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Multidisciplinary Teams Changing Patient Care Delivery

Remembering a True Hero, MSG Thomas Wallsmith

Respiratory therapist MSG Thomas Wallsmith, who was awarded the Purple Heart, made the ultimate sacrifice for his country in Rustamiyah, Iraq, on Oct. 26, 2005. He is the only RT known to have been killed while serving in conflict.

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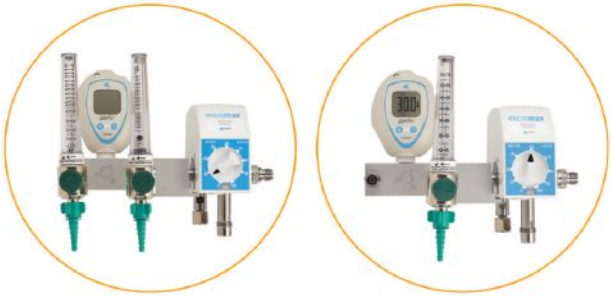

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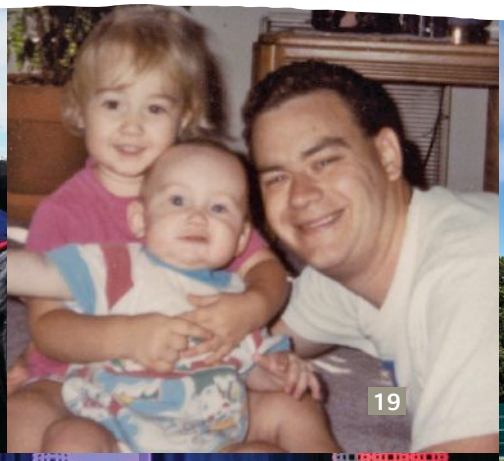

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AARC Strategic Plan

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

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American Association for Respiratory Care

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Summary of a Job Analysis Study for the Adult Critical Care Specialist

by Robert C. Shaw Jr.

The National Board for Respiratory Care (NBRC) sponsored its second job-analysis study of competencies in the adult critical care specialty last year. Study results culminated in a modified design for test forms that will be implemented in June 2018. Details about the study are summarized in this article.

Study methods

The study was directed by an eight-member advisory committee led by Chair Robert A. May, MD, FCCP, and membership of the committee was supplemented by an outside representative appointed by the American Association for Respiratory Care. The committee convened in spring 2016 to design a survey and plan how to solicit respondents. A final survey item permitted a respondent to forward a link to a colleague in an effort to "snowball" the sampling, which would increase the number of respondents from the population. The committee decided to force a response to each item containing a task statement before a respondent could move to the next page in an effort to minimize missing responses.

about the speaker...

Robert C. Shaw, Jr., PhD, RRT, FAARC, is the assistant executive director and psychometrician of the National Board for Respiratory Care.

The NBRC sent solicitations to populations of (1) current adult critical care specialty credential-holders from within the NBRC database, (2) program directors and directors of clinical education provided by CoARC, and (3) members of two specialty sections — adult acute care and management — within the membership of the AARC. The number of potential respondents was 5,737 after subtracting inactive email addresses and people who opted out.

Solicitations were sent through email starting on July 8 and concluding on July 20. Snowball referrals continued through August 30. Reminders were sent on August 29 and September 5. Access to the survey was closed on September 12.

Results

The survey was opened by a total of 898 people. However, the chair and vice chair decided to exclude respondents who had given a response to less than 100% of the task statements, which left 820 sets of responses to study.

The 14% rate of response was expected, but this left open opportunities for nonresponse bias. However, the committee observed that the amount of error reduction that would have occurred had there been more respondents would have been minimal. Therefore, they decided to proceed with the available sample while remaining sensitive to potential nonresponse bias.

The committee evaluated the intraclass correlations and coefficient alpha values associated with task ratings as organized across two content domains. The lowest intraclass correlation was 0.996 and the lowest coefficient alpha was 0.902, which respectively satisfied the committee regarding the likelihood of observing the same ratings from other potential samples from the population and the consistency of ratings within domains.

Most survey respondents (99%) indicated that the list of tasks was adequate in covering the breadth of content that a specialist should be expected to master. The committee concluded that it was unlikely that they had left out any critical task, based on this result.

Next, the committee evaluated the demographic characteristics of survey respondents. The committee concluded that respondents' characteristics had

Table 1. Content and Cognitive Level Specifications

Examination for the Adult Critical Care Specialty	Items				
	Ethics	Cognitive Level			
Content Area		Recall	Application	Analysis	Totals
I. RESPIRATORY CRITICAL CARE		**3**	**17**	**39**	**59**
A. Manage Airways		1	4	5	10
B. Administer Specialty Gases		1	1	1	3
C. Manage Ventilation / Oxygenation		0	8	28	36
D. Deliver Pharmacologic Agents		1	4	5	10
II. GENERAL CRITICAL CARE		**6**	**31**	**54**	**91**
A. Assess Patient Status and Changes in Status		0	7	24	31
B. Anticipate Care Based on Laboratory Results		1	2	5	8
C. Anticipate Care Based on Imaging and/or Reports of Imaging		1	2	5	8
D. Anticipate Effects of Pharmacologic Agents		1	4	7	12
E. Anticipate Care Based on Nutritional Status		1	1	2	4
F. Prevent Ventilator-Associated Events		1	4	1	6
G. Recognize and Manage Patient with Infections and/or Sepsis		0	3	3	6
H. Manage End-of-Life Care		0	2	2	4
I. Plan for Disaster and Mass Casualty Events		1	1	1	3
J. Interact with Members of an Interdisciplinary Team		0	1	1	2
K. Perform Procedures		0	2	1	3
L. Troubleshoot Systems		0	2	2	4
Totals	**5**	**9**	**48**	**93**	**150**

Table 2. Additional Specifications by Patient

Condition or Disorder	Item Counts Across the Examination		
	Target	Acceptable Range for Each Test Form	
		Minimum	Maximum
GENERAL *No specific condition or disorder*	32	26	38
ARDS	15	11	19
COPD	13	10	16
Cardiac	12	9	15
Post-Surgical	11	8	14
Asthma	11	8	14
Trauma	9	6	12
Infection/Sepsis	8	6	10
Pulmonary Embolism	7	5	9
Shock	6	4	8
Bariatric	5	3	7
Neurologic / Neuromuscular	5	3	7
Pulmonary Hypertension	4	2	6
Geriatric	3	2	4
Immunocompromised	3	2	4
Psychiatric	2	1	3
Massive Hemoptysis	1	1	2
Burn / Inhalation Injury	1	0	2
Cystic Fibrosis	1	0	1
Transplantation	1	0	1
Total	**150**		

matched their understanding of the population. If representation issues had gone undetected, the committee planned to use responses that were clustered by demographic subgroups, while giving the mean of ratings about importance from each subgroup the opportunity to exclude tasks from examination content.

Identifying critical tasks

Survey respondents selected among five options linked to the following question:

Regardless of how often the task is performed, how important is the performance of this task to the job of a respiratory therapist who provides critical care to adults in your institution?

One of the options was "Not Performed," which permitted the committee to observe information about the extent to which a task was a part of respondents' practices. Responses to the other options permitted evaluation of whether a task that was performed was low or high in importance.

The committee made two reviews through the task list based on information from the whole sample. The first pass involved task extent-in-practice information. The second pass involved task-importance information. Eleven subgroup-driven passes also provided opportunities to exclude tasks based on importance of information. Of the 120 tasks the committee evaluated, all 120 survived the 13 passes through the list.

Designing the examination

Examination scores have been sufficiently reliable, so the number of scored items remained at 150. The committee evaluated information from survey respondents about how the major content domains should be weighted relative to one another on an examination. Then the committee solidified item counts for the two major content domains and the 16 minor content domains into which tasks had been organized within the survey.

The committee subdivided item counts by three cognitive levels: recall, application, and analysis. Five items will appear on each test form that engage candidates' evaluations of ethical principles in addition to content domain and cognitive-level linkages.

After observing survey results regarding the prevalence of care for patient groups as defined by a list of conditions and disorders, the committee specified target item counts along with a minimum and maximum for each target. The remaining items will be about no specific disorder, which will be labeled as general. Each item specification decision culminated in the information displayed in Table 1 and Table 2, which describe examination design.

Summary

The committee designed a survey to collect information that they expected to use while making decisions about what future NBRC examinations should cover and how those examinations should be designed. Groups representing persons involved in the specialty were identified so they could be solicited to respond to the survey.

After evaluating the quality of the survey responses as compared to the intended use of the information within this study, the committee decided to proceed. They decided first how it would systematically identify critical tasks that would become stimuli for exam items. Then item-count specifications were created to distribute examination content across 16 content domains, two domains about ethics, three levels of cognition, and 20 patient disorders.

The NBRC will implement the first exam forms under the new system beginning June 2018. ■

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

Chronic Disease Manager

ALS in the Military Veteran

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

When signing up for military service, one understands there is a chance to risk one's life defending the country. This could mean injury or even death in the line of duty. But would one suspect that they are at higher risk of developing a progressive and fatal disease after serving? Likely no.

The Amyotrophic Lateral Sclerosis (ALS) Association published a white paper in 2013, "ALS in The Military: Unexpected Consequences of Military Services," exploring evidence indicating that people who have served in the military are at greater risk of developing ALS.[1] We will further explore this link and the literature and events surrounding it.

What is ALS?

ALS is a progressive neurodegenerative disease that affects nerve cells (motor neurons) in the brain and the spinal cord. When the motor neurons die, the ability of the brain to initiate and control muscle movement is lost. With voluntary muscle control affected progressively, people may lose the ability to speak, eat, move, and breathe.[2] Although initial symptoms vary among ALS patients, ALS always progresses to the muscles affecting ventilation, requiring ventilatory assistance.[2] Respiratory failure secondary to neuromuscular weakness is usually due to a combination of elements that include inspiratory muscle weakness (the diaphragm), expiratory muscle weakness (decreasing ability to cough), and upper airway muscle weakness (higher risk of aspiration).[2] While ALS has been known as a neurological condition since its discovery in 1869 by Jean-Martin Charcot, the cause of ALS is still unknown, although family history, increasing age, and male gender are all associated with higher risk factors.[1-4] Most people who develop ALS are typically in their 5th–7th decades of life (mean age = 65 years, although 55 has been documented in clinical trials).[2,5] ALS is classified into two forms: familial and sporadic. Sporadic ALS is the random occurrence in patients with no family history of ALS and comprises 90–95% of the reported cases in the United States.[2]

about the author...

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

The RCP's role

The respiratory care practitioner (RCP) plays a vital role in the detection, evaluation/assessment, respiratory monitoring, and therapeutic support of patients with ALS. Noninvasive ventilation (both at night and during the day), lung function testing, assisted cough modalities, and secretion clearance modalities are all potential respiratory interventions that patients with ALS may require at some point in the course of their disease.[2] The RCP's knowledge of ALS is key in understanding the progression and which interventions are needed.

Respiratory mechanics

Lung function measurements are useful to diagnose and monitor progression of respiratory muscle weakness and to determine the need for mechanical ventilation (invasive or noninvasive).[2,6] There is no single specific test that can foretell the course of ALS, so it is suggested that multiple modalities are used to aide in diagnosis/trending progression.[6] The following are common measurements of respiratory function (performed by an RCP) used in patients with ALS[2,6]:

- Forced vital capacity (FVC), supine and upright
  - ◊ FVC reflects diaphragm weakness, may be an early indicator of sleep-disordered breathing.

- Maximum inspiratory pressure (MIP)/maximum expiratory pressure (MEP)
  - ◊ MIP reflects the strength of the diaphragm, external intercostal muscles, and accessory muscles.
  - ◊ MEP represents expiratory muscles/cough strength.
- Sniff nasal inspiratory pressure (SNIP)
  - ◊ SNIP is not used as commonly as MIP.
- Peak cough flow (PCF)
  - ◊ PCF gauges the patient's ability to effectively cough.

ALS and the Gulf War

After the Persian Gulf War, there were reports that veterans were developing ALS at unexpected rates. In response to this, two studies were conducted. The first study by Horner et al. identified 107 confirmed cases of ALS, for an occurrence of 0.43 per 100,000 persons per year.[7] Horner et al. found that military personnel serving in the Gulf were twice as likely to develop ALS compared to those who did not serve.[7] Another study was conducted by Robert Haley, MD, from the University of Texas Southwestern Medical Center, supported by a grant from the Perot Foundation out of Dallas, TX.[5] Dr. Haley and colleagues identified Gulf War veterans diagnosed before 45 years of age. The rates of those under 45 years who were diagnosed with ALS while serving during the Gulf War were compared to age-specific incidence rates of ALS projected from vital statistics of the general population.[5] Their results showed a higher than expected rate of ALS observed among Gulf War veterans aged 20–40 years old.[5]

Getting the attention of the U.S. government

The results of these studies on ALS got the attention of the United States Department of Veteran Affairs (VA).[5,7] The VA Cooperative Studies Program developed a national registry of veterans with ALS in hope of inspiring more research on the subject.[4] From 2003 through 2007, U.S. military veterans with ALS were identified through a national VA medical record database. During this period, they were also asked to participate in a DNA bank. More than 2,000 veterans with ALS were enrolled in the registry, and nearly 1,200 DNA samples were entered into the DNA bank. Shortly after the end of the registry enrollment, 14 studies were approved to use the data within the registry.[4]

Triggered by the Gulf War findings and the desire to further explore whether there is a link between military service and ALS, researchers at Harvard University conducted studies in 2005 and 2009. These studies were funded by the Department of Defense and the National Institutes of Health. Both studies concluded that all military veterans, regardless of branch or time of service, are about 60% more likely to develop ALS than civilians.[8,9]

Federal acknowledgment and support

In 2008, Dr. James Peake, Secretary of Veterans Affairs, announced that ALS would become a compensable illness for all veterans who had 90 days or more of continuously active service in the military. That decision was chiefly based on the 2006 report by the National Academy of Sciences' Institute of Medicine.[10,11] In this report, which was an independent evaluation of the link between ALS and military service, the evidence from the Harvard studies showed the strongest link because it showed veterans from all eras were at greater risk instead of veterans from a specific war.[1] In 2012, the VA revised its disability rating scale to allocate 100% disability for any veteran who has (or had) service-connected ALS.[11] In 2014, the VA further committed to aiding those veterans suffering from service-connected ALS by making them medically eligible for adaptive home grants of nearly $68,000.[11]

Any links?

Potential clues to causative factors between military service and its link to ALS have been further explored. Beard et al. identified 621 cases of ALS from 2005–2010.[12] These cases were self-reported within the national registry and included deployments to Word War II, Korean War, Vietnam War, Gulf Wars, and operations in nine other locations. Beard and his colleagues collected information on the type of service, type of deployment, and 39 possible related exposures. Their results showed that the odds of ALS did not vary among veterans in various branches of service, although it was higher among veterans whose longest deployments were either World War II or the Korean War (12). There also appears to be a positive correlation between ALS and total time of deployment. In their study, ALS tended to be more common among veterans who had specific exposures during these wars, including pesticides, chemicals, and radiation.[11] Wang et al. discussed how the risk for ALS increased as the number of wars one participated in increased.[3]

Although a specific causative factor has yet to be identified, several studies have shown that military veterans are at greater risk of ALS. Further studies are being developed to identify causative factors and those at greater risk. Continuing to identify causes and those at risk may aid in preventing its development and in discovering a cure for this fatal disease. The RCP remains vital in caring for the patient with ALS throughout the continuum of their care.

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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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Cardiopulmonary Exercise Testing: A High-Level Technical Overview with an Emphasis on Quality

by Katrina M. Hynes, MHA, RRT, RPFT, and Susan Blonshine, RRT, RPFT, FAARC, AE-C

Cardiopulmonary exercise testing (CPET) is a diagnostic test that integrates standard measures of electrocardiography exercise stress testing with gas-exchange assessment.[1] The test is designed to use progressively increasing exercise, up to maximal tolerance, to stress the mechanisms responsible for external and internal respiration. CPET frequently elicits cardiovascular or pulmonary abnormalities not apparent at rest.[1] CPET includes the involvement and evaluation of both mechanical and metabolic properties, and it can provide the most accurate noninvasive quantification of maximal aerobic capacity (i.e., VO_2max or peak VO_2) and subject effort (VCO_2/VO_2).[2]

CPET offers clinicians the ability to obtain a wealth of information beyond standard exercise electrocardiography testing that, when appropriately applied and interpreted, can assist in the management of complex cardiovascular and pulmonary disease.[1] Table 1 lists the most common and emerging clinical applications for CPET.[1-3,5,6]

Opportunities for pulmonary function laboratories

CPET can be an incredible asset in a pulmonary function (PF) lab's toolbox for accurate risk determination and stratification of heart and lung disease, to quantify and identify the source of exercise intolerance, and guide treatment of pulmonary or cardiovascular findings. Advancements in technology allow more sophisticated ancillary tests to be added to the standard CPET, such as arterial blood gas sampling, flow volume loop analysis, noninvasive cardiac output measurement, and the visualization of the upper airway architecture via laryngoscopy, which can provide objective data to help uncover the origin of the clinical question being evaluated.

The complexity of CPETs challenges PF laboratories to perform at a more sophisticated level than required for routine PF tests. A laboratory that offers CPET seeks out top talent who enjoy being a part of an inter-professional health care team in a fast-paced, high-tech, and ever-changing environment. The cutting-edge technology and specialized skillset necessary to perform CPET is attractive to respiratory therapists (RTs), thus incentivizing and enhancing recruitment into the PF lab.

Equipment and protocols

The equipment selected and utilized for CPET testing can play a major role in controlling the variance of the results and ensuring data integrity. Controlling equipment variance through a robust quality control (QC) system is imperative to interpret the data at a single visit, compare subsequent visits, and assess therapeutic interventions.

There are two primary modes of exercise used to apply work during exercise: a cycle ergometer or a treadmill. The preferred method for CPET is generally a cycle ergometer. Advantages of the cycle ergometer include the requirement of less space, a reduction in noise or artifact, a reduced risk of falls, and they are generally less expensive. Determining the external work is also easier. The electromagnetically-braked cycle ergometer is preferred to calculate a pre-

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Katrina M. Hynes, MHA, RRT, RPFT is a supervisor at the Mayo Clinic Pulmonary Function Laboratory in Rochester, MN.

Table 1. CPET Clinical Applications

Heart failure *Systolic dysfunction* *Heart failure with normal ejection fraction*
Unexplained dyspnea
Chronic obstructive pulmonary disease
Interstitial lung disease
Skeletal muscle fiber and mitochondrial myopathy
Perisurgical and postsurgical risk
Long-term surgical prognosis
Apparently healthy individuals – Fitness registry
Valvular disease/dysfunction
Evaluation of exercise-related symptoms
Exercise prescription *Cardiac diasease* *Stroke*
Functional classification of disability *Cardiovascular disease and stroke* *Pulmonary disease*
Assessment of therapeutic response
Assessment of chronotropic competence
Adults/Pediatrics with congenital heart disease
Pulmonary hypertension
Pulmonary resection
Ischemic heart disease
Evaluation of cardiac pacemaker function
Arrhythmias
Vocal cord dysfunction
Upper airway abnormalities
Bariatric surgery

Note: Table 1 provides a list of the most common and emerging clinical indications for CPET.

cise work rate (WR, measured in watts). Calibration of the device is completed at the factory. The best method to QC a cycle ergometer is by using biological control subjects on a regular basis.

The other mode of exercise is a treadmill. The advantages of a treadmill include the potentially more familiar exercise task of walking rather than cycling. It also brings a larger muscle mass to the exercise evaluation. The maximal oxygen uptake is approximately 5–10% higher on a treadmill compared to the cycle ergometer. The weight of the patient can markedly influence the WR, skewing the oxygen consumption/WR relationship and the evaluation of cardiovascular disease. In COPD patients tested using a ramp protocol with a treadmill, arterial oxyhemoglobin desaturation was greater than when tested with a cycle ergometer.[4] This is an important consideration when determining the clinical indication for CPET.

The treadmill belt speed and incline can be verified at predetermined intervals as part of the QC system. The belt speed is checked by timing revolutions with an individual on the treadmill.

Measurement of the carbon dioxide production (VCO_2) and oxygen consumption (VO_2) during the exercise requires stable analyzers. The phase delay between the collection of gases at the mouth and the time of analyzing the gases must also be matched to the volume expired with each breath. The alignment of each of these signals must be carefully matched during the testing procedures for data integrity to be maintained. These breath-to-breath data are then averaged over 20–30 seconds to give a more reliable result reflective of the values at a given workload. Most systems use a bidirectional flow sensor to measure the expired volume. The same QC and specifications required for spirometry apply to the exercise flow-volume device. Water vapor must also be considered, so drying sample lines need to be changed per manufacturer recommendations.

Additional monitoring signals may include an electrocardiograph, noninvasive/invasive blood pressure monitoring, and pulse oximetry. Accuracy of environmental factors in the lab, such as temperature, humidity, and barometric pressure, must come from a reliable source within the testing room and be accurately entered into the device.

Equipment and protocols

The quality assurance components include technologist training and oversight, equipment maintenance and calibration, as well as mechanical and physiologic QC. Physiologic or biologic quality control (BioQC) evaluates the entire system and integration of the signals.

The use of at least two normal BioQC individuals is the primary method for system QC. Generally, an initial maximal test to determine the anaerobic threshold (AT) is required. The laboratory can then choose two workloads below the AT for that given BioQC subject to perform steady-state exercise (e.g., 6–8 minutes at 25 watts and 75 watts). Using two levels of work with a 50-watt difference should yield a difference of approximately 500 mL in VO_2 because the normal WR/VO_2 relationship is 10 mL/watt (see Table 2 and Figure 1).[5] Calculate the average of the last 2–3 minutes for each level for minute ventilation (V_E), VO_2, and VCO_2. Create a trend plot over time. Values for VO_2 should not differ by more than 5% and approximately 7% for VCO_2 and V_E, respectively, at the higher workload. At least five tests completed over

Table 2. Biological Quality Control

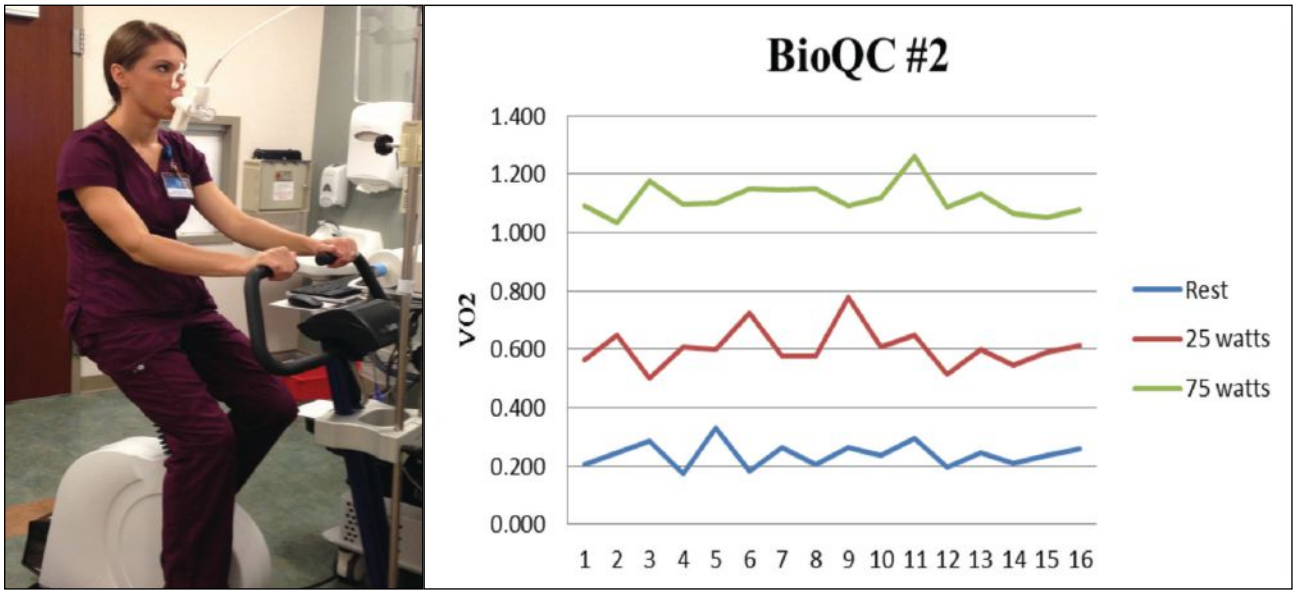
BioQC#2	Rest			25 Watts			75 Watts			75-25 Diff
N = 46	VO_2	VCO_2	VE	VO_2	VCO_2	VE	VO_2	VCO_2	VE	VO_2
Mean	0.240	0.200	8.4	0.610	0.540	18.2	1.120	1.150	34	0.52
SD	0.04	0.03	1.1	0.07	0.08	2.7	0.04	0.08	4.2	
CV (SD/Mean * 100)	15%	15%	12%	10%	11%	15%	5%	6%	8%	

Note: Table 2 reveals the expected 500-mL difference in VO_2 with a 50-watt difference in work – 25 watts and 75 watts.[6]

a short period of time should be adequate to develop a baseline for prospective QC.

CPET is a value-add test to any PF lab's service line, but it depends on a solid quality-assurance program to ensure precision and accuracy of the data produced. Due to the fact that CPET depends on interactions among testing equipment variability, calibration, and maintenance; physiological factors; participants' cooperation, motivation, and effort during testing; and the knowledge, skills, and training of testing personnel, a simple calibration is insufficient to eliminate errors.[7] As with all diagnostic tests, the reliability and accuracy of the data starts with reliability and accuracy of the testing system, which can only be verified through QC. ■

Figure 1. Biological quality control subject performing testing on a cycle ergometer (left) and the corresponding trend data at rest, 25 watts, and 75 watts (right).[5,6]



(Photo courtesy of Elsevier.)

2016 AARC Congress Diagnostics Spotlight Symposium

The 2016 AARC Congress offered RTs from around the globe a state-of-the-art educational experience in San Antonio, Texas. Of those highlighted was the Respiratory Diagnostics Section's symposium on CPET. The symposium consisted of expert knowledge presented by Susan Blonshine, RRT, RPFT, FAARC, AE-C, Katrina Hynes, MHA, RRT, RPFT, and Carl Mottram, RRT, RPFT, FAARC, on the fundamentals of CPET service with a high-level focus on the quality assurance components necessary in the PF lab path-of-workflow to ensure accurate test performance. ■

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The Servicemembers' Civil Relief Act

by Anthony L. DeWitt, JD, RRT, FAARC

Regardless of whether you're a therapist dodging bullets in Afghanistan or walking guard duty at Fort Drum in upstate New York, the U.S. Congress has your back. Congress has taken positive action to protect servicemembers from the civil courts in situations where military service prevents a military member from appearing to defend an action filed by another party. The statute is not well understood by many civilian lawyers and jurists, as Andre Gordon's case illustrates.

Andre Gordon deployed with the Navy and left his Jeep in the parking lot of the apartment where his wife lived. While Andre was deployed overseas, the apartment owner notified Pete's Towing Company of the need to tow the vehicle because it had a flat tire. Pete's Towing towed the Jeep and never notified Andre's wife that it had done this. Then, after 30 days, Pete's Towing sold the Jeep to itself and then later to another entity. Andre's Jeep was gone, but not his right to hold accountable the parties who used a legal process to effectively steal his property.

Andre sued under the Servicemembers' Civil Relief Act (SCRA). The federal district court dismissed his action because it felt the statute did not provide him with a private right of action, but the Fourth Circuit Court of Appeals reinstated Andre's action and allowed him to sue Pete's Towing for damages. The Court, speaking on the importance of the statute, said:

> We are mindful that the SCRA—like its predecessors—'must be read with an eye friendly to those who dropped their affairs to answer their country's call.' [1]

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.

The SCRA applies in all kinds of civil cases. It provides protection to members of the military against the entry of default judgments and gives courts the ability to stay proceedings against military debtors, among other things.

Background

The Servicemembers' Civil Relief Act (SCRA) strengthens and expedites national defense by giving servicemembers certain protections in civil actions.[2] It provides for the temporary suspension of judicial and administrative proceedings and transactions that may adversely affect military members during their military service. Thus, it allows servicemembers to focus on their duties in defense of the United States. Some provisions apply only to debts contracted prior to military service, while others apply to obligations entered into during service.

Among other things, the SCRA allows for forbearance and reduced interest on certain obligations incurred prior to military service, and it restricts default judgments against military members and rental evictions of military members and all their dependents. The SCRA applies to all members of the United States military on active duty. Its provisions generally end when a military member is discharged from active duty, or within 90 days of discharge, or when the military member dies. Portions of the SCRA also apply to reservists and inductees who have received orders but have not yet reported to active duty or been inducted into the military service. The protections were deemed necessary because entry into military service usually in-

volves a diminishment in the income of the soldier, sailor, airman, or marine.

General protections

The SCRA provides protection against the entry of default judgments; it stays proceedings where the servicemember has notice of the proceeding; and it stays or vacates judgments, attachments, and garnishments.[3]

Protection against default judgment

Section 521 of the SCRA establishes procedures that must be followed in all civil proceedings to protect servicemember defendants against the entry of default judgments.[3] Primary among these is the requirement that any action seeking a default judgment include a sworn statement or affidavit that shows that the defendant is not in military service. If there is no statement in the file, this allows the servicemember to vacate the default judgment at a later date for failure to comply with federal law. There are also provisions for appointment of attorneys and the requirement that bond be posted to secure judgments.

If a judgment is entered against the defendant while he or she is in military service or within 60 days of discharge from military service, and the defendant was prejudiced in making his or her defense because of his or her military service, the judgment may, upon application by the defendant, be re-opened by the court, and the defendant may then provide a defense.

The SCRA applies to more than just debt or contract claims. It has been used in family law situations to obtain a stay where child support claims were being litigated, and in juvenile dependence actions. Anyone in the military on active duty (and most reservists on active duty) are protected by the terms of the statute, and it is poorly understood in many rural areas where military bases are not found. As a result, the military member must raise the issue with counsel if counsel does not discuss potential protections under SCRA.

In those instances where a military member has a credit card or a consumer loan with a high interest rate (over 6%) prior to entry into the armed services, the SCRA provides that the credit card company must reduce the interest rate to 6% and not take punitive action against the credit card holder once active service begins. However, if the servicemember takes out a credit card after entering military service, this cap does not apply.

The SCRA also protects military members from executions or garnishments without a court order. Some states allow "self-help" in the enforcement of mechanic's liens. When Pete's Towing picked up Andre Gordon's Jeep, it expected to be paid. When it wasn't paid, it enforced its lien through a procedure where it filed paperwork with the state department of motor vehicles and sold the vehicle. This enforcement action was prohibited because it did not involve a judicial order. As a result, Andre could sue because the towing company did exactly what the federal law prohibited and thereby disadvantaged a military servicemember.

Additional protections

Several additional rights are available under the SCRA. It provides, in most instances, that a landlord cannot evict a servicemember or dependents from a primary residence without a court order. In an eviction proceeding, the court may also adjust the lease obligations to protect the interests of the parties.[4] If the court stays the eviction proceeding, however, it may provide equitable relief to the landlord by ordering garnishment of a portion of the servicemember's pay. Under the SCRA, servicemembers may terminate residential and automotive leases if they are transferred after the lease is made.[5] A court may also extend some of the protections afforded a servicemember under the SCRA to persons co-liable or secondarily liable on the military member's obligation.[6]

Among the most important protections, however, is the ability of a servicemember to toll the statute of limitations during the time he or she is on military active duty. If a servicemember loses a parent while on deployment, in many cases, the law of the parent's jurisdiction may give family members only one–three years to bring a civil action. Some deployments last longer than three years. In that case, even though the statute of limitations may have expired, the SCRA grants an extension of that statute of limitations. It has been interpreted to apply without exception by several courts.

Military men and women who have questions regarding the applicability of the SCRA can consult with a Judge Advocate General (JAG) officer. JAG officers cannot represent servicemembers in civil court, but they can often work through the state bar to find a lawyer willing to help pro bono or for a greatly reduced fee. The Missouri Bar, like many state bars, maintains a Military Law section designed specifically to help military members who face civil issues. ■

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Remembering a True American Hero

by Debbie Bunch

MSG Thomas Wallsmith was loved and respected by all who knew him

The AARC has honored the memory of **MSG Thomas Wallsmith** during the AARC Congress every year since 2005. He was then, and remains today, the only respiratory therapist to ever have lost his life while serving in the Middle East. As we approach this year's Memorial Day, we thought now would be a good time to let you know about this remarkable man.

★ ★ ★ ★ ★ ★

As a military family, Tom and Brenda Wallsmith moved around a lot. When they landed back at Fort Stewart in Georgia in 2005, though, Brenda thought they had come full circle. That's where they had met in 1988, when Tom was working in the newborn nursery at the hospital and Brenda was assigned to labor and delivery. With Tom's 20 years almost up, she figured it was as good a place as any to finish out their military life.

It was not to be. "We were stationed at Fort Bliss, kids were in middle school, I was working as an RN in a busy ICU unit," recalls Brenda of the time leading up to the transfer. "We were on vacation — one that we finally took as a family, just the four of us traveling through the Midwest in a camper. The best vacation ever."

While they were on the trip, Tom got a phone call congratulating him on making E-8. The Army wanted him to return to Fort Stewart, so soon after they got home, the Wallsmiths packed up everything and embarked on another road trip from El Paso, TX, to Hinesville, GA. For Tom, however, there would be one more relocation before retirement: Iraq.

A choice is made

If you're not up on your knowledge of military ranks, E-8 is a big deal. The senior non-commissioned officer rank, also known as either Master Sergeant or First Sergeant, carries with it massive responsibility. The Master Sergeant is the principal noncommissioned officer at the battalion level. The First Sergeant is where almost all unit operations merge.

Tom had a choice. He could either opt for First Sergeant of the Fort Stewart hospital, or he could be assigned as Master Sergeant to a surgeon cell field unit and be deployed to Iraq. Brenda didn't have to think twice. "Take the hospital job, lay low, finish out 2.5 years, retire at 20," she told Tom.

Her husband felt compelled to take the deployment instead. "I was quite taken aback and upset, but these were his words: 'Brenda, honey, I cannot go and be a leader or in a First Sergeant position and tell the men I lead that I've never been deployed. I must do this one last assignment.'" He told her how much he loved her and their two kids, Lauren and Nate, and expressed his firm belief that they would support his decision.

"Tom always put his troops first," says Brenda. "He was kind and passionate about his duty to his soldiers and his country."

Taking care of business

His fellow military RTs saw that every day on the job. AARC members Luis Medina, BS, RRT-NPS, RPFT, and Ed Duhon, RRT, both worked with him during his assignment at Tripler Army Medical Center in Hawaii. "Tom had passion for his profession as an RT, especially taking care of the military and its family," says Medina. "His greatest accomplishment on the job was getting 12 pulmonologists, RNs, administrative staff, and RTs to work like a well-oiled machine."

More importantly, though, Medina says Tom was a mentor to those under him. When he was getting ready for a change in assignment and Medina was selected to take over for him as supervisor of the pulmonary function lab, Tom prepared him for the job. He also spent considerable time helping him prepare for his upcoming board for his next rank. "He would sit down with me every day for six months, quizzing me on what type of questions I would have to answer to get promoted," recalls the therapist. "He was unselfish and led by example."

Ed Duhon agrees. "Tom led from the front, no matter what the situation was. When we had to pick up trash around the hospital at Tripler, he was right there with us with a garbage bag." When he knew his soldiers needed to exercise after work, he would motivate them to do it by going along, even if he had just put in a long night shift, because he knew it was important to their success in the military.

But Medina says Tom was also cognizant of his soldiers' need to take care of their families. "I remember a particular occasion when I came to work extremely tired because my daughter kept us up all night with a fever," recalls the therapist. "When I arrived to work, MSG Wallsmith noticed I was not feeling one hundred percent." Tom asked him what was going on, and when he learned of his daughter's illness, he ordered him to go home, get some rest, take care of his daughter, and come back the next day.

"I was hesitant to leave because it was a busy day at work," says Medina. "Not only did he perform his job, but also took on the responsibilities I had that day." Medina says he was forever grateful for the support. "I knew that no matter what, he had me and my family's back."

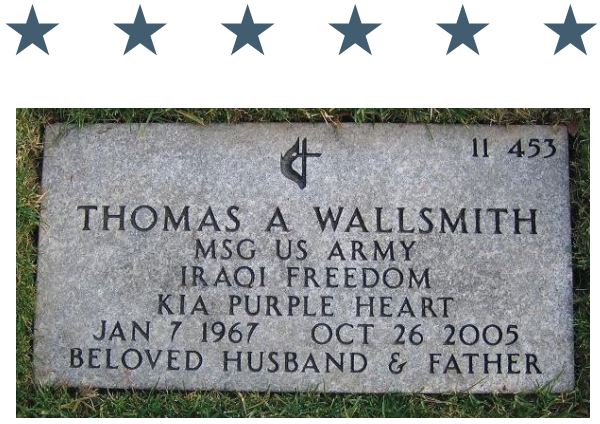
Family was everything to him

That dedication to family is what his children remember most about Tom. "In my eyes, there was no better man than my dad," says his daughter, Lauren Hylinski. "He was hardworking, funny, loving…. I still look up to him and try to mirror how he was as a father in mothering my own children." Her brother Nate echoes those sentiments. "My favorite things about him were his dedication to our family and sports…. He was a very patient man, and a kind one. I miss him tucking me in every night and talking with me about my day. At the end, he would give me a kiss goodnight and his scratchy face from his five o'clock shadow would scratch my cheek."

They enjoyed growing up in a military family and didn't mind all the moving around it entailed. "I have lifelong friends from growing up in the military," says Nate. He doesn't remember too much about his dad's job as an RT — he was only 11 when Tom was deployed — but as a child with asthma, he certainly remembers the way Tom helped him through the worst of his attacks. "He would sit and talk with me as I was trying to catch my breath."

Lauren, who is a couple of years older, says both she and her brother would occasionally go into work

Lauren and Nate as toddlers, playing with their dad.



MSG Thomas Wallsmith was awarded the Purple Heart and made the ultimate sacrifice for his country.

with Tom, and she loved following him around the hospital and meeting his colleagues. "I knew that he was a respiratory therapist, and he would tell me that he helped people breathe better," she says. "He would tease us that he would suck out 'lung butter' while he was at work and even made a suctioning noise and everyone would laugh."

Brenda says Tom was a great RT, always teaching, learning, and dedicating himself to be the best he could be. As a husband and father, there could never be anyone better. "He loved his children with every inch of his being. He taught them to be well rounded, caring, and compassionate individuals." As a husband, he always made her laugh, and she'll forever remember him as a devoted, loving, caring, and tenderhearted soul. "I've been blessed by being his wife and mother of his children," says Brenda. "I am honored by his courageous acts of loyalty to his country and his job as an RT."

Missing their dad

Given how much he meant to his family, Tom's deployment to the Middle East was difficult for them all — and particularly for Lauren and Nate, who had never known a time when he wasn't there to support them in everything they did. For Nate, it meant his dad would be gone during the upcoming baseball season. "I really wanted him to be there," he says now.

But neither of them fully realized that there was a chance their dad would not come back. "I was about 13 when my dad deployed, and with being so young, I didn't understand the threat of him not coming home," says Lauren. "We talked on the phone every once in a while and sent letters, which have become some of my most cherished items."

Tom's mother, Patricia Vento, did know the risk and worried about her son every day. "After 12 years, when people ask me how many kids I have, I never know what to say, because I don't want to say HAD. I still struggle with that," she says. "He was a good kid, a good man, a good husband, and he was a good person."

Brenda was well aware of the danger, too, but says Tom didn't dwell on it because he didn't want them to worry. "He didn't talk much about close calls or nearby explosions, as he never wanted me to be overly concerned," she says. When they did get a chance to talk on the phone, Tom would tell her about the positive things he was doing, like going into the city to teach CPR and basic first aid to local police. During his downtime, he volunteered for projects around the base, such as building pews for the chapel, and he would tell her about those as well.

"He was also working on building a paper mâché moose that he fully intended on bringing home to hang in our house," says Brenda. That moose head may only be half finished, but it has a place of honor today in her home in New Braunfels, TX.

The fateful day

Ed Duhon remembers the last time he saw Tom. "It was February 2005, when I was stationed with the 86th Combat Support Hospital in the Green Zone in Baghdad, Iraq. I had just reenlisted in the Army for the final time of my military career. I was walking back to my place of duty, I heard a voice shout my name, and it was Tom," he says. Tom had only been in the country for a few weeks and didn't know Duhon had missed being selected as a Sergeant First Class with his last board. He saw how upset he was at the outcome and gave Duhon some words of wisdom he says he'll never forget.

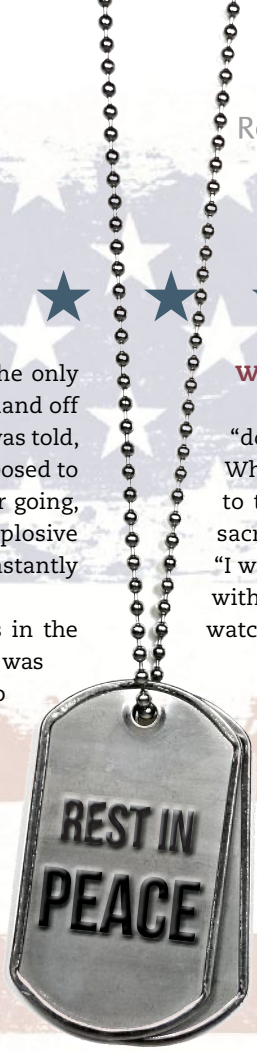
"He imparted me with these words: 'Ed, you got this, take care of your soldiers, and put their needs before yours. I know you'll do this because I did the same for you. Keep doing this, and it will all fall into place next time around. Be patient." That was the last conversation he had with his friend and mentor, and he kept those words close to his heart as he prepared for his successful SFC board the next spring.

The Wallsmith family doesn't know a lot about the incident in Rustamiyah, Iraq, that took Tom's life on Oct. 26, 2005. Brenda spoke with him on the phone that week, and they were both looking forward to his return

home in time for Thanksgiving. At that point, he only had a few more trips into the city to teach and hand off his job to another soldier. "The day he died, as I was told, he was in a convoy headed into town. I was supposed to talk to him the next morning." Either coming or going, his Humvee was struck by an improvised explosive device. The vehicle caught fire, and Tom died instantly from his wounds.

Brenda spoke with another soldier who was in the Humvee and survived, and he told her that Tom was cracking jokes and making light of the drive into town, despite concerns raised by several recent close encounters in the city. "Always a positive attitude, hard-working, a dedicated soldier, father, and husband," she says.

That's exactly the "Tommy" his mom remembers, too. "He was a mediator for me, and for his brother, for everybody," says Patricia Vento. "He had a way of putting things that people could relate to."



Watching over them

Nate Wallsmith believes his father died "doing what he loved for the ones he loved." When he has kids of his own, he says he plans to tell them about their grandfather and the sacrifices he made for his family and country. "I will tell them that he would have loved them with all of his heart and that he will always be watching over them."

Lauren Hylinski is already beginning to convey those messages to her two young daughters, four-year-old Kinsi and six-month-old Ellie. "Kinsi knows that he is her grandfather and will tell me she misses him in heaven," she says. "I will tell my children about his sacrifice when they are old enough to understand and will always tell them how much he would have loved them. I know that he would be wrapped around their little fingers." ■

AARC Supports

Military members honored by the Association

If you've attended the AARC Congress anytime in the last couple of decades, you know honoring respiratory therapists who have served, or are serving, in our nation's armed forces is an important part of the program. Last year in San Antonio, the Salute to the Military Ceremony drew scores of attendees who came to pay tribute to their fellow therapists who have sacrificed so much in their personal and professional lives to keep the rest of us safe from harm.

An even bigger crowd was on hand for the Congress Keynote Address featuring wounded warrior JR Martinez, who inspired the audience with stories about his service in Iraq and the medical care he received as he struggled to recover from severe injuries and smoke inhalation he suffered when the Humvee he was riding in struck a roadside bomb.

The AARC honors its military members in other ways as well. In addition to offering free membership to active-duty military personnel, we also provide military members with complimentary registration to the AARC Congress every year. The Association also hosts a Military Roundtable on AARConnect where military members — and anyone else who wants to support those who serve — can discuss issues of concern.

Over the years, we've also gone to bat for military members in the larger health care arena. AARC support played a big role in the government finally granting com-

With the growing population of military service members entering the respiratory profession, the AARC has become a location for soldiers to find support in a community of leadership and medical awareness. — *Joseph P. Buhain, EdD, RRT, EMT, FAARC, Program Director for Respiratory and Simulation Studies, Campus Naval Liaison Officer, St. Paul College, Saint Paul, MN*

I think it's incredible that a professional organization such as the AARC puts so much emphasis on their support of the military and their military members. Being a soldier and a respiratory therapist myself, it's comforting to know that the AARC does everything they can to help facilitate training, membership, and events for the military community. — *SSG Michael A. Zedella, CRT, U.S. Army Respiratory Therapist, Fort Sam Houston, TX*

Those Who Serve

missioned-officer status for respiratory therapists with a baccalaureate degree in the U.S. Public Health Service.

In addition, the Association worked closely with educators in the Interservice Respiratory Therapy Program at Fort Sam Houston in Texas to modify the program so that it could achieve accreditation by the Commission on Accreditation for Respiratory Care. Accreditation effectively meant that soldiers graduating from the program would be eligible to take the National Board for Respiratory Care CRT Exam, paving the way to state licensure for military RTs.

Those in uniform keep our nation safe and our freedoms intact, and the AARC will always stand behind them and stand up for them when it comes to their role in the respiratory care profession. ■

Memorial Day is just around the corner. Let's all take some time to thank those among us who have committed themselves to the service of our country.

The AARC's support of the military . . . is phenomenal because it allows us to maintain our skills with new research and maintain licensures through CEUs provided by the AARC, which is great because being in the military can be a 24/7 job and it's hard to find these opportunities at times, unless they're afforded to you. ***— HM2 Christian Miranda, RRT, U.S. Navy Respiratory Therapy Program Instructor, Fort Sam Houston, TX***

It is very important to know that our professional interest, industrial standing, and future is in good hands. Having been deployed numerous times overseas, I found comfort in the AARC's upkeep of professional collective practice and career opportunities while I was away on mission. The AARC, in my mind, serves as that beacon of light, which guides practice, professional spirit, and growth. ***— SSG John T. Blaz, CRT, U.S. Army, 68V Respiratory Specialist, Fort Sam Houston, TX***

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ALL FOR ONE, AND ONE FOR ALL

Multidisciplinary teams are changing the way RTs and their colleagues deliver patient care

by Debbie Bunch

Remember when you were a kid and the physical education coach said to divide up into teams? That's happening more and more often in health care organizations, and respiratory therapists are making sure they're getting picked to play.

These days, multidisciplinary teams are forming to address everything from daily care to specialty services. When respiratory patients are involved, there is no question respiratory therapists should be, too. The good news is therapists are playing increasingly important roles on these teams. This article highlights just a few of their stories.

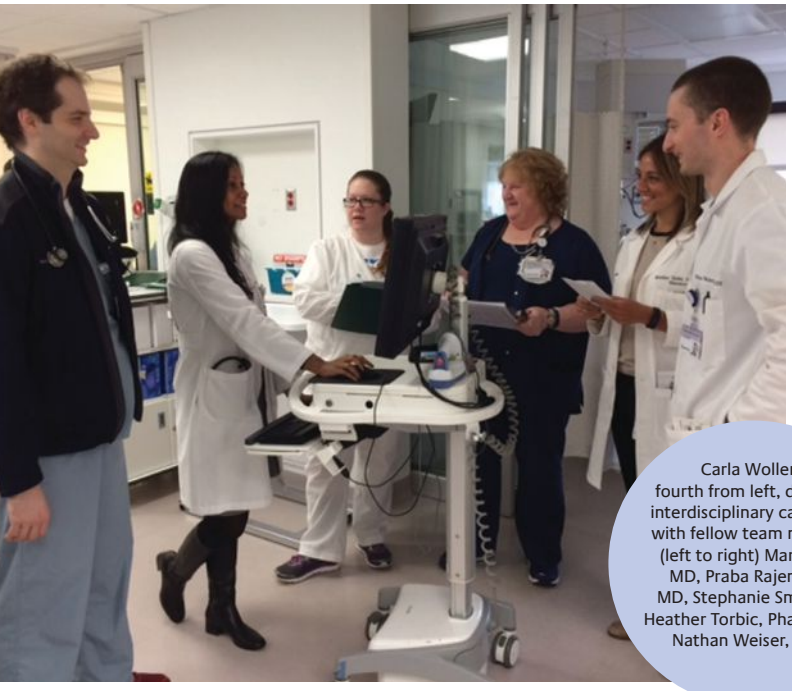
Carla Wollens: One MICU

Many hospitals have initiated multidisciplinary rounds in the ICU, but the Cleveland Clinic in Cleveland, OH, has taken the concept to new heights — and AARC member Carla Wollens, BS, RRT, RPFT, has been a part of it all since the beginning. "There was a quality project looking at ways to streamline rounds, and I volunteered to be a part of the group," explains the clinical specialist. "After a two-month trial, the project moved forward and really picked up multiple new team members and supporters."

The goal was to ensure that everyone on the team was assigned specific responsibilities. Respiratory therapists are now expected to address five key areas: 1) overnight issues; 2) duration of mechanical ventilation; 3) ventilator/NIPPV mode and setting; departures from standard therapy; values relevant to the disease process; secretions, including amount, color, and consistency; and frequency of suctioning; 4) the spontaneous breathing trial (SBT) plan; and 5) anticipated barriers to extubation. "We have laminated cards detailing what information is needed to make it easier," says Wollens.

The hospital has 64 MICU beds in five units, and each unit has a dedicated rounding team that includes an RT. "We also have started having a clinical specialist present for rounds, either to attend rounds or to help the bedside therapist with their work so they can attend rounds," says Wollens. Having the whole team present for rounds was deemed so important by physicians that special badge pulls were created that say "One MICU, Teamed up for Rounds." All of the disciplines involved are named in a circle around the outside of the badge pull.

Wollens notes that participating as a key member of this unique rounding team has been a real morale booster for her and the other RTs in her department. Knowing that they are a part of the plan of care — and their input on issues ranging from SBTs to identifying patients with high respiratory needs is important to the team effort — makes them feel as if all the hard work they put in during their respiratory education is paying off. "It is nice to know you are a valued team member," says the AARC member.



Carla Wollens, fourth from left, discusses interdisciplinary care issues with fellow team members (left to right) Martin Zak, MD, Praba Rajendram, MD, Stephanie Smith, RN, Heather Torbic, PharmD, and Nathan Weiser, ACNP.

All members of the multidisciplinary team at the Cleveland Clinic wear these special badge pulls.

Diane Randall and Dan Alamillo: Tracheostomy Teams

Children who must undergo a tracheotomy present special problems for clinicians, and tracheostomy teams can help keep those problems from escalating out of control. AARC members at Joe DiMaggio Children's Hospital in Hollywood, FL, and Children's Hospital & Research Center in Oakland, CA, are bringing the respiratory therapist's perspective to the table.

"About a year ago we started a tracheostomy team and round twice a month with a pediatric ENT, respiratory therapist, and a speech pathologist," says Diane Randall, RRT-NPS, from DiMaggio Children's. The team started out doing rounds on new trach patients, with the respiratory therapist on the team charged with performing a chart audit on each patient that forms the basis of the discussion at the bedside. Issues addressed by the team include timing of the tracheotomy, tube size at the time of the trach, current patient weight, current trach size, last airway scope evaluation and results, last chest x-ray and results, last tracheal culture and sensitivity and results, and speech evaluation and recommendations.

Dan Alamillo enjoys caring for his young patients.

The bedside nurse and RT are invited to attend the session along with other clinicians involved in the child's care, and if family members are present, they are also asked to join. "We discuss the results of the chart audit. We ask the bedside caregivers for any specific issues that they have encountered. We ask the bedside caregivers for any recommendations that they think would be of value," says Randall.

The ENT will then ask the RT or nurse to take down the trach dressing and ties so he can examine the stoma and skin for breakdown or granuloma. If a bedside airway evaluation is necessary, it is also performed. The entire team discusses recommendations, and the ENT submits new or revised orders. The team also supports patients receiving a specialized plan of care that targets non-verbal communication using low-tech communication devices, developmental articulation or language skills, and speaking valves.

"When we started the rounds last year, it was only for patients with new tracheostomies," says Randall. "We then started to get approached by nurses and respiratory therapists to add some existing tracheostomy patients to the rounds because of stoma/airway concerns. Every existing trach patient included had an issue, whether airway or stoma, that was discovered by the team during trach rounds." She believes the time will soon come when all trach patients will be included in these multidisciplinary rounds.

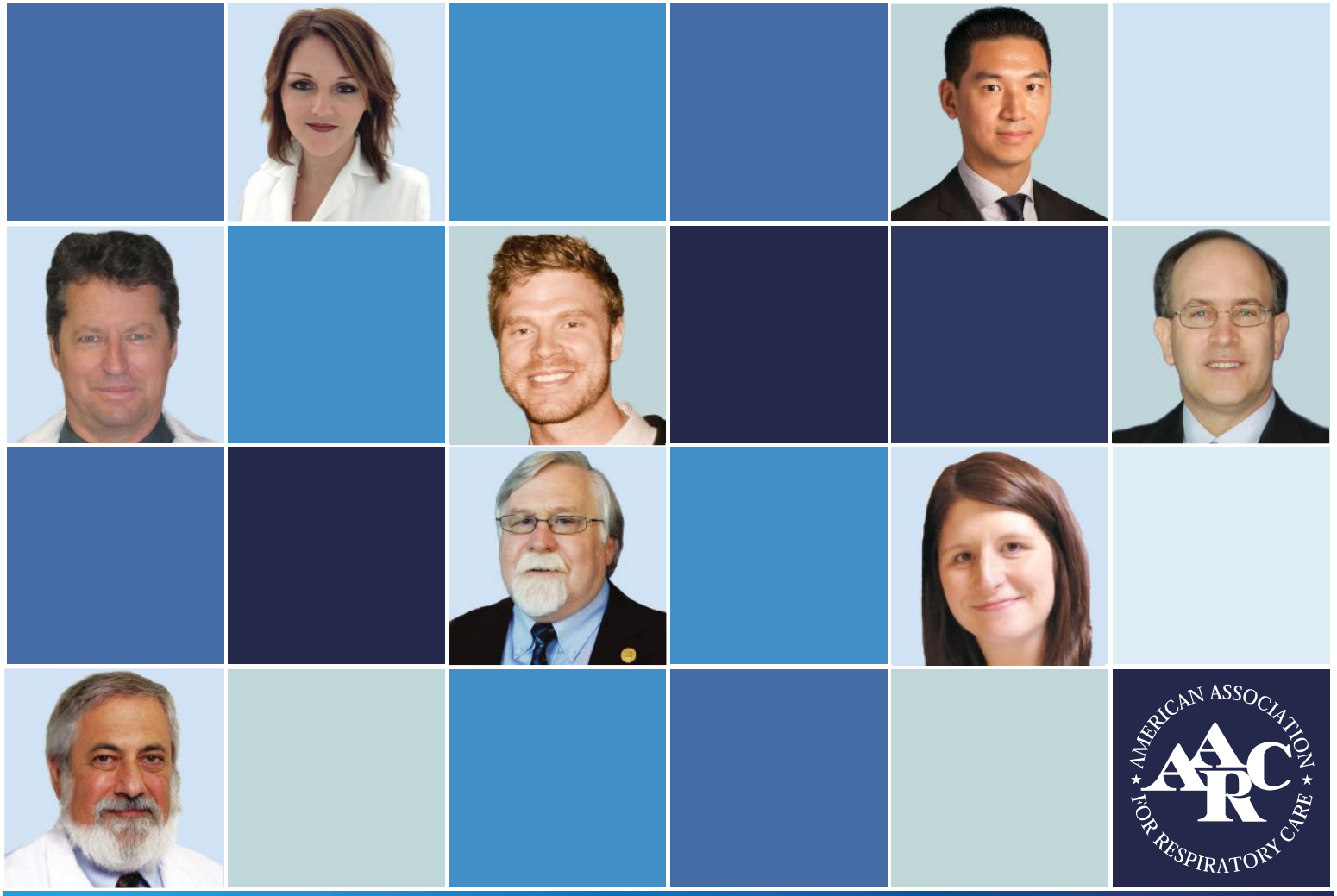
At Children's Hospital & Research Center in Oakland, Dan Alamillo, BS, RRT-NPS, RPFT, and his colleagues in the pulmonary function laboratory are part of an interdisciplinary team that conducts assessments on children with trachs who are being considered for speaking valves. "We work alongside pulmonologists, nurses, and speech therapists to determine if a speaking valve could be safely utilized among those patients who are deemed good candidates for a speaking valve," says the therapist.

Alamillo and his colleagues believe they bring a wealth of knowledge to the table, including an understanding of the different ventilators being used, modes of ventilation, options for delivering the spontaneous breaths, different types of tracheostomy tubes, and various types of speaking valves. "As respiratory therapists working in pulmonary function, we often are in contact with tracheostomized kids and have worked with them and their families at one point during their hospitalization," says the therapist. "We feel comfortable around the different ventilators and tracheostomy tubes." He believes their expertise results in better service for the patients, better outcomes for the hospital, overall cost savings, and a teamwork approach to patient care.

The RT's image also benefits. "By integrating our approach as a member of a multidisciplinary team, we are seen as the content experts and not just the people you call when a patient needs to be suctioned or requires an albuterol treatment," says Alamillo. "This opens the doors to some less traditional opportunities for those respiratory therapists who show the initiative to work as a team."

Photo by Igor Lebedin, RRT-NPS

Diane Randall, third from left, joins team members (left to right) Rosemarie Baptiste, SLP, Rebecca Flayman, RN, and Samuel Ostrower, MD, at the bedside of a patient who had just been assessed for a tracheostomy. His parents are in the foreground.



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Sheila Shearer: The Lung Transplant Team

Duke University Medical Center in Durham, NC, has performed more than 1,800 lung transplants over the past 25–30 years. Sheila Shearer, RRT, AE-C, has been a member of the multidisciplinary team that prepares patients to undergo this life-saving surgery since 1981.

"The Duke lung transplant team consists of a representative from all disciplines involved in the patient's care," says Shearer. Surgeons, pulmonologists, physician assistants, nurse coordinators, pulmonary rehabilitation therapists, social workers, psychologists, dieticians, and financial services representatives all come into play at one time or another.

Shearer and her colleagues gather one morning each week to go over the current list of patients. In addition to assessing the person's overall health and determining whether the patient could benefit from a transplant, they look at the support systems to help the patient prepare for and recover from the surgery. "The team places a great deal of weight on whether we feel the patient is physically ready and robust enough to make it through the transplant and recuperate following the surgery," says the AARC member.

Every member of the team has a specific role to play, and it all begins when the patient visits Duke for an intense, week-long assessment. Shearer does a complete respiratory assessment, including a six-minute walk test, and she educates each patient about their oxygen use and how to titrate with various activities. She may also recommend additional or alternative equipment, and she educates the patient about the physical requirements for receiving a new set of lungs.

Knowing those requirements helps motivate patients to stick with the exercise that will be needed to get them in shape for the surgery. "These are incredibly sick patients, and my job is to ensure we are exercising them safely," emphasizes Shearer. Realizing when to push, and perhaps more importantly, when the patient has had enough, is a big part of her job. "No one knows that better than a respiratory therapist who is used to caring for short-of-breath, anxious patients." With the right support in terms of oxygen and guidance, she says it is amazing what patients can accomplish.

Since most of the patients who end up receiving a lung transplant at Duke come from far away, patients are advised to join a local pulmonary rehabilitation program when they go back home. If they are accepted for the surgery, they relocate to the Durham area and continue pulmonary rehab with Shearer and her colleagues. "The team believes our rehab program is a huge part of why our outcomes have been as good as they are," says Shearer. "We want them to be educated about this difficult surgery, recovery, and change in lifestyle down the road. A transplant is not for everyone."

Sheila Shearer, left, works with fellow RT Wanda Salzer, RRT, and other members of the interdisciplinary team to help lung transplant patients get ready for surgery.

Craig Black and Sarah Schroeder: Interdisciplinary Teamwork Begins with Education

Interdisciplinary teamwork may be the new watchword when it comes to caring for patients, but as most clinicians know, health professions education, whether it be in the college or university setting or on the job, still occurs mainly in silos. Many educators believe that needs to change, and in some places, it already has.

About five years ago, the provost at the University of Toledo in Toledo, OH, challenged health educators on campus to develop a comprehensive interprofessional education program that would involve all of the students studying to become health professionals. They formed a faculty steering committee that developed a year-long program. It went into operation three years ago, and respiratory therapy students are a key part of the mix. "… Students and faculty from nine different professions participate — medicine, nursing, pharmacy, public health, physical therapy, occupational therapy, respiratory care, speech-language pathology, and social work," says Craig Black, PhD, RRT-NPS, FAARC, who heads up the respiratory care program at the school. About 600 first-year students are involved, broken down into 45 individual groups of about 12 students each.

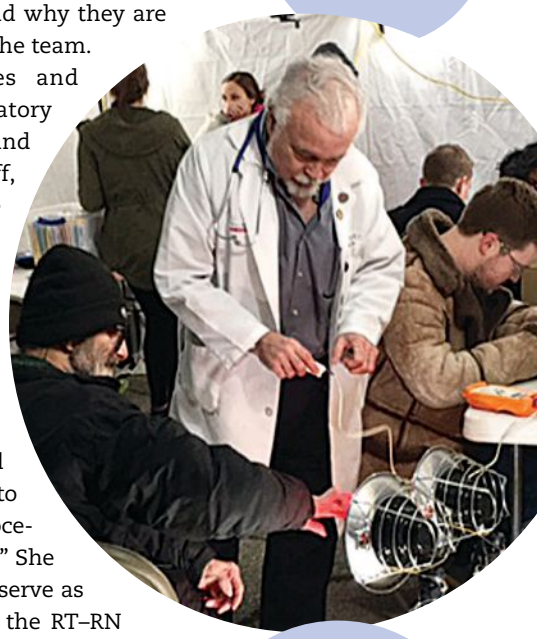
Students meet for two hours every other Friday during their first semester, and groups are arranged to allow for as much diversity as possible. "The first exercise is focused on acquainting the groups with the various professions," says Dr. Black. "Students from each profession in the group develop short explanations of what their profession does and present them to the rest of the group." From there, students work in teams to develop interdisciplinary treatment plans for standardized patients and take part in simulations using the high-fidelity mannequins in the university's four-story, state-of-the-art medical simulation center.

The second semester builds on those experiences through a series of self-scheduled exercises developed by the faculty, including code situations and observations in clinical facilities in the area that involve interprofessional interactions. Two weekly free clinics staffed by University of Toledo health care students and faculty add to the experience. One clinic meets in a large church facility, while the other is a "flying" clinic that visits two or three sites in downtown Toledo in a single evening. Students quickly set up a large tent and treat any patient who comes in. Equipment, medications, and patient records are carried in portable plastic totes.

At Aspirus Wausau Hospital in Wausau, WI, respiratory therapists take part in multidisciplinary rounds where they share their plan of care, ventilation strategies, if applicable, and the potential discharge needs of their patients. That level of involvement can, at least in part, be traced to Sarah Schroeder, RRT. As clinical educator of respiratory therapy, she provides in-service education to the therapists in her department and works closely with nurses to ensure they understand what RTs do and why they are valuable members of the team.

Sarah Schroeder, center, helps nurses get up to speed on respiratory patients and their treatment.

"I provide classes and in-services on respiratory topics to both new and seasoned nursing staff, and critical care nurse orientation also includes a shadow with an RT," says the AARC member. "Both of these opportunities invite the nurses into a safe environment to learn and ask questions related to respiratory therapy procedures and equipment." She believes the sessions serve as a "great beginning to the RT–RN relationship" that is so important in patient care. As a result, decision makers have noticed the benefits and are increasingly recognizing the value that therapists add to any team caring for respiratory patients.



Craig Black sees a patient in the "flying" interdisciplinary clinic that is part of the Interprofessional Education Program for health care students at the University of Toledo.

The clinical educator position is now a full-time job, and the facility has budgeted for a respiratory care discharge coordinator as well. "I think that RTs being involved in multidisciplinary education as well as discharge coordination is going to be crucial in the future of RT departments," says Schroeder. "Not only will it allow for career advancement of respiratory therapists, but it will serve a great benefit to the staff and patients." ■

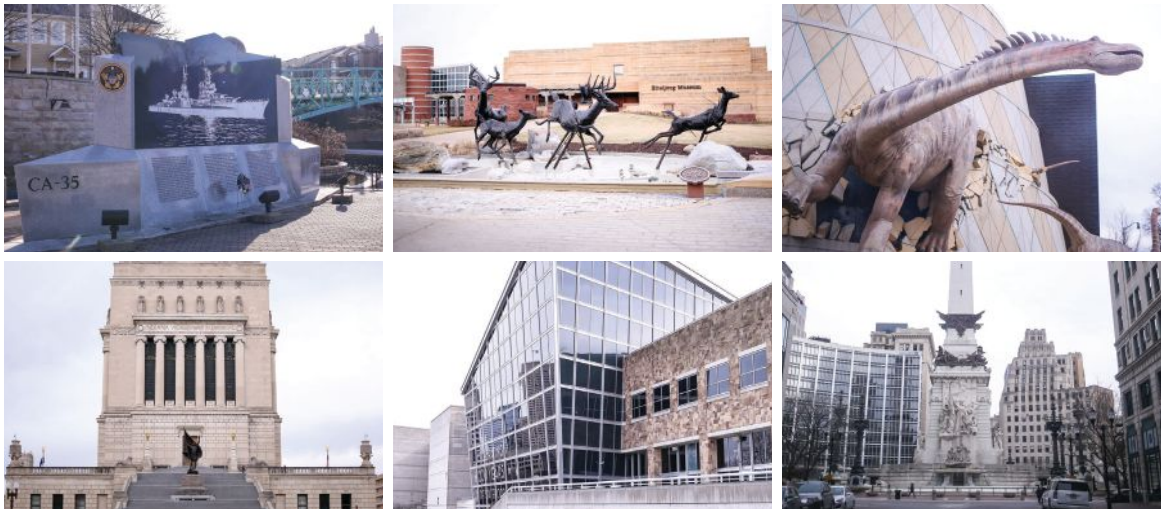
Indy INSIDER

Photos left to right, top to bottom: Original Farmers' Market at the Indianapolis City Market (Photo courtesy of Kelley Jordan, VisitIndy.com); food trucks lined up on Georgia Street (Photo courtesy of VisitIndy.com); Pacers Bikeshare (Photo courtesy of VisitIndy.com); the Rathskeller in the Anthenaeum German cultural center (Photo courtesy of Kevin Foster); Indy Skyline (Photo courtesy of VisitIndy.com); pedal boats on the Central Canal (Photo courtesy of VisitIndy.com); Monon Trail (Photo courtesy of Jason Lavengood, VisitIndy.com); the Artsgarden (Photo courtesy of VisitIndy.com).

Explore the Hidden Treasures of Indianapolis During AARC Congress 2017

by Jeff Scott, BS, RRT

Photos left to right, top to bottom: The USS Indianapolis Memorial is located on the canal; the Eiteljorg Museum focuses on Native Americans and Western art; kids of all ages will love the Indianapolis Children's Museum; the Indiana World War Memorial Plaza honors our armed forces; the canal-side view of the Indiana State Museum; the State Soldiers and Sailors Monument is located right in the middle of fabulous downtown Indianapolis (Photos courtesy of Samuel Bate (sambatephotography.com), the son of AARC member and Indiana native Cheri Bate, MA, RRT).



The AARC's International Respiratory Convention & Exhibition is the largest and most comprehensive respiratory care meeting in the world. This year we're bringing it to Indianapolis — voted "Best Convention City" by the *USA TODAY* Reader's Choice Poll of 2014. Over the next few months, we will be hearing all about Indianapolis from members of the Indiana Society for Respiratory Care. Jeff Scott kicks things all off in this edition with museums close to the convention center. Stay tuned for more on the great places to experience in Indianapolis, coming up in our July and September issues of *AARC Times*.

Indianapolis is a city rich in history and culture, with attractions that appeal to diverse styles. It is home to the Indianapolis 500, the National Hot Rod Association Nationals, and the Indianapolis Colts and Pacers professional sports franchises, just to name a few. We are also home to a wide variety of hidden treasures, including a large number of award-winning museums, many of them located in the heart of Indianapolis.

Visiting a museum is always a unique experience, as each has its own distinct character, style, and, of course, content. Several of our museums are located in our urban state park, White River State Park, and are within easy walking distance of the convention center. They feature exhibits on cultural, political, and physical achievements in the state of Indiana and beyond. White River State Park also offers a relaxing canal walk with views of the city skyline, as well as lots of green space and attractions.

The Indiana State Museum, located across the street from the JW Marriott, brings the past to life with its exhibits on Indiana history, from prehistoric times to the present. It also includes displays exploring nature, the arts, science, and culture. The facility boasts approximately 300,000 artifacts filling over 40,000 square feet of exhibit space. It also houses the state's largest three-story IMAX Theater.

The Eiteljorg Museum of American Indians and Western Art, located next to the Indiana State Museum, displays various aspects of life in America's Wild West. A number of the works bear the names of such renowned artists as Georgia O'Keeffe and Frederick Remington. Some of the displays highlight artifacts chronicling the trials and tribulations of Native Americans.

The NCAA Hall of Champions, also on the canal, boasts two levels of interactive exhibits to engage visitors and create a true-to-life understanding of

The AARC will present its 63rd Annual International Respiratory Convention & Exhibition in Indianapolis, IN, Oct. 4–7, 2017 (Wednesday–Saturday). Be sure to watch for the Congress Advance Program and registration information to appear in the July edition of *AARC Times* and on the AARC website in mid-June.

what it takes to make the grade. On the first level, all 23 NCAA sports are represented. You'll find a novice-historian trivia challenge, current team rankings, video highlights, and artifacts donated from colleges and universities across the nation. On the second level, a fully interactive area offers the ability for virtual and hands-on competition, while a media room displays current games on seven television screens, and a 1930s retro basketball gymnasium takes visitors back in time.

The Indiana World War Memorial Plaza Historic District contains two museums, three parks, and 24 acres of monuments, statues, sculptures, and fountains, making Indianapolis second only to Washington, DC, in acreage and number of monuments dedicated to veterans. This memorial was constructed to commemorate the valor and sacrifice of the United States Armed Forces and to honor Hoosier veterans and Indiana's role in the nation's conflicts.

Many other nationally recognized museums are just a short drive beyond downtown. The Indianapolis Children's Museum is the largest of its kind in the country, touting interactive exhibits for children and adults of all ages. The Indianapolis Motor Speedway Museum contains 100 years of rich exhibits and racing history.

You can wrap up your Indianapolis museum tour with a walk on the three-mile canal loop, which is a popular urban respite for fitness enthusiasts and serenity seekers alike. This downtown waterfront is dotted with pedal boats and gondolas, bicycles, surreys, and even Segways.

Our hope as Hoosiers is that, during your visit to AARC Congress 2017, you will take some time to explore our city and open up one of these Indianapolis hidden treasures. ■

Jeff Scott is a clinical specialist/team leader at the Indiana University Health Sleep Apnea Education Center and president of the Indiana Society for Respiratory Care.

Photos left to right, top to bottom:
The NCAA Hall of Champions (Photo courtesy of IM Imagebank, VisitIndy.com); the Indianapolis Zoo (Photo courtesy of VisitIndy.com); the Fountain Square Theater Building and The Central Canal (Photos courtesy of Lavengood Photography).

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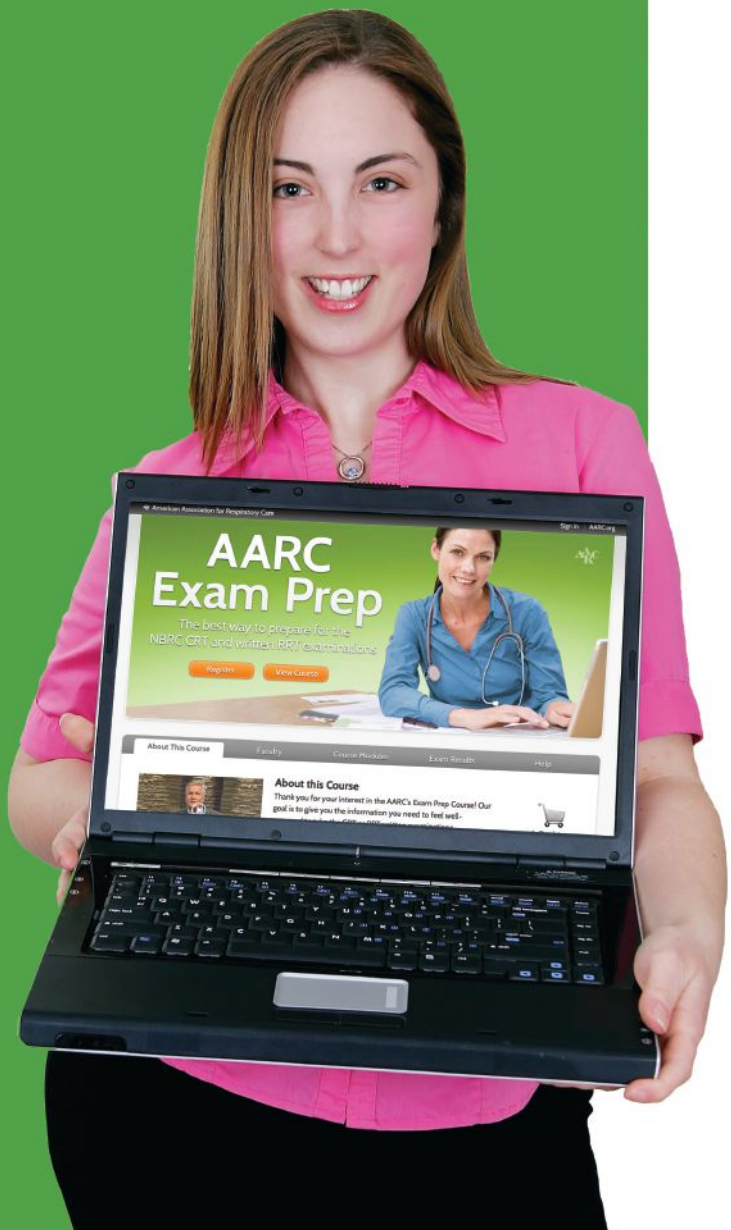

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The AARC Exam Prep Course is an educational program of the American Association for Respiratory Care.

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Industry Watch

Teleflex acquires Pyng Medical

Teleflex has acquired Pyng Medical, a Canadian company that commercializes award-winning trauma and resuscitation products for frontline critical care and emergency medical personnel. The company's expanded product portfolio includes a variety of innovative, lifesaving tools, including intra-osseous infusion, pelvic stabilization, hemorrhage control, and emergency airway management.

Dust mite allergy vaccine study begins

Allergy Therapeutics has announced that the Phase I clinical study investigating the safety and tolerability of Acarovac MPL (monophosphoryl lipid A), a novel house dust mite allergy vaccine, has received clinical trial application approval in Spain.

Acarovac MPL builds on the technologies used in the successful Pollinex® Quattro range of subcutaneous allergy immunotherapies, as well as on the demonstrated efficacy of the existing product platform of Acarovac Plus™. The Phase I study will assess the safety and tolerability of two different dosing regimens.

SPIRIVA® RESPIMAT® receives expanded FDA approval

The FDA has approved a supplemental new drug application for Boehringer Ingelheim's SPIRIVA® RESPIMAT® (tiotropium bromide) Inhalation Spray as a maintenance treatment for asthma. The approval expands the indication to include children ages six and older. SPIRIVA RESPIMAT was previously approved as an asthma treatment for adults and adolescents.

"For nearly a century, Boehringer Ingelheim has been focused on addressing serious unmet needs," says Sabine Luik, MD, senior vice president of medicine and regulatory affairs at Boehringer Ingelheim Pharmaceuticals, Inc. "This approval is further evidence of our ongoing commitment to improving the lives of the patients we serve."

Chiesi named USA as top employer

For the second year in a row, Chiesi USA, Inc., has been named a Top Employer in the United States. The award is certified by the Top Employers Institute, an Amsterdam-based organization that measures employment practices worldwide. "Chiesi USA, Inc. provides exceptional employee conditions, nurtures and develops talent throughout all levels of the organization, and has demonstrated its leadership status in the HR environment," the Institute said in a statement.

ResMed recognized for growth in remote patient monitoring

According to the annual Health & Home Monitoring report released by independent technology analyst firm Berg Insight, ResMed's global lead in remote patient monitoring kept growing in 2016, as the industry itself continued to expand. "The number of remotely monitored sleep therapy patients grew by 70% in 2016," the report states, "with market growth mainly driven by the vendor ResMed that has made connected health care a cornerstone of its strategy."

Reliq Health Technologies signs agreement with Paz Home Health

Reliq Health Technologies, Inc., has signed an agreement with Paz Home Health, LLC, to provide Reliq's mobile health and telemedicine solutions to their home care clients. Patient enrollment will begin in June with 500 patients, with the expectation of building to more than 10,000 patients in 2018.

"Our secure, cloud-based care-collaboration platform provides the clinical care team, patient, and family members with real-time access to patient health information, including trends over time," Reliq CEO Dr. Lisa Crossley noted. "This helps the care team identify patients whose condition is becoming unstable and intervene early, before a serious complication develops."

Industry Update

Featuring information on products and equipment from manufacturers

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RC Currents

IN THE NEWS

Moving on Up

The Certification Board for Professionals in Patient Safety (CBPPS) recently recognized Kevin McQueen, MHA, RRT, CM, as a Certified Professional in Patient Safety (CPPS). "Earning this credential attests to Kevin's professional competency in patient-safety science and application," noted CBPPS President Tejal K. Gandhi, MD, MPH, CPPS. "This achievement demonstrates his expertise in this critical discipline and positions him among those committed to and leading patient safety work." McQueen currently serves as director of safety/patient safety officer at Tri-City Medical Center in Oceanside, CA. He is also co-chair of the AARC's Patient Safety Roundtable.

CBPPS, which was established by, but is a separate organizational entity from, the National Patient Safety Foundation, was created to advance, standardize, and promote patient-safety knowledge competencies for health care professionals. Successful completion of the rigorously designed CPPS exam attests to a candidate's knowledge of essential patient-safety competencies, and those who are awarded the CPPS credential represent a group of committed professionals from across health care determined to advance the patient-safety field and make the health care system safer for all. To learn more, visit www.cbpps.org. ■

Educators:
Help Recognize Outstanding Students

Applications for undergraduate and postgraduate Education Recognition Awards sponsored by the American Respiratory Care Foundation (ARCF) are due by June 1. If you are a student in an accredited RT program, consider applying today. If you are an educator, let your students know about these opportunities and encourage them to take advantage of them. Awards include registration and airfare to attend the AARC Congress in 2017. You can see all of the Education Recognition Awards available through the ARCF at www.arcfoundation.org/awards. For more information, contact Crystal Maldonado at crystal.maldonado@aarc.org ■

AARC Honors Members Who Have Passed Away

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 in our "Transitions" column here in *AARC Times*. ■

Volunteer Your Time and Expertise to Your Profession

by Brian K. Walsh, MBA, RRT-NPS, FAARC, 2017–2018 AARC President

For those of you who are reading this, I first want to thank you for paying your dues and taking the first steps in becoming a mature professional. I am dreaming up big plans for my term as president, and I realize that my dreams for you and our profession will be null and void if I don't receive vital assistance from my colleagues — AARC members. You have heard of the 80/20 rule, right? Twenty percent of the individuals involved doing 80% of the work. Well, it's no different in a volunteer organization. I am asking you to come out of the shadows, mature as a professional, and volunteer your time and expertise to our professional organization.

Having RT volunteers not only facilitates our growth as a profession and association but also presents all volunteers with the opportunity to develop and advance their leadership skills, increase their professional contacts, and give back to the patients we serve and the profession we love. Respiratory care has given me opportunities to provide for my family; meet, teach, and learn from wonderful individuals; and help a few people breathe better along the way. It's been a wonderful and exciting journey and I am privileged to give back. And so should you! Volunteers have always been the heart of the AARC and its leadership. Our strength and advancement comes from the countless hours of support volunteers provide through their time and knowledge toward the betterment of their patients, colleagues, and profession.

There are many people like you who need and use the professional tools the AARC provides. Why not get in on the ground floor and collaborate with your fellow RTs to develop new tools to help us improve and grow as respiratory care professionals?

We need you to volunteer your expertise and skills to work on various committees for the AARC to accomplish the important work needed. Although the AARC has a staff to do some of the heavy and complex work, it is really members like you who help set the direction and pace at which we travel.

There is enormous momentum and potential for our profession right now. No one individual can accomplish everything we need to do. I know that dedicated respiratory therapists supporting the AARC's efforts can make vast strides for ensuring high-quality patient care in the continuum of care and securing the RT's rightful place in the changing health care system.

AARC members always help keep a constant flow of creativity and energy for what we can do as a collective. We need everyone's input. With the ever-increasing responsibilities respiratory therapists have, we need you to help us identify and meet your professional needs.

This is your Association, and now is the time for you to take the next step in your professional journey and get involved. We have committees specifically designed to serve the strategic goals of the AARC. Creating a diverse group of individuals to serve on these committees is one of our biggest, yet most rewarding, challenges. It is this special mixture that makes it possible for the AARC to continue being the vital professional organization it always has been by mentoring in new talent. It also ensures the future of the respiratory therapist in the health care environment as we witness some of the most sweeping changes in history. Truth be told, we haven't always accomplished these goals, but it's not from a lack of trying — it's from a lack of volunteers like you.

Please consider this a friendly challenge — and think about how you can help your Association, the profession, and the patients we serve. Take time now to network with your fellow AARC members — perhaps someone active in your state society — whom you believe could contribute special talents or services to the AARC. Encourage them to volunteer so that we can capitalize on the vast expertise available in our Association membership.

I leave you with a nerdy joke by Albert Einstein: "You are living, you occupy space, you have a mass — YOU MATTER!" The sky's the limit when you join me by volunteering your time, talents, and abilities.

You can write to me at the AARC Executive Office: 9425 N. MacArthur Blvd., Suite 100, Irving, TX 75063; c/o Kuykendall@AARC.org. Tell me how you would like to serve and provide a copy of your resume so I can consider how to best use your talents.

We can continue to reach milestones in the respiratory care profession if we all work together. Thank you for supporting your professional organization, the AARC. I look forward to working with you. ■

— Storytellers —

Most therapists can recall a patient or two who really stood out in their minds. They're the ones you tell your family and friends about because they were just that memorable. Now we're hoping you will share them with us in our "Storytellers" column. Any good story qualifies for consideration! Maybe it was that moment when you knew you had made the right professional decision for that patient. Maybe it was the day you first realized how much difference you were making in her life and the lives of her family members. Or maybe it was something the patient said or did that made you laugh or cry or just be inspired to be a better RT. Send your stories to *AARC Times* Editor Marsha Cathcart at cathcart@aarc.org. ■

Recently Retired?

We Want To Hear from You

Retirement is a great time to revisit your career in respiratory care, and our "Reflections" column is the place to do it. We'd like you to look back at the years you spent in the profession and tell us what they meant to you and why. So start brainstorming some ideas and then submit your story to *AARC Times* Editor Marsha Cathcart at cathcart@aarc.org. ■

Price Break for Students and Seniors

Students nearing graduation face credentialing and licensure fees. AARC members who are 65 and over know they'll soon be living on a fixed income. The AARC recognizes these financial realities of life and has set up special discounted membership categories for both of these groups.

The transitional student membership is available to student members who renew their membership prior to or soon after graduation. Those who renew at least 91 days before receiving your diploma will save the most on dues, but savings are available up to 150 days past graduation, too. If you're nearing graduation, look for an email with specific instructions on how to claim this special membership price break, or call AARC Customer Service at (972) 243-2272 to participate.

AARC Members age 65 and older who have held their membership for at least 20 years are eligible to maintain it for just $25 per year. Alternatively, they can pay $200 and become members for life. This digital membership gives these loyal members the chance to stay in touch with everything going on in the respiratory care profession while they're planning for or entering retirement. Members eligible for this senior status can call AARC Customer Service at (972) 243-2272 to learn more about the program. ■

Outlook Improving for Tiniest Preemies

Only about one in three infants born at 22–24 weeks of gestation survive, but that's slightly better than a decade ago, report Duke Health researchers who analyzed the records of 4,274 infants at 11 academic medical centers in the Neonatal Research Network. Among infants born between 2000 and 2003, about 30% survived vs. 36% for those born from 2008 to 2011.

The proportion of infants who survived but were found to have cognitive and motor impairment at 18–22 months stayed about the same over the 12-year period, at 14–16%. But the proportion who survived without evidence of moderate or severe neurological impairment improved from 16% to 20%. One reason for the improved outcomes, note the investigators, may be the increased use of steroids to help mature and strengthen the fetus' lungs prior to birth. A drop in infection rates in NICUs may also be a factor. The study was published in a recent edition of *The New England Journal of Medicine*. ■

Could This Be a Cure for Asthma?

Could a single protein hold the key to curing asthma? Maybe it can, find University of North Carolina researchers who looked at levels of the SPLUNC1 protein and how this affects airway function.

The investigators began by measuring SPLUNC1 levels in airway samples obtained from people with asthma and healthy volunteers. Results showed SPLUNC1 was markedly reduced in people with asthma. From there they examined SPLUNC1 in mice. Depletion caused asthma-like symptoms in the animals as well, but when it was restored, airway hyper-responsiveness was reversed.

Further study showed that SPLUNC1 regulates the contraction of the airway smooth muscle by preventing calcium entry into smooth muscle cells, a finding the researchers believe provides a mechanistic explanation of how a deficiency of this protein might lead to airway hyper-responsiveness. Replenishing the whole protein or a part of it using a nebulizer or inhaler may one day be an effective treatment for asthma. The study was published in a recent edition of *Nature Communications*. ■

TIPs to the Rescue!

Researchers from Rutgers University are developing a new class of drugs aimed at defusing the viruses that cause everything from influenza to Ebola. Therapeutic interfering particles (TIPs) are tiny virus-like entities with engineered genetic material that encodes defective viral proteins. Like viruses, TIPs can enter cells, but they don't replicate unless the cells are also infected with the virus.

For example, in a cell infected with both an influenza virus and a TIP, the cell makes copies of the TIP genome that compete for viral proteins. The goal is for harmless TIPs to outnumber flu virus genetic elements so that infected cells generate relatively few infectious viruses and a bumper crop of "dud viruses" with TIP genes, rapidly diluting the harmful viruses and halting the infection.

In preliminary studies, TIPs in cells grown in culture dishes slashed viral counts nearly 20-fold. The concept will now be tested in animal models. The research is being advanced through a grant of $820,000 from the Defense Advanced Research Projects Agency. ■

Kinder, Gentler Approach to Anti-smoking Ads

Scare tactics might not be the best way to encourage people to quit smoking. According to University of Michigan researchers who took a kinder and gentler approach, evoking cherished memories offers a better way.

The investigators reached that conclusion after subjecting smokers between the ages of 18 and 39 to a public service announcement (PSA) designed to tug at their heartstrings and then comparing their reactions to that PSA to those of a control PSA. The intervention PSA used phrases like "I remember when I was a boy" and "I miss the simplicity of life, being outside on a warm summer night," and made references to familiar smells and tastes from bygone days. The announcement ended with the narrator remembering when someone introduced him to cigarettes, followed by a call to quit. Compared to the control PSA, participants reported greater nostalgic emotions and displayed stronger negative attitudes toward smoking. Women were more affected than men.

"Our study, which to our knowledge is first of its kind, shows promise for using nostalgic messages to promote pro-social behaviors," study author Maria Lapinski was quoted as saying. The research appeared in *Communication Research Reports* earlier this year. ■

Study Proves CVS Tobacco Sale Ban Was Beneficial

Did the CVS decision to quit selling tobacco products do any good? Yes, it did, report Rhode Island researchers publishing in a recent edition of the *American Journal of Public Health* — at least among regular cigarette purchasers at CVS.

Using data on household cigarette purchasing, they found people who only purchased their cigarettes at CVS stores were 38% more likely than others to quit purchasing cigarettes altogether after the ban went into effect. State-level analysis showed states with CVS stores had a significant decrease in cigarette purchasing after the pharmacy chain removed cigarettes from its shelves, which was more than states without CVS stores. The researchers believe these findings suggest private retailers can play a meaningful role in restricting access to tobacco. ■

Opioids + Alcohol Worsens Respiratory Depression

Patients who are on opioid pain medications should be advised not to drink alcohol, find Dutch researchers who examined the effect of taking oxycodone in combination with alcohol on breathing in 12 healthy young volunteers ages 21–28 and 12 elderly volunteers ages 66–77. None had previously been taking opioids. Results showed that one oxycodone tablet reduced baseline minute ventilation by 28%. The addition of 1 g/L ethanol led to another 19% decrease, for a total decrease of 47%. The addition of ethanol to oxycodone also caused a significant increase in apneas, which went from 0–3 events with no ethanol to 0–11 events with 1 g/L ethanol. Elderly people in the study were more likely to experience repeated episodes of apnea. The study was published online by *Anesthesiology* earlier this year. ■

Telephone Counseling Helps Smokers Quit

Lung cancer screening can help detect cancers while they are still small enough to be treated successfully. Now U.S. researchers find coupling that screening with telephone counseling on smoking cessation can help smokers kick the habit, too.

The study was conducted among 92 people about to undergo lung cancer screening who agreed to receive either telephone counseling or standard care consisting of a list of free and low-cost cessation resources. Following screening, 46 were randomized to the telephone counseling group and the rest served as controls. Each group had the same number of participants with abnormal screening findings indicating possible precancerous lesions or COPD, the same number with minor abnormalities on their screen, and the same number with normal results. None of the participants were diagnosed with lung cancer.

Results showed eight of the people in the telephone counseling group, or 17%, had quit smoking at the end of the three-month study vs. just two of the people in the control group, or 4%. "If this preliminary study is replicated, telephone counseling has the potential to improve cessation in a setting that reaches a large number of hard-to-reach, long-term smokers who are at very high risk for multiple tobacco-related diseases," says study author Kathryn L. Taylor, PhD, from the Georgetown Lombardi Comprehensive Cancer Center. The study appeared in a recent edition of *Lung Cancer*. ■

Smoking Stats Prove Need for Smoking Cessation

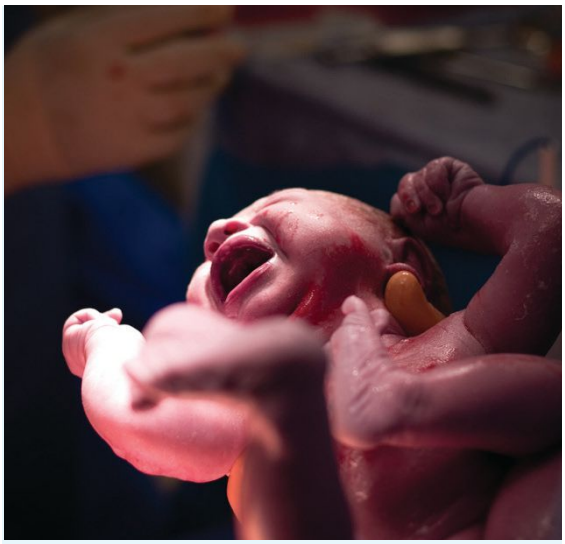
A new study in T*he New England Journal of Medicine* suggests much more work needs to be done to reduce the health burden brought about by smoking. According to the investigators:

- 38% of adults under age 25 were smokers in 2013–2014 vs. 26% of adults age 25 and older.
- One in ten teens had used tobacco within the past 30 days, and cigarettes were the most common product used.
- Four in ten tobacco users consumed more than one type of tobacco product, with the most common combination being cigarettes plus e-cigarettes.

The study was supported by the U.S. Department of Health and Human Services. ■

Organize a Practitioner Team for the Sputum Bowl Today!

To host a Practitioner competition at this year's Sputum Bowl in Indianapolis, the AARC requires 15 teams to be registered by July 15. So if you're thinking about fielding a team, now's the time to sign up your group! Go here to read more about the Sputum Bowl and find the team registration forms: http://www.aarc.org/resources/programs-projects/aarc-sputum-bowl/ ■



Antibiotics May Disrupt the Infant Immune System

The antibiotics given to women undergoing a c-section and newborns at risk for infections may be backfiring when it comes to the lungs, report Cincinnati Children's Hospital Medical Center researchers publishing in a recent edition of *Science Translational Medicine*. They found strong immune defenses depend on a flow of molecular signals from the gut to the lung, which occurs as the body reacts to waves of normal bacteria colonizing the gut. These signals tell the lungs when to build immune cells, how many to build, and where they should be deployed.

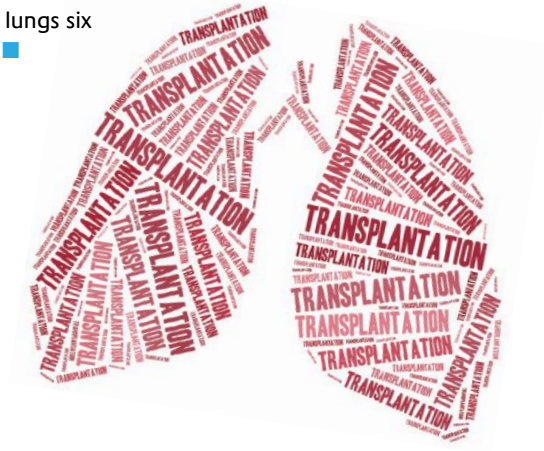
Since antibiotics wipe out good bacteria along with the bad, they may be cutting off the flow of signals, resulting in weaker lungs that are more prone to develop pneumonia and other infections. In a study conducted in mice, even short-term antibiotic use led to a higher risk of pneumonia, and mice who acquired the disease were more likely to die from it.

The investigators believe if antibiotics are only used for a short time, the infant's lungs can recover, but if they are used over a longer period of time, the damage can become permanent because the infant immune system is finished developing at about the age of one. ■

Strange But True...

Early warning system:
Stanford researchers have come up with software programs that can be used in smart watches and other personal biosensor devices to tell whether a person is getting sick with a cold, the flu, or other illnesses before the first symptoms are even felt. By measuring parameters like oxygen level, heart rate, and skin temperature on a regular basis, the software can immediately alert the wearer when measures go outside of norms, suggesting an illness may be brewing.

What a feat!
A Canadian woman with cystic fibrosis became the first patient to ever have both of her lungs removed in an attempt to gain control of a deadly infection spreading through her body while she awaited a lung transplant. How did she stay alive? A combination of two external life-support circuits connected to her heart, a Novalung device, and extracorporeal membrane oxygenation did the trick. She received her new set of lungs six days later. ■



Calendar of Events

AARC & State Society Programs

May 1–3, 2017
Wisconsin Dells, WI
North Regional Respiratory Care Conference
Contact: bsherwood@corerespiratory.com

May 2–3, 2017
Plantsville, CT
Connecticut Society for Respiratory Care
Contact: cdills@hfsc.org

May 3–5, 2017
Vail, CO
Colorado Society State Conference
Contact: delegate@colosrc.org

May 15–17, 2017
Sioux Falls, SD
SDSRC Annual Conference and Meeting
Contact: sdsrc.president@gmail.com

May 22–24, 2017
Virginia Beach, VA
The 40th Annual Symposium by the Sea
Contact: terrelldowning@yahoo.com

May 31–June 2, 2017
Oak Brook Terrace, IL
49th Illinois Society for Respiratory Care Conference
Contact: http://www.isrc.org or stricdeck@gmail.com

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Monaghan www.monaghanmed.com	3
Teleflex (866) 246-6900	C2

For information on submitting calendar events, go to: http://tinyurl.com/aarcstatemeeting

I Have Serendipity To Thank

by Susan P. Pilbeam, MS, RRT, FAARC

The dean of the College of Medicine at Ohio State called it serendipitous. In 1972, I applied for the job of clinical coordinator for a new bachelor's degree program in respiratory therapy. At the time, I was one of about half a dozen people in the country with the required master's degree and hospital experience. Fortunately, I got the job and my professional life began.

Cherished moment

Respiratory therapy has allowed me to do all that I love: caring for people, teaching, public speaking, working with talented professionals, traveling both nationally and internationally, and best of all, making friends.

Some of my fondest memories are from my position at Georgia State University (GSU). John Youtsey, PhD, RRT, one of the best bosses I ever had, was program director when I taught there from 1976 to 1986. He sadly died too young. But there I met some lifelong friends, including Vijay Deshpande, MS, RRT, FAARC.

In 1978, I started writing the first edition of my book on mechanical ventilation. The initial chapters were written on a typewriter. We had no personal computers. As I wrote, I verified each statement of fact in the literature. It was how I was trained. It once took me four hours in the stacks at Emory's medical library to find articles describing the distribution of gas in the lungs during a positive pressure breath. There was no Google or Internet. I loved the stacks.

In its 5th edition of my book, the title changed to "Pilbeam's Mechanical Ventilation," one of the cherished moments of my career, thanks to James Cairo, PhD, RRT, FAARC.

about the author...

Susan Pilbeam is enjoying retirement from her home in St. Augustine, FL.

A remarkable adventure

In 1986 I left my tenured faculty position at GSU to start a remarkable adventure with my husband, Bob Wazgar. Project HOPE (remember the boat?) hired me to help coordinate the development of a respiratory therapy program at the University of Costa Rica, San Juan. As its program director, I needed to teach in Spanish. At the time, I knew two words of Spanish, and you know what they are. Thanks to two very dear friends, Helen Cohen de Monterroso, BS, RRT, who served as our clinical coordinator, and Isabel Mesen, our administrative assistant, my students managed to learn something. Also, I had learned another language and a new culture. (Find me a bar, buy me a drink, and I will fill your head with Latin tales.)

I want to thank Vijay for getting me to visit his country, India. In 2002, I was invited to speak at India's National Anesthesiology Society Meeting and to lecture before several groups of physicians around Mumbai and southern India. By 2010, we were teaching mechanical ventilation to residents at Saifee Hospital in Mumbai, with the clinical application of neutrally adjusted ventilatory assist (NAVA). To me, NAVA is one of the brilliant ideas in ventilation, and the technology is certainly one that shows how far we have come since the beginning of my career, when I once used a bucket of water to provide positive end-expiratory pressure (PEEP).

Life goes on

My last position in respiratory care was with a medical equipment company. While it was apparent that some of my colleagues thought I had gone "to the

dark side," it paid nearly double what I'd made teaching and helped raise my Social Security income for retirement. It also introduced me to very intelligent and skilled RTs.

Unlike some, I don't find retirement boring. I've learned I'm talented as a painter using watercolors and oils. I love studying French. And I have time now to travel. But my time is running out. Many friends have sadly already left this life. So here's my advice to you, by way of Joanne Woodward in "The Fugitive Kind," a movie based on a Tennessee Williams play: "The dead are chattering away like birds here at Wisteria Hill Cemetery. All they can say is one word... live... live... live. It's the only advice they can give." ■

Pilbeam and her husband Bob Wazgar enjoy the mountains of Banff during a recent trip to Canada.

Susan Pilbeam, MS, RRT, FAARC, has taken up painting in her retirement.

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