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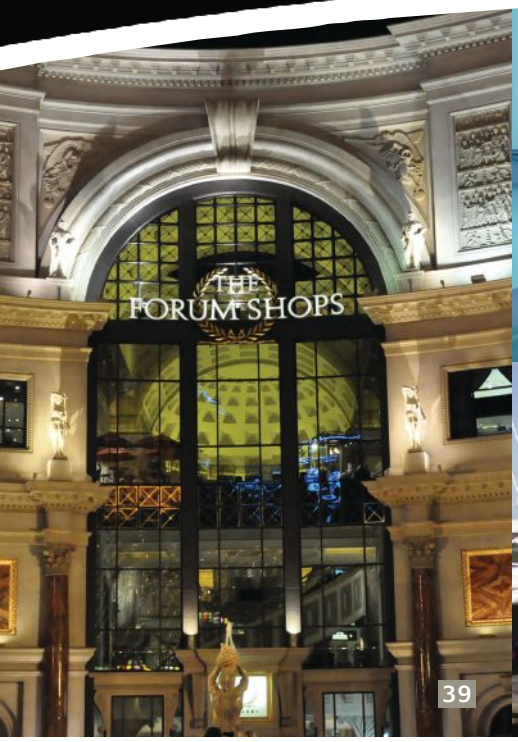

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AARC Strategic Plan

The American Association for Respiratory Care has a Strategic Plan that includes its Mission and Vision Statements for 2015–2020.

Bookmark this page: http://www.aarc.org/member_services/mission/.

American Association for Respiratory Care

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1. Barto T, et al., Registry outcomes for HFCWO vest therapy in adult patients with bronchiectasis, Am Thor Soc Ann Meet, San Francisco, CA, May 2016, Poster P1496.

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Chronic Disease Manager

Increasing COPD Awareness One Community at a Time

by Michael W. Hess, BS, RRT, RPFT

COPD is the national health crisis that nobody likes to talk about. As one of the top four causes of death in the United States, COPD kills approximately three times more people every year than the well-publicized opioid crisis. It kills nearly twice as many women as breast cancer, but many more people think pink than go orange. The condition is also one of the leading causes of disability throughout the country, and it's estimated that at least half of the $50 billion annual financial burden COPD puts on the national economy comes from "indirect costs," including lost productivity and wages stemming from the chronic inability to breathe. Worse, these numbers really only identify those people known to have COPD; statistical analyses and NIH fact sheets tell us that we are likely only diagnosing about half of the true population.[1-3]

Despite this massive footprint, COPD largely remains in the shadows. There's the occasional TV commercial for the latest inhaler, or the odd news article when someone relatively famous is "outed" with breathing problems. But by and large, COPD is a disease that the general public doesn't think about until it's too late, which means people aren't properly equipped to handle disease management strategies when they or a loved one are diagnosed with COPD. Our health care system isn't really equipped to handle it, either. Despite calls from groups like the COPD Foundation and the Global Initiative for Chronic Obstructive Lung Disease (GOLD) to individualize care plans and to engage patients as partners in care, already-overwhelmed primary care providers and specialists struggle to diagnose and educate patients as well as coordinate their care. As a result, the burden of COPD continues to grow.

A major step in improving the quality of COPD management was its addition to the Hospital Readmission Reduction Program (HRRP). This initiative was intended to encourage health care organizations to develop creative programs to help people manage their symptoms better so that they didn't have to come back for additional treatment after discharge. The idea was that if health care organizations had a financial stake in keeping people's symptoms in check, they would take the problem more seriously, and care would improve significantly. The reality has proven somewhat more complicated, and opinions regarding outcomes and cost effectiveness remain mixed. HRRP remains in place (and controversial) to this day, but it was clear fairly early on that a more holistic approach would be necessary to truly make a sustainable change in the COPD burden.

That's where the COPD National Action Plan comes in. Developed by the National Heart, Lung, and Blood Institute (NHLBI) with input from a variety of stakeholder groups and organizations (including AARC), the National Action Plan is the first public health policy document ever built from the ground up to fight COPD. This strategy is designed to address many of the disparities and deficiencies present in COPD care across the health care continuum, from hard-science research to practitioner education to access to therapies. By drawing on the expertise of patient advocacy groups, medical professionals, and federal agencies, five key areas for improvement were defined, and each was assigned an aspirational goal to drive progress.

Goal 1: Empower people with COPD, their families, and caregivers to recognize and reduce the burden of COPD. In recognition of the fact COPD tends to go unidentified and undiagnosed until relatively advanced phases, this goal is intended to elevate awareness of risk factors and early warning signs of COPD in the general public.

about the author...

Michael W. Hess, BS, RRT, RPFT, is chronic lung disease coordinator at Western Michigan University Homer Stryker M.D. School of Medicine, as well as president-elect of the Michigan Society for Respiratory Care.

In addition, this goal promotes the dissemination of high-quality, evidence-based, culturally aware patient education materials in a variety of formats so that those affected by COPD can better understand how to manage symptoms and access therapy.

Goal 2: Improve the prevention, diagnosis, treatment, and management of COPD by improving the quality of care delivered across the health care continuum. Dovetailing neatly with the first goal, Goal 2 calls for the parallel development of patient and clinician curricula so that both groups can work together to improve disease management. In addition, Goal 2 explicitly calls for improved access to therapies, including pulmonary rehabilitation, telehealth technology, and supplemental oxygen.

Goal 3: Collect, analyze, report, and disseminate COPD-related public health data to drive change and track progress. Of course, all of this process improvement is essentially meaningless without the ability to evaluate the results of changes. This goal calls for the reduction of barriers between public- and private-sector entities that deal with COPD (eg, regional health care groups, the Department of Veterans Affairs, Centers for Medicare and Medicaid Services) to allow all clinicians to share outcomes data, care protocols, epidemiological data, and other critical information with each other and with research entities. In addition, Goal 3 calls for easier dissemination of that data, so that patients can receive the benefits of advances more quickly.

Goal 4: Increase and sustain research to better understand the prevention, pathogenesis, diagnosis, treatment, and management of COPD. Despite being one of the leading causes of mortality, COPD funding is dwarfed by what is spent on other conditions. This can be an awkward fact to face, because no condition deserves to be ignored. Nevertheless, the amount of research funding available for COPD is disproportionately small relative to its impact on health care. Goal 4 aims to address that by encouraging additional efforts at every level of research and by targeting efforts where they can have the greatest impact (eg, biomarker identification, phenotype analysis, new pharmaceutical classes).

Goal 5: Translate national policy, educational, and program recommendations into research and public health care actions. History is replete with well-intended initiatives that generated excitement and optimism in the early stages, then were relegated to collecting dust in obscure repositories. Arguably the most important goal of

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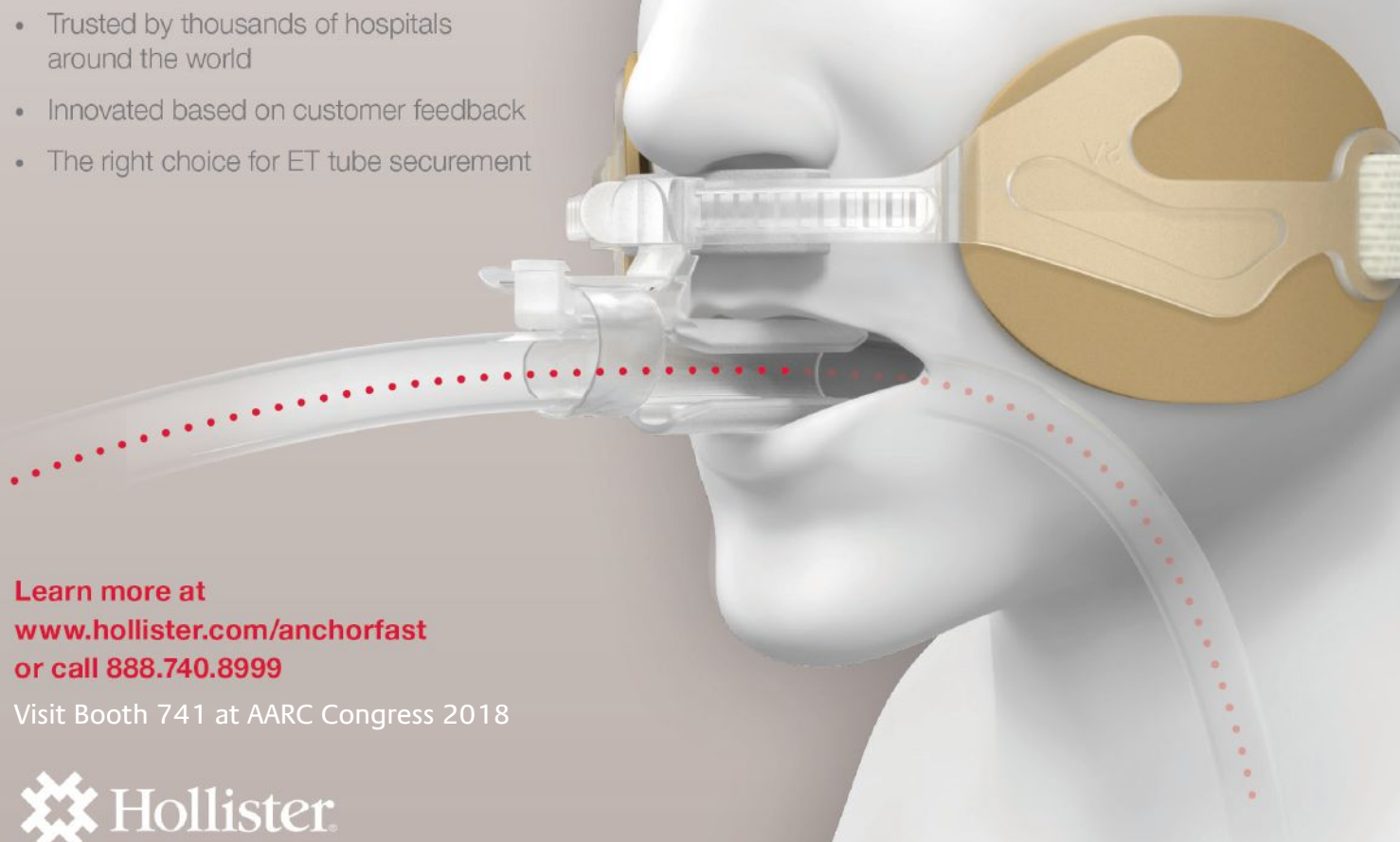

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the entire plan is this call to action, bringing the same stakeholder groups that developed the National Action Plan in the first place back to the table and challenging these groups to sustain their commitments and follow through on their promises.

The COPD National Action Plan provides a golden opportunity for respiratory therapists to enhance our contributions to the greater health care system. As subject matter experts in this sort of thing, we are well-positioned to help implement all five goals. Indeed, many therapists across the country are already engaged in a variety of activities to advance the art and science of COPD care. From the near-legendary University of California-Davis ROAD Program http://www.ucdmc.ucdavis.edu/internalmedicine/pulmonary/roadcenter.html to the newly published breakthrough work at Wake Forest Baptist Medical Center in North Carolina, respiratory therapists are key contributors to interprofessional teams that are reducing readmission rates as well as improving mortality and quality of life measures.[4] RTs are also exploring enhanced opportunities beyond their traditional inpatient setting. For example, at Western Michigan University Homer Stryker M.D. School of Medicine (WMed), respiratory therapists have been integrated directly into our primary care clinic, providing enhanced education, consistent diagnostic services, and care coordination with an eye toward not just reducing readmissions, but minimizing index admissions as well. The ultimate vision is to detect COPD in the community more quickly and more accurately, and to provide those diagnosed with the tools they need to manage their condition appropriately. Unfortunately, we have discovered that even when we are able to detect and diagnose, many in our community have major barriers to reaching us. Thanks to our new subcontract with NIH, we will be able to take our show on the road and literally meet people where they live and play.

For several years, NHLBI has worked with local and regional organizations through the COPD Learn More, Breathe Better Community Partner Program (https://www.nhlbi.nih.gov/health/educational/copd/lmbb-update/index.htm) to create and implement innovative outreach and awareness efforts. As one of this year's partners, WMed is designing neighborhood outreach events intended to bring educational materials to historically underserved areas of our community. These events will be delivered by interprofessional teams with representatives from a variety of local clinical teaching institutions (respiratory therapy, nursing, and our own graduate and undergraduate medical programs). Ranging from simple tables set up at grocery stores to full-fledged health fairs, these outreach activities will provide information on risk factors, symptoms, medications, and other aspects of full-spectrum COPD care. Most critically, these programs will be developed, staffed, and evaluated not only by established health care professionals, but by students in their respective disciplines. By embedding these projects into core curricula, future clinicians are exposed to the complex issues and manifold barriers faced by people living with COPD (including their caregivers) from the very beginning of their educational careers. WMed is also partnering with local community groups to provide these experiences in a comfortable, familiar setting for our audience. Inspired by recent studies demonstrating improvements in hypertension levels in African-American populations by enlisting barbers and hair stylists,

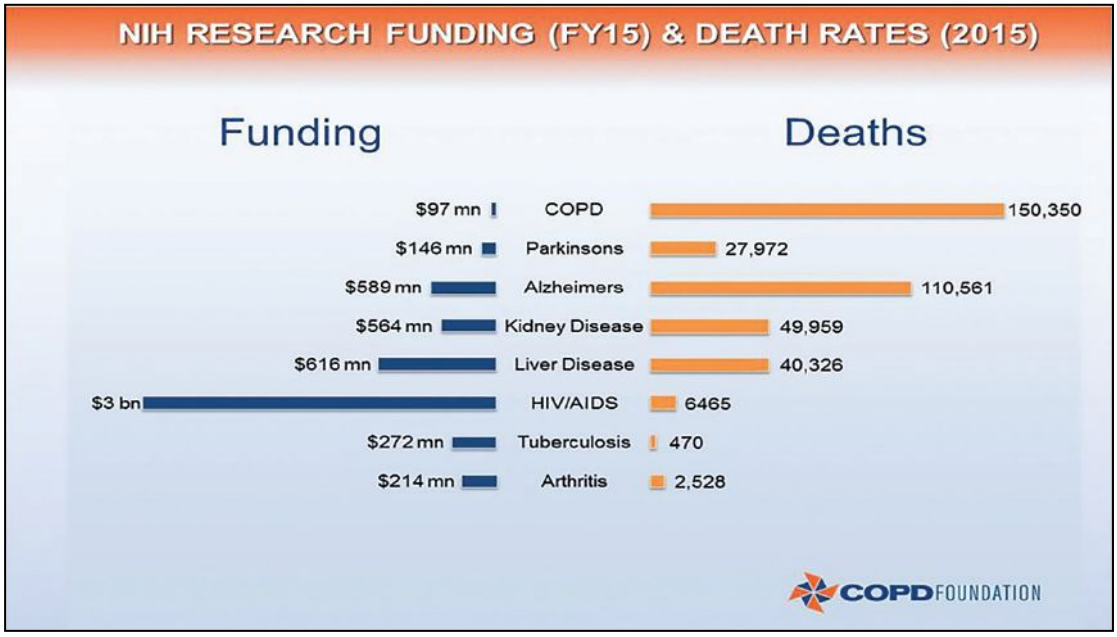

Figure 1 - Research Allocation vs. Death Rates of Selected Diseases (courtesy COPD Foundation)

we are developing a network of volunteer ambassadors — familiar, trusted faces in the community who can help overcome trust barriers and eventually become "lay" educators in their own right.[5]

In addition to these hands-on efforts, we are launching a community wide awareness campaign using a mix of billboards, public transit system signage, and online advertising. These particular media allow us to continue to focus on many of our at-risk populations while providing educational opportunities for other Kalamazoo residents. The final component of our strategy, a before-and-after telephone survey, will enable us to determine which strategies were most effective, and which messages need to be adjusted for future initiatives. Armed with this information, other communities will be able to easily adapt the base model to fit their own needs and goals, or use our project as a starting point to develop their own proposals.

COPD is a condition that has always lived in the shadows of health care. Whether it is from the stigma attached to smoking, the thought that anyone with smoking-related lung disease "should have known better," or simply therapeutic nihilism, clinicians and the public alike have often minimized the importance of early diagnosis and quality care. That laissez-faire view has allowed COPD to start casting a shadow of its own, a gargantuan dark mark on patient evaluations and balance sheets alike. The COPD National Action Plan represents a new dawn for the world of chronic lung disease, finally bringing the historic problems with the disease into the light. Innovative and creative programs driven by respiratory therapists, like those in development at WMed and other partners, can help make sure that light keeps shining. ■

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Clinical Perspectives

The Respiratory Therapist in Interventional Pulmonology

by Heidi Gibson, RRT

Interventional pulmonology (IP) has been defined by the European Respiratory Society/American Thoracic Society as "the art and science of medicine as related to the performance of diagnostic and invasive therapeutic procedures that require additional training and expertise beyond that required in a standard pulmonary medicine training program."[1]

Any respiratory therapist who has assisted with or observed a bronchoscopy procedure understands that you really don't know where you are in the lung unless you know where you have been. The same holds true for IP. As such, a brief reference to the pioneers of bronchoscopy is warranted.

Pioneers of bronchoscopy

The father of bronchoscopy is widely considered to be the German laryngologist, Gustav Killian. In the late 1890s, he began pursuing techniques to perform direct visualization of the trachea after hearing of a colleague's work on inspection of the larynx. In 1897, Killian manipulated an esophagoscope and forceps to remove a foreign body from a patient's airway, effectively performing the first bronchoscopy.[2]

Chevalier Jackson, an American laryngologist, is often referred to as the "father of American bronchoesophagology." Jackson was a teenager during the early period of the oil-drilling business, and he witnessed drilling equipment being lost in long tunnels. As a teenager, he developed an apparatus that allowed him to retrieve a lost drill bit.[3] Given this background, it is no surprise that, during his medical training as a laryngologist, he designed the first American bronchoscope. Jackson was also instrumental in training courses and setting safety standards for bronchoscopy.[4]

Bronchoscopes designed by Killian and Jackson were rigid in type, limiting the physician's ability to view some areas of the lung and the types of procedures performed. Shigeto Ikeda, a Japanese thoracic surgeon who understood these limitations, began working with engineers in Japan to design a flexible bronchoscope. In 1966 he released the first flexible bronchoscope. He made changes over the years to include a computer chip that introduced a video bronchoscope and a working channel to allow various tools to be advanced through the scope.[5]

Interventional pulmonology is a descendant of these pioneers and those who followed. With the advent of the flexible bronchoscope and tools designed to pass through the bronchoscope's working channel, the migration of procedures from thoracic surgeons to interventional pulmonologists was underway.[6]

Interventional pulmonology and respiratory therapists

IP programs consist of multidisciplinary care teams that include but are not limited to pulmonologists, interventional pulmonologists, thoracic surgeons, radiologists (preferably with a background in pulmonary disease), interventional radiologists, medical and radiation oncologists, pathologists, otolaryngologists, and head and neck surgeons and nurses.

As the field of IP continues to grow, the opportunity for respiratory therapists to develop a presence within the care team is now. Demand for patient safety during proce-

about the author...

Heidi Gibson, RRT, is the lead interventional respiratory therapist at the University of Minnesota Medical Center. She has been part of cardiopulmonary services since 1991 and the endoscopy department since 2006. She and Dr. Erhan Dincer developed the interventional pulmonology program at the University of Minnesota Medical Center in 2011.

dural sedation brings the respiratory therapist front and center in any IP program. Our training and experience in caring for patients with various forms and stages of lung disease provides an immense level of care.

Respiratory therapists possess critical training and understanding of airway safety and lung anatomy. An essential area where respiratory therapists excel is in the management of numerous details regarding a patient's status and safety. The necessity to accomplish competing priorities and procedures while providing compassionate care grooms us for a seamless transition into an IP program. Critical thinking during emergency situations allows the respiratory therapist to respond instantly to any situation that could arise. Couple this with the fact that respiratory therapists are highly trained in the assembly and operation of numerous types of medical devices, and we have a solid foundation to master equipment utilized in IP procedures. Our background and skills make the respiratory therapist integral to the success of any IP program.

Interventional pulmonology procedures

Interventional pulmonologists utilize minimally invasive methods to diagnose and treat a range of airway and lung diseases. While procedures may vary among programs, common diagnostic procedures include endobronchial ultrasound, electromagnetic navigational bronchoscopy, flexible and rigid bronchoscopy, narrow-band imaging, and pleuroscopy. Common therapeutic procedures include placement of airway stents, endobronchial valve placement, percutaneous tracheostomy, bronchial thermoplasty, tunneled catheter placement, airway tumor ablation with cryotherapy or argon plasma coagulation, and airway balloon dilation.

Duties of the respiratory therapist in interventional pulmonology

A cohesive team benefits patient outcomes. To that end, in our institution we utilize the respiratory therapist as the key assistant to our interventional physicians.

The responsibility of the respiratory therapist includes initial preparation of the patient. This involves preliminary assessment of the patient's overall status, with particular attention to the patient's pulmonary status. Included in this is assessment of vital signs and lung auscultation, along with an airway exam.

The respiratory therapist has the primary role of patient monitoring and airway management, in addition to

being the assistant during all bronchoscopy procedures. Furthermore, the role includes preparation of procedural equipment and disposable supplies. While responsibilities may vary between institutions, respiratory therapists employed in our endoscopy suite are the front-end experts on laboratory samples and, as such, are accountable for the processing of specimens collected with each procedure. A knowledge base of each laboratory specimen is tantamount to adequate yield.

The time is right for you

Job growth in our profession is expected to be 23% between 2016 and 2026.[7] While this statistic references job growth, it is also an exciting time in our overall profession. For respiratory therapists who wish to expand their career, whether as an asthma educator, a chronic pulmonary disease specialist, a telemedicine liaison, or an interventional respiratory therapist, the outlook has never been brighter. If your hospital has an existing IP program, ask your manager or supervisor if you can shadow the therapist. Reach out to the pulmonary physicians with questions. Read the latest literature and research on procedures, and immerse yourself in IP books. Follow your passion in your profession, and I guarantee work will never feel like work. ■

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It Was All My Fault

by Anthony L. DeWitt, JD, RRT, FAARC

Mrs. Doe is admitted to the emergency room by ambulance. She has a large gash on her right arm and is hyperventilating. You are called to assess her, and using your skills in patient coaching, you have her breathing normally in just a few minutes. The only casualty is your lab coat, which is stained with blood from her seeping wound.

"It was all my fault," she says. "I was looking at my phone and the next thing I knew, I smacked right into that car in front of me. I never even saw the red light! It was all my fault!"

Having been coached on what information to put into a medical record, and what not to put in, you write simply that "Patient expresses remorse for accident," in your notes, given that she will be released from the ER with stitches and will not require hospitalization. You think no more about it.

Eleven weeks later, you get a call from Human Resources. They would like for you to come down and talk with someone. To your surprise, you find a sheriff with a subpoena. You are being asked to come to a deposition and give testimony about Mrs. Doe.

The first question you may ask is, "Can I do this?"

The answer, of course, is that you can. When you are subpoenaed, you are expected to come to the place where you are asked to come, and you are expected to give testimony. Failure to obey a subpoena can be cause for arrest in many states. But the more meaningful question is, can you discuss the patient and her injuries?

Some states, like Alabama, have no medical privilege. Anything told to a physician can be repeated. The same rule applies to allied health care providers with the exception of psychotherapists. However, in other states, and under the Health Insurance Portability and Accountability Act (HIPAA), you may have a duty to ask for a release to be drafted. This release says that, in exchange for your truthful testimony about what you remember, you will not be held civilly liable for damages arising out of a breach of patient confidentiality. Usually, if you are subpoenaed for work performed at a health care institution, that institution's general counsel will ensure that the parties comply with HIPAA before producing you for testimony.

In most states, when a plaintiff "puts her medical condition at issue" in a case, usually by claiming medical damages but sometimes also when offering up a defense arising out of a medical condition, she has waived any confidentiality provisions at issue under common law. It is always wise, however, to get a legal opinion about what subjects you can testify to without liability.

In most cases, the hospital lawyer will tell you to testify truthfully, testify about what you remember, and that if you don't remember, you can say you do not remember. You are not allowed to speculate on something when you do not know the answer, but if it is a subject like distance (eg, "How much distance was there between you and the patient?"), you can estimate if you do not know the exact answer (eg, "We were about two feet apart.").

Lawyers arrive five minutes before your deposition, and you are stunned to see Mrs. Doe. She is now wearing a cervical collar and her arm is in a big blue plaster cast, complete with sling. She sits with exaggerated care, and moans frequently.

about the author...

Anthony L. DeWitt, JD, RRT, FAARC, is an attorney and a partner in the firm Bartimus, Frickleton, and Robertson, PC, and resides in Opelika, AL. He has also published two books and numerous legal journal articles. This article is not a substitute for legal advice.

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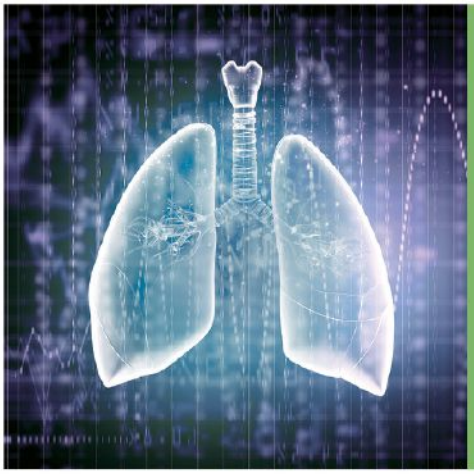

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Her lawyer takes you through what you saw and observed in the emergency room. She was badly cut, had difficulty breathing, and required being calmed down.

He turns the deposition over to the defense lawyer who asks about your credentials, what training you had, and how long you have worked at the hospital. Then he takes you step by step through your notes until he gets to the important part:

"You write that Mrs. Doe expressed remorse over the accident. Can you tell us what you remember her saying?"

"Objection," the plaintiff's lawyer shouts. "That's hearsay."

The defense lawyer says, "You can go ahead and answer."

Indeed, in a deposition, there isn't a judge there to determine whether something is hearsay, so you can answer the question. The objection is likely made simply to confuse and disorient you enough to cause you to lose your train of thought. Lawyers often banter about objections, and if you follow their conversation, you may even find yourself not remembering the question. In that case, tell them to repeat the question.

Every lawyer knows that a statement made in anticipation of medical care is admissible as an exception to the hearsay rule,[1] and an admission ("It was all my fault.") if made by an involved party is not even defined as hearsay in the first instance.[2]

What is hearsay? "Hearsay" is a statement, other than one made by the declarant while testifying at the trial or hearing, offered in evidence to prove the truth of the matter asserted.[3] So if you were asked what a nurse told you about Mrs. Doe's blood alcohol content, because the nurse is not testifying herself, that would be hearsay (this would also violate what courts call the "best evidence rule," which insists that the lab result is the best evidence of what a lab value was at a given point in time). But because Mrs. Doe is a party to this lawsuit, what she said isn't hearsay in this case.

"Well," you testify, "she said the accident was all her fault, and that she was looking at her phone and never saw the red light. That's pretty much what she said."

The defense lawyer is pleased.

After the defense lawyer finishes his turn, the plaintiff's lawyer gets another turn. He questions you aggressively about how you could possibly remember this incident. You testify that you had to discard your lab coat because Mrs. Doe's blood had stained it, and that as a result, you have a strong memory of the episode. He tries several times to get you to change your story or to admit that you could be wrong because you didn't write it all down.

This may surprise you, but clients often do not tell their lawyers the truth about things. Shocking, yes, but sometimes even great lawyers get surprised by statements made by their clients. When this happens, the standard tactic is to impeach the witness. Questions like these are all common:

- "You didn't write it down, did you?"
- "If it wasn't important enough to write down, how can you be sure you remembered this correctly?"
- "What other important facts did you leave off my client's record?"
- "Other than the hospital's lawyer, whom have you met with prior to today to discuss this case?" (the implication being someone asked you to testify untruthfully).
- "Are you sure you didn't get this wrong?"

Do not guess, speculate, or testify to anything you do not remember just because the lawyer pushes your buttons. He may be trying to plant things he can use to discredit you at trial.

Testifying at a deposition or at trial is very stressful. But if you stick to the truth, and to what you know, then you cannot go wrong. ■

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The ARCF Supports and Replenishes Our Profession

by Thomas J. Kallstrom, MBA, RRT, FAARC

The American Respiratory Care Foundation (ARCF) has been in existence since 1974. Sadly, it was found in a survey done a couple of years ago that the Foundation has been somewhat of a secret for many years in that most practicing respiratory therapists are unaware of its existence. We need to do a better job of getting the word out, that's for sure.

The Foundation was formed with the sole purpose of providing support for the respiratory care professional community. This is actualized in the form of grants, scholarships, fellowships, and awards given to deserving clinicians, researchers, and students. Last year the ARCF gave out over $80,000 for this purpose. The ARCF awards are presented annually at the AARC Congress.

about the author...

Thomas J. Kallstrom, MBA, RRT, FAARC, is executive vice president of the ARCF and executive director of the AARC.

Education awards

Multiple education awards are given to undergraduate and postgraduate respiratory care students. People can apply for them using the recently updated website at arcfoundation.org. Applications can be submitted on the website throughout the year, with an annual cut-off date of June 1. Part of the submission process is for the applicant to submit an essay. Interestingly, many students who have been awarded an education award throughout the years have gone on to be notable leaders in the profession.

The following are the education and post-graduate education awards:

- The Morton B. Duggan, Jr. Memorial Education Recognition Award
- The Jimmy A. Young Memorial Education Recognition Award
- The National Board for Respiratory Care (NBRC) Gareth B. Gish, MS, RRT Memorial Postgraduate Education Recognition Award
- The NBRC William W. Burgin, Jr. MD and Robert M. Lawrence, MD Education Recognition Award
- The William F. Miller, MD Postgraduate Education Recognition Award

Research Fellowships/Abstract Awards

The ARCF presents four awards in the fellowship category:

- The Phillips Respironics Fellowship in Mechanical Ventilation
- The Vyaire Fellowship for Neonatal and Pediatric Respiratory Therapists
- The Jeri Eiserman, RRT Professional Education Research Fellowship
- The Serby COPD Research Fellowship

Research Grants

In homage to some of our profession's greatest researchers, the ARCF presents these awards each year:

- The Frederic Helmholz Jr., MD Educational Research Fund supports a master's thesis or doctoral dissertation that is considered of great practical value for the profession of respiratory care.
- The Parker B. Francis Respiratory Research Grant is awarded to a respiratory therapist or physician (only if a respiratory therapist is co-author).
- The Jerome M. Sullivan Research Fund is focused on clinical or basic research in respiratory care. This could include the theory and practice of respiratory care and respiratory care management and education.

Achievement Awards

Many people have made the profession great through leadership, entrepreneurship, and scholarship. These

awards are presented in celebration of outstanding achievement in respiratory care:

- The Mitchell A. Baran Achievement Award for Clinical Excellence in Aerosol and Airway Clearance Therapies is designed to award clinicians who demonstrate clinical excellence and leadership in advancing and promoting the use of evidence-based and clinically sound practices for the delivery of aerosolized medications and/or the application of non-pharmacologic airway-clearance therapies.
- The Forrest M. Bird, MD, PhD, ScD Lifetime Scientific Achievement Award is given to a clinician who has, at minimum, authored or co-authored at least 25 peer-reviewed publications. The body of this work demonstrates the nominee's contributions to the science of respiratory care. Nominees for this award are solicited from the AARC Board of Medical Advisors, the Board of Directors of the AARC, the Trustees of the ARCF, the NBRC, and the Committee on Accreditation for Respiratory Care.
- The Hector Leon Garza, MD International Achievement Award recognizes clinicians who have had a profound impact on the development of respiratory care. It is named in honor of Dr. Garza for his groundbreaking work in bringing the respiratory care profession to Mexico.
- The Dr. Charles H. Hudson Award for Cardiopulmonary Public Health recognizes efforts to positively influence the public's awareness of cardiopulmonary health and wellness.
- The Thomas L. Petty, MD Invacare Award for Excellence in Home Respiratory Care recognizes outstanding individual achievement in home respiratory care.
- The NBRC Gary A. Smith Educational Award for Innovation in Education Achievement was established to recognize innovative educational methods in formal respiratory care education programs, clinical education training programs, and patient education programs that address current challenges in respiratory care education.
- The Mike West, MBA, RRT Patient Education Achievement Award was established to recognize excellence in patient education. It is awarded to a respiratory therapist who has had a profound impact on patients as established by measurable outcomes as a result of patient education.

Literary Award

Publication of important work is one of the building blocks of the respiratory care profession and is celebrated with these awards:

- The Mallinckrodt Literary Award recognizes the best paper by a first-time author published in the science journal Respiratory Care between November and October.
- The Draeger-Shreyas Roy, MD Memorial Literary Award awards the author of the best paper published in Respiratory Care journal addressing mechanical ventilation and its current technology as it relates to respiratory care. The principal author must be a physician or RRT who is a member of the AARC and with a minimum of BS in respiratory care or health science. The paper must address mechanical ventilation and its current technology as it relates to respiratory care.

All ARCF awards, grants, and fellowships include monetary compensation, airfare, one night's lodging, and registration for the AARC Congress.

International Fellowship

The ARCF's goal is to promote communication and fellowship among respiratory care professionals in the United States and their counterparts worldwide through cooperation, dialogue, and educational exchanges. It was in this same spirit that the International Fellowship program began many years ago. Those selected for the international fellowship program receive coverage while in the United States for lodging, per-diem expenses, registration to the Congress and a one-year membership to the AARC. While in the United States, international fellows spend time at two sites to see first-hand how respiratory care is practiced in the United States. Applicants have to be health professionals practicing outside the United States. We have seen several success stories in respiratory care programs that are being developed throughout the world as a result of this program.

As you can see, the ARCF is committed to expanding the respiratory care profession around the world as well as recognizing clinical, research, and scientific excellence. Please to go to the Foundation's website at arcfoundation.org to learn more about the ARCF — and if you happen to be at this year's AARC Congress, you are more than welcome to attend the ARCF Awards Ceremony on December 4, 2018. We also encourage you to attend our annual ARCF Fundraiser this year, which will be held in Las Vegas on the evening of December 3, 2018 (https://arcfoundation.org/arcf-fundraiser-gala-night-with-the-mob/).

In addition to all these awards, the ARCF has also funded the creation and maintenance of the Virtual Museum, an online site where visitors can learn more about the history of respiratory care. I encourage you to go to http://museum.aarc.org and see for yourself.

Obviously, it takes money to make these recognitions and projects possible. The ARCF is happy to accept donations, which are tax-deductible. Just go to https://fs20.formsite.com/advertisingaarc/form21/index.html. ■

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Run It Like You Own It

Shared governance models are gaining traction in respiratory care

Department managers explain how they are empowering their staffs to play a larger role in the decision-making process.

by Debbie Bunch

Shared governance is not a new concept. Indeed, it's been traced as far back as the fifth century before common era when the Greek philosopher Socrates founded the Socratic Method, a teaching strategy that encourages students to use their own reasoning to solve problems rather than simply follow the authority of the educator.[1]

In health care, shared governance really came to the forefront late in the last century, when the nursing profession began promoting the use of this concept to empower frontline nurses to make decisions on how their units would be run.2 Shared governance was incorporated into the Magnet Recognition Program sponsored by the American Nurses Credentialing Center,3 and since then many hospitals have embraced the model throughout their operations, setting up interdisciplinary teams to look at everything from bedside procedures to the color of scrubs worn by individual disciplines.

Respiratory care departments are giving various forms of shared governance a try as well, and those that have implemented it offer some important lessons here for those that have yet to take the plunge.

Fantastic platform

Matthew Pavlichko, MS, RRT, RRT-NPS, is a big believer in the concept. He implemented the model when he was manager of respiratory care at Levine Children's Hospital in Charlotte, NC, and he found that it worked wonders to improve the care his team was able to deliver. "After researching the concept and participating in a few programs throughout my career, I felt it was a fantastic platform to improve teammate engagement while addressing quality and process issues," says the AARC member.

His previous experiences with the concept led him to believe that a "Congress" style structure works best. As in the United States Congress, members are voted in by their peers, and they represent the diversity of the department — different shifts, units, specialties, etc. "This shared governance team acts like a steering committee that creates strategies and prioritizes action items," says Pavlichko. The team works with department leadership to align these improvements to the overall goals of the department.

Just like the U.S. Congress, the team also creates special subcommittees to focus on specific priorities, and these subcommittees then report back to the steering committee. "Examples of these subcommittees in an RT department may include education, resources, scheduling, equipment, or operations," says the manager. At Levine Children's Hospital, employee engagement surveys were conducted to identify priority areas and the need for subcommittees to address them.

During his tenure as department manager — Pavlichko recently took on a new manager's role at Penn Medicine Lancaster General Health in Lancaster, PA, to be closer to home — the steering committee was made up of seven members who served two-year terms on a staggered basis. Half the team cycled off each year to give new people who wanted to run the opportunity to do so on an annual basis, and the limited term also guarded against burnout among those who served. The steering committee was led by a chair and co-chair, as were each of the subcommittees. Issues handled by the committee and its subcommittees included self-scheduling guidelines, the monthly Continuing Education Unit program, equipment storage locations, annual competencies, efficiency of assignment splits, charge therapist orientation development, and the improvement of onboarding.

"The goal is to improve staff engagement while providing rapid improvement," says Pavlichko. Or, as he also puts it, "Two heads are better than one, but 66 are even better." He cites the self-scheduling guidelines issue as a case in point. As department manager, he had recognized several problems with this generally popular concept. Specifically, short-staffed holidays, inconsistent PTO approval in the summer, inconsistent practices on moving to understaffed days, and PRN scheduling process inefficiencies threatened to derail the program.

"Shared governance created a plan of action, which included having our scheduling committee create very specific guidelines to follow when creating the schedule," says Pavlichko. "The team was empowered to develop a comprehensive policy that would ensure our department was meeting our patient demands at all times while being fair and just to the whole team." Animosity between staff and leadership was reduced, and the time needed to create a schedule was greatly decreased. Work-life balance scores on the employee survey improved as well.

He saw equally good results for shared governance's response to the onboarding issue. "New employee onboarding and initial orientation was a very large staff dissatisfier," says the manager. "The whole team had concerns that we were not giving our new teammates the opportunity to learn and be successful." The team created a strong orientation program featuring preceptor training, preceptor scheduling, comprehensive and regulatory-compliant content, and scheduled reviews and evaluations. "This process reduced turnover by greater than 50% in just two years," notes Pavlichko.

Shared governance 2.0

Shared governance has also seen success in the respiratory care department at Nebraska Medicine in Omaha. "We initiated the UBC (which stands for "unit based council") back in 2011 to build a common link with nursing," says Darcy O'Brien-Genrich, MPA, RRT, who serves as manager of respiratory care services. Like at Levine Children's Hospital, members were elected to serve, and representation was split equally between the day and night shifts. A chair and chair-elect were chosen to lead the UBC and work with representatives from department management to set the agenda.

"The initial elected UBC committee was very successful in developing new strategies related to staffing, colleague orientation, and new equipment to ensure we provided the best services for our patients," says O'Brien-Genrich. "We ran into some challenges starting in 2016 with several projects that needed to be implemented, but we didn't have enough resources from UBC to get them done."

The UBC and management together supported the decision to explore a new opportunity to increase engagement by implementing a new strategy that tied directly to Nebraska Medicine's ITEACH values. "The new structure is different because instead of having one committee, we now have several new project teams associated with our new ITEACH values within the organization," says the AARC member.

ITEACH stands for I = Innovation, T= Teamwork, E = Excellence, A = Accountability, C = Courage, and H = Healing, and those values drive Nebraska Medicine. "For example, we have a new equipment team that represents innovation, a staffing team for accountability, and a patient education team for healing," says O'Brien-Genrich. Volunteers staff each team, rather than elected members, and team coordinators also volunteer for the position or are appointed to serve based on the specific issues being looked at by the team.

An innovation project team that recently focused on implementing new disposable bronchoscopes for emergent procedures in the ICU shows how it works. The team was formed to develop the policy, select the supplies that would be needed, determine where the equipment would be located, establish the workflow process involved, develop documentation requirements, and identify the training that would be needed for the respiratory therapists, nurses, and other providers involved in the procedure.

The team at Nebraska Medicine in Omaha combines the facility's ITEACH values with its shared governance process to ensure patients receive top-quality care.

"We determined at our first meeting that we needed to meet weekly to meet our goals, and each person was assigned a task to complete by the next meeting," says O'Brien-Genrich. The education and training component was launched in July, and the go-live took place on Aug. 1. Outcomes have yet to be determined, but she says the sense is that the project will be successful because the team invested heavily in planning out all the components necessary for success. "We are already very proud to see this project team work together, to realize that implemen-

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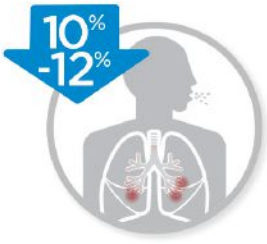

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 [1] Burudpakdee *et al.* Pulmonary Therapy 2017;3(2):283-296. [2] Study Summary – AEROCHAMBER® brand of VHC.

tation of new equipment is not as easy as it looks, and to learn how to think through all scenarios in order to avoid any patient safety risks after implementation," says O'Brien-Genrich.

The department is receiving kudos throughout the organization for implementing the ITEACH method in their novel shared governance approach. "The new structure has already been recognized by our leadership team because we directly developed it around the ITEACH values within the organization," says O'Brien-Genrich. "We have had several departments contact us to find out how this is working and how they can incorporate the same structure within their departments — great recognition for the respiratory care department in upholding our 'Serious Medicine, Extraordinary Care' mission."

Hospital-wide ISG

Departmental committees aimed at shared governance used to be in place at Tallahassee Memorial HealthCare in Tallahassee, FL, but have now been replaced by a hospital-wide interdisciplinary shared governance (ISG) model, according to Christy Clark, BS, RRT, director of respiratory care. "The ISG structure involves multiple councils that represent topics such as quality improvement, patient experience, and technology," she says. "ISG is a partnership between all colleagues, management, and frontline staff. Through ISG, the colleagues are empowered to define and implement patient- and family-centered care standards, placing an emphasis on ownership, accountability, and equity."

Respiratory therapists are key players in this model. With multiple therapists on multiple councils, plus therapists serving in chair positions, Clark feels like her department is well represented on issues pertaining to respiratory care. Under the ISG model, everyone in the hospital has a chance to weigh in as well. "Issues and suggestions are submitted on the Interdisciplinary Shared Governance page on the Intranet," explains Clark. "Colleagues are encouraged to submit topics for discussion at any time." Topics are then assigned to the appropriate committees for review, and solutions are identified. Those solutions are placed on the ISG website for review by anyone in the hospital who has an interest. Comments and feedback are collected, with the committee taking all of that input into consideration before coming up with a final plan to address the issue. "This collaborative interdisciplinary dialogue ensures that everyone has a voice, and with RRTs on the councils, we know that the impact to our department is reviewed based on evidenced-based research, and the solution is in the best interest of all departments impacted," says the AARC member.

Clark points to the implementation of standardized uniforms in the hospital as one great example of how this plays out in real life. The committee in charge of the issue began by researching the value of standardized uniforms and reporting the evidence. From there, open forums were held to gather input from staff, and after approval for standardization was issued, each discipline was given the chance to vote on their color choices and offer input on scrub brand and fitting options. "The collaborative approach and attention to the colleagues' thoughts, comments, and concerns showed that the ISG approach was truly a collaborative way to bring about and foster support for change within the organization," she says.

RT staff members still have plenty of chances to get involved in internal departmental decision-making as well. "We use the LEAN problem-solving approach to address issues, suggestions, and improvements needed within the department," says Clark. Problems and ideas are submitted through the department's idea board, and department leadership decides whether the issue should become a project or can be solved via a simple "just do it" fix. Projects

are assigned to work groups who investigate the problem and come up with solutions, and these work groups are dissolved once the issue has been taken care of. "This approach has been very successful in that the therapists who work on the frontline have input and work through the problem-solving process to improve their workflow with the leadership team as the oversight," says Clark.

On the fence

Some managers, though, while generally supportive of the shared governance concept, aren't entirely sure it is necessary for their departments to run at optimum speed. Michelle Young, MBA, BSRC, RRT, department manager

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at UC Davis Medical Center in Sacramento, CA, is one of those who are on the fence.

"I have been the respiratory care department manager since September of last year, and under previous leadership, our shared governance committee disbanded," explains the AARC member. "While I have attempted to reinstate the committee, I saw a lack of participation, primarily due to the fact that the previous committee worked hard to push through several initiatives but lacked the power to cause change." Young attributes that lack of power to the fact that there was no one on the committee who was in a position of authority, and she believes strongly that management should play a role in these groups. "In the past, we've had a committee of approximately 20 staff. We had an elected chair to run the meetings," Young says. When she reconfigures the process, she's going to ensure the leadership directly oversees the committee and has more guidance related to the direction of their efforts.

Young stresses that shared governance is supported by UC Davis Medical Center as a whole, which regularly hosts hospital-wide events where each team is invited to present posters related to their efforts. She believes her team will be up to that challenge when the time comes. But does her department truly need shared governance? She's just not totally convinced. "At this point I'm split on whether I'd advocate for a shared governance committee," she admits. "While I really want bedside respiratory care providers (RCPs) to be heard, I feel like it's the responsibility of their leadership team to promote their interests."

Since Young took the manager position for her department, she has added more leadership positions to address some of the things that might otherwise come under the purview of shared governance, such as an adult clinical education and quality-improvement coordinator, a pediatric clinical education and quality-improvement coordinator, an administrative supervisor, and six shift supervisors. The department also has four COPD/asthma case managers. "As a leadership team, we are constantly taking the pulse of our department of 130 bedside RCPs to ensure that we're removing obstacles and supporting their practice," she says. "After spending a year reconstructing the leadership team, we are more focused than ever on providing safe, quality patient care while supporting role fidelity and RCPs operating at the top of their scope."

Go all in

As the experiences of these four managers show, there may be differences of opinion on how to move forward with shared governance in respiratory care. But at the end of the day, ensuring frontline staff members have a greater say in the decisions that influence their jobs isn't really in question. Says Matthew Pavlichko, "They are the closest to our customers so they have the best viewpoint to suggest and implement positive change to impact our patients." His best advice for other managers who want to open up the decision-making process to their clinicians is to "go all in with your team to empower them. Give them the tools and resources to be effective and commit to it in your heart. Your team will thank you for it." ■

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Building a Better Brand for the Profession

AARC members share their ideas

by Debbie Bunch

When it comes to professional brands, physicians and nurses are the Coke and Pepsi of health care. Everyone knows who they are, what they do, where they fit in, and how they add value. Respiratory therapists don't have that advantage. When RTs tell someone what they do for a living, nine times out of ten, their answer is met with a questioning look and the need for more explanation. How can therapists build a more recognizable professional brand? AARC members have some strong opinions about that.

Ongoing discussion

"This is a discussion I've had with my staff many times," says Carrie Salvucci, MBA, RRT, director of the Center for Pulmonary, EEG and Sleep at Lawrence General Hospital in Lawrence, MA. "I think it's a great subject to explore because RTs all too often feel like they just get 'stuck with the leftovers' in a hospital setting." But Salvucci believes achieving a better professional brand for RTs will be easier said than done, largely because RTs function in so many different roles in so many different facilities. In her hospital, for example, therapists can be found doing everything from administering inhaled medication to transporting critically ill patients. While she notes they are lucky that physicians, nurses, and other disciplines know and appreciate the work of RTs, it's a different story in the outside world.

"When people ask me what I do for a living, I have a very hard time explaining it to them," she says. "We don't do *one* thing. We do it *all*." Finding a brand that encompasses everything that every RT does will be

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a real challenge, but she believes if a consensus can be reached, it may be possible. "If anything, I would say 'cardiopulmonary specialist' would be the most appropriate. We often hear 'just breathe' or other references to breath, but our cardiac knowledge and involvement is just as important as our knowledge of the respiratory system."

Scott Reistad, BA, RRT, CPFT, FAARC, says RTs can polish their brand by adding value and emphasizing the things they do that others can't do as well. "We must realize that most physicians do not have the knowledge base that we do and they rely on us to share with them on what care plan they should implement," says the long-time RT manager who now serves as a hospital respiratory care specialist at Philips-Respironics. To make that happen, he believes more RTs will have to step out of their comfort zone — which for some is still the provision of nebulizer treatments. He urges managers to shift their hiring practices from finding candidates who are good technicians to finding candidates who are good clinicians instead. RTs who act as clinicians will be more visible to their colleagues and thus have an easier time establishing their professional brand.

For Robert Sigler, MBA, RRT, FACHE, director of respiratory therapy and the dental suite at the Robert Wood Johnson University Hospital in New Brunswick, NJ, "professional brand" equates to "professional reputation," and he believes RTs can improve their reputation by working harder to sell themselves as the lung health experts they know they are. Of course that's not as easy as it sounds. For example, he says in his academic center, therapists fight to maintain control of vent changes. "RNs and residents, fellows and attending MDs all think it's okay to twist a knob without knowing what happens beyond that."

Sigler believes problems like that can stem from the understaffing of RTs, which allows others to fill in the gaps, but RT staff who "ghost it" through their shifts and departments that haven't established themselves as subject matter experts are also to blame. He suggests more therapists need to get out there and represent the profession at the committee level in their facilities and at non-respiratory conferences. Early and frequent interactions with other members of the health care team are vital, too, saying,"We need to advocate for group clinical experiences for nursing, medical, and respiratory students early in their training and hold our staffs accountable."

The making of a movement

AARC President-Elect Karen Schell, DHSc, RRT, RRT-NPS, RPFT, believes a professional brand is something that develops from the inside out. "I believe one's identity comes from within through time, experience, and growth," she says. "To grow into a professional of any profession, there has to be an inner 'passion' that drives you to be the best you can be *and* to grow others as well

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by example, mentoring, and encouragement." She urges RTs to think of their professional brand as an "awareness of self." Only then can you develop the confidence you need to establish your own worth with others in your sphere of influence.

As more and more therapists internalize these philosophies, she believes RTs will become better known not only throughout health care, but also throughout the world as a whole. "We need the grassroots to be involved everyday by showing their commitment to our patients and their communities," says Dr. Schell. "We need our members and nonmembers to be engaged and participate within their own backyard." She says AARC members are out there doing amazing things in their workplaces and in their communities and she urges them to "toot their own horns" whenever they get the chance. "Awareness, involvement, and commitment — I believe we can make a movement if everyone is involved," she says.

"When I hear the words 'professional brand' or 'identity,' I think of characteristics of that profession," says AARC President Brian Walsh, PhD, RRT, FAARC. "For example, the characteristics I often hear associated with our profession are caring, thoughtful, helpful, must have, critical to success, knowledgeable, and wonderful team." He says the AARC is doing much to promote those characteristics to outside groups and organizations. The Association is also promoting our brand by advocating for a higher level of education for practitioners in the profession and by exploring additional career pathways for RTs, such as the Advance Practice Respiratory Therapist.

"We too often forget we are still – comparatively speaking to nursing and medicine – a young profession," says Dr. Walsh. "When many of the Medicare laws and CMS rules were written, we were just infants on the health care team." He reminds us all that brands like Coke and Pepsi took years and years of hard work and marketing to build and the same will be true for respiratory care. "Until recently, we haven't focused on ensuring the public knows who we are and our value to the health care system. But that is surely changing."

Dr. Walsh cites his own experience with the AARC's annual Capitol Hill Lobby Day as a case in point. "When I first started going to Capitol Hill back in the early 2000s I had to describe over and over again to Congressional members and staff what a respiratory therapist is and does for our health care system," he says. "This last year, I did not have to describe it a single time." Several people even shared their personal experiences with the care of an RT for themselves or a loved one. "It was delightful to recall how far we have come," says Dr. Walsh.

Educators want more

The profession really has come a long way in recent years, but for some AARC members, not far enough. Educators are particularly interested in fostering greater awareness of respiratory therapy as a profession because, unlike RT managers who are recruiting from an existing pool of people who are already RTs, they are recruiting students from a pool of people who are simply interested in going into some form of health care. They need a better professional brand to differentiate themselves from the rest.

"I absolutely think having a better professional brand would benefit the respiratory care profession," says Barry Ransom, MS, RRT, RRT-NPS, RRT-ACCS, a visiting assistant professor of health sciences at Stockton University in Galloway, NJ. "I have been a respiratory therapist for 22 years and a full-time educator for over ten years. I constantly have to work to overcome the challenge of no one knowing who we are and what we do."

He suggests beginning an all-out campaign that reaches people where they are. "That means all media and social media outlets," says Ransom. "An ad in major newspapers and on television, especially during Respiratory Care Week, and a short advertisement that can be attached to YouTube or Facebook videos will catch the attention of many who rely on or enjoy these forms of media."

Betty-Pauline Gradillas, MEd, RRT, director of clinical education for the respiratory therapy program at the Pima Medical Institute in San Marcos, CA, also believes Respiratory Care Week is a great place to start. She thinks RTs can help their professional brand by getting more involved in other community events like the Great Strides walks for cystic fibrosis, asthma and Lung Force events, COPD events, and more. AARC and state affiliate participation in these activities would give therapists a greater chance to meet the general public and network with their colleagues in other health care disciplines at the same time.

"If we want to really draw in new 'blood' per se, we need to be a known entity," says Gradillas. "Unless someone has had direct contact with an RT, we are really still part of the wallpaper."

We need a TV show!

State societies could help by connecting with local school districts as well, says Charity Bowling, MA, RRT, respiratory program chair at Ivy Tech Community College in Indianapolis, IN. "Our state societies need to do a better job of soliciting a more

professional approach, develop ongoing relationships with our school districts, and begin educating about our profession in about 5th-6th grade," says Bowling. "Currently we wait until junior high or high school, when it's too late — students already want to be a nurse, doctor, etc."

Susan Pearson, MPA, RRT, RRT-NPS, respiratory therapy program chair at Ivy Tech Community College in Goshen, IN, sees a need to update the introduction to health care books out there that list the RT's duties as simply giving breathing treatments and oxygen therapy. That doesn't reflect today's respiratory care profession and can lead some people to believe the profession is too basic to make for a rewarding career. "Another issue is that the CRT credential is causing some of the misconception," she continues. "There are many health pathways that require just a certificate — a few classes or one semester. The term 'Certified Respiratory Therapist' implies you can become a therapist by taking a few classes for a 'certificate.'"

She would love to see the AARC and other RT organizations collaborate with equipment vendors, hospitals, and others to sponsor a career awareness campaign during Respiratory Care Week, and thinks another possibility might be to go after one of the medical shows on TV and advocate for a respiratory therapist character. "We need a serious awareness campaign," says Pearson.

"A hit TV show with a respiratory therapist in the central cast would be ideal, if only we had the right connections!" agrees Janice Johnson, MS, RRT, RRT-NPS, AE-C, program director for the Indiana Respiratory Therapy Education Consortium in Indianapolis. But more marketing of the profession to college and high school aged students on Facebook and Twitter could really help, too. "I have always thought that the profession suffers from an identity crisis," says Johnson. "Very few people know what a respiratory therapist is or does. The few that do often associate us with the incentive spirometer, of all things."

Wendy Dunlop, MEd, RRT, director of clinical education and associate professor at Reading Area Community College in Reading, PA, suggests a reality series featuring real RTs from RT school onward could help raise awareness of the RT brand. "We are a unique group of individuals with some pretty funny as well as amazing stories that have entertainment value," says the educator. She envisions a "NY Med" type series that not only educates the public about who RTs are and what they do, but also provides some useful public health information as well.

Brian Cayko, MBA, RRT, director of clinical education at GFC MSU in Great Falls, MT, is all for a TV series, too. His favorite? Something like the old "Scrubs" series that ran a number of years ago. "Our class in school actually related to that series at the time and even went as far as deciding which classmate fit the characters of the show the best," says Cayko.

Upping our game

A hit TV series featuring an RT could work wonders for the RT brand, but realistically speaking, it is a long shot at best. What else can the profession do to up its game in the brand business?

While he admits this is not a universally popular idea, Chip Zimmerman, PhD, RRT, RRT-NPS, director of clinical education and assistant clinical professor in the department of respiratory therapy at Georgia State University in Atlanta, says he thinks the RT brand could be significantly elevated by increasing both the entry level educational degree and credential required to practice respiratory care. "I understand that many practitioners feel they don't need a bachelor's or master's degree to deliver effective patient care, and they are not incorrect," says Dr. Zimmerman. "But increasing our requirements would only serve to raise the bar for our profession and open the door to more responsibility — and perhaps even better pay for clinicians."

William LeTourneau, MA, RRT, RRT-ACCS, associate respiratory therapy program director at the Mayo Clinic School of Health Sciences in Rochester, MN, suggests some of the identity crisis in respiratory care could be solved by simply removing "care" from the name of the profession. "I believe the use of this term, rather than 'respiratory therapy,' causes confusion," he says. "Other professions such as physical therapy, occupational therapy, and speech therapy do not have the identity crisis to the same degree. There is no confusion about 'occupational care' vs. 'occupational therapy'; the general public knows occupational therapy is an actual profession. They may not be so certain that 'respiratory care' is a profession."

LeTourneau admits changing the name of the profession would be a monumental task, but he tries to follow his own advice in his program by using the terms "respiratory therapist" and "respiratory therapy" in place of "respiratory care" whenever he can.

Jacqueline Moss, MEd, RRT, RRT-ACCS, director of clinical education at Rock Valley College in Rockford, IL, has a more modest idea. "I think it would benefit us greatly to have something that represents us," she says. "A logo, brand, or color of some sort." She envisions something that would draw practitioners together, much as logos do for sports teams and schools.

Jim Ginda, MA, RRT, FAARC, respiratory care manager at Kent Hospital in Warwick, RI, agrees and suggests bringing back the AARC patches that used to be for sale. "I bought one years ago and wish I had one for each lab coat," says Ginda. "One could even buy them in bulk for staff members, to reward and encourage membership, and the professional identity it promotes in the workplace." He remembers the Association giving away decals for motor vehicles at one point as well, which were great for advertising the profession to people out in the general public.

Kerry McNiven, MS, RRT, professor and director of clinical education at Manchester Community College in Manchester, CT, believes training RTs to always identify themselves as respiratory therapists whenever they enter a patient room could really help as well. "I have begun insisting that my students introduce themselves by saying, 'I am your respiratory therapist' and not 'I am from respiratory,'" says McNiven. "I know this is a very small step, but it may help us with a better identity."

Let our brand speak for itself

Clearly RTs have many different opinions on how to develop a better brand for the profession, but Dr. Walsh may have summed it all up best. "Take ownership of your profession," he advises his fellow RTs. "The Association can help give you the tools, but it must be individual RTs providing value based respiratory therapy without compromise, safely and at the highest level of quality. When we focus on quality, safety, and value, our brand will speak for itself." ■

3 More Can’t-Miss Sessions in Vegas

Unique learning and career-building opportunities will abound at this year’s AARC Congress in Las Vegas, slated for December 4–7. A plethora of presenters will add to your overall knowledge bank with new ideas, tactics, and solutions when it comes to health care delivery, self-awareness, and patient outcomes.

We know you will find these three presentations enjoyable and professionally satisfying, so make plans now to attend this important meeting.

1 Pro/Con: Do RTs Add Value to Health Care Delivery?

Doug Laher, MBA, RRT, FAARC, and Garry Kauffman, MPA, RRT, FAARC, FACHE

More than ever in the history of respiratory therapists, the United States health care system is undergoing dramatic change. Four of the most significant changes over the last 30 years have been the Health Maintenance Act, DRG-based reimbursement, the introduction of quality and safety reporting mandates, and the implementation of the Patient Protection and the Affordable Care Act.

With all the changes, how can an RT's value be adequately expressed beyond merely getting the ordered treatments done? That way of thinking and operating has become so 20th century! If you're ready to move into a new way of evaluating forward-thinking ideas about understanding and communicating your value, this presentation is for you.

The questions at the core of this pro/con discussion will include:

What evidence is there that respiratory care services add value?

If respiratory care services do in fact add value, do we have evidence that the respiratory therapists providing these services add value?

How do you document the outcomes of respiratory care services in terms of quality, service satisfaction, and cost effectiveness?

What respiratory care services currently provided by respiratory therapists do not add value?

How do you pivot to adding and communicating value?

Experience a novel presentation. AARC Associate Executive Director Doug Laher and I will flip a coin to determine who presents the Pro and who presents the Con. While the prospect of not knowing which side to argue may cause some to become weak in the knees, it highlights the fact that RTs, in whatever role they play, must always be ready to communicate where they do and do not add value to health care.

You will leave with the beginnings of a crafted message that can be agreed upon throughout the profession and clearly communicated to all stakeholders in the health care system, including administrators, physicians, clinical colleagues, insurers, and federal and state governments. You will have a foundation to become recognized as capable clinicians — but even more importantly — as key members of a team that provides excellent quality, service satisfaction, and cost effectiveness.

Doug Laher, MBA, RRT, FAARC, is an associate executive director of the AARC and managing editor of AARC Times. Garry Kauffman, MPA, RRT, FAARC, FACHE, is a life-long advocate, educator, and cheerleader for the respiratory care profession who launched his health care consulting business in 2016. ■

2 Fight or Flight? Pediatric Stabilization Prior to Transport

Jennifer L. Watts, BS, RRT, RRT-NPS, C-NPT

"We have a two-year-old in severe distress in emergency room. We need you here now!" Hearing this statement when answering a page from the emergency room brings a chill to the spine of respiratory therapists in community hospitals. Most clinicians did not enter the respiratory care profession with the intent to care for a small child. As a result, when the call comes to provide care to a pediatric patient, many clinicians are not appropriately prepared to initiate necessary treatment prior to transport.

Pediatric patients are not simply small adults, and they require a different approach to emergency care than their adult counterparts. The anatomy and physiology of a child requires a different, in-depth approach to care. While both of these patient populations may suffer some of the same ailments, specialized care proves to be an essential initial response to the pediatric patient's arrival in the emergency room. Frequently, a community respiratory therapist has the unexpected task of recognizing the pediatric patient's needs and must initiate care prior to the experts' arrival.

The presentation "Fight or Flight? Pediatric Stabilization Prior to Transport" will cover the most common ways that pediatric patients present to the emergency room. From respiratory distress to trauma to sepsis, we will share the information that is required for early stabilization while waiting for a pediatric expert to lend specific treatment recommendations. The tips to be shared reflect current evidence-based practice for the pediatric population because these little patients respond differently to diseases and injuries than their adult counterparts. By the end of the presentation, clinicians will leave with additional tools for their pediatric care arsenal.

Jennifer L. Watts, BS, RRT, RRT-NPS, C-NPT, is a respiratory therapist of 22 years and has spent the last 13 years doing neonatal/pediatric transport for Advocate Children's Hospital. ■

3 Bronchopulmonary Dysplasia

Bradley A. Kuch, MHA, RRT, RRT-NPS, FAARC, and James Kiger, MD

Pre-term infants are particularly susceptible to ventilator-induced injury resulting in chronic lung disease and bronchopulmonary dysplasia (BPD). In the United States alone, BPD influences 10,000–15,000 infants annually. It is estimated that BPD influences 25% of infants with a birth weight of less than 1,500 g and 50% of infants with birth weights less than 1,000 g. These incidents increase with decreasing gestational age and birth weight. Prenatal risk factors include intrauterine growth restriction, lack of antenatal corticosteroids, and chorioamnionitis.

Significant investigation centered on postnatal risk factors of BPD, most notably in the area of mechanical ventilation and supplemental oxygen, demonstrates a clear association between mechanical ventilation-induced lung injury with pathologic structural and inflammatory changes in animal models that mimic human BPD. In addition, supplemental oxygen results in oxygen toxicity, leading to adverse causes on the developing lung. Several randomized controlled trials have demonstrated lower incidences of BPD in infants resuscitated in the delivery room with lower levels of oxygen concentration delivery and early use of noninvasive ventilation.

This Bronchopulmonary Dysplasia symposium will cover current mechanical ventilator management strategies to minimize neonatal lung injury and will examine in depth the multidisciplinary team approach to navigating clinical and developmental challenges. We will address the complex care of this patient population from the acute phase through discharge planning and we will consider outcomes and future therapeutic options. This exciting learning forum will conclude with a review of the clinical management of severe BPD and its comorbidities, evidence-based approaches to nutritional support, pulmonary hypertension, and development needs. Be prepared for analytics, a healthy discourse, active learning, and demystifying delivery and patient care.

Bradley A. Kuch MHA, RRT, RRT-NPS, FAARC, is director of the critical care transport team at UPMC Children's Hospital of Pittsburgh. James Kiger, MD, is the assistant professor of pediatrics at the University of Pittsburgh School of Medicine, medical director for newborn respiratory care, and co-medical director of respiratory care at Children's Hospital of Pittsburgh. ■

AARC Congress

Pre-Course Sessions

Maximize Your Congress Experience

Sessions offer in-depth exploration of topics one day prior to Congress 2018

Pre-Courses: Monday, December 3
AARC Congress 2018: Tuesday-Friday, December 4-7

1 Ultrasound Guided & Emergent Vascular Access

Simulation Workshop

Time: 8:00am – 12:00pm

Workshop will include both didactic and hands-on simulation training for beginner and advanced respiratory therapists.

INDUSTRY SPONSORED PRECOURSE

The ideal attendee is on a vascular access team, rapid response team, or seeking the knowledge and skill to develop a team. Simulation training will include ultrasound assessment, needling techniques with the use of ultrasound, and arterial, venous, and intraosseous device insertion. Rotations via hands-on stations will build awareness and procedural confidence.

Disclaimer: The sponsoring company is responsible for all topics, faculty and content disseminated during the event. Any information presented, including clinical statements or opinions made by course faculty should not be perceived as being supported by the AARC. Course registration is being rendered by the AARC on the behalf of Teleflex as a sponsorship benefit.

$75 for members

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2 Challenges in Mechanical Ventilation:

An Interactive Approach

Time: 8:00am – 4:45pm

Course will provide information for clinicians at every level. Basic and advanced theories; plus applications of mechanical ventilation.

AARC PRECOURSE

Course faculty will demonstrate common patient-ventilator synchrony problems and their solutions using a real ventilator and a breathing simulator. Attendees will be engaged in learning through audience participation, problem solving, and team-based learning.

$120 for members

Qualifies for CRCE after course completion

3 Women in Leadership

Time: 1:00pm – 5:00pm

Many women possess effective team leadership skills, creativity and innovation, problem solving, and communication strengths.

AARC PRECOURSE

This pre-course for both men and women is designed to provide guidance in recognizing women's leadership qualities and competencies The sessions will encourage the participant to examine strengths, leverage mentorship opportunities, and establish a leadership presence as part of developing or helping others to develop a career path.

$75 for members

Qualifies for CRCE after course completion

REGISTER TODAY http://c.aarc.org/go/cong18-pre

Course capacities are limited. Pre-Registration is required. Deadline: Tuesday, November 13, 2018 or when courses are full.
Registration for multiple pre-courses is only permitted for those courses which DO NOT run concurrently.

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The Perfect Destination for Holiday Shopping

Las Vegas has something for everyone on your list

The holidays will be just around the corner by the time we all come together for AARC Congress 2018, and whether you'll be arriving with a long list in your pocket or on your phone of gifts you still need to get, or just that one special gift for a significant other on your mind, you will have come to the right place. These days, the shopping in Vegas rivals the gambling, so take advantage of some of your downtime at the meeting to get that holiday shopping done.

Shopping on the Strip

The famous Las Vegas Strip offers a cornucopia of shopping experiences, with something for every taste and budget. A good place to get started is the **Shoppes**

By the time AARC Congress 2018 kicks off, there will only be 20 more shopping days till Christmas. Luckily, Vegas has that covered!

at Mandalay Place, which connects the Mandalay Bay Resort and Casino (where the AARC Congress is taking place) with the Luxor Las Vegas via a 310-foot-long retail sky bridge. Retailers include the world's first Nike Golf store, The Art of Shaving, Ron Jon Surf Shop, LUSH Fresh Handmade Cosmetics, and TUMI.

Miracle Mile Shops at the Planet Hollywood Resort & Casino is a 1.2-mile-long retail/entertainment complex with shops like Urban Outfitters, Quiksilver, Sephora, French Connection, and True Religion Brand Jeans. At nearly two million square feet, **Fashion Show** is the largest shopping mall on the Las Vegas Strip. Anchor stores include Neiman Marcus, Saks Fifth Avenue, Forever 21, and Nordstrom, and in between you'll find more than 250 shops and boutiques.

Modeled after the Grand Bazaar in Istanbul, the **Grand Bazaar Shops** outside of Bally's is home to a number of unique retailers, including Superdry, Alex and Ani, Lindbergh/Junk de Luxe, and Vegas IXP, the first digitally active store in Vegas offering a variety of unique souvenirs. There's even a shop called The Dog House, where you can pick up something for the pooches in your life.

If high fashion is your thing, you'll find an unprecedented array of the world's most exclusive retailers, including many flagship stores, at **The Shops at Crystals**, located adjacent to ARIA Resort & Casino. Christian Louboutin, Louis Vuitton, Gucci, Ermenegildo Zegna, Tiffany & Co., Prada, Christian Dior, BVLGARI, Hermès, Roberto Cavalli, Cartier, Van Cleef & Arpels, Versace, and DSQUARED2 all have a presence here, and this is the only Vegas location featuring boutiques by Tom Ford, Saint Laurent Paris, Richard Mille, and Céline.

Big name retailers can also be found at the **Wynn Esplanade**, home to the first Givenchy boutique designer storefront in North America. The **Encore Esplanade** also offers luxury shopping with stores like Chanel, Hermès, and Loro Piana. Exquisite fashion and jewelry collections from Guerlain, Hermès, Giorgio

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Armani, Prada, Chanel, Tiffany & Co., Harry Winston, Christian Dior, and Fendi are all on display at the **Via Bellagio Shops**. The SJP by Sarah Jessica Parker boutique is there, too, featuring a new color line — Bellagio Blue — exclusively available at this Vegas location.

The **Grand Canal Shoppes** mall within The Venetian Las Vegas offers designers like Davidoff, Diane von Furstenberg, Jimmy Choo, Steve Madden, and Salvatore Ferragamo, along with an 85,000-square-foot Barneys New York. More than 50 shops exclusive to Las Vegas are available at **The Forum Shops** at Caesars Palace. Blancpain, CH Carolina Herrera, CHANEL Fragrance, Beauty and Sunglasses, Davante, Dior Beauty, Emporio Armani, Giuseppe Zanotti, Missoni, Mulberry, and Valentino Accessories are just a few.

Shopping off the Strip

While you don't really need to leave the Strip to find the perfect shopping experience in Vegas, there are many other places around town you might want to check out, too.

Fans of the History Channel's "Pawn Stars" show won't want to miss a quick trip to **Pawn Plaza** in Downtown Las Vegas. This retail and dining destination — designed by Rick Harrison and the stars of the show — is right next to the popular Gold & Silver Pawn Shop, where the show is filmed.

Town Square Las Vegas is an open-air center on Las Vegas Boulevard with shops like MAC, Sephora, Steve Madden, the Container Store, and many more. Twenty-two buildings in a collage of architectural styles, along with pedestrian-friendly streets and walkways, provide the ideal atmosphere for an enjoyable evening of shopping.

Located in historic Freemont, the open-air **Downtown Container Park** features a variety of boutique shopping all housed in shipping containers creatively combined and stacked for sustainability. An

iconic animated praying mantis welcomes all to the Park with music and coordinated flames shooting from its antennae. Shops include local favorites like Vintage NV, Trikke Las Vegas, and Red Label Clothing LV, as well as stores dedicated to art, décor, and handcrafted accessories and jewelry.

Attention all bargain hunters

Good deals can be found in Vegas, too. **Las Vegas North Premium** features designer and name-brand outlet stores like Neiman Marcus Last Call Studio, Saks Fifth Avenue Off 5th, BCBG Factory Outlet, and Las Vegas' first Pandora outlet. Armani Exchange, Tory Burch, Salvatore Ferragamo, Diane Von Furstenberg, Burberry, Coach, Dolce & Gabbana, Elie Tahari, Polo Ralph Lauren, St. John, Theory, and many more outlet shops are also there.

The 145 stores at **Las Vegas South Premium Outlets** include Guess, True Religion, Under Armour, Michael Kors, LOFT Outlet, Calvin Klein, Nautica, Nike, Reebok, Levi's, and Adidas. The center is a short cab ride from the Strip and is served by a Regional Transportation Commission of Southern Nevada bus.

Primm at the Fashion Outlets of Las Vegas is famous for unbelievable savings on top-of-the-line and designer merchandise in more than 100 designer outlets, including Polo Ralph Lauren, Michael Kors, Williams-Sonoma, Nike, Coach Men's, Tommy Bahama, and Kate Spade New York. It also offers daily shuttle services departing from six different locations along the Las Vegas Strip, and every shuttle ticket includes a Green Savings Card and a mall directory.

Vegas has it all

Clearly Vegas has it all when it comes to shopping, so make the most of your time in town and pick up some great gifts for your family, friends, and coworkers. Just remember to pack light so you'll have room in your luggage for all those great finds when it's time to head home. See you in Las Vegas Dec. 4–7 at this year's AARC Congress! ■

Courtesy of the Las Vegas News Bureau

Industry Watch

BI joins other groups for cystic fibrosis initiative

Boehringer Ingelheim, the UK Cystic Fibrosis Gene Therapy Consortium, Imperial Innovations, and Oxford BioMedica (OXB) have entered into a global collaboration to develop a first-in-class, long-term therapy for patients with cystic fibrosis (CF). The new partnership combines the academic partners' expertise in developing gene therapy for CF with OXB's expertise in manufacturing lentiviral vector-based therapies and Boehringer Ingelheim's capabilities in drug discovery and the clinical development of novel breakthrough therapeutic agents.

FDA will review NDA for Ryaltris for SAR treatment

According to Glenmark Pharmaceuticals, the FDA has accepted for review the company's New Drug Application for its leading respiratory pipeline candidate Ryaltris™, an investigational fixed-dose combination nasal spray of an antihistamine and a steroid as a treatment for seasonal allergic rhinitis (SAR) in patients 12 years of age and older. The filing includes efficacy and safety findings from two randomized, multicenter, double-blind, placebo-controlled trials showing that treatment with Ryaltris resulted in statistically significant improvements in patient-reported reflective total nasal symptom scores compared to placebo.

Tyto Care offers telethealth solution in Canada

Health Canada has approved Tyto Care's end-to-end remote examination and telehealth solution. The approval comes on the heels of the company's FDA clearance and product launch in the United States in 2017. "We are removing barriers to quality health care access by replicating in-person doctors' visits with a virtual, on-demand solution, putting health in the hands of Canadian consumers," said Dedi Gilad, CEO and co-founder of Tyto Care. "With more than 5,400 sites across Canada already providing telehealth services, our presence will greatly enhance the nationwide telehealth offerings and advance the country as a global leader in smart health accessibility."

Audentes Therapeutics receives RMAT designation

According to Audentes Therapeutics, Inc., the FDA has granted the Regenerative Medicine Advanced Therapy (RMAT) designation to the company's drug AT132 for the treatment of X-linked Myotubular Myopathy (XLMTM). XLMTM is a rare, congenital disease characterized by extreme muscle weakness, respiratory failure, and an estimated 50% mortality rate by 18 months of age. Results from a Phase 1/2 study showed that the drug increased respiratory function as demonstrated by reductions in ventilator dependence and gains in maximal inspiratory pressure. Significant improvements in neuromuscular function were also reported.

Sanovas receives patent for cancer treatment

Sanovas, Inc., has received a patent from the U.S. Patent and Trademark Office for its PhotoDynamic Therapy with Localized Delivery. The Minimally Invasive Nano Oncology System (MINOS™) enables clinicians to measure tumor pathophysiology and reverse hypoxia in therapy-resistant tumors in real time. It also provides intratumoral diagnostics in combination with the direct injection of oxygenating agents into hypoxic cancer tissues to sensitize the tumor microenvironment to chemotherapy and radiation therapy. "The advent of [computed tomography] scanning for early lung cancer means many patients are being detected when the tumor is still small and curable," Stephen C. Schimpff, MD, former CEO of the University of Maryland Medical Center, was quoted as saying. "This new technology allows for minimally invasive approaches to diagnosis and treatment — all done with minimal side effects and maximum patient comfort."

Mylan launches generic form of PAH drug

Mylan N.V. has announced the U.S. launch of Tadalafil Tablets USP, 20 mg, the first generic version of the reference-

listed drug, Adcirca® from Eli Lilly and Company. Mylan Pharmaceuticals received final approval from the FDA for its Abbreviated New Drug Application and was awarded 180 days of marketing exclusivity for the product, which is indicated for the treatment of pulmonary arterial hypertension (PAH) to improve exercise ability. "Mylan has a strong history of leading the way in creating important access to generic medicines, and we're excited to continue that tradition by offering the first generic to Adcirca® Tablets," said Mylan CEO Heather Bresch.

Mallinckrodt study of human lung transplant strategy begins

Mallinckrodt plc has initiated a company-sponsored, experimental, proof-of-concept study of nitric oxide gas with ex-vivo lung perfusion compared to lung perfusion alone in human lung transplants. The lungs to be evaluated are being assigned for research use only and not for human lung transplantation. The study's primary objectives are to assess the causes of nitric oxide in perfused ex-vivo lungs using a proprietary grading system and to evaluate the total ex-vivo perfusion time of the lungs through periodic assessments during ex-vivo lung perfusion. The research is taking place at four major U.S. transplant centers.

Pulmatrix forms Clinical Advisory Board for Pulmazole

Pulmatrix, Inc., has formed a Clinical Advisory Board for Pulmazole, an inhaled iSPERSE™ formulation of the antifungal drug itraconazole for the treatment of allergic bronchopulmonary aspergillosis (ABPA) in patients with asthma. Included on the board are world-renowned experts in the fields of both ABPA and asthma who will work closely with Pulmatrix to design and implement future clinical studies of Pulmazole. "With the successful completion of our Phase 1/1b Pulmazole trial, we are excited to move on to our planned Phase 2 trial in the fourth quarter of this year utilizing a study design informed by the expertise of our Clinical Advisory Board," Jim Roach, MD, Pulmatrix chief medical officer, was quoted as saying.

AHA marks milestone for CPR kiosk program

The American Heart Association (AHA) reached a milestone earlier this year for the Hands-Only CPR training kiosk program it launched in 2016. More than 100,000 people have now been trained in this lifesaving skill through the use of the kiosks. Supported by the Anthem Foundation, the AHA has placed 30 of the interactive devices in cities across the country. "This novel approach has trained 100,000 additional people in CPR, which is a major step toward our vision of a nation of life-savers," said John Meiners, AHA chief of mission aligned businesses and health care solutions. "Nearly 90% of people who experience a cardiac arrest outside the hospital die, so we continually look for innovative ways to train the public in hands-only CPR in order to improve survival outcomes."

EarlySense reports good results for continuous monitoring platform

According to EarlySense, new data show its continuous monitoring platform effectively monitors the respiratory rate of patients on opioids. The study analyzed more than 160,000 hours of monitoring via the EarlySense system and detected 91 events of respiratory depression. A very low false-alarm rate was noted as well — less than one in 5,000 hours of monitoring, translating to just one false alarm every seven months. The study was presented at the 2018 American Thoracic Society meeting.

Chinese company invests in Pneuma Respiratory

Pneuma Respiratory, Inc., developer of the PNEUMAHALER™, has announced that Haisco Pharmaceutical Group Co. Ltd., a China-based company focused on the research, development, and marketing of therapeutic drugs, has agreed to make a $10 million equity investment in Pneuma Respiratory. As part of the agreement, Haisco Pharmaceutical Group will receive rights to distribute Pneuma Respiratory's pharmaceutical products in China. PNEUMAHALER is the first inhaler to merge advanced droplet-ejector technology with digitally controlled breath-actuation in a lightweight, pocket-sized device.

CVS Health survey bodes well for 2018 flu vaccinations

A recent survey from CVS Health suggests last year's severe flu season may lead more people to get the influenza vaccine this year. According to the report, one in five consumers surveyed who didn't get a flu vaccine last year said knowledge of last year's flu season, which had the highest flu levels observed since 2009, would make them more likely to get vaccinated this year. Among the 27% of parents of children under 18 years whose child did not get the flu vaccine last year, 26% said they would be more likely to get their child vaccinated this year. The annual survey also found that 66% of respondents said they get a flu vaccine every year or plan to get one this year, a 5% increase from last year's survey findings. ■

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

Industry Update

Featuring information on products and equipment from manufacturers

RC Currents

IN THE NEWS

FDA Helps Avert EpiPen Shortages

In a move to ease the minds of parents and patients who rely on EpiPens to treat severe allergic reaction, the Food and Drug Administration has extended the expiration date on specific lots of the product. The FDA decision came on the heels of shortages of the drug across the country.

"We've completed the necessary reviews of the data to extend the expiration date by four months for specific lots of EpiPen that are expired or close to expiring. We're hopeful this action will ensure patients have access to this important medication and provide additional peace of mind to parents as the agency works with the manufacturer to increase supply," said Janet Woodcock, MD, director of the FDA Center for Drug Evaluation and Research.

The FDA has also approved the first generic versions of the EpiPen and EpiPen Jr, with Teva Pharmaceuticals USA gaining approval to market its generic epinephrine auto-injector in 0.3-mg and 0.15-mg strengths earlier this year. ■

Share Your Wisdom

Our "Reflections" column is geared especially toward AARC members who have recently retired from the profession. We'd like you to look back at your career or some aspect of it and tell us what it meant to you and why. Funny, sad, inspiring — the door is wide open! So start brainstorming some ideas and then submit your story to *AARC Times* Editor Marsha Cathcart at cathcart@aarc.org ■

Statins May Treat Rare Lung Disease

Researchers led by a team from Children's Hospital Medical Center of Cincinnati have found that cholesterol-lowering statins may improve the conditions of people with a rare lung disease called autoimmune pulmonary alveolar proteinosis.

The disease stems from an abnormal accumulation of an oily substance made up of cholesterol, phospholipid, and proteins in the alveoli. It occurs because alveolar macrophages, which normally help clear out the substance, do not function properly. When the air sacs become clogged, patients develop shortness of breath, and respiratory failure may occur as well. Currently, the only treatment is whole-lung lavage, a procedure performed under anesthesia that flushes the buildup of debris from the lungs.

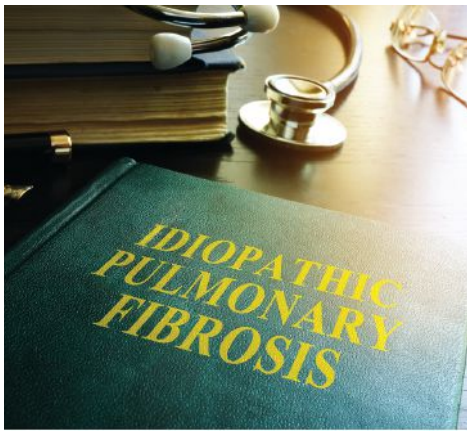
The finding related to statins came after the investigators learned of two women with the condition who responded poorly to whole-lung lavage but improved markedly after starting statin therapy for other conditions. A cellular study then ensued to examine the role of statins, with results showing that statins stimulated the alveolar macrophages to clear excess cholesterol and proteins. From there, the researchers were able to demonstrate that statin therapy improved markers of pulmonary alveolar proteinosis in mouse models. The research was published in a recent edition of *Nature Communications*. ■

Congratulations Preceptors!

The AARC Education Section has developed a recognition program for clinical preceptors to acknowledge their contributions to student learning. You can see the full list of the first 34 recognized preceptors by going to http://www.aarc.org/education/educator-resources/aarc-education-section-preceptor-recognition-program/.

While you're there, check out the guidelines for nominating someone in your area when the special recognition program opens up its nominations again next May. ■

This is one group of preceptors honored by the new recognition program. Front row, L to R: Emily Lamorena, MS, RRT, RRT-NPS; Kylie Howard, BS, RRT; Danielle Uribe, RRT; Anthonia Lawrence, BS, RRT, RRT-NPS; Gerri Barnes, BHS, RRT, RRT-NPS. Back row, L to R: Michal Graca, MSc, RRT, RRT-NPS; Kaneisha Green, MS, RRT, RRT-NPS; Jill Gorlach, BS, RRT; Gloria Moffett, BS, RRT; Mary Vrskovy, BS, RRT, RRT-NPS; Dana Evans, MHA, RRT, RRT-NPS (standing on the bench)



IPF Research Gets a Boost

Research into idiopathic pulmonary fibrosis (IPF) has long been hampered by scientists' inability to develop an animal model of the disease. That hurdle may now have been crossed. Investigators from Penn Medicine have developed the first mouse model with an IPF-associated mutation. The mutation induces scarring and other damage similar to what is observed in humans suffering from the condition.

Nobody had been able to make a model that mirrored the condition in humans, according to senior author Michael F. Beers, MD, research director of the Penn Interstitial Lung Disease Center. "Now, we have a model that resembles the pathology, physiology, and molecular signs found in patients, which will allow us to work out new pathways and targets, and test drugs in more clinically relevant ways."

Dr. Beers and his colleagues plan to use the model to look at the pathways that lead to the initiation and persistence of lung fibrosis. The *Journal of Clinical Investigation* recently published the study. ■

CPAP Treatment Improves Plasma Lipid Clearance

In a new study out of Brazil, researchers found men with sleep apnea had slower breakdown of triglyceride-rich lipoproteins and reduced clearance of their metabolites from their plasma compared with men without the disease who were the same age and weight. However, after three months of CPAP treatment, the sleep apnea patients showed significantly improved plasma lipid clearance.

The investigators believe differences in lipid clearance may predispose patients with untreated sleep apnea to atherosclerosis because patients in their study tended to have thicker deposits in their carotid arteries. They note that sleep apnea can lead to many cardiovascular complications, including stroke, and this study identifies a possible mechanism.

While the study was small (only 15 individuals) and all were men with severe apnea, the researchers believe that if their results can be replicated in a larger and more diverse set of patients, people with obstructive sleep apnea will have another good reason to give CPAP a try. The study appeared in a recent edition of the *Journal of Lipid Research*. ■

Black Lung Disease Is on the Rise

According to investigators at the University of Illinois at Chicago, the number of cases of progressive massive fibrosis (PMF), the most deadly form of black lung disease, has risen in coal miners over the past two decades, despite the fact that the number of miners has decreased. The researchers analyzed data collected by the U.S. Department of Labor from 1970 to 2016 to arrive at their results. Key findings include:

4,679 coal miners were diagnosed with PMF during the entire study period.

2,474 cases of PMF were diagnosed in the 21 years between 1996-2016, surpassing the number of cases — 2,205 — identified in the first 26 years.

84% of all PMF cases from 1970 to 2016 occurred in miners who worked in the central Appalachian states of West Virginia, Kentucky, Pennsylvania, and Virginia.

- Miners who were diagnosed ranged in age from 27 to 93 years, with an average age of 61 years.
- Coal miners working in Virginia experienced the biggest increase in PMF diagnoses, with an average increase of 31.5% annually over the study period. The number of miners from Kentucky, West Virginia, and Tennessee diagnosed with PMF also grew.
- These increases occurred despite the fact that the number of coal miners in the United States has declined by more than two thirds since 1979.

The study appeared in a recent issue of the *Annals of the American Thoracic Society*. ■

Lung Cancer Screening Discussions Need Work

More needs to be done to ensure that doctor–patient discussions surrounding lung-cancer screening adhere to recommendations issued by the U.S. Preventive Services Task Force and other organizations, report University of North Carolina researchers.

They analyzed transcripts of 14 screening discussions identified in a large database of conversations between doctors and patients provided by the private company Verilogue. Out of 137 conversations that met keyword criteria, only 14 specifically addressed lung-cancer screening, and the investigators found those conversations to be brief and one-sided; in addition, none of the doctors mentioned the potential harms of screening, such as false-positive test results or the need for additional imaging or invasive diagnostic procedures.

The authors believe that having clinical support staff may be the answer. "Finding better ways of having clinical support staff help with the delivery of patient education, particularly using educational tools, known as decision aids, will be important," explained senior study author Daniel Reuland, MD, MPH. "Patient support for making complex decisions probably shouldn't rely only on doctors with limited time for each patient visit and a lengthy visit agenda." They published the study in a recent edition of *JAMA Internal Medicine*. ■

Parents Need Asthma Education

Some parents may be woefully unprepared to administer the asthma medications their children need for routine care and emergency situations. That's the key finding from Johns Hopkins investigators who conducted two-hour interviews with 288 caregivers of children between the ages of two and six years from predominantly African-American families in Baltimore City Head Start programs.

Caregivers were gauged for medication readiness, which was defined as the physical availability in the home of medications that were not expired and had remaining doses. They were also assessed to see if they could correctly identify whether a medication was a rescue or controller medication and if they could state the important dosing instructions for the medication.

Only 60% of the children had a rescue medication and fewer than 50% had a controller medication that met five readiness index criteria. The authors stressed that assessment of medication availability should be incorporated into the care of children with chronic conditions. Interventions to improve medication management are also needed, according to the study published in *Pediatrics* earlier this year. ■

Vaping May Damage DNA

Researchers presenting at the recent American Chemical Society meeting make the case that e-cigarettes can damage DNA.

In a study conducted among five e-cigarette users, they collected saliva samples before and after a 15-minute vaping session and analyzed them for chemicals that are known to damage DNA. Levels of three DNA-damaging compounds — formaldehyde, acrolein, and methylglyoxal — were increased in the saliva after vaping.

Compared with non-vapers, four of the five e-cigarette users showed increased DNA damage related to acrolein exposure. This type of damage, called a DNA adduct, occurs when toxic chemicals, such as acrolein, react with DNA. If the cell does not repair the damage so that normal DNA replication can take place, cancer could result. ■

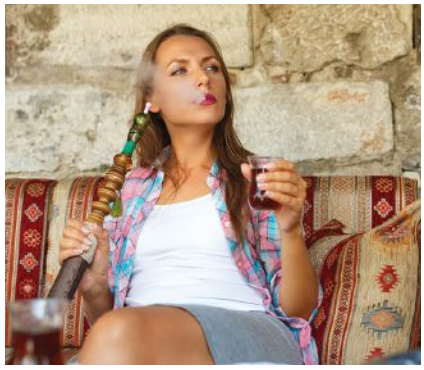
Women with Asthma at Higher Risk for COPD

New research from Canadian investigators publishing in the *Annals of the American Thoracic Society* suggest four in ten women with asthma may ultimately develop COPD as well. The researchers based that finding on a study involving 4,051 women with asthma who were followed for about 14 years. Of that group, 1,701, or 42%, developed asthma-COPD overlap syndrome (ACOS).

Women who were heavy smokers were much more likely to develop ACOS than those who smoked fewer cigarettes or never smoked. However, 38% of the women who developed ACOS had never smoked. Obesity, rural residence, lower education levels, and unemployment were significant risk factors for ACOS as well. ■

Hookah Smoking Equals Cigarette Smoking

Thanks to marketing efforts, many people believe hookah smoking is significantly less dangerous than cigarette smoking. That's just not so, according to UCLA researchers who measured heart rate, blood pressure, arterial stiffness, blood nicotine, and exhaled carbon monoxide levels in 48 healthy young people before and after 30 minutes of hookah smoking. They found that just a half-hour of hookah smoking resulted in the development of cardiovascular risk factors similar to what has been seen with traditional cigarette smoking. Heart rate and blood pressure both increased, and so did arterial stiffness, according to the study they published in a recent edition of the *American Journal of Cardiology*. ■



Minority Neighborhoods Bear the Brunt of Tobacco Advertising

Do tobacco companies target minority neighborhoods for the marketing of their products? According to University of Wisconsin-Milwaukee researchers, the answer is yes. They engaged multiple stakeholder organizations in their community to conduct an audit of promotion and advertising practices at stores in three demographically distinct ZIP code clusters. Compared to retailers in the predominantly white ZIP code cluster, stores in the African-American and Hispanic areas were more likely to engage in tactics like placing tobacco next to candy, placing ads where children could easily spot them, and offering price promotions such as selling small cigars individually and for less than $1. The investigators published their findings in a recent edition of *Tobacco Regulatory Science*. ■

Stem Cell Therapy for Cystic Fibrosis Moves Forward

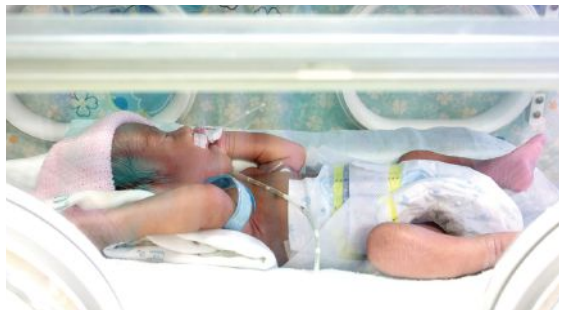
Australian investigators have found that the same kind of cell transplantation therapy used in bone marrow transplants to treat immunodeficiency disorders can also be applied to cystic fibrosis. The procedure involves harvesting adult stem cells from the lungs of CF patients, correcting them with gene therapy, and then reintroducing them back into the patient.

The researchers successfully tested the method in a mouse model. "The key to these successful transplantations was our innovative method; we first eliminated the existing surface cells, which then created the space required to introduce the new cells," study author Dr. Nigel Farrow, from the University of Adelaide, was quoted as saying. "The new transplanted adult stem cells pass on their healthy genes to their 'daughter cells,' providing a constant means to replenish the airways with healthy cells, and thereby combatting the onset of cystic fibrosis airway disease." The research was published in a recent edition of *Stem Cell Research and Therapy*. ■

Teenage Smoking Linked to Low-Birth-Weight Infants

Protecting more newborns from the ill effects of tobacco exposure in the womb may mean targeting more young women with tobacco-cessation efforts long before they ever become pregnant. University of California Irvine researchers who analyzed data from the National Longitudinal Study of Adolescent to Adult Health found that women who began smoking as teenagers were more likely to smoke during pregnancy and have low-birth-weight babies.

"The odds ratio linking teen smoking to prenatal smoking was the largest observed," explained study author Jennifer B. Kane. "Those who smoked prior to pregnancy were eight times more likely to smoke while pregnant." She believes reducing adverse birth outcomes will depend on efforts to prevent teenage girls from picking up the habit. *Social Science & Medicine* published the study. ■



Researchers Implicate New Cell Type in CF

Research teams from Harvard Medical School and the Novartis Institutes for Biomedical Research, and from Harvard Medical School/Massachusetts General Hospital and the Broad Institute of MIT, have independently discovered a new rare type of cell in the human airway that they believe is the primary source of activity of the *CFTR* gene that causes cystic fibrosis. Named "pulmonary ionocytes" by the investigators, these cells regulate salt balance.

Scientists have long assumed that *CFTR* is expressed at low levels in ciliated cells, but the new studies suggest that the majority of *CFTR* expression occurs in these pulmonary ionocytes, which make up only around 1% of airway cells. The investigations also showed that the activity of *CFTR*, not just its expression, relates to the number of pulmonary ionocytes in the tissue.

The discoveries made by these two teams may lead to new strategies for treating the disease, such as increasing the amount of pulmonary ionocytes to increase the amount of *CFTR* activity. They may also aid researchers who are trying to use gene therapy to correct *CFTR* mutations. The studies were published earlier this year in *Nature*. ■

Inhaled Cannabis Falls Short

COPD patients are not likely to receive much help from inhaled vaporized cannabis, find Canadian researchers who conducted a randomized, controlled, crossover study among 16 patients with advanced COPD. All were on optimal therapy for their conditions and were randomly selected to inhale a single dose of vaporized cannabis or a placebo before exercising on a stationary bike. They then crossed over to the other arm of the trial. Neither the researchers nor the patients knew when they were receiving the vaporized cannabis or the placebo.

Researchers found that breathlessness during exercise improved in four of the 16 patients after the inhaled cannabis treatment. In the remaining 12 patients, breathlessness during exercise did not change or worsened. The study was published in a recent edition of the *Annals of the American Thoracic Society*. ■

New COPD Treatment May Be on the Horizon

A new treatment called targeted lung denervation (TLD) may one day offer relief for COPD patients, report researchers publishing in the *International Journal of Chronic Obstructive Pulmonary Disease*. In TLD, a special catheter is passed into the lungs through a bronchoscope. Radiofrequency is then used to interrupt nerve transmission outside the main bronchi, which in turn permanently dilates the bronchi, reduces mucus production, and decreases airway inflammation through a reduction in the release of the neurotransmitter acetylcholine.

A pilot study conducted in 22 patients found that the procedure was feasible, safe, and well tolerated. A new study involving 15 patients also found the procedure was safe and resulted in an absence of sustained worsening of COPD for up to one year. COPD exacerbations were low in treated patients over a three-year follow up, and lung function tests showed that TLD without bronchodilator use resulted in similar benefits to those of long-acting inhaled anticholinergic therapy. The researchers believe further study is needed to optimize the energy dose used and to refine the procedure. ■

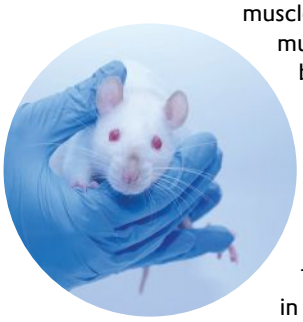
Contribute to Our "Transitions" Column

The AARC "Transitions" column is 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. ■

High Hopes for a New ALS Drug in the Works

In a new study funded by the National Institutes of Health, researchers have been able to delay signs of amyotrophic lateral sclerosis (ALS) in rodents by injecting them with a second-generation drug designed to silence the gene known as superoxide dismutase 1 (*SOD1*). Injections of the second-generation drug were more efficient at reducing normal, human *SOD1* mRNA levels in rats and mice. They also helped rats that were genetically modified to carry a disease-causing mutation in *SOD1* live much longer than previous versions of the drug.

The newer drug delayed the age at which mice carrying a disease-mutant *SOD1* gene had trouble balancing on a rotating rod, and it appeared to prevent muscle weakness and loss of connections between nerves and muscles, suggesting it could treat the muscle activation problems caused by ALS. These results, published recently in the *Journal of Clinical Investigation*, offer hope that the newer version of the drug may be effective at treating an inherited form of the disease caused by mutations in *SOD1*. The drug is currently being tested in an ALS clinical trial. ■



Tell Your Story

Every therapist has a story to tell about a favorite or most memorable patient that would interest others in the profession. Maybe it was an "aha moment" when you knew you had made the right professional decision for that patient. Maybe it was when you first realized how much difference you were making in the lives of that patient and his family. Or maybe it was just something the patient said or did that made you laugh or cry or just be inspired to be a better RT. Our "Storytellers" column is the place to share them. Send your story to *AARC Times* Editor Marsha Cathcart at cathcart@aarc.org ■

Strange But True…

Eat this: A new study from researchers at the UCSF Benioff Children's Hospital Oakland Research Institute finds obese adolescents with asthma who eat two specially designed nutrition bars a day can improve their lung function. It works best in those with only a low level of chronic inflammation, though.

Disease-preventing rice: According to an international group of investigators, extracts from transgenic rice plants may one day help curtail the spread of HIV. The plants express three different proteins known to stop HIV from entering human cells.

What they see matters: Can hanging art in patients' rooms make a difference in how they view the hospital they are in? Yes, say researchers from the Penn State Cancer Institute who compared patient perceptions and other factors among those who did and did not have art hanging in their rooms. They believe having art on the walls could be a low-cost way to improve patient satisfaction.

New health hazard: Astronauts visiting the moon or other celestial bodies without a breathable atmosphere will be in space suits when they go outside the spacecraft. But the dust from those places tends to cling to the suits and ends up back inside, where it is breathed in, and that's not good. Stony Brook University researchers found up to 90% of human lung cells and brain cells from mice died when exposed to simulated lunar dust particles.

Weaponizing oxygen: Researchers have found a new way to combat MRSA infections in the hospital. They are using photosensitizers that convert oxygen into reactive oxygen species that attack the bacteria. ■

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c. Total Print Distribution (Line 15f) + Paid Electronic Copies (Line 16a)	37283	39343
d. Percent Paid (Both Print & Electronic Copies) (16b divided by 16c × 100)	99.84%	99.53%

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Calendar of Events

AARC & State Society Programs

November 1, 2018
Sioux City, IA
IaSRC Board Meeting
Contact: iasrc.pres@gmail.com or www.iasrc.org

November 5, 2018
Roanoke, VA
Mountain Air Symposium
Contact: satoomey@carilionclinic.org or www.vsrc.org

December 4, 2018 – December 7, 2018
(Tuesday – Friday)
Las Vegas, NV
64th International Respiratory Convention and Exhibition
Contact: www.AARC.org
https://www.aarc.org/aarc-meetings/congress-2018/

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Newspaper Article Led to a Rewarding Career

by Gretchen Lawrence, RRT, FAARC

It all started when a neighbor and I were talking about an article I had just read in the *Dallas Morning News* about respiratory therapy, a new offering from El Centro College, one of the five campuses in the Dallas County Community College system. The neighbor just happened to work at Parkland Hospital, and she was able to arrange a tour and interview with the director of the respiratory therapy department.

That director and I spent a full two hours talking and visiting the various clinical areas, and while I was not entirely sure of everything he said, his enthusiasm for and dedication to respiratory therapy was evident. That director was Ray Masferrer, RRT, FAARC, well known to us all, not only as a former associate executive director of the AARC and managing editor of Respiratory Care, but also as a wonderful man with a very thick Cuban accent!

Fresh off the street

I entered the RT program as a real "newbie," because way back then (1974), many of the students in my class were allowed to practice in local hospital RT departments with only on-the-job training. I had absolutely no frame of reference for what was being taught — I remember studying schematics of ventilator tubing between chores at home while my fellow students were working nights at area hospitals and I was at home doing dishes.

Pat Brougher, RRT, FAARC, a former editor of Respiratory Care, was head of the El Centro RT program, and she assured me that one day "the light bulb would go on" — that the technical and physiological aspects of treatment would come together and make sense. She also told me that she liked students who came into the program fresh off the street because, as she put it, "I don't have to unteach and reteach you."

Without Ray and Pat, I doubt that I would have become a respiratory therapist, and I have them and many others to thank for a most rewarding career. Dallas was a hotbed for RT back then because we had leading pulmonologists like William F. Miller, MD, Donald Egan, MD, Allen K. Pierce, MD, and others who were working closely with the AARC to encourage and challenge RTs to become the best we could be.

about the author...

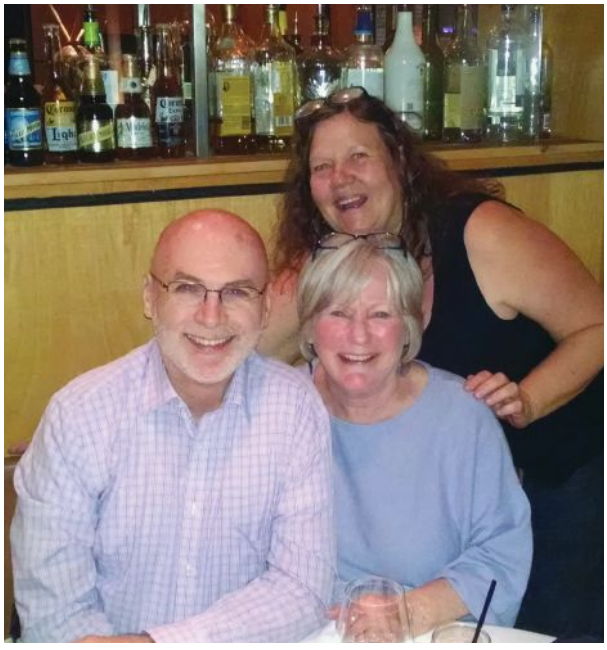
Gretchen Lawrence, RRT, FAARC is retired and lives in Arkansas, where she recently established a scholarship for RT students attending National Park College in Hot Springs.

Switching gears

A few years of critical care (and too many crises to share) let me know that I wanted to work with patients who could talk back. So I switched gears and joined what is now one of our profession's largest specialties, continuing care and rehabilitation. It was in pulmonary rehabilitation that I learned the value of teamwork with occupational and physical therapists, social workers, and nurses. Together we offered patients with chronic lung conditions the tools for a better quality of life while living with a debilitating disease.

The administration at Baylor University Medical Center Dallas supported us when it was probably not financially advantageous to do so. RRTs Mary Hart, Pam Marsh, Rose Boehm, Cara Kraft, Grace Hernandez, and the rest of our team worked hard and did real-world research, all on behalf of what eventually became the Baylor Asthma & Pulmonary Rehabilitation Center, under the medical direction of Mark Millard, MD.

One team member, Kathleen Polston, OTR/L, and I had the opportunity to take the pulmonary rehab concept to Costa Rica with Project HOPE, teaching the first students in that country's RT program. We quickly learned some of the technology that we took for granted (this was 30 years ago) was not readily available there.



Gretchen Lawrence, seated on the right, enjoyed getting together with Duane Claussen, RRT, RPFT, and Kathleen Polston, MS, OTR, in 2016 to reminisce about their experiences teaching in the first Costa Rican RT program through Project HOPE back in the 1980s.

In her retirement, Gretchen and her husband Dave have enjoyed many trips with their dog Maggie.

For example, given the limited access to equipment, physicians and medical personnel did not automatically order a chest X-ray; they were experts in the nuances of breath sounds. They did not have pulse oximeters; they observed the patient and titrated oxygen flows accordingly. Working in this Central American country no larger than West Virginia was a delightful experience, and we learned as much as we taught.

Giving back

I spent the last four years of my career working with Tom Petty, MD, in his nonprofit organization, the National Lung Health Education Program (NHLEP). "Dr. Tom" and his colleague in the NLHEP, Louise Nett, RN, RRT, continually demonstrated how important it is to give back, not only to patients, but also to our profession. It's all about teamwork in the long run. Each of us has much to give, and when we work with others toward the same goals, so much more can be accomplished. And it was my experience that working with our professional organization — the AARC — made each of us better and stronger. ■

— 2018 —

Since 1947, the AARC has been leading the effort to advance the science and practices of the respiratory care profession while promoting the highest quality of care for our patients. Collaborating with the respiratory communities at-large, we have successfully advocated at the federal, state and local level for patients, their families, the community, the profession and the respiratory therapist.

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[1] For complete specifications, including measurements, see Operator's Manual.

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