the ones willing to share their knowledge, and the ones who really understand our main purpose is to treat and cure the sick,” says Masferrer, who now serves as managing editor of *RESPIRATORY CARE*. “Bill has all those attributes and many others. He’s the most professional therapist I ever met!”

A learning lab

Working on the programs for the AARC Congress and Summer Forum has been a privilege, notes Galvin. “This will sound strange, but going to Program Committee meetings over the years has been like going to class — a learning lab.” With 600–800 proposals to go through during the session, committee members have to walk in the door with their homework done, and Galvin says he spends days and days beforehand going through the binder and making notes in the margins to ensure he has a firm grasp on the sessions they’ll be choosing from at the meeting. “You have to read all the proposals and come prepared to address them so that in the end a program can be developed that is cutting edge, state of the art, and representative of the needs of the sections and the membership as a whole,” says the educator. “It has been and continues to be an awesome responsibility.”

While Galvin is quick to give the lion’s share of the credit for the reputation that has been built for the AARC Congress and Summer Forum to Masferrer (“Ray was the backbone of the group,” he emphasizes), according to those who have worked with him on the committee over the years, he’s been a guiding light when it comes to ensuring the quality of these annual educational meetings as well. Often relegating himself to the background, he’s worked tirelessly to craft programs that truly reflect the needs of the profession at the time.

Nowhere has that been more apparent than in the programming for educators. “For the last 20 years or more, Bill has almost single-handedly been responsible for the educational content for educators at both the Summer Forum and AARC Congress,” says AARC Associate Executive Director Douglas Laher, MBA, RRT, FAARC, who now oversees the meetings. “To have that much longevity in one area of expertise is incredible. Think about the impact he has had on educators in our profession!”

“Bill’s most significant contributions have been in his support for ensuring quality education programs for respiratory therapists,” agrees Education Section Chair Ellen Becker, PhD, RRT-NPS, FAARC. “He has done this through maintaining an awareness of what are relevant topics. Further, he has been an advocate for emerging talent and assures that less experienced therapists have opportunities to establish themselves as speakers and provide fresh perspectives.”

Galvin says he feels lucky to have been able to work with what he calls “some of the greatest minds in our profession” and has enjoyed being a part of the “think tank” of experts charged with programming for the meetings. “Dr. David Pierson, Dr. Dean Hess, Dr. Charles Durbin, Patrick Dunne, Garry Kauffman, Dr. Ira Cheifetz, Colleen Schabacker, Thomas J. Kallstrom, Timothy Myers, Cheryl Hoerr, and the younger folks like Doug Laher, Tom Lamphere, Keith Lamb, Dr. Shawna Strickland, and many more that I apologize for leaving off the list,” he says. “These are real smart people who know their stuff.” He is also quick to give credit to staffers in the AARC Executive Office for the role they play in making the meeting work. “And, we can’t forget the AARC staff, people like Kathy Blackmon and Crystal Maldonado, who have been our greatest supporters and advocate to make our work more efficient and effortless.”

Patient education

While his work with the Program Committee represents his major contribution to the Association’s educational efforts, Galvin also has regularly taken his educational messages on the road, speaking to state society groups all across the country. He’s also been an active participant on the editorial front as well, publishing in professional magazines and journals and serving as a reviewer for a wide range of publications. Plus, he is also co-author along with Dean Hess, PhD, RRT, FAARC, of a leading textbook in the profession, “Respiratory Care: Principles and Practice,” recently released in its third edition. Galvin credits Dr. Hess as another mentor who helped develop his publishing skills.

Galvin’s commitment to education hasn’t stopped with respiratory care students and clinicians. Patient education is also important to him, and he has served

that area well through his work on the AARC’s COPD and asthma educator courses and other courses to teach practitioners how to educate patients about their respiratory conditions. “I especially like to speak about all phases of patient education — communication skills, the patient education process, health literacy, smoking cessation, disease management, and wellness,” he says. Galvin received the Mike West Patient Education Achievement Award at AARC Congress 2013 in Anaheim in honor of the many efforts he has made over the years to ensure more RTs have the skills they need to educate their patients about their chronic respiratory conditions.

The award is just one of many bestowed on the educator during his long career. He received the Education Specialty Section’s Educator of the Year award in 2005, the Lambda Beta National Honorary Life Membership award in 2008, and the distinguished H. Fred Helmholz, MD, Education Lecture award in 2012, presenting on the timely topic of “Excellence in Respiratory Care Education: Creating an Exemplary RC Program.” Galvin was named a Life Member of the AARC in 2002 and joined the ranks of the Fellows of the American Association for Respiratory Care in 2005.

Humbling experience

Galvin says he was “humbled beyond belief” to learn he was this year’s Jimmy A. Young medalist. “I sat in the audience for almost 35 years and saw my heroes recognized for tremendous accomplishments — pioneers like Forrest M. Bird and Fred Helmholz; leaders like Sam Giordano, Ray Masferrer, Kerry George, and Peg Traband; eloquent speakers like Patrick Dunne and Bob Kacmarek; and prolific researchers like David Pierson, Rich Branson, Charlie Durbin, and Dean Hess, to name but a few,” he says. “To be in their company is overwhelming.”

A self-proclaimed “behind the scenes guy” whose main objective is to “just get the job done,” Galvin isn’t sure how he’ll fare when the time comes for him to accept the award in person this November. But as he looks out at the audience, he’s going to want everyone to know that the medal with his name on it will really be going out to all those in the profession who have mentored him, worked with him, and inspired him over the years. Other than his wife, Denise, and children, Ryan, Tim, and Connor, whom he says “deserve extraordinary praise as they provided more support and joy in my life than they will ever know,” it is these colleagues who will be foremost in his mind.

“I will stand in front of all of my friends at the awards ceremony and see so many extremely worthy people... this award goes to many, many of my professional friends and colleagues. That is how I feel, what you will see, and what I will likely say — if I maintain the composure to do so!” ■

— 2015 —

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Leaving the Family Business Behind:

How the Grandson of R.J. Reynolds Became a Leading Anti-smoking Activist



This year's keynote address promises to keep Congress attendees on the edge of their seats as a man born into the tobacco industry explains why he's devoted his life to motivating youth to stay smoke free and empowering smokers to quit.





Patrick Reynolds was meant to live a life of luxury, basking in the glow of tobacco company profits. Instead he's spent the last 30+ years traveling around the world speaking about the ills associated with the products made by his family's company. This year at AARC Congress 2015 in Tampa, FL (Nov. 7–10), respiratory therapists and their colleagues will get the chance to hear his moving story in person as he takes the podium on the morning of Nov. 7 for our 2015 Keynote Address. In the following interview, Reynolds gives us a taste of the topics he'll be addressing.



How does a tobacco heir cross over to the other side and take up the anti-smoking banner?



My only memories of my father are of a man lying down, gasping for breath, and dying from emphysema caused by smoking the brands that made our family rich and powerful. It had a profound impact on my life. There is much more to my story, of course; and I'll get into that during my keynote address.



Michael, Dick, Marianne, and baby Patrick Reynolds in 1948



How did you first get involved with the anti-smoking movement?



In 1986 someone in the health community got word that I had anti-tobacco feelings, and I was invited to testify at a congressional hearing on a complete tobacco-advertising ban. When I did speak out, I got a whole bunch of publicity and was thrust into the national spotlight. The more I got involved in working on the then partial bans on smoking in restaurants, vending machine bans, and state tobacco tax hikes, the more committed I became to this movement. I realized I could make a difference — that I had a tremendous platform as a Reynolds to wake up people to the dangers of smoking. It was the first time a tobacco industry figure had spoken out against the industry, and it had a big impact on people.





Do you have any relationship with “Big Tobacco” now or get any compensation from the tobacco business?



I never worked at RJ Reynolds or any tobacco company, nor have any of my brothers. I sold all my stock in RJ Reynolds in 1975, long before I spoke out publicly in Congress 11 years later. By now, I’ve given over half of my inheritance to further my campaign against Big Tobacco and have no connection to the tobacco industry other than my last name. I am firmly on the side of the health community in this fight.

“It’s important to encourage patients and tell them they can quit. Suggest that people who succeed best in life get help from other people. So tell your patients to get into a program. We have a list of good programs on our site Tobaccofree.org, and I also like the website BecomeAnEx.org.”



You are a former smoker yourself — what did it take for you to quit, and what do you think respiratory therapists should tell their patients about quitting?



I smoked on and off for 17 years, and quitting was one of the hardest things I ever did. I quit with support from an excellent quit-smoking program. My message for your patients who smoke is, first, inform them that most smokers have tried to quit before and failed several times. They get discouraged. It’s important to encourage patients and tell them they can quit. Suggest that people who succeed best in life get help from other people. So tell your patients to get into a program. We have a list of good programs on our site, Tobaccofree.org; and I also like the website, BecomeAnEX.org.



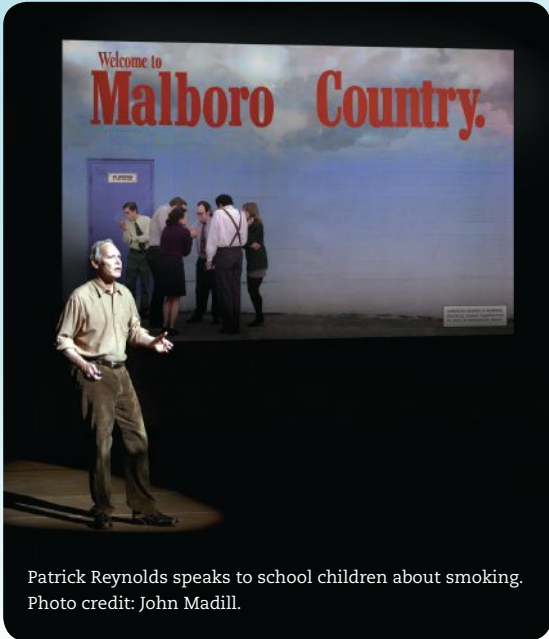
Much of your work has been focused on keeping children away from tobacco. Today, e-cigarettes are luring many kids into the habit, and you are spending a lot of your time addressing that issue as well. What do you want RTs to know about this new danger?



The rise of vaping among youth is so rapid right now. A couple of tobacco companies have bought major e-cigarette companies, and they’re using the same playbook to market e-cigarettes as they did with cigarettes — hyper-masculine role models for boys and glamorous, independent women for girls, and so on. We have no idea how safe vaping really is, and it will be decades before we get long-term reliable data. It may be safer than smoking cigarettes, but that doesn’t mean it’s safe. What I tell people in my talks is, vaping may be like jumping off the fifth story instead of the tenth story.




Patrick Reynolds with former Surgeon General C. Everett Koop in 1989.

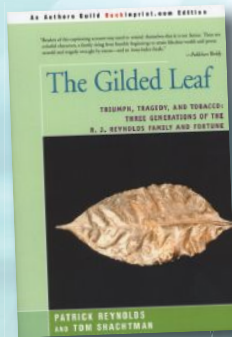


Patrick Reynolds speaks to school children about smoking. Photo credit: John Madill.

Q Tell us about your Foundation for a Smokefree America.

 The mission of the Foundation is to prevent children from starting to smoke and empower smokers to quit successfully. We do this through outreach on the Internet. We have a very large grant from Google — it's an in kind grant in the form of free advertising; and we do reach a lot of people because of that, both youth and smokers who want to quit. We spend thousands of dollars a month just on the search term "quit smoking."

Q You went back and researched your family's history in the tobacco industry for your 1989 book, "The Gilded Leaf." What drove you to write it, and how did it help inform your mission going forward?



I didn't know my father that well, and I had some anger for him; but writing the book helped me get to know him. The book, however, doesn't really have a lot to do with my anti-smoking career.

I wrote it to get to know my father. If there's any message in the book, it is that kids need their fathers. We're hoping to make it into a miniseries for TV about my very colorful family — kind of a cross between "Downton Abbey" and "Boardwalk Empire."



All five Reynolds brothers went into the tobacco business.

Q Many people have called you a hero for the stance you've taken against the products made by your family's business. Are you a hero?



Well, I don't see myself that way. I'm a man who has been blessed with an opportunity to make a difference. It hasn't made me a wealthy man, and it hasn't made up for what I lost from my family; but wealth is really just about knowing you have enough. I could have made more money doing something else, but I'm dedicated to this cause. I enjoy the work and have been able to make a difference with a few people. I'll do it for the rest of my life. ■

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5 Sessions You Won't Want To Miss

Take a sneak peek at five standout Congress presentations on the roster November 7-10

The AARC's 61st International Respiratory Convention & Exhibition in Tampa, FL, promises to **deliver the know-how you need** to succeed on the job, whether you're a clinician providing **hands-on care to patients**, a manager responsible for reducing readmissions, or an educator seeking **state-of-the-art information** to pass on to your students. Here's a sneak peek at five sessions from some of the presenters themselves.



1 Professor's Rounds: Dueling Experts — Neuromuscular Blockage Should Be Used in Every Patient with Severe ARDS

by Richard Kallet, MS, RRT, FAARC

Since the early 1970s there has been an ongoing debate regarding the wisdom of promoting spontaneous breathing efforts early in the course of severe respiratory failure. The basis of this debate has focused on the clinical relevance of opposite problems. On the one hand, sustained periods of passive ventilation result in respiratory muscle deconditioning and weakness. On the other hand, allowing patients to perform high-tension inspiratory work causes structural damage and inflammation resulting in diaphragmatic weakness as well as an increased risk for pulmonary edema and lung collapse through the promotion of patient-ventilator asynchrony.

The use of neuromuscular blocking agents early in the course of moderately severe and severe acute respiratory distress syndrome (ARDS) has been shown to improve survival. However, these agents are also associated with severe sequelae such as acquired, prolonged neuromuscular weakness and ventilator dependence that exposes patients to other hospital-acquired complications. In this debate, Samir Jaber, MD, PhD, will join me in presenting the evidence and considerations necessary for participants to judge the risk/benefit ratio of using pharmacologically induced paralysis in all patients with severe ARDS. ■

Richard Kallet, MS, RRT, FAARC, is a director of clinical research and quality assurance at San Francisco General Hospital in San Francisco, CA.

2 How Do I? ... Evidence-based Practice

by Brian Walsh, MBA, RRT-NPS, FAARC

We hear “evidence-based practice” all around. What is evidence-based practice (EBP), and what does it mean to RTs?

EBP is the methodical interdisciplinary integration of what has traditionally been termed the “three-legged stool”: 1) the best available research, 2) clinical expertise and expert opinion, and 3) patient/caregiver perspectives to provide high-quality services reflecting the interests, values, needs, and choices of the individuals we serve.

Unfortunately, EBP has different meanings to different practitioners. Some feel that EBP is only an opinion of the evidence, while others feel that it's only evidence from high-level studies such as randomized control trials. Some will say that it's malpractice if you don't follow EBP, while others feel it is cookbook medicine and that patient care should be individualized. Yet, when forced to objectively grade our practices (a procedure used to rank the evidence in #1 above), we find there is a lack of evidence to support much of what we do as respiratory therapists.

This series of lectures will help the participant answer some of the more difficult questions we face today in neonatal and pediatric respiratory care. The experienced interdisciplinary panel will help step us through how to evaluate the current EBP on the four hot topics we face: noninvasive ventilation versus intubation, setting up the ventilator, deciding when to move beyond conventional ventilation, and sedating the ventilated patient. ■

Brian Walsh, MBA, RRT-NPS, FAARC, is a research coordinator at Boston Children's Hospital in Boston, MA.

3 Tobacco Cessation

by Sarah M. Varekojis, PhD, RRT

The “2014 Surgeon General’s Report: the Health Consequences of Smoking” was very clear that while we have made progress, there is still a long way to go to end the tobacco epidemic. In our role as respiratory therapists, we are in a unique position to make a significant difference in both the treatment of tobacco dependence and in educating our patients about emerging tobacco products. As cardiopulmonary specialists, we are experts in the treatment of tobacco-related diseases; and we have an opportunity to help these patients make the choice to improve their health now and in the future by quitting.

For some, however, smoking cessation seems like a mystery — these therapists are concerned about how to approach patients and what to say. The good news is that there are great resources for smoking cessation that are evidence-based and shown to be effective, and we can use these resources when we approach patients. This presentation will provide information on how to make your smoking-cessation efforts with patients successful.

For others, the mystery is centered on all of the different forms of tobacco available today. We will address several emerging forms of tobacco to prepare the RT to address the use of these products with their patients. For many, electronic nicotine delivery systems — commonly known as e-cigarettes — are especially confusing. RTs are often asked by patients if they are safe to use and if they are effective as a smoking-cessation strategy. The symposium will include an exciting pro/con debate on e-cigarettes that will provide you with current information to give to your patients and help you determine what advice you can offer to them.

We hope that at the end of the symposium, you will have increased confidence in your ability to have the smoking-cessation conversation, feel better prepared to address patient questions about successful quit strategies and new tobacco-related products, and are ready to incorporate the knowledge and skills into your practice. ■

Sarah Varekojis, PhD, RRT, is an assistant professor and director of clinical education for the respiratory therapy program at Ohio State University in Columbus, OH.

4 Connecting the Dots from Inpatient to Outpatient Chronic Disease Management

by Charley Starnes, RRT

Patients with chronic respiratory disease are often complex due to multiple co-morbidities, numerous medications, and, often, different providers treating the same issue. During a hospital admission, respiratory medications can differ from the patient’s home regimen; and without proper explanation and education, this can cause confusion upon discharge.

Utilized as a navigator for this patient population, the respiratory therapist can be essential for success in patient self-management, which can help to decrease hospital readmissions. The addition of an RT to the outpatient realm adds another benefit. This link in the continuum of care helps to bridge the communication gap and facilitates coordination of resources, such as medication reconciliation, medical equipment acquisition and compliance, and assistance. This connection should begin during the patient’s hospital admission and follow throughout the continuum of care to provide the best pathway to self-management and success.

It is essential to provide patients with information and resources that are easy to understand and are standardized from one treatment area to the next. We, as respiratory therapists, are in the best position to advocate for these patients because we are the pulmonary experts at the bedside day in and day out. We are educated in the various chronic pulmonary diseases, their progression, and their management. Providing a consistent message, from that first patient encounter to the discharge follow-up appointment, helps to ensure that the patient fully understands the regimen. It allows patients time to process the information given, ask questions, and master the skills needed. It also empowers them to actively participate in their care plan. ■

Charley Starnes, RRT, is supervisor of pulmonary rehabilitation at Carolinas Healthcare System Pineville in Charlotte, NC.

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Clinical PEP: Practices of Effective Preceptors is an educational program of the American Association for Respiratory Care.



5 Critical Care Case Reports: Putting the Evidence to Practice, an Interactive Exercise

by Keith Lamb, BS, RRT-ACCS

Critical care is the “bread and butter” of our profession and one of the things we do best. This symposium covering a series of case reports will focus on common critical-care scenarios and will be presented by RT professionals with vast experience in taking care of these types of patients. Discussion will involve the panel of speakers and the audience in real-time participation.

The speakers will begin by zeroing in on four scenarios: 1) severe asthma in the emergency department, 2) traumatic brain injury (TBI), 3) acute exacerbation of COPD, and 4) drug overdose. Each topic will then be discussed among the panel and with the participating audience. Here is just a brief overview of the questions we’ll raise:

Severe asthma in the ED: You have a patient in the ED whom you cannot ventilate. Acute asthma and severe bronchospasm? Anesthetic gasses? What do you do? What are your options? Can you treat this patient effectively in the ED?

Traumatic brain injury: When is TBI severe enough to warrant empiric airway protection? When, if ever, do you hyperventilate? Do we need to have an increased awareness of ventilator-associated pneumonia?

Acute COPD: When do you use noninvasive positive pressure ventilation (NIPPV)? When do you intubate? When do you extubate? When do you recommend tracheostomy?

Drug overdose: Can the process be reversed without mechanical airway protection? Are some drugs more likely to cause respiratory failure? Can you use NIPPV?

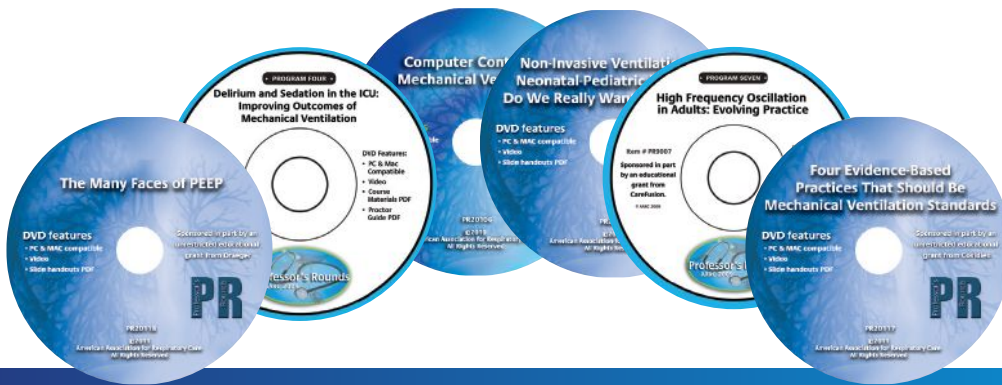
These topics will provide a great overview of critical care scenarios and generate excellent discussion. Don’t miss out on this opportunity to tell the panel what YOU would do. Everyone should learn something. ■

Keith Lamb, BS, RRT-ACCS, oversees adult critical care and extracorporeal life support at UnityPoint Health System in Des Moines, IA.



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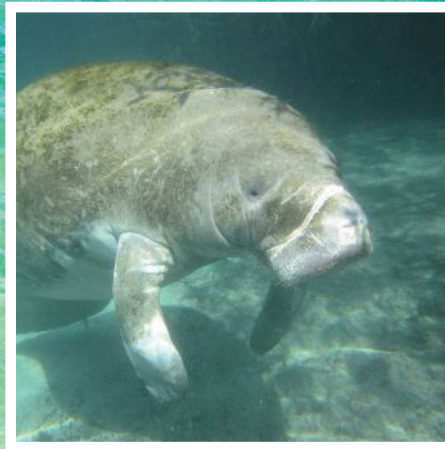
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TAMPA INSIDER



From top: Andrew Slezak MEd, RRT-NPS, loves scuba diving in the calm seas of the Gulf. Photo courtesy of Heidi Thoricht. Known as the gentle giants of the sea, manatees can be seen in many locations in November. Photo courtesy of Andrew Slezak.

Below: Angelfish and frogfish are common in the waters around Veterans Reef. Photos courtesy of Heidi Thoricht



Make the Most of Your Time Outdoors

Tampa offers many great ways to stay active before
and after AARC Congress 2015

by Andrew Slezak, MEd, RRT-NPS

About the Author

Andrew Slezak, MEd, RRT-NPS, is a member of the Florida Society for Respiratory Care who serves as the neonatal clinical coordinator at St. Joseph's Women's Hospital in Tampa, FL.

EDITOR'S NOTE

Stay tuned to your October issue of *AARC Times* for our final "Tampa Insider" and find out what Florida Society members have to say about the best things to see and do in beautiful Tampa.

When you come to my city for the AARC Congress this November, you will more than likely spend the majority of your days inside the Tampa Convention Center; but have you thought about what you can do during your downtime? Have you considered booking an extra day or two either before or after the meeting and making the most of your time here?

The answer is, yes, you should consider a longer stay; and if you decide to do it, you should go outside!

It is November; and while that means cold weather and shorter days for most parts of the country, here in southwest Florida it is still warm and the sun shines bright. The Tampa Bay area is surrounded by warm, clear water and unique state parks loaded with wildlife, both above the water and below, that can't be seen in northern or western states. Florida's sub-tropical climate is unique to the continental United States.

So, what can you see? Where can you go? And how can you get around? These questions are easy to answer because there are so many options.

Intracoastal waterways of Pinellas County

Look at a map and you will see Pinellas County is surrounded by water. There is Tampa Bay to the east, Boca Ciega Bay to the south, and the Gulf of Mexico to the west. In between are more than 40 miles of intracoastal waterways, dotted with barrier islands and lined with thick mangrove forests.

Mangroves



are critical to local ecosystems, including human habitation, as they provide a barrier to rising seas during severe storms and reduce land erosion. Mangroves also act as nurseries for juvenile ocean-going fish and migratory birds. The water is shallow and is easily accessible.

Take a beautiful ride over Tampa Bay to the southern tip of Pinellas County, and you will reach Fort DeSoto Park. Voted as one of America's best beaches year after year, Fort DeSoto Park consists of five interconnected islands — otherwise known as “keys” — and 1,136 acres of wetlands, mangroves, and beaches. There is also a 19th century military fort to explore.

The best way to access Fort De Soto Park is by kayak. Whether you are paddling solo or in a tandem, a kayak can get you on the water quickly and is very wallet friendly. There is an easily accessible site to rent kayaks in the park.

If wildlife observing is your thing, you will want to head a little further north in Pinellas County to two pristine barrier islands, Honeymoon Island and Caladesi Island off the Dunedin Causeway. Both islands are part of the Great Florida Birding and Wildlife Trail. Walk through the 2.5-mile Honeymoon Island Nature Trail to see a variety of shorebirds. Look up and you're bound to see osprey and bald eagle nests. The island is also home to an assortment of reptiles and even armadillos. Paddleboarding between the two islands is sure to put you up close to manatees, dolphins, and occasionally a school of spotted eagle rays.

Visit www.pinellascounty.org to explore all the parks and preserves countywide.

Gulf of Mexico

Looking for more action and adventure on the water? The Gulf of Mexico is a playground of activities. Take a fishing trip out of Clearwater Beach Marina or John's Pass in Madeira Beach. There are half-day and full-day boat trips daily out of both access points, or you can charter one of dozens of licensed charter boats found up and down the coast. If you stay close to shore and fish from a pier, you may catch snook, tarpon, and redfish; or you can take a boat out to a local fishing ground and go for mahi-mahi, grouper, snapper, or shark. The Gulf of

Mexico is nutrient rich in this area of Florida, allowing sport fish to grow large and be found in abundance.

Are you an avid scuba diver, landlocked by winter? While the east coast of Florida and the Florida Keys are the better-known areas for scuba diving, the west coast also has a lot to offer. Out of the Seminole boat ramp in Clearwater, Tanks-A-Lot dive charters offer different level dive trips all year long. Visit the Sheridan Tug wreck to see some of the largest goliath groupers on the planet — some even known to reach the size of a VW Beetle. Visit a site like Veterans Reef, and you may bump into a green sea turtle, spot a rare and colorful frogfish, and swim through thousands of colorful fish. Seas are usually very calm, visibility ranges from 20–75 feet on average, and water temperatures get cool enough for a wetsuit.

If you are looking to get on the water without the adventure, take a dolphin-watching cruise and travel up and down the coastline in style with a cold drink in your hand. Discount activity sites (such as Groupon) tend to have major deals to save you money and still get you out on the water.

Hillsborough River State Park

If salt and sand is not your thing but you still want to get outside, head to Hillsborough River State Park northeast of Tampa. With over seven miles of hiking trails, visitors can experience old Florida in its perfect natural state. Hikers will walk through dense, hydric hammock forest, cypress swamps, and grassy wetlands, where a diverse plant and animal community thrives.

Be sure to bring your binoculars for close-up alligator sightings.

Hillsborough River State Park also provides opportunities to canoe the river for a different perspective on the wildlife. Visit www.floridastateparks.org/park/Hillsborough-River to explore the park in more detail.

Manatee sightings

As winter approaches, manatees migrate from the open waters of the Atlantic Ocean, Caribbean Sea, and Gulf of Mexico and head to the warmer waters of Three Sisters Springs, Crystal River, and Rainbow River. These crystal-clear, spring-fed waters (located two hours north of Tampa) flow at a near-constant water temperature in the low 70s and provide a safe shelter for manatees in the winter months. Visitors have an opportunity to kayak, take a boat, or get in the water and snorkel with these gentle giants.

For a dry view of manatees, there is the Tampa Electric Manatee Viewing Center located in Apollo Beach. The discharge canal from the Big Bend Power Station flows into Tampa Bay and is warm throughout the winter. Expect to see manatees, turtles, spinner sharks, and an assortment of marine life from the observation tower.

Runners, cyclists, and triathletes

For those of you looking to continue training for a marathon, a century ride, or a triathlon, the Tampa Bay area is a premier training location for everything having to do with swimming, biking, and running. The Upper Tampa Bay and Pinellas Trails are award-winning

bicycle and running paths. Bayshore Boulevard is one of the longest continuous sidewalks in the United States and is dedicated to running and walking.

Mother Nature awaits

Since you've come all the way here, you should do more than just sit in the convention center and listen to lectures and then go straight home. Whether it's before the meeting begins or after it's over, get outside, explore the world around you, and see what Mother Nature has to offer in the Tampa Bay area. You won't be sorry you did! ■



Pelicans regularly patrol the waterways looking for their next meal. Photo courtesy of Andrew Slezak



Renting a kayak is the best way to see Fort De Soto Park. Photo courtesy of Lisa Ramsey, RRT



An accomplished triathlete, Andrew Slezak enjoys training on many of the wonderful trails found throughout the area. Photo courtesy of Andrew Slezak



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RC Currents

Prepare for Respiratory Care Week 2015

Respiratory Care Week — Oct. 25–31 — is that special time of year when you and your respiratory care colleagues are honored for your contributions and for improving patients' lives. This year's theme, "Respiratory Care — Changing the World One Breath at a Time," reflects the commitment of RTs to respiratory health and awareness. Use this week to share your enthusiasm in your chosen profession by planning events for recognition, fun, and awareness with your respiratory therapy team, your patients, your community, and local students.

Online resources are available to help you plan your team events, health fairs, and festivities. As the official sponsor for Respiratory Care Week, the AARC provides a useful website at <http://c.aarc.org/go/rcwk> where you can get event ideas, planning tips,

photo sharing, and more. Themed products for RC Week are also available at the Official 2015 RC Week store (www.jimcolemanstore.com/rcweek/) operated by AARC partner Jim Coleman, Ltd. Here you'll find everything you need for RC Week events: t-shirts, banners, décor, and gifts that will help you promote the profession and celebrate the week with your staff and patients.

Stay tuned in October for the release of AARC's special RC Week discount code that you can use for one of our most popular CRCE courses. It's AARC's way of saying

"thank you" for all you do as a dedicated RT. So don't miss your chance to plan ahead — now's the time to make RC Week a priority and boost awareness about respiratory health and the profession. Do it for yourself, your colleagues, and your patients! ■



Live Pulmonary Disease Educator Course

Get the skills and knowledge you need to reduce readmissions and improve the quality of life for patients with chronic pulmonary disease by attending the AARC's Pulmonary Disease Educator Course Sept. 17–18 in the Dallas/Fort Worth area at the Embassy Suites Outdoor World — D/FW Airport North, in Grapevine, TX (see http://c.aarc.org/education/meetings/pdec_tx/).

The "live" portion of the course will focus on pulmonary function technology, tobacco cessation, pulmonary rehabilitation, patient education, and many other vital areas of effective pulmonary disease management. Plus, included is a complimentary online course (a \$60 value) that focuses on the key components of pulmonary disease education for COPD, pulmonary fibrosis, asthma, pulmonary hypertension, and cystic fibrosis. Attendees can earn 11.46 live CRCE plus an additional 5.0 non-traditional CRCE in the supplemental online course.

This course has been submitted to the Ohio Nurses Association for approval to award contact hours. Also, application for CME credit has been filed with the American Academy of Family Physicians, and determination of credit is pending. Contact Shawna Strickland (shawna.strickland@aarc.org) for more information. ■



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. See the thread "Airway Procedure Documentation."

AARConnect...

maximizing your membership

I'm wondering how other institutions are documenting any airway procedure. Do all providers (surgery, ENT, anesthesia, respiratory) have their own forms?

Anastasia Altamirano, RRT
Johns Hopkins Bayview Medical Center
Baltimore, MD

I have to enter a document with date, time, and checkboxes for difficult airway, aspiration evidence, and place for comment. Anesthesia also has a separate document. Both can be obtained before re-intubation. If I extubate, I complete the document and print for core people who will use the intubation times for different purposes. Other departments also use the information. Trachs have a separate documentation, which includes size, type, and any downsizes or complications.

MaryAnn Couture, MS, RRT-ACCS, RRT-NPS
Hartford Hospital
South Windsor, CT

At our institution, we band the patient with an orange armband and document it on our electronic medical record and report sheets.

Kenneth Miller, MEd, RRT-ACCS, RRT-NPS
Lehigh Valley Hospital
Bath, PA

Our facility has one airway documentation form in the computer. Most of the time, the RTs document the airway as "on assessment" if the patient comes up from OR, from an outside facility, etc. Our department has made airway documentation the sole responsibility of the RTs; and our online form uses date/time placed, airway type, lip line, secured method, adjustments, extubation (or self extubation), and an airway grade to identify difficult airways. It's a pretty useful tool.

Donna Tanner, BSRC, RRT
Cleveland Clinic Foundation
Cleveland, OH

At our facility, we have started a section that is separate from the vent management documentation. We note the type of airway, position, depth, reference point for measurement, tube inflation pressure, and subglottic pressure for hi-lo tubes. The cuffed pressure is checked every eight hours, and we auscultate the neck each vent check at two-hour intervals. Works very well.

Paul Myler, RRT
Shawnee Mission Health
Shawnee Mission, KS

Check Out the AARC New Members List Online

The "New Members" column can be accessed at 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. ■



Strange But True...

Have a purpose: Research has already linked physical activity to better sleep; but according to a new study by researchers from Penn Medicine, the type of activity makes a big difference. They found more purposeful activities like running and yoga — and even gardening and golf — elicit better sleep, while chore-related activities like housework and child care actually make it harder to get enough zzzz's.

Disenfranchised? Smokers are certainly a beleaguered lot these days, given all the new rules and regulations governing where they can partake in their habit. It's all had an effect on their overall participation in society, and now new research out of the University of Colorado finds it extends to the ballot box as well. Investigators there found smokers were 60% less likely to vote than nonsmokers. ■

National Health Observances

- **Healthy Aging Month**; September; Educational Television Network; www.healthyaging.net
- **Respiratory Care Week**; Oct. 25–31; AARC, (972) 243-2272; www.AARC.org/rcweek
- **Lung Health Day**; Oct. 28; AARC, (972) 243-2272; www.AARC.org/rcweek



Thumbs Up!

AARC Times gives a “thumbs up” to the Centers for Disease Control and Prevention for issuing this poster, an eye-catching piece that RTs can use to encourage people to quit smoking. See <https://twitter.com/cdctobaccofree>. ■

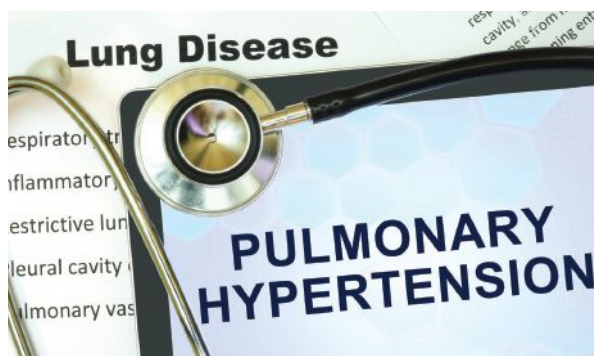
Enter for a Chance To Win a Free Membership Renewal

AARC Times is looking for creative AARC members to enter our annual AARC Photo Contest. Finalists will receive a **free** one-year membership renewal with the chance of their photo being chosen and featured on the cover of a 2016 AARC Times issue.

For information on how to enter, go to www.AARC.org/resources/publications/aarc-times and click on the “Photo of the Year Contest” link. Deadline to submit photos is **Nov. 10, 2015**. ■



New Treatment for Pulmonary Disorders on the Horizon



New research by the University of Georgia is holding out hope for patients with pulmonary fibrosis and pulmonary hypertension. Using a mouse model mimicking the characteristics of these diseases, investigators found the drug triciribine may reverse or halt their progression.

Triciribine inhibits production of a protein called Akt1, which has been shown in previous research to be at least partly responsible for the development of myofibroblasts

— cells that migrate to the injury sites to aid in wound healing. When these cells become unregulated, they create scarring, which leads to fibrosis and loss of functional blood vessels in the lungs.

In this study, mice that had begun to show symptoms of the conditions were injected with the drug once daily for three weeks. Scarring and loss of lung vasculature slowed in every mouse treated. From there, the researchers looked at mice that were genetically engineered to be missing the Akt1 pathway. None of those mice developed symptoms of the conditions.

The researchers believe these findings suggest Akt1 is the primary cause of these diseases and treatment with triciribine may be the answer. “We still need to identify the downstream effects of Akt1 inhibition to see if there are any negative side effects,” study author Somanath Shenoy was quoted as saying. “But if these tests go well, we hope to begin human trials within the next three to five years.” The study was published in a recent issue of the *British Journal of Pharmacology*. ■

California RT Students Represent Our Profession Well at HOSA Conference

Students and faculty from the RT program at California College San Diego recently converged on the Hilton Anaheim to share great information about the respiratory care profession at the National Leadership Conference of the Health Occupations Students of America (HOSA).

HOSA is a national organization representing high school students interested in pursuing a health care career. These students plus high school counselors and other school staff attend the annual leadership conference to learn more about what the health professions have to offer.

“Our AARC brochures were almost depleted because so many students came to the AARC booth,” says California College Associate Dean and Director of Respiratory Therapy Henry Oh, PhD, RRT-NPS. One group that came by was so impressed they used social media to spread the word to their fellow students.

“On the first day, a group of students recorded the pig lung and the transport ventilator demonstration showing the inflation and deflation of the lungs,” explains the educator. “They posted it on Instagram, and many other students saw it and came in big groups to our booth the next day.”

Overall, the booth featured four stations on two separate tables: intubation, neonatal breath sounds, chest percussion/vibration, and the pig lung and ventilator set-up. Students lined up to take their turn at the intubation station, and the pig lung/vent set-up continued to be a big hit. As the buzz made its way throughout the exhibit area, the cameraman taking videos of the event also came by and filmed the demonstration and posted it on the event website, drawing even more people to the booth.

“As soon as the exhibit hall opened at 9 a.m., our booth was one of those that students went to first,” says Dr. Oh. He says he is very proud of his students Michael Parlacoski, Jr. and Daniel Ertel, who volunteered their time to staff the booth, noting they did an especially great job teaching the high school kids how to intubate the manikin. “They helped around 200 students perform adult intubation on the manikin, and an estimated 40%–50% got the tube placement right on their first attempt.”

Fourteen senior year medical students also visited the booth, giving Dr. Oh and his students the opportunity to educate them about the respiratory care profession. ■



Contribute to Our “Transitions” Column

The AARC “Transitions” column is now devoted to sharing news about the passing of AARC members.

You can submit news about your colleagues’ 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. ■

Asthma Clinical Research Network Finds Treatment Failure Increases with Age

Asthma patients over the age of 30 are more likely to fail asthma treatment, and the failure rate goes up as people age. That's the take-home message from National Jewish Health researchers who recently looked at data on patients in the Asthma Clinical Research Network.

Treatment failures were observed in 17.3% of patients age 30 and older versus 10.3% of those younger than 30. Lower lung function measurements and longer duration of asthma were associated with a higher risk of treatment failure; and patients aged 30 and older who were treated with inhaled corticosteroids, either alone or in combination, had more than twice the risk of experiencing a treatment failure compared with patients under 30. When stratified by specific treatment, failures

increased consistently for every year above age 30 among those patients using inhaled corticosteroids. Similar asthma control measures and treatment failure rates were seen for men and women.

The authors aren't sure whether biological changes are making asthma treatments less effective in older people or whether socioeconomic, geographic, or treatment adherence differences are coming into play. They call for more study to elucidate the findings. The study was published online by the *American Journal of Respiratory and Critical Care Medicine* this past summer. ■



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The AARC and Edison Nation Medical, the premier health care innovation marketplace, encourage AARC members to submit ideas that improve mechanical ventilation for patients.

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ventilation? Submit your idea today! If your idea is selected for development, you will receive an advance of \$2,500, 50% of licensing royalties, and be named as the inventor on any patent application.

To learn more or to submit your idea, go to www.aarc.org/resources/programs-projects/edison-nation-medical-innovation-search/. ■



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

- AARC Congress 2015 Online Advance Program — http://c.aarc.org/education/meetings/congress_15/index.cfm
- Clinical Resources for RTs — www.aarc.org/clinical-resources-for-rt/
- AARC Supports Transparency on Out-of-Pocket Medication Costs — www.aarc.org/out-of-pocket-medication-costs/
- New Aerosolized Medication CPG Questions Value for Airway Clearance — www.aarc.org/new-aerosolized-medication-cpg-questions-value-airway-clearance/

CAP Spells Long-term Trouble

People who have had a bout of community-acquired pneumonia (CAP) have significantly worse long-term health outcomes, report Canadian investigators publishing online in the *American Journal of Respiratory and Critical Care Medicine* earlier this year.

The University of Alberta researchers followed more than 6,000 adults with CAP and 30,000 matched controls for a median of eight to nine years. During that period, 2,858 CAP patients died, reflecting an absolute risk difference of 30 excess deaths per 1,000 patient years of follow-up and a >50% relative increased rate of mortality among CAP patients. Although CAP patients <25 years of age had the lowest absolute risk difference for mortality and those >80 years had the highest absolute risk difference, young adults with CAP had the worst relative outcomes, with over a two-fold increased rate of mortality relative to controls. Also, absolute rates of all-cause hospitalization, ER visits, and CAP-related hospital visits were significantly higher in CAP patients compared to controls. ■

Discovery of a Special Protein Could Enable Earlier Diagnosis of Lung Cancer

Early diagnosis is key in the treatment of lung cancer, but diagnosing the disease in its earliest stages has been problematic. Now researchers from The Wistar Institute believe they have discovered a protein that could make early diagnosis the norm rather than the exception for these patients.

The investigators began by focusing on cancer testis antigens (CTAs) because they are often found in tumor cells that circulate in the blood. After analyzing 116 different CTAs, they identified the protein AKAP4 as a potential biomarker that could effectively distinguish between patients with and without non-small cell lung cancer (NSCLC). From there, they tested AKAP4 as a biomarker in 264 blood samples from patients with NSCLC and 135 control samples. While the researchers noted that the presence of AKAP4 increased with the



stage of the disease, AKAP4 was still detectable in the samples with early stage disease. They now hope to develop a simple blood test for AKAP4 that could be used to identify more lung cancers in their early stages. The study was published in a recent issue of *Oncotarget*, a monthly peer-reviewed oncology journal. ■

Talk About Markup!

Should out-of-network and uninsured patients pay more for the same services Medicare patients are getting for significantly less? It seems most would answer “no” to that question; but according to researchers from Johns Hopkins Bloomberg School of Public Health and Washington & Lee University, it is happening at some hospitals.

The investigators analyzed 2012 Medicare cost reports from the Centers for Medicare and Medicaid Services to determine a charge-to-cost ratio, an indicator of how much hospitals are marking up charges beyond what Medicare agrees to pay. The 50 hospitals with the highest markup charged, on average, more than 10 times the Medicare-allowed costs. Forty-nine of those 50 are for-profit hospitals, and 46 are owned by for-profit health systems. Twenty of the hospitals are located in Florida. The study was published in a recent issue of *Health Affairs*. ■



Lung-function Decline Precedes Asthma Diagnosis in Older People

In a study involving 4,983 participants of the Copenhagen City Heart Study, older and middle-aged adults who were newly diagnosed with asthma during 10 years of follow up had significantly lower baseline forced expiratory volume in one second (FEV₁) than younger people, 80.8% and 80.8% versus 90.2%, respectively.

The FEV₁/FVC ratio was also more pronounced, at 0.70 and 0.74 versus 0.81. Lung function decline was accelerated in those with newly diagnosed asthma compared with never asthmatics as well, with a significantly greater decline seen in older individuals than middle-aged or younger individuals.

Baseline prevalence of asthma symptoms such as wheeze and dyspnea, however, were similar across age groups, leading the investigators to conclude the differences in lung function among newly diagnosed asthma patients cannot be explained by previously undiagnosed asthma in older individuals. The study was published in a recent issue of *Respiratory Medicine*. ■

Tobacco Companies Win One in Appeals Court



In a partial win for the tobacco companies, a federal appeals court ruled in late May that the companies do not have to disclose to the public that they deliberately

withheld information on the health hazards of their products.

The case stemmed from a long-running racketeering case brought by the U.S. government against various tobacco companies. The tobacco companies lost the first case and an initial appeal and were ordered to place advertisements explaining the deception. In the latest appeal, the court ruled that the companies had no grounds to object to being required to disclose that they “intentionally designed cigarettes to ensure addiction” but stopped short of actually requiring the companies to advertise that fact, noting that the federal racketeering law does not give the courts permission to require companies “to announce that they deliberately deceived the public.” The case has now been sent back to the lower courts for further proceedings. ■

Landmark Study: Augmentation Therapy Is Effective for Alpha-1 Patients

Augmentation therapy involving regular infusions of purified alpha-1 antitrypsin (AAT) protein to raise the level of the protein in the blood and lungs of those diagnosed with the genetically caused type of emphysema known as alpha-1 antitrypsin deficiency has been available for more than 25 years now. Yet only a small fraction of patients ever receive it, in part because many physicians are unsure of its effectiveness.

A landmark study published in a recent issue of *The Lancet* hopes to put those questions to rest.

Investigators in the multi-center, randomized, double-blind, placebo-controlled trial used CT scans to measure the lung density of patients, allowing them to detect changes in lung function far earlier than would be possible with standard lung function tests. “We can now say with certainty that augmentation therapy is effective and should be given to patients with emphysema caused by this deficiency,” study author Dr. Kenneth Chapman, from Toronto Western Hospital, was quoted as saying. ■

Cystic Fibrosis Drug Combination Shows Promise

Two phase III clinical trials conducted among 1,108 patients at 187 medical centers around the world suggest a novel, two-drug combination may be effective in restoring the defective protein underlying cystic fibrosis (CF). According to researchers from Johns Hopkins who participated in the investigation, the drug ivacaftor, in combination with an experimental medication called lumacaftor, led to an average improvement in FEV₁ of 2.6%–4%, a 30%–39% reduction in the rate of lung exacerbations, a 61% decrease in the number of exacerbations requiring hospitalizations, and a 56% decrease in exacerbations requiring intravenous antibiotics.

“This is something the CF community has wanted to do for years, ever since the discovery of the gene causing CF in 1989,” senior study author Michael P. Boyle, MD, associate professor of medicine at Johns Hopkins and vice president of therapeutics development at the Cystic




Fibrosis Foundation, was quoted as saying. “It is not a cure, but it is the first treatment to target the underlying cause of the most common form of CF. Ongoing trials already are underway, testing even stronger versions of these medications.”

The drug combination is intended for people 12 and up who have two copies of the most common CF mutation, called F508del. The study was published in a recent issue of *The New England Journal of Medicine*. ■


Industry Update

Featuring information on products and equipment from manufacturers



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Noninvasive Ventilators

ResMed's Lumis™ series of noninvasive ventilators represents the first ResMed ventilation platform with IntelligentAir, a collection of ResMed technologies that can tailor therapy to individual breathing needs, making truly personalized ventilation possible. Each device features built-in HumidAir heated humidification capabilities and the popular Climate Control Auto setting. Built-in wireless connectivity gives clinicians and HME providers next-day access to a wide range of their patients' therapy parameters. The Lumis series comprises the Lumis 100 VPAP S, Lumis 100 VPAP ST, and Lumis 150 VPAP ST noninvasive ventilators. www.resmed.com

Full Face Mask

With its innovative under-the-nose design, Philips Respironics' new Amara View CPAP mask reduces the red marks and irritation on the bridge of the nose that many CPAP patients experience. Smaller and lighter than traditional full face masks, Amara View eliminates the bulky cushion and frame in front of the eyes, allowing the patient to wear glasses, read, watch TV, or use a computer or tablet before falling asleep. It enables home care providers to offer CPAP patients a product that limits lifestyle interruptions and requires fewer resources during the acclimation process. www.respironics.com

Wearable Ventilator

The Breathe NIOV™ System from Breathe Technologies is a one-pound noninvasive mechanical ventilator that can be used in home care and institutional settings. The Breathe NIOV System utilizes novel venturi principle technology in a comfortable facial interface that can be worn while talking and exercising. The technology reduces the overall size of the ventilation system and supports patient mobility and independence. www.breathetechnologies.com

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



Industry Watch

Breathe Technologies gets FDA approval

According to Breathe Technologies Inc., the FDA has granted 510(k) clearance for its critical care Life2000 Ventilation System. “This clearance underscores our commitment to providing health care providers and patients with another therapeutic option for critical care ventilation,” Larry Mastrovich, CEO of Breathe Technologies, was quoted as saying. The company anticipates that the Life2000 Ventilation System will be commercially available in the United States in late 2015.

Mount Sinai, National Jewish, open new facility

The Icahn School of Medicine at Mount Sinai and National Jewish Health have announced the official opening of the Mount Sinai-National Jewish Health Respiratory Institute at Mount Sinai’s campus in Manhattan. According to media distributed by the two organizations, the partnership creates a strong, integrated program for the diagnosis and treatment of respi-

ratory illness and lung disease, including asthma, COPD, and interstitial lung disease. “For decades, patients have traveled to Denver from around the country, seeking the expertise and unique approach to respiratory care that we provide,” Michael Salem, MD, president and CEO of National Jewish Health, was quoted as saying. “Teaming up with the visionary teams at Mount Sinai and the Icahn School of Medicine extends our ability to share our expertise and innovations with more patients in the New York region and beyond.”

Nova Biomedical blood gas analyzer cleared for POC use

Nova Biomedical’s new generation blood gas analyzer, Stat Profile Prime, has been cleared by the FDA for point-of-care use, reports the company. Now non-laboratory, POC personnel can perform bedside critical care testing with lab-quality results. The POC study submitted to the FDA to achieve the clearance included testing performed by 53 non-laboratory personnel in three POC

settings. Method comparison and precision studies demonstrated that Stat Profile Prime is simple enough to use and provides lab-quality results in POC settings whether testing is performed by POC or laboratory personnel.

Masimo patient monitoring and connectivity platform wins award

Masimo’s Root® patient monitoring and connectivity platform has received the GOLD 2015 Medical Design Excellence Award, the highest award given in the general hospital devices and therapeutic products category. The 2015 Medical Design Excellence Award winners were honored in June at a presentation ceremony in New York City in conjunction with the Medical Design & Manufacturing East Conference and Exposition.

OxySure will add drone to line-up

OxySure Systems Inc. has unveiled plans to add a drone to its line-up of emergency medical, resuscitation, and trauma solutions for first-response mar-

kets. According to the company’s petition with the Department of Transportation for exemption from the Federal Aviation Regulations pursuant to Section 333 of the FAA Modernization and Reform Act of 2012, the drones will be “utilized in aerial operations in support of emergency response and services, disaster response and recovery, search and rescue, and humanitarian relief efforts.” OxySure CEO Julian Ross was quoted as saying, “The unmanned drone platform puts the power of aerial intelligence directly into the hands of first responders.”

Positive data on Corbus CF drug

According to Corbus Pharmaceuticals Holdings Inc., positive data on the effects of Resunab™ in the cystic fibrosis transmembrane conductance regulator (CFTR)-deficient mouse model were presented at the 2015 Cystic Fibrosis Foundation Research Conference — Pushing the Frontiers. The results of the study indicated that in CFTR-deficient mice infected with *Pseudomonas aeruginosa*,

Resunab improved survival, decreased weight loss, and reduced the numbers of neutrophils and white blood cells in the lung. It also improved the ability of the animals to resolve pulmonary infection as assessed by lung bacterial colony-forming units, compared to control treatment.

Novartis reports good results for COPD drugs

Positive results were recently announced by Novartis for its QVA149 (indacaterol/glycopyrronium bromide) and NVA237 (glycopyrronium bromide) drugs in patients with moderate-to-severe COPD, with both drugs improving lung function compared to placebo after 12 weeks of treatment. Novartis reported the data during the American Thoracic Society annual conference in Denver.

Vanderbilt to lead research on rare pulmonary condition

A research team at Vanderbilt University Medical Center has been approved for a \$2.7 million funding award by the Patient-Centered Outcomes Research Institute to study idiopathic subglottic stenosis, a rare condition that causes middle-aged women to struggle to breathe. The study will evaluate the effectiveness of the three surgical ap-

proaches used to treat the condition and how each impacts a patient's quality of life. "The study is designed to understand what treatments work, what type of patients they work best in, and what are the ultimate trade-offs in decisions they make between these different therapies," co-leader of the initiative Alexander Gelbard, MD, was quoted as saying. Vanderbilt will be the coordinating center for 30 academic medical centers studying the disease.

BI drug improves lung function

Positive results from the Phase III TONADO™ 1&2 studies exploring the efficacy and safety of investigational tiotropium/olodaterol delivered through Boehringer Ingelheim Pharmaceutical's Respimat® inhaler for COPD compared to the individual components alone were presented at the ATS conference in Denver. Results showed tiotropium/olodaterol RESPIMAT 5/5 µg improved lung function, as measured by trough FEV₁, compared to tiotropium RESPIMAT 5 µg in patients who were untreated and previously treated with maintenance bronchodilator therapy.

Theravance reports additional positive data on COPD drug

According to Theravance Biopharma Inc., additional positive data from its Phase 2b dose-ranging study of TD-4208, an investigational long-acting muscarinic antagonist in development for the treatment of COPD, were presented at the ATS conference in Denver. Previously released top-line study data demonstrated achievement of the study's primary and key secondary efficacy endpoints for doses of 88 mcg and above. Additional trial results presented at the conference support the product's potential to offer patients rapid, sustained therapeutic benefit from once-daily administration and to reduce the requirement for short-acting rescue medication.

Itamar Medical expands sleep apnea management solution

In light of growing evidence linking cardiovascular disease and obstructive sleep apnea, Itamar Medical Ltd. is expanding its business model to offer a comprehensive sleep apnea management solution to cardiologists. Itamar Medical CEO Gilad Glick was quoted as saying: "This approach allows us to offer more inclusive and convenient services to both patients and their physicians."

Electromed launches its next-generation SmartVest

Electromed Inc. recently launched its SmartVest® Airway Clearance System for acute care high-frequency chest wall oscillation, the model SQL-I. It promotes airway clearance, improves bronchial drainage, and enhances mucus transport, according to the company. The device is smaller, quieter, and lighter than previous versions and features enhanced generator programmability and adjustable RAMP. It features a single-hose patented design, which eliminates multiple connection points and additional maintenance associated with hose cleaning. It also features active inflate-active deflate and open system design, which provides a more comfortable therapy experience by allowing patients to take deep breaths and to have more freedom of movement. ■

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



Calendar of Events

AARC & State Society Programs

September 8-11

Myrtle Beach, South Carolina

South Carolina Society for Respiratory Care's 44th Annual Conference

Contact: Scott Lane, www.scsrc.org, SML97@scdmh.org

September 14-16

Sioux Falls, South Dakota

South Dakota Society for Respiratory Care's Annual Business Meeting and Convention

Contact: sdsrsc.president@gmail.com

September 30-October 2

Hot Springs, Arkansas

44th Annual Arkansas Society for Respiratory Care State Meeting

Contact: John.Lindsey@Mercy.net

October 1-2

Bridgeport, West Virginia

West Virginia Society for Respiratory Care's Fall Health Care Conference

Contact: www.wvsrc.org, Cynthia.Keely@gmail.com

October 8-9

Lexington, Kentucky

Kentucky Society for Respiratory Care's Annual Seminar

Contact: ajones@soahec.org

October 20-21

Honolulu, Hawaii

42nd Annual Hawaii Society for Respiratory Care Conference

Contact: Jung Eun Kim, jungeun@Hawaii.edu, (808) 734-9243

Submissions for the next available issue are due August 20.

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

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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.

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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.
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PRESSURE (OPEP)
THERAPY SYSTEM**

COST EFFECTIVE
THERAPEUTIC BENEFIT
USER FRIENDLY



Effective aerosol delivery
when combined with
nebulizer treatments.



The pressure-oscillation dynamic of the Aerobika® OPEP delivers intermittent resistance and creates positive pressure and oscillations simultaneously. This opens weak or collapsed airways to mobilize and assist mucociliary clearance to the upper airways, where it can be coughed out.

Resistance is not position dependent, allowing the user to hold the device in the most natural position.

Five resistance settings allow the device to accommodate the lung capacity of most patients, resulting in the need to stock only one device.

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Radius-7™

Untethered Continuous Patient Monitor

Radius-7 for the Root® Patient Monitoring and Connectivity Platform allows for patient mobility while enabling continuous monitoring.



Each Radius-7 comes with two rechargeable, "hot-swappable" modules with short-range communication to Root.

> Breakthrough Measurements

- Masimo SET® Measure-through Motion and Low Perfusion™ pulse oximetry
- rainbow Acoustic Monitoring™ with Acoustic Respiration Rate (RRa®)

> Small, lightweight, and wearable for untethered monitoring and ambulation

> Integration with Patient SafetyNet* for surveillance monitoring

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Caution: Federal (USA) law restricts this device to sale by or on the order of a physician. See instructions for use for full prescribing information, including indications, contraindications, warnings, and precautions.

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