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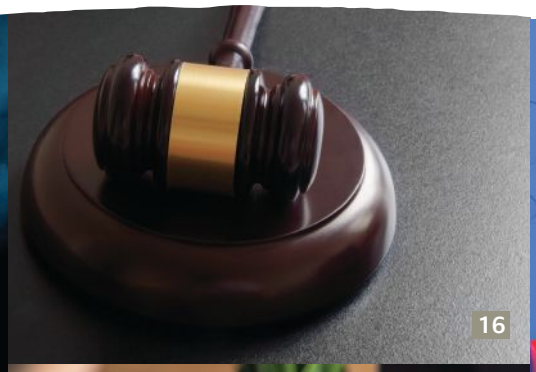

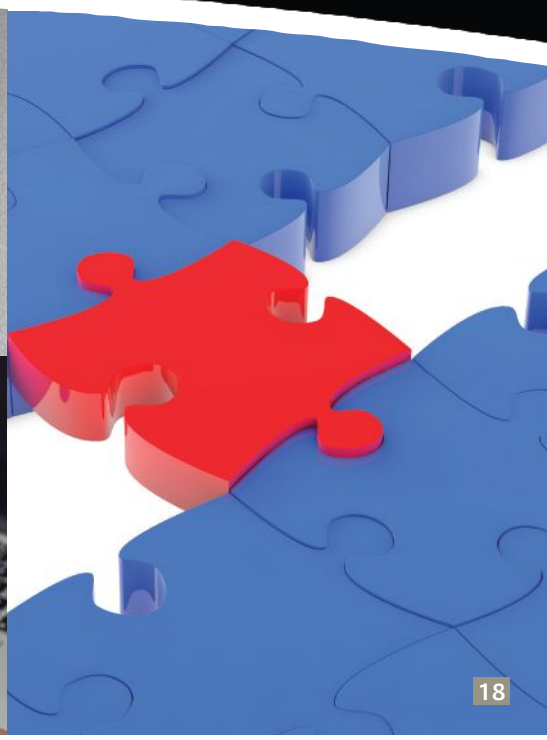

AARC Strategic Plan

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

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

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Diversity in Respiratory Care — Why We All Should Care

by Brian K. Walsh, PhD, RRT-NPS, RRT-ACCS, RPFT, AE-C, FAARC

As America transitions from one president to another and we also transition from one health care reform act to another, it's important to pause and take a look at diversity within our profession. Diversity is not easily defined and means different things to different people. For the most part, diversity refers to the combination of certain dimensions of difference. Often biology, gender, age, culture, religion, sexual preference, and education are considered. Diversity is a concept that morphs and changes with society and ideologies. The pursuit of diversity is sound management and leadership but has largely been ignored as a relevant issue in health care research and practices. As president of the AARC, I would like to share with you my thoughts and opportunities for the future of our profession.

about the author...

Brian K. Walsh, PhD, RRT-NPS, RRT-ACCS, RPFT, AE-C, FAARC, is president of the AARC.

Diversity among respiratory therapists

According to the AARC 2014 Human Resource Survey,[1] the majority of our workforce is female (67%) and white and non-Hispanic (68%). Women within the profession are up 8% from the 2009 survey. Hispanics represent the largest minority at 28%. This is up 19% from the previous survey in 2009. From an educational perspective, RTs are largely a workforce of respiratory therapists holding a two-year degree. RTs with baccalaureate or higher degrees represent 41% of the workforce. The average age was 45 in 2014, which was down from 48. While many of the differences between the 2009 and 2014 surveys are improvements, we have some work to do.

Why diversity is important

At the last estimate, we are a profession of roughly 172,000 therapists, serving millions of patients each year. Diversity is not only important but a reality. We are not the same. We come from many different places and have many different identities and experiences. It is not widely acknowledged that differences matter and can have professional and clinical implications. Having only one kind of respiratory therapist is flat-out bad for all of us, and it certainly does not reflect the patient population we serve. Diversity is reality, and we must do our part to ensure our profession reflects this reality.

Diversity makes us stronger as a profession. Being diverse allows us to change more easily. Diversity makes us a better colleague to our various health care teams and allows us to better develop meaningful relationships with our patients; this increases our value to the health care system. Diversity is a resource that we can leverage to teach each other and serve our patients and the profession as a whole. Diversity allows us to better serve the ever-changing demographic, economic, and multicultural world we live in. There are well-known long-standing health disparities of people from culturally diverse backgrounds. This challenges us all and must be a priority.

Diversity in leadership

If our profession is similar to nursing and hospital leadership, minorities constitute less than 18% of the mid-level managers and above.[2] I believe we are no

different and suffer from a lack of diversity in respiratory therapy leadership. The lack of diversity was noticed by AARC leadership years ago, resulting in the development of a Board of Directors (BOD) committee on diversity. This committee has developed educational resources within our AARC.org website.[3] Currently, this committee is in the process of identifying diversity among the AARC leadership (BOD and House of Delegates). We will continue to support activities that foster diversity because it is good for you, our profession, and the patients we serve.

Diversity of the future

Our colleagues and the patients we serve will be drastically different in the near future. According to the U.S Census Bureau, the minority population will become the majority in 2043. Training RTs to be culturally sensitive will only go so far. Knowing the values, beliefs, practices, and customs of African Americans, Asians, Hispanics/Latinos, Native Americans/Alaskan Natives, and Pacific Islanders is not enough. In addition, religious affiliation, language, physical size, gender, sexual orientation, age and disability (physical and mental), political orientation, socioeconomic status, job role, and geographical location are the many faces of diversity. Because the elements of diversity are numerous and often difficult to define, many give up, but we will not. We often feel more comfortable around similar individuals but must do more than just educate ourselves. We must put that education into action; we must better ourselves by surrounding ourselves with diverse individuals.

The AARC will continue to monitor diversity through our human resource surveys that are conducted every five years. As definitions change, we too will change our methods to ensure we understand the respiratory therapy community. We are actively surveying our current leadership for diversity and will take appropriate actions and monitor those interventions. When taking over the AARC presidency, I worked hard to create more diverse committees, but it was difficult. I was able to make some headway in involving younger professionals, but sadly I did not have much success in making substantial racial or ethnicity changes.

This is important

In closing, diversity matters. It is going to take each one of us to make diversity a priority. If you know of wonderfully talented, diverse respiratory therapists, please seek them out to get involved. If you can mentor them, please volunteer. If you cannot, look to your state society or the AARC for help. While it may be uncomfortable at first, we all will benefit from their involvement. I'm thankful for the individual who stepped outside of the comfort zone to seek out this young and naïve respiratory therapist and encourage me to be a student representative to my state society while in school. What makes America's great melting pot of diversity beautiful will also make our profession highly valued and sought after. ■

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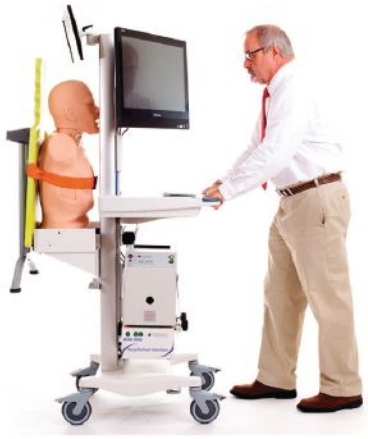

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Ventilation for Life

Clinical Alarm Safety and the 2016 HTF Clinical Alarm Survey

by Ronda Bradley, MS, RRT, FAARC, and Shawna Strickland, PhD, RRT-NPS, RRT-ACCS, AE-C, FAARC

You finally make it home after a long shift, shower, and hit the bed. Then it starts. You know them: the sounds you hear over and over in your head. Is that the ventilator or the pulse oximeter? Maybe it is the humidifier or the capnometer. I am pretty sure I would recognize it, if it was asystole — but would I? All bedside clinicians have experienced this at least once in their career. In fact, we take pride in being able to recognize the alarm by the sound it makes. How many of us have watched a movie and criticized the production when the alarm is clearly from a PB7200 but the machine is an MA1 (bellows make for good drama)? But in all seriousness, what is all the noise about? Alarms are designed to let us know when there is an issue with a piece of equipment or a change in the patient's condition, which could cause an adverse event if it is not addressed. In the last 20 years, the technology surrounding the patient and the clinical setting has exploded, creating a cloud of noise around our patients and clinical settings. This has created a new phenomenon of clinical alarms hazard, which is defined as "the failure of staff to be informed of a valid alarm condition in a timely manner or to take appropriate action in response to the alarm."[1] One important part of the clinical alarms hazard equation is alarm fatigue. Alarm fatigue is defined as "a situation in which health care workers can become overwhelmed by, distracted by, or desensitized to the number of alarms that activate."[1]

about the authors...

Ronda Bradley, MS, RRT, FAARC, is an adjunct instructor at University of Missouri. She is an advisory board member to the Healthcare Technology Foundation.

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Clinical alarm hazards

Many professional organizations and regulatory bodies with oversight in improvement of clinical care have cited clinical alarms hazard as a priority. In fact, the ECRI Institute has named clinical alarms hazard to their "Top 10 List" of health technology hazards every year from 2007 – the year the ECRI Institute started the list – through 2016. In 2017, it fell off the Top 10 List, although "missed ventilator alarms" stayed on.[2-4] Approved in 2013, The Joint Commission published National Patient Safety Goal (NPSG) 06.01.01 with the intent to reduce the harm associated with clinical alarm systems. Phase II of NPSG.06.01.01 became active in January 2016, requiring hospitals to develop and implement policies and procedures related to clinically appropriate alarm signals, monitoring and responding to alarm signals, when alarms can be disabled, when alarm parameters can be changed, and who has the authority to set or change parameters.[5] In 2004, the Healthcare Technology Foundation (HTF) began an initiative to provide awareness and improvement in clinical alarm safety. The HTF surveyed national audiences on clinical alarm systems in 2006 and again in 2011. In 2016, the HTF distributed the survey for the third time to determine what changes, if any, have occurred since the last survey.

2016 HTF Clinical Alarm Survey results

Unlike the 2011 HTF Clinical Alarm Survey, the majority of the respondents in 2016 were nurses. Of the

1,241 respondents in 2016, 375 (30%) were respiratory therapists (RTs). Other respondents were clinical engineers and biomedical equipment technicians. Just over 30% of all respondents to the 2016 survey identified as a manager or administrator; 44% of the RT respondents indicated that they serve in a management or administration role. The RT sample averaged about 26 years of health care experience.

In an effort to identify trending data, most of the questions on the 2016 survey were also asked in 2011. The data from RTs were evaluated separately from the full sample to determine any differences in the perceptions of RTs versus nursing and engineering colleagues. Although there were a few minor differences in responses, the differences were not statistically significant. The data in Tables 1 and 2 showcase the survey questions and compare the 2016 responses from RTs to the 2011 responses from RTs.

Regarding nuisance alarms, the 2016 data show an increase in the RTs' perception of the frequency (71.5% in 2011 versus 81.3% in 2016) and clinical impact (66.4% in 2011 versus 80.5% in 2016) of nuisance alarms and an even greater response from the RN respondents (91.6% and 87.4% in 2016, respectively). The 2016 RT responses also indicated an increase in perception that setting clinical alarms in current medical devices is overly complex. Though a larger percentage of the 2016 RT and RN respondents indicated that their facilities have implemented new technology to improve clinical alarm systems in the past two years versus the 2011 RT and RN respondents, a smaller percentage of respondents in the 2016 sample expressed confidence in that technology to improve alarm management.

Although only 28.7% of the RT respondents and 33.6% of the RN respondents indicated that the NPSG06.01.01, which became effective in January 2016, has reduced adverse patient events, the RT respondents indicated a slight increase in effective policy and procedure usage. The data also showed an increase in the perception that nuisance alarms disrupt patient care and reduce trust in alarms overall. An increased perception of missed alarms, background noise interference, and confusion in identifying alarm source was also noted from both the RT and RN respondents.

Table 1. Summary of HTF 2011 and 2016 Survey: Respiratory Therapy Responses

Survey question	2011	2016
Nuisance alarms occur frequently.	71.5%	81.3%
Nuisance alarms disrupt patient care.	66.4%	80.5%
Nuisance alarms reduce trust in alarms and cause caregivers to inappropriately turn alarms off at times other than setup or procedural events.	75.5%	82.7%
Properly setting alarm parameters and alerts is overly complex in existing devices.	16.1%	20.7%
Newer monitoring systems (e.g., less than 3 years old) have solved most of the previous problems we experienced with clinical alarms.	35.0%	21.2%
The integration of clinical alarms into The Joint Commission patient safety measures have reduced patient adverse events.	39.9%	Not asked
The Joint Commission's National Patient Safety Goal on Alarm Management that became effective in 2014 has reduced adverse patient events.	Not asked	28.7%
The alarms used on my floor/area of the hospital are adequate to alert staff of potential or actual changes in a patient's condition.	74.7%	74.5%
There have been frequent instances where alarms could not be heard and were missed.	28.7%	40.6%
Clinical staff is sensitive to alarms and responds quickly.	66.7%	48.5%
When a number of devices are used with a patient, it can be confusing to determine which device is in an alarm condition.	50.2%	57.3%
Background noise has interfered with alarm recognition.	38.7%	47.4%
Central alarm management staff responsible for receiving alarm messages and alerting appropriate staff is helpful.	52.2%	52.9%
Alarm integration and communication systems via pagers, cell phones, and other wireless devices are useful for improving alarms management and response.	61%	51.8%
Smart alarms (e.g., where multiple parameters, rate of change of parameters, and signal quality are automatically assessed in their entirety) would be effective to use for reducing false alarms.	77.1%	64.6%
Smart alarms (e.g., where multiple parameters, rate of change of parameters, and signal quality are automatically assessed in their entirety) would be effective to use for improving clinical response to important patient alarms.	78.5%	69.2%
Clinical policies and procedures regarding alarm management are effectively used in my facility.	58.7%	59.2%

Table 2. Summary of HTF 2011 and 2016 Yes/No Survey Questions: Respiratory Therapy Responses

Survey Question	2011 Yes	2016 Yes	2011 No	2016 No	2011 Not sure	2016 Not sure
Has your institution experienced adverse patient events in the last 2 years related to clinical alarm problems?	16.5%	27.8%	39.6%	35.7%	44.0%	36.5%
Does your institution utilize "monitor watchers" in central viewing areas to observe and communicate alarm conditions to caregivers?	49.3%	52.3%	42.6%	40.2%	8.1%	7.5%
Has your institution developed clinical alarm improvement initiatives over the past 2 years?	20.1%	57.1%	40.5%	25.3%	49.4%	17.5%
Has your healthcare institution instituted new technological solutions to improve clinical alarm safety?	19.9%	37.2%	33.5%	43.5%	46.6%	19.3%
Does your hospital use alarm notification systems such as pagers, cell phones, or other wireless devices to communicate alarm conditions?	Not asked	34.0%	Not asked	61.2%	Not asked	4.9%

Discussion

At first glance, it appears that the problem with clinical alarms is getting worse. What happened between 2011 and 2016 to produce these results? Looking to the data in Table 2, we see that the rate of "Not sure" responses dropped dramatically. For example, when asked about the institution's clinical alarm improvement initiatives over the last two years, almost half of the respondents in 2011 indicated that they were not sure. However, in 2016, only 17.5% indicated that they were not sure of the institution's clinical alarm improvement initiatives. When asked whether an adverse patient event related to clinical alarms occurred in the prior two years, 44% of the 2011 respondents were not sure, while 36.5% of the 2016 respondents answered in this way. Do the data tell us that more adverse patient events are occurring or are we, as clinicians, simply becoming more aware of the issues surrounding clinical alarms?

With more than 100 alarm signals per patient per day[6], clinicians — including RTs — are at a high risk of becoming desensitized, overwhelmed, or immune to the alerts generated by physiologic monitors, mechanical ventilators, medication pumps, and other alarm-generating devices in acute care centers. This desensitization results in alarm fatigue and can result in missed actionable alarms and, ultimately, adverse patient outcomes. The Joint Commission, the Association for the Advancement of Medical Instrumentation, and ECRI Institute recommend, among other actions, to have guidelines for alarm settings and guidelines for tailoring alarm settings and limits for the individual patient.[5-7] The RT plays a vital role in the development, implementation, and execution of clinical alarm safety initiatives as well as the development and implementation of staff training programs.

The full survey can be accessed at the Healthcare Technology Foundation website: http://www.thehtf.org/clinical.asp. ■

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Implicit Bias and the Respiratory Therapist

by Crystal Dunlevy, EdD, RRT, RCP

Health care practitioners know firsthand about disparities that are the result of differences in access to or availability of facilities and services between groups. Each year, the Agency for Healthcare Research and Quality (AHRQ), National Healthcare Disparities Report (NHDR) presents the grim statistics to Congress. The 2015 NHDR found that, although access to health care and the number of insured Americans continues to improve, for the majority of ethnic minorities, at least 60% of measures of quality care are not improving. The NHDR lists four reasons for disparities, one of which is provider biases.[1]

Explicit bias is conscious bias, or bias that we are aware of. Most people can control this — no respiratory therapist (RT) would make a conscious effort to discriminate or refuse to treat a patient on the basis of their gender, ethnicity, or sexual orientation. Implicit bias is much more dangerous — this is the bias that results from subtle cognitive cues that we have accumulated over a lifetime of experiences and interactions. Implicit bias operates at a level below conscious awareness. For example, when you see the green mermaid logo, you immediately think of a certain coffee company, even though the logo has absolutely nothing to do with coffee. This is because we've been prompted, over time, to recognize the symbol and make an association that doesn't even really make sense. As another example, you wouldn't tell your daughter that boys are better at math, but after years of hearing your parents imply it at the dinner table or watching teachers encourage girls in reading instead of math, you may subconsciously believe it's true. Implicit bias bleeds into everything we do, and we don't even realize it.

about the author...

Crystal Dunlevy, EdD, RRT, RCP, is an Associate Professor at the School of Health & Rehabilitation Sciences at The Ohio State University, Columbus, OH. She has 30+ years of experience in RT and Health Sciences education and she is co-chair of the AARC Diversity Committee.

The obvious first step is to admit that we have biases, and identify what they are. Who do you "think a thing" about? On a college campus, many students think a thing about students who are involved in Greek life. When they meet someone in a fraternity or sorority, they likely think, at least subconsciously, "partier, binge drinker, entitled, participant in weird rituals and hazing, insular." Once they get to know someone, however, they may discover that the individual doesn't drink any more than the average college student, pays their own dues, and is very involved in philanthropy. This begins to change the association.

Self-awareness can't stop with realizing that we all have hidden biases. We need to know what those hidden biases are. In 1995, Anthony Greenwald and Mahzarin Banaji developed the Implicit Association Test (IAT), which measures the strength of associations between concepts (e.g., black people, homosexuals) and stereotypes (e.g., athletic, passive) or evaluations (e.g., good, bad). The test requires you to make associations quickly, using computer key strokes. Typically, the faster we make an association, the stronger our bias. One meta-analysis reported that the tool is better than self-reporting when predicting behavior, and another concluded that the IAT provides modest predictions of behavior.[2,3] Although it is not a perfect tool, it is by far the most popular — it has been used in more than 300 studies and cited by another 800.[4] To take the IAT, visit: https://implicit.harvard.edu/implicit/takeatest.html.

To put implicit bias in context, consider a study done at Yale in 2016. Black children made up 19% of preschool-

ers in the study group but received nearly half of all suspensions. The top three reasons for suspension included willful disobedience, insubordination, and disrespect (all subjective). One hundred thirty-five preschool teachers were given the following instructions:

> "We are interested in learning about how teachers detect challenging behavior in the classroom. Sometimes this involves seeing behavior before it becomes problematic. The video segments you are about to view are of preschoolers engaging in various activities. Some clips may or may not contain challenging behaviors. Your job is to press the enter key on the external keypad every time you see a behavior that could become a potential challenge."

Although none of the videos actually contained challenging behaviors, 42% of the teachers chose the black boy as the offender; this also correlated with eye-tracking technology.[5] We would all like to believe that, although individuals and groups of individuals are discriminated against in the wide world, this is not the case when it comes to the health care setting. People who work in health care have implicit biases, just like preschool teachers, wait staff, pilots, people who deliver your mail, etc. The medical literature is full of studies that show how implicit bias in caregivers affects patient care, from ethnic minority children receiving opioids for appendicitis-related pain significantly less often than their white counterparts, to ethnic minorities receiving fewer of almost any surgery, to delays or avoidance of care for members of the lesbian, gay, bisexual, transgender, queer and/or questioning (LGBTQ) community at the same rates of uninsured patients. A simple Google Scholar search is all you need to do.

Because RTs work with *all* kinds of people in a variety of health care settings, they have an opportunity in every interaction to change the way that a minority group feels about their experience in the health care system. If a patient trusts you, they are more likely to be compliant with their treatment regimen. There are discomfort indicators that patients pick up on, such as being rushed, not talking to patients about anything other than their treatment, not making eye contact, and increasing physical distance between you and your patient. RTs and every health care provider can make a conscious effort to do exactly the opposite in every interaction. Smiling, taking your time, making eye contact, talking about anything other than their a metered dose inhaler MDI, being respectful — all of these are comfort indicators that increase the likelihood that the patient will trust you.

Change requires both intention and attention — you have to want to change your associations, and you have to practice doing so. Know when you are susceptible to falling back on your automatic associations. This is more likely to happen when you have ambiguous or incomplete information, you're rushed, you're tired, you have a lot to do/think about, or you're overconfident about your level of objectivity. Except for the last one, you probably experience these conditions on a daily basis in your respiratory life! Change the associations you have — if you always eat lunch with the same group of people, get to know some new ones. Take a look around the cafeteria. Does it mimic the middle school lunch room?

If you see something, say something. It doesn't just work for Homeland Security! This may be easier said than done, but if you witness another health care professional demonstrating explicit or implicit bias, have a conversation. Better yet, encourage administration at your facility to host a seminar on bias and how to minimize it. And while you're speaking to management, encourage your facility to get the Healthcare Equality Index. This is the LGBTQ benchmarking tool that evaluates how well health care institutions handle equity and inclusion of their LGBTQ patients, visitors, and employees. To read more about this, visit: http://www.hrc.org/hei.

Perhaps most importantly, practice empathy. Patients who have had a bad experience in health care often delay or avoid care because of it. RTs may not realize the power of a respectful, personable interaction. One of the first women that I heard speak about LGBTQ health care gave this example: She and her partner adopted a child with special medical needs and were often in a health care setting. They were accustomed to hearing whispering among staff, not having appropriate boxes to check on forms (mother/father vs. parent), and a general feeling of unease (see discomfort indicators above). On one occasion, there was a new receptionist, and they braced themselves for another round of explanations and awkwardness. The young woman came out to the waiting room and greeted the child, saying, "Hello! I'm going to take you and your moms back to wait for the doctor." She recounted that it changed their whole day for the better. Something so simple — just treating them like anyone else — made a world of difference. You can make that difference for your patients every day, if you make the effort. ■

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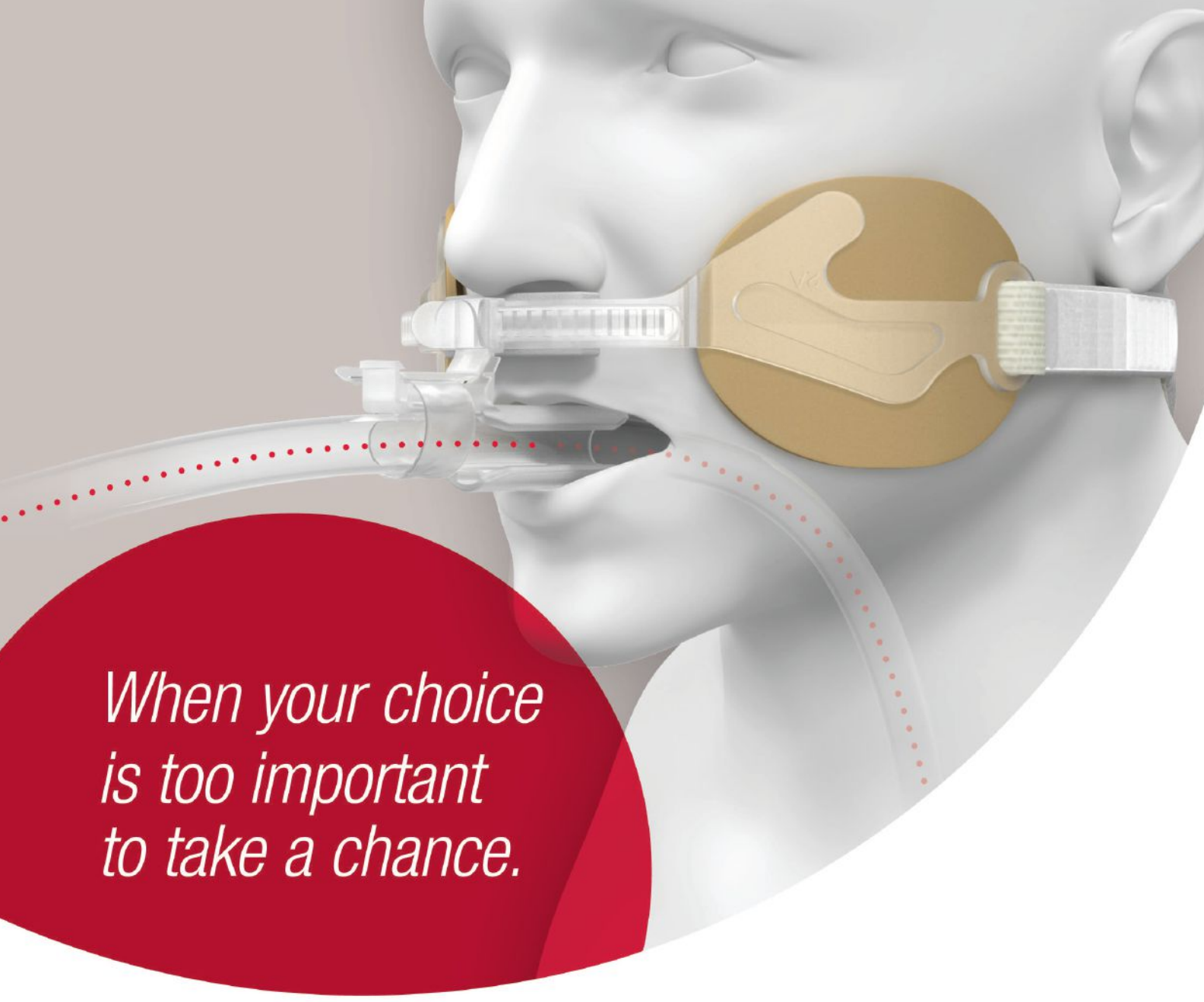

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Diversity Is a Good Thing

by Anthony L. DeWitt, JD, RRT, FAARC

I once had a conversation with a family member who had no health care background. It was an illuminating experience. "How can you just take care of anyone? Doesn't it bother you to take care of … you know…?"

I told her I didn't know, and she let her racial animus burst forth, manifesting both her general ignorance and her specific bias. "Not that I have anything against them," she finished. This thin thread, that it isn't "personal," is the last refuge of the bigot. I found it hard to believe we were even related.

I told her a story from my early days as a therapist of a particularly awful night in the emergency room. We had two people who had gotten blind drunk and got into a knife fight. Fortunately, being drunk, their aim resulted in deep but non-fatal wounds. I explained that, while one man's skin was brown and the other's was slightly yellow, when you looked into both wounds, the tissue below looked the same. The blood that drenched their clothes looked the same. The screams of pain that pierced the ER that night were almost identical. The prayers both men mumbled through their alcohol-fueled haze sounded similar. The only difference was the color of the skin on the outside.

The allegory was lost on her. "So?" she said. I told her directly: "A person's skin color, religion, or national origin does not matter. I am called to treat everyone. Patients don't get to pick their illness, and they don't get to pick their caregiver. My job is to take care of the people who come through the door." That is how I practice law to this day.

Patient diversity is a great thing. Every time you have an opportunity to treat someone who is different from you, you have an opportunity to learn. I've learned more about life from patients and clients telling me about their history than I ever learned from history books. I've seen the tattoos of people who went to Bergen-Belsen. I cared for a survivor of the Bataan Death March. I did not care what day they went to church, or what color their skin was. All caregivers who are great at what they do possess this inherent gift: seeing people for who they are, rather than how they may be described.

But sometimes patients of diverse backgrounds do not appreciate diverse health care providers, and when that happens, it can be a problem for hospitals and other health care organizations. Do not let it become a problem for you.

Every hospital has an obligation to hire, retain, and promote on a color-blind basis. Similarly, a person's religious background, national origin, or gender should not play any role in how they are treated in an organization. The Civil Rights Act provides that all employees are to be treated equally. But what about the patient who doesn't respect that?

McCrary v. Oakwood Healthcare, Inc., is a federal case from the Eastern District of Michigan from early 2016 involving a talented respiratory therapist that teaches many important lessons (1). Caprice McCrary was no ordinary respiratory therapist. She had been selected as the hospital's employee of the quarter, and she was by all accounts an excellent therapist. She was, however, an African American. To her peers and supervisors, this didn't matter. She was good; everyone knew it. Then, according to the summary judgment motion in the case, this happened:

about the author…

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On October 8, 2014, at approximately 1:43 p.m., a patient was admitted to Oakwood's Emergency Room Department. He was experiencing shortness of breath and had a collapsed lung. … A nurse in training at the time tended to the patient. After the patient was stabilized, he told the nurse in training that he did not want any black people taking care of him during his stay. She left the room and told her preceptor, who told the nurse trainee to notify the charge nurse and put the statement in the patient's record.

Sadly, the facility did not have a policy for dealing with race-based requests for treatment. Although the general consensus and history was that these requests were denied, there was no policy. This was a fatal error.

When Ms. McCrary was called to the patient's room to do a treatment, he told her to get out, saying, "You must not have read my chart." When she asked the nurse who had called her to give the treatment, he told her it was because she was black. McCrary complained. The hospital apologized. Although patient representatives later told the man the hospital would not honor his request, when McCrary returned to the hospital, she found that the man had been transferred to a floor where she was not assigned.

This, apparently, was the last straw for McCrary. She sued because it appeared that the hospital was honoring the patient's request by moving him to an area where it knew McCrary would not see him. The hospital attempted to defend saying that other African American caregivers had cared for the man during his stay, and that he was moved from the floor because he was going to have surgery. The date and type of surgery were never disclosed.

In telling the hospital it would have to face a jury, the judge was clear that not having a written policy and training on this subject was not reasonable[1]:

In short, a reasonable jury could find that Defendant's failure to train its employees or provide a policy for handling race-based requests by patients results in those requests being placed in the patient's charts and honored unless and until an employee who is prevented from doing her job as a result of such a request complains. In other words, a reasonable jury could find that by recording patients' race-preference requests in the patients' record and not training its employees to reject those requests, Defendant purposefully allows for the assignment of its employees' duties based on their race. As such, this Court finds at least two of the cases cited by Plaintiff instructive in deciding that Plaintiff presents sufficient evidence to survive Defendant's summary judgment motion.

In short, the hospital had to face a jury because it failed to take steps to train its staff to reject race-related requests for caregivers.

Religion-based requests may also run afoul of the Civil Rights Act. If a patient objected on religious grounds to being treated by a male therapist, the hospital would have a duty both to the patient to accommodate his religious preferences and to its employee not to discriminate on the basis of gender. In these situations, the only solution is to get quick, competent legal advice before making a decision to accommodate such a request. And that request should never be accommodated on the basis of racial preference.

Every hospital has a general counsel for this very reason. If you face such a race or gender request, it is advisable to run this request up the chain of command and through the general counsel before making a decision, unless your hospital policy is clear (and has been vetted by your general counsel). Diversity is good. It brings us together. And as a community of caregivers, we cannot let narrow-minded people tear us apart. ■

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Is There A GENERATION GAP in Respiratory Care Departments?

MULTIGENERATIONAL RC STAFFS CAN COMPLICATE MATTERS IN THE WORKPLACE.

By Debbie Bunch

Joe always arrives 15 minutes early for his shift, and most days he's still in the building a good half hour after his last patient has been seen. He values the status quo and doesn't believe in making changes just for the sake of making changes. And while he would tell you he can email and text with the best of them, if you want to talk to him about something, he would much prefer you give him a call or arrange a time to meet. Joe believes the back-and-forth is just more personal and productive when you can hear what someone is saying.

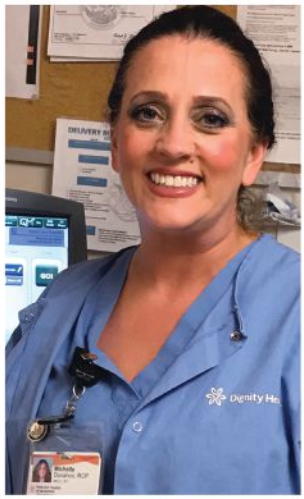
Jennifer is known as a problem solver in her department. When policies and practices go under the microscope, she gives careful consideration to how they can be redesigned to benefit her patients. Technology is second nature to her, she seeks out consensus among her coworkers, and she thrives in a team environment. But work-life balance is high on her list of must-haves. If she feels her personal life is suffering due to work responsibilities, she will seek out ways to minimize those responsibilities.

Jake is enthusiastic about being an RT and quick to embrace new developments that he believes will improve the quality of care. He enjoys working as a member of a group, and he expects to be rewarded for the talents and services he provides to the department. As a guy who grew up with parents who were heavily involved, he is at his best when he has the ready support of a mentor, and for him, social media and texting are the best ways to communicate.

Clearly, Joe, Jennifer, and Jake are not exactly on the same page when it comes to the workplace. As members of the Baby Boom, Gen X, and Millennial generations, respectively, they bring different strengths and weaknesses to the job. How do they impact the respiratory care departments where they work? According to the AARC members we interviewed for this article, it depends.

Matt Bolinsky sees strengths in every generation.

John Campbell manages a department where hard work is the norm.



Michelle Donahoo doesn't let generational differences stand in the way of implementing best practices.

Similar work ethics here

"At our facility, I do not see a difference in work ethic based upon age group," says Matt Bolinsky, BSRT, RRT-NPS, AE-C, respiratory services manager at Carolinas HealthCare System Cleveland in Shelby, NC. "High work ethic prevails based upon the culture established." Staying focused on the corporate mission of providing excellent patient care has helped to mitigate any problems that might arise. He also says the members of his department — about 68% of whom fall, as he does, into the Gen X generation — have a "deep respect for each other regardless of the stage of life."

Bolinsky does see a difference in the way the different generations approach the job, though — but that's not necessarily a bad thing. "Earlier generations bring a 'let's do this' mentality to the table, while our Millennials offer a 'let's see if there is a better way of doing this' mentality," he says. "Both groups offer terrific outcomes for health care facilities today."

The biggest sticking point for him is in the way the different generations handle technology, with earlier generations having to "work harder to keep up with the changing landscape." This is particularly true in communications, with older workers preferring phone calls and younger workers favoring text messaging. He accommodates those preferences by communicating with his staff through mul-

"AT THE END OF THE DAY, IT DOESN'T MATTER WHAT GENERATION YOU REPRESENT. YOU HAVE A PATIENT WHO RELIES ON YOU AND YOUR TEAM TO GIVE THEM YOUR ALL."

tiple avenues. "I haven't deemed any one way the most successful," says the manager. "Email, memo boards, shift starters, and face-to-face are all means to assure the message is received."

Generational difficulties are also scarce in the RC department at Newark Beth Israel Medical Center in Newark, NJ, says John Campbell, MA, MBA, RRT-NPS, RPFT, FACHE, director of respiratory care services, neurodiagnostics, and the sleep lab. Although he has a wide age range in the department — 21 to 71 — and Baby Boomers and Gen X'ers make up the lion's share at 45% and 40%, respectively, the ethnic origin of the department sets it apart from the crowd. "About 70% of the respiratory care staff are foreign-born," explains the Baby Boomer. "These individuals came from countries and cultures that emphasized a strong work ethic. Regardless of age, and lucky for me, they all seem to have brought that work ethic with them to the United States."

With more than 40 years in respiratory care, Campbell believes he serves as the voice of experience for his staff members who look to him to lead the way. When it comes to communication, he tries hard to establish a "two-way street" where he can get to know each of his employees as an individual and assure them their voice will be heard. "It is important that the Millennials know that I understand that they are young and less experienced, not just with work but with life," says Campbell. "The Generation X group has concerns about finances, especially college expenses for their children, they have aging parents, may have some health care issues, and are starting to think about retirement issues." At his age, he's been there, done that, and feels he can "communicate empathy and maybe at times give some advice from my own experiences."

No stereotyping

As the Millennial manager of a department consisting of 45% Millennials, 35% Gen X'ers, and 20% Baby Boomers, it would be easy to think that Amanda Richter, MHA, RRT-NPS, RRT-ACCS, RPFT, has had to deal with at least a few inter-generational conflicts. After all, many people have a hard time being managed by someone who is significantly younger than they are. Not so, says the director of cardiopulmonary services at Metroplex Health System in Killeen, TX.

"I have a difficult time stereotyping individuals based on age or generation," she emphasizes. Like any department, performance varies from person to person, but she doesn't see a trend toward any one type of work ethic in any one generation. "I certainly think we have a range of hard-working go-getters on our team from each of the generations, but we have also had some less-driven staff members from across the generations as well." When employees do clash over certain issues, she blames the incidents more on individual personalities than on generational differences. Hiring people with the right fit for the department keeps those incidents to a minimum.

Richter also sets expectations for professionalism and teamwork, and she holds everyone in the department accountable for those expectations, regardless of their generation.

Fellow Millennial Dustin Money, RRT-ACCS, who serves as an extracorporeal Membrane Oxygenation (ECMO) specialist at the University of Virginia Health System in Charlottesville, has a similar philosophy about work ethic across the generations: He believes personal drive is the deciding factor, but he does see other differences centered around the employee's expectation from the work environment. "Millennials are not tolerant of hospital bureaucracy and expect instant gratification, feedback, and recognition," he admits. "This oftentimes makes the older generation classify Millennials as having a feeling of entitlement."

People in Money's generation question the value of employer loyalty as well and will not hesitate to move on or request a new assignment if they feel their personal and professional goals are not being met. Generational conflicts among the Gen X'ers and Millennials in his 13-member ECMO department (the last Baby Boomer retired a few years ago), however, are mainly limited to proposals to change policies and practices. "Mitigating these situations requires open, non-offensive communication, understanding of the current literature, respect among coworkers, and a solid leader that is able to bridge the generational gap," says the therapist.

The key point to remember, Money notes, is that they are all there for one reason and one reason only. "At the end of the day, it doesn't matter what generation you represent. You have a patient who relies on you and your team

— 2017 —

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When the phrase "generation gap" was coined back in the 1960s, it referred to the widening chasm being seen between young adults and their parents. Today it's more likely to be applied on the job, where three generations currently work side by side — sometimes in harmony, and sometimes not. There are real and perceived differences in these generations, and each one has special strengths they bring to patient care.

to give them your all. Despite our differences, our team pulls together to support our patients and each other."

Different perspectives on change

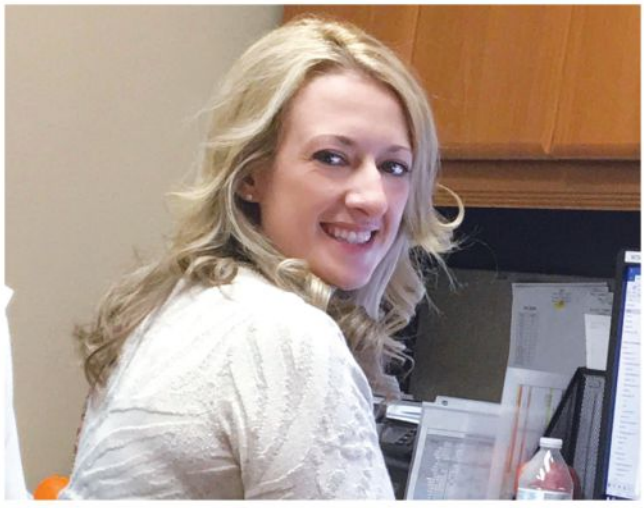
Another Millennial we spoke with cites differences in practice as a chief area of conflict between the generations. "The Baby Boomers and Generation X therapists are used to 'hooking and booking,' whereas the Millennials were trained in a litigious system, where appropriate care and documentation are of paramount importance," says Tyler Keene, RRT-NPS, a staff therapist at St. Francis Medical Center in Monroe, LA, where the generational make-up is about 47% Baby Boomers, 35% Gen X'ers, and 18% Millennials. "The older generation also typically practices with a more anecdotal approach to respiratory care, whereas the Millennials typically have a more evidence-based practice."

He believes Millennials are more focused on finding new and better ways to get things done, too, which he attributes to older workers still being immersed in the productivity-driven mindset of the past, while younger workers are more focused on doing only that which makes the patient better. "The phrases 'that's just how we've always done things here,' or 'I've been doing it this way for X number of years and never had a problem,' or 'an RT has never lost his or her license for that practice'

Olivia Jenkins wonders if her generation will develop the same sense of employer loyalty as earlier generations.


Tyler Keene believes Millennials are more likely to buy into the need for evidence-based practice.


Dustin Money says his team pulls together, regardless of generational differences.


Amanda Richter doesn't believe in stereotyping staff members according to generation.

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have all made the hair on the back of my neck stand up," says Keene. "Ensuring quality patient care comes through culture change and process improvement."

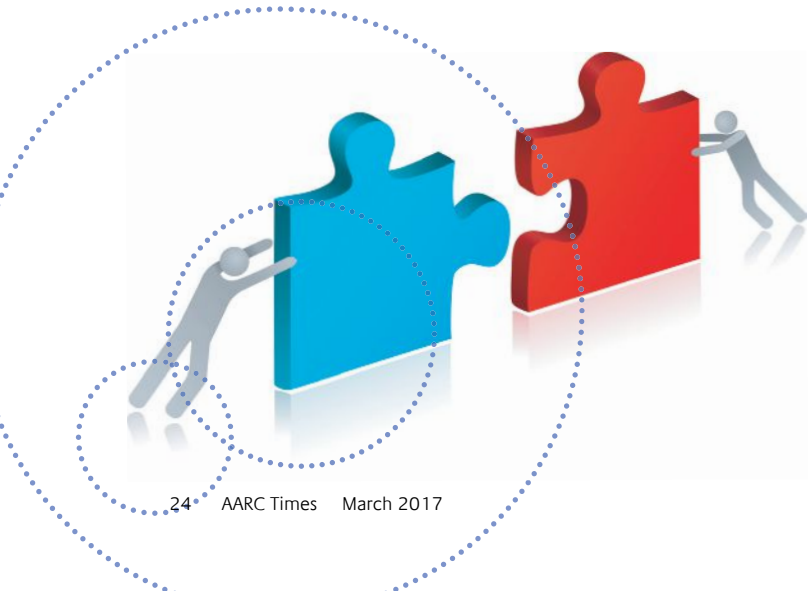
Like his colleagues, Keene sees differences in employer loyalty, too. "Typically the Baby Boomers are loyal to the company, almost to a fault. They have worked for this health system for 30 years, and they will retire from this system. In contrast, the Gen X and Millennials put themselves before the company. They have no problem leaving to go where the money is, and are less restrictive on themselves about taking family time."

While Keene admires his older colleagues for the years of service they have provided, he sees the point. "Many of my colleagues state that 'you have to put in your dues.' I can accept that only to a certain point. Putting in countless hours of ultimately unappreciated sacrifices at the cost of a happy family life and enjoying one's youth is not something that I will just accept."

Just do it

Olivia Jenkins, BHS, RRT-NPS, a transport therapist at Children's Mercy Hospital in Kansas City, MO, believes her fellow Millennials are more inclined to go where the money is, too. "Baby Boomers seem to stay in the hospital that they have worked in for years with a sense of loyalty to their department. I will be interested to see if my generation will do the same since they seem to be more open to change, following the higher income, and a quick change in pace."

The main generational conflicts on her team center on technological change and scheduling difficulties. The solution to the former is simply more training to confirm that each RT is competent in the use of the technology in question. When it comes to scheduling, she says members of her generation tend to push back on working weekends, in many cases because they have young children at home or are back in school. "We handle this with a specific scheduling policy to keep things fair for everyone," says the therapist.



But she sees few differences in work ethic between the two generations (the team is 70% Gen X and 30% Millennial) currently staffing her transport program. "My coworkers and I understand that we have to work as a team to accomplish the goal of excellent patient care," she says. "The end goal is to provide exceptional patient care, which is being done, no matter what generation a practitioner is from."

A regional respiratory care specialist for the neonatal intensive care units at five hospitals in the Dignity Health System in California, Michelle Donahoo, RRT-NPS, has seen some differences in work ethic across the generations. In her facilities, about 50% of the workforce falls into the Baby Boom generation, with the remaining 50% evenly divided between Gen X'ers and Millennials. "I'd say that the Baby Boomers and Gen X'ers seem to be able to manage workloads better and have the ability to take on more if needed," she says. "Maybe this comes from experience."

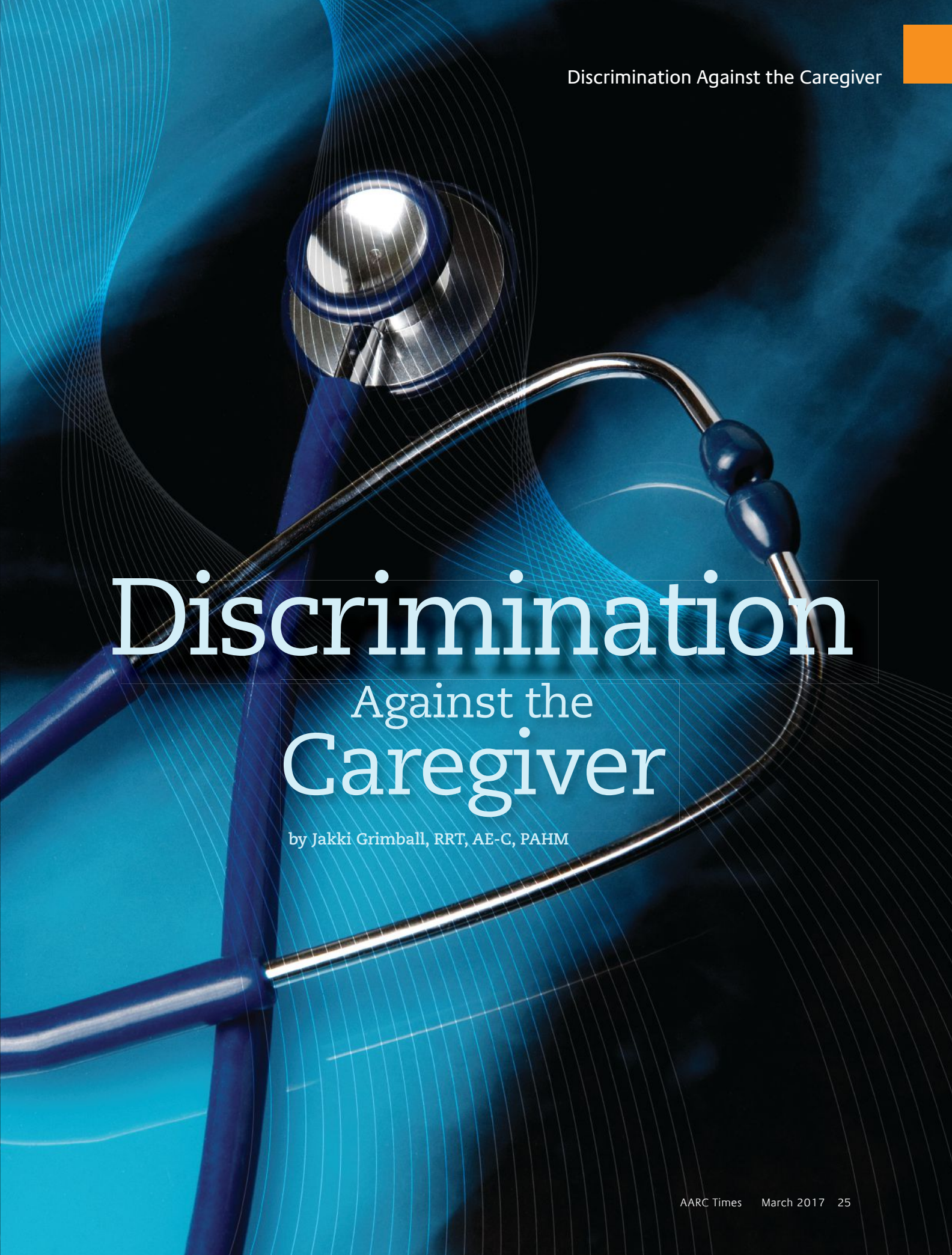
Differences between the two younger generations can mainly be seen in the areas of working together and being rewarded for their work. "I feel that Generation X is more about teamwork than Millennials," says the Gen X'er. "Millennials are very money focused… the professional accountability is just different."

When generational conflicts arise, she says her department tries to get both parties together to come up with a resolution that will be amenable to all. "We find bringing them together squashes it so it doesn't grow into a bigger problem and involve more members," says Donahoo. As the department educator, she doesn't let generational differences influence her mission to improve patient care. "This is the evidence, this is what's best for our patients."

We're all in this together

As these therapists suggest, the generation gap in respiratory care is not especially large, nor is anyone letting it impact patient care. But like in other professions today, it is there, and it is not likely to go away. The best advice for respiratory therapists may come from this quote by science fiction author Robert A. Heinlein: "A generation which ignores history has no past — and no future." In other words, learn from one another and it will all be fine! ■

Editor's Note: The opinions expressed in this article are those of each person featured and do not reflect the opinions of the AARC or this publication.



Discrimination Against the Caregiver

by Jakki Grimball, RRT, AE-C, PAHM

When I became a respiratory therapist some 30 years ago, I was excited to be in a career to care for others. I expected the people that I would be caring for to be accepting and to welcome my assistance. As a child, I watched every medical show on television. On those shows, no matter what happened, the patient made a full recovery and everyone lived happily ever after. Imagine my shock when I realized how far from the truth those shows were.

about the author...

Jakki Grimball, RRT, AE-C, PAHM, has been a respiratory therapist for over 30 years. She is the supervisor of health and disease management at BlueChoice HealthPlan/BCBS of South Carolina, in Columbia, SC. She is the AARC House of Delegates immediate-past speaker and also co-chairs the AARC Cultural Diversity Committee.

In 2002, while working full-time at my current employer, I picked up a PRN evening weekend position at a small hospital. In this position, I was often the only respiratory therapist on duty. It was a typical shift when I received a call from the charge nurse on the psychiatric floor; an aerosol treatment was needed for an elderly end-stage COPD patient. After reviewing his chart, I knocked on the door and entered the room. I was met with a smile from my patient, who was in moderate respiratory distress. As I moved closer to the bed, his expression changed completely, and much to my surprise, the smile he wore transformed to a look of disgust. Although I noticed the drastic change in his demeanor, I did not falter with my introduction and proceeded to greet my patient and explained the reason for my visit. He looked at me from head to toe and, after his analysis, he stated, "No nigger is going to do anything for me." At first I thought I didn't hear him correctly, so I asked him to repeat what he said, and to my surprise, I had heard correctly. It occurred to me that I was on the psychiatric ward, so I gave him the benefit of doubt, and I repeated the reason for my visit. I explained that I was the only RT working. He became very agitated, told me he didn't care, and ordered me to get out. The events that transpired up to this moment left me angry in the beginning, but overall I was shocked.

I spoke with the nurse who called for the treatment and explained what happened. She was not at all surprised and nonchalantly stated, "He does this all the time." At that point, I wondered why she hadn't at least warned me. She said "Thanks for trying." Later that evening, when this patient became more short of breath and was somewhat unresponsive, the nurse called again, and I was able to provide the aerosol treatment. Unfortunately, the patient died later that night. I felt sorry for him refusing care because of my race. In my more than 30-year career as a respiratory therapist, I've had several similar experiences where the same derogatory word, "nigger," was used, or it was "you people."

I did not speak with the RT manager about the incident. After all, patients can refuse care in any situation. This incident opened my eyes to the extent that discrimination can impact not just that person but the person who is on the receiving end. It bothered me for quite a while, and I spoke with several people about discrimination, asking what they would have done in this situation, and sharing my feeling of failing the patient. Ultimately, it was out of my hands. I did the best I could do in that situation.

For other RTs who may be faced with discrimination from a patient, I give you the following advice. Don't take it personally; different people have different cultural beliefs and backgrounds. All we can do is provide the best care possible and follow the patient's wishes.

I asked two of my current staff of RTs, who are minorities, to provide a story of their experience with discrimination against the caregiver. Surprisingly, they both had the same sit-

uation in different geographic areas. The following is the account of one of the RTs.

"While working in a hospital, it was common for me to walk into a patient's room and be mistaken for a housekeeper, nurse assistant, or dietary aide. Yes, even with a stethoscope in hand and my badge displaying Registered Respiratory Therapist, this was common. The mistaken identity often occurred before I could make my introduction and explain who I was and why I was in their room. The most common requests were to empty the trash, remove a dietary tray, or assist a loved one to the bathroom. Many, I believe unknowingly, found it difficult to hide the surprised expression on their faces even as I transitioned back into the task that originally led me to the patient's room. I was never offended by these requests. There are two things I value most in a clinical setting: quality patient care and excellent customer service.

One evening, my shift began as it typically did. First, with a review of the report, then proceeded to research the patients unfamiliar to me. Finally, I was off to the intensive care unit. I knocked on the glass outside of my first patient's room and proceeded into the room saying, "Good evening, my name is…," but was immediately interrupted. The man sitting next to the patient said, "Yes, my wife finished her dinner a couple of hours ago, and no one came to clean up." With a smile, I said, "I'll get rid of this tray for you and will be right back." Upon my return, the man looked a little confused as to why I returned. Again, I proceeded into the repetitive greeting of introducing myself to one of my patients for the night. The husband had a look of confusion, which turned to embarrassment. To my surprise, the look of embarrassment turned to a look of indignation and anger.

My patient's husband looked very displeased and said, "My wife is very sick and perhaps they can send someone," he paused, looking me up and down, "more qualified." Seeking clarity as to what he meant by "more qualified," I repeated that I was a respiratory therapist, thinking maybe he missed that in my introduction. I followed up by asking, "Were you expecting someone in particular or a certain specialist? He bluntly replied, "Like I said, my wife is very sick, and I'd prefer if I had a therapist who was like the therapist we had earlier. You know, the tall blonde woman with the green eyes. You people tend to get lazy, and if something goes wrong during the night, I want the very best at her bedside." With a mix of frustration and embarrassment on her face, his wife turned to him and said, "Please don't start trouble," in a weakened, exasperated voice. Surprisingly, I wasn't angry. Nor did I feel the urge to retort his hurtful words. Instead I was more saddened. I was saddened to know that, in 2011, racism still existed.

I was thankful to know that his wife appeared not to share the same ideologies as her husband. I thanked him for his concerns and turned all my attention toward my alert and oriented patient and asked her if she had any concerns with me being her RT for the evening. She shook her head, implying she did not have any concerns with me serving as her RT. This further infuriated her husband. I informed her husband, with a smile that didn't quite reach my eyes, that if he had any concerns about me caring for his wife this evening, he was welcome to contact my immediate supervisor. I then provided his name and the telephone number where he could be reached.

Looking back on that uneventful evening in 2011, I professed that I wasn't going to allow my patient's husband or anyone else's misguided opinions keep me from staying true to my personal commitment to my patients. I was more determined than ever to continually provide my very best, as with I provided all my patients, even in the midst of narrow-minded thinking and bigotry. It is my hope that if you find yourself in a similar situation, you are empowered by my story to stand for what's right and continue to provide quality patient care, no matter the circumstance!"

The other RT in a similar situation expresses her assessment of the patient and situation in the paragraphs below.

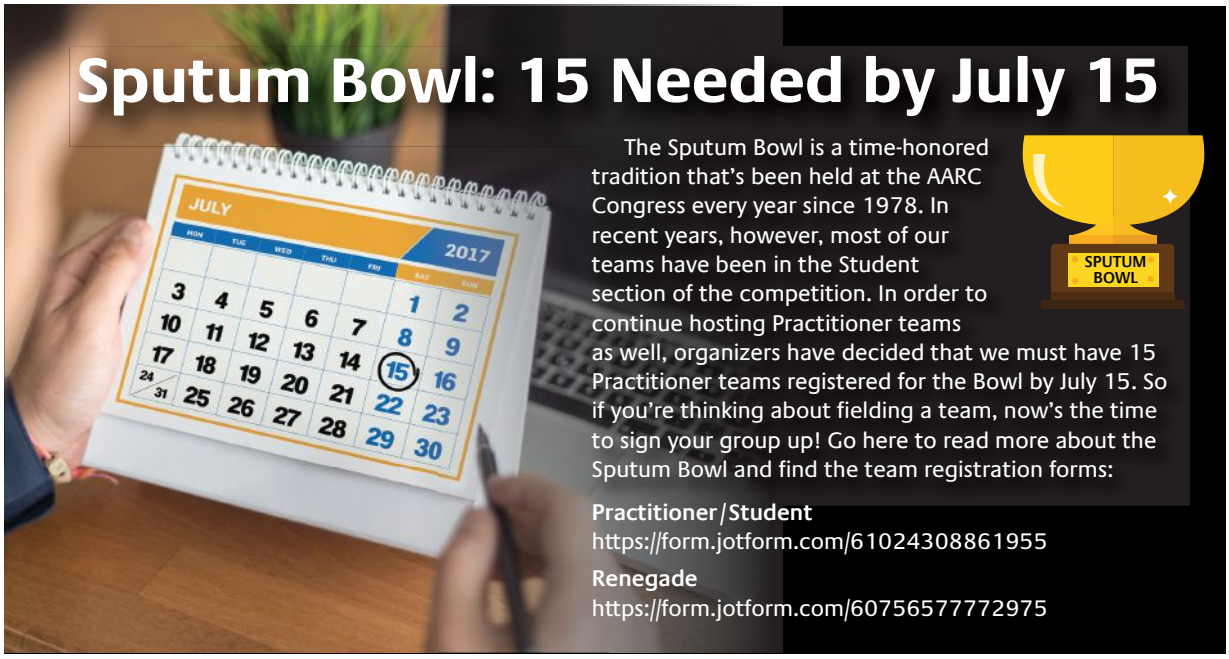
"At the time, I was not angry but insulted. I had undertaken many adversities to become the first college graduate of my family. I was even enrolled as a graduate student during this time, while working as a respiratory therapist. Yet, this patient, upon looking at me, felt I was incapable of serving as a health care provider. Her failed assumption spoke to her lack of experience with individuals who look like me. Even if I worked in dietary, I still deserve the respect of being acknowledged, accepted, and embraced for my differences.

Our role, as respiratory therapists, is to break those barriers by focusing on maintaining a mutually respectful relationship with our patients. If you have been discriminated or potentially discriminated against, be cognitive of the person's discriminating beliefs. Discrimination is a learned behavior. Recognize that values or beliefs are not specific or unique to a certain group of people. Always remember a person's perception of you is not your destiny, and be of service as a health care professional with an open heart." ■

RC Currents

IN THE NEWS

Sputum Bowl: 15 Needed by July 15



The Sputum Bowl is a time-honored tradition that's been held at the AARC Congress every year since 1978. In recent years, however, most of our teams have been in the Student section of the competition. In order to continue hosting Practitioner teams as well, organizers have decided that we must have 15 Practitioner teams registered for the Bowl by July 15. So if you're thinking about fielding a team, now's the time to sign your group up! Go here to read more about the Sputum Bowl and find the team registration forms:

Practitioner/Student
https://form.jotform.com/61024308861955

Renegade
https://form.jotform.com/60756577772975

Share Your Wisdom

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

Contribute to Our "Transitions" Column

The AARC "Transitions" column is devoted to sharing news about the passing of AARC members.

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

High School Student Rises to the Challenge

Baptist Health South Florida has been providing internships to high-achieving high school students from the Dade County Public School District for more than 25 years, and since 2009, AARC member Lisa Colsky, MS, RRT, respiratory clinical specialist at the hospital, has mentored 17 of those students. She enjoys showing them how health care works from the inside out and says the rewards come from being able to "see my students on the cusp of great potential and know that I have had some part in it."

One of her most recent mentees, however, really exceeded expectations. When Colsky challenged Jonathan Mairena, a senior at Miami Southwest High School, to invent a way for the oxygen level in oxygen tanks in her department to be viewed from a distance, he picked up the ball and ran with it. Working with Dr. Ramon Montero and biomedical engineers at the University of Miami, he came up with what is now a patent-pending device that not only allows the gauge to be read at a distance but also uses a Wi-Fi signal to enable it to be seen on computers and smartphones as well.

Jonathan Mairena takes a look at the prototype with his mentor, AARC member Lisa Colsky.

Colsky capitalized on Mairena's ability to problem solve by giving him the oxygen tank challenge.

"While all our student interns are high achievers, Jonathan stood out due to his level of maturity, compassion, and curious nature to problem solve," says Colsky. "I told him that I would like to see a device that when placed on an oxygen tank changes color as the tank empties and can be seen from a distance." She showed him how their oxygen regulators were affixed to the oxygen tanks and provided him with old gauges to experiment with. Marsha Tejeda, director of government and community relations at the hospital, put him in touch with Dr. Montero and the biomedical engineers at the university, and before they knew it, he had come up with a prototype.

"The pressure is read with a hospital-approved transducer and then relayed to a display screen and a LED light strip, making the relative pressure viewable up to 60 feet indoors and 20 feet outdoors, and the actual, empirical pressure from up to 15 feet," explains Colsky. "Everything is digital and works at a low cost." The device sends the tank pressure to a server, where it can be monitored from anywhere in the hospital via the Wi-Fi connection.

Jonathan says he learned a lot from the experience. "I knew that it could be done, although I didn't know the amount of work it takes to put something so simple together," he says. By giving him the idea and then helping him along the way — including serving as an end user for the prototype to ensure it would truly meet the needs of the respiratory care community — he says Colsky was invaluable. "Lisa sparked a flame and I'm glad I can carry the torch to the next step. I would like her to know how much I appreciate her support and the support of the respiratory community," he adds.

What's next for Jonathan Mairena? According to his mentor, he has set his sights on attending a world-class engineering school like the Massachusetts Institute of Technology. She, for one, believes he'll get there. "Jonathan showed an innate ability to comprehend the fast-paced culture of our health care environment as well as an easy adaptability to absorbing the plethora of information we threw at him regularly," says Colsky. "I was not surprised that he actively embraced my oxygen tank idea." ■

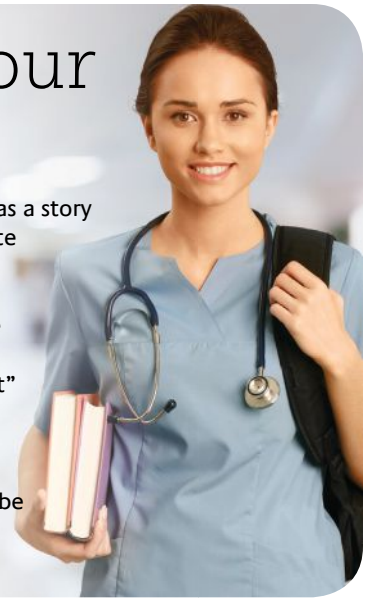
Students and Seniors Get Price Breaks on Dues

AARC members who are just starting out in their careers and those who are getting ready to wrap things up can both benefit from exclusive membership offers developed just for them.

The transitional student membership is available to student members who are preparing to graduate. AARC student members who renew their membership at least 91 days prior to graduation will save the most on dues, but savings are available up to 150 days past graduation. Those nearing graduation should 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.

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

Tell Your Story



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

Transitions

Donald C. Abrams, RRT, passed away in December. A long-time member of the AARC, Abrams was a former Navy Seal who served in Viet Nam, earning both the National Defense Medal and a Purple Heart. After leaving the Navy, he earned his RT degree from Metro State College in Denver, CO, and subsequently became an instructor and director of clinical education for the Army-Navy RT program at Brooke Army Medical Center in San Antonio, TX. He retired in 2009 after 33 years of service

Janice Delp, CRT, passed away in December. A 35-year veteran of the profession, she served the Louisiana Society for Respiratory Care (LSRC) in many capacities over the years and was especially known for adding a creative touch to LSRC activities, such as hosting a photo booth at the annual meeting to raise funds for important work supported by the state society. She last worked as a therapist at Ochsner Medical Center in Baton Rouge and was a member of the LSRC Board of Directors when she died.

As Seen on *AARConnect*

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

AARConnect...

There has been much discussion about the need to stock a resuscitation bag/mask in every adult ICU room, if one is available in the crash carts. The Code Blue Committee does not allow bags to be stored on top of the cart, but they are within the locked cabinet. Each vented patient and trached patient has one in their room. Just wondering what others are doing. This isn't a result of an adverse event — an MD feels that this is the standard at other facilities and we should be doing the same. If you do keep one in the room, and it isn't used, do you store them in a sealed bag and wipe them down between patients, or dispose?

Shari Mlodozyniec, RRT

Essentia Health

Duluth, MN

We have them in sealed bags in every ICU room. They are discarded along with every other supply item if the room requires a terminal clean. As far as I know, this is not a formal standard of care; it's just how our habits have evolved at my location.

Diane Baltzell, BBA, RRT

Texas Health Presbyterian Allen

Allen, TX

We have one on each crash cart. We have three crash carts, one in each pod of ten rooms. We keep one in a room that has a ventilator running.

Charles Goodwin, RRT

Providence Health Center

Waco, TX

We have one in every patient room in all critical care areas, as well as one on each crash cart.

Sue Tillis, RRT

Southeast Alabama Medical Center

Dothan, AL

We keep a manual resuscitator at each bedside in critical care and we have one on our code cart. They are kept in sealed plastic bags.

Brenda Wilkerson, CRT

Johnson Memorial Hospital

Franklin, IN

We have a bag in every code cart, in all AED cabinets, and patient rooms with an artificial airway. We do not keep them in every ICU room. FYI, we have just started reprocessing unopened supplies from the patient's room with the Bioquell Hydrogen Peroxide Generator.

Robert B. Johnson, MS, RRT

UAB Hospital

Birmingham, AL

We do not keep them in every room because our policy is that any unused supplies must be discarded between patients and this would waste a lot of these bags. We have crash carts in each unit that include the resuscitation bags, and we also have a supply room located within each nursing unit that is easily accessible for these supplies. Our policy is to keep a bag in every room of patients with an artificial airway and this bag will be replaced within 24 hours of use. This cost is minimal and is part of our infection control policy to reduce contamination of open, used bags. Our use of these bags is fairly limited on these types of patients, which is why we change them out after use to reduce any bacterial growth.

Todd Cox, RRT-ACCS

Tyler ContinueCARE Hospital

Tyler, TX

Exercise May Protect Against the Effects of Ozone

New research conducted in rats suggests a sedentary lifestyle might exacerbate problems associated with exposure to ozone. The findings come from Environmental Protection Agency researchers who tested inflammatory measures, glucose levels, and breathing parameters before and after ozone exposure in rats who had free access to a running wheel and those who did not.

Rats in the sedentary group had higher levels of neutrophils, eosinophils, and other biomarkers of inflammation following ten hours of ozone exposure over two days. Glucose levels normalized faster in the rats that exercised than in the rats that did not. When compared to active rats not exposed to ozone, rats in the exercise group exercised about 70% less following the first day of exposure. The study was published in a recent edition of the *American Journal of Physiology—Lung Cellular and Molecular Physiology*. ■

Even Light Smoking Raises Mortality Risks

What can you say to smokers who claim they only smoke a few cigarettes a week or a few cigarettes a day and thus don't think they are putting their health at risk? Cite the results from a study published in a recent edition of *JAMA Internal Medicine*.

Researchers who looked at data on 290,215 adults taking part in the National Institutes of Health-AARP Diet and Health Study found that even occasional smoking resulted in a higher risk of all-cause mortality. The risk was especially strong for lung cancer. People who reported smoking less than one cigarette per day or between one and ten cigarettes per day earlier in their lives but had since quit had progressively lower risks based on the age at which they had quit. In other words, the sooner, the better. ■

Military Service Raises Respiratory Risks, According to the VA

New research from investigators at the Department of Veterans Affairs suggests military service puts service men and women at increased risk for respiratory problems, regardless of whether they were deployed overseas.

The study looked at results from a health survey filled out by approximately 20,000 veterans who had served during the Operation Iraqi Freedom/Operation Enduring Freedom era. Overall, about 13,000 had been deployed and 7,000 had not. High rates of exposure to potentially hazardous respiratory irritants like dust and sand, petrochemical fumes, oil fires, or industrial pollution were cited by 95% of those who had been deployed and 70% of those who served at home. High exposure — defined as exposure to three or more irritants — was reported by 70% and 24%, respectively.

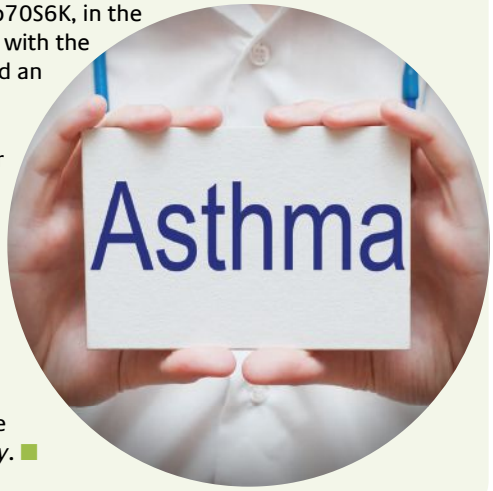
Asthma, sinusitis, and bronchitis were all more common in service people who reported exposures, with at least one of these illnesses noted by 23% of deployed vets and 28% of non-deployed vets. The more exposures cited, the higher the likelihood of respiratory conditions. The findings remained significant even after the investigators adjusted them to account for smoking. The study was published in a recent edition of the *Journal of Occupational and Environmental Medicine*. ■

Could This Be an "Off" Switch for Asthma?

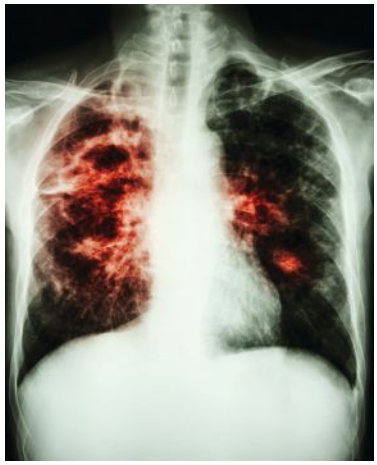
In a study that investigated the role played by two proteins, GRB10 and p70S6K, in the control of the signaling pathway that activates M2 macrophages associated with the inflammatory response in asthma, Johns Hopkins researchers have discovered an "off" switch that they believe could help control asthma attacks.

"Asthma patients are constantly firing through this pathway because those proteins are stuck in the 'on' position, without proper control by other proteins that shut down this reaction," study author Nicola Heller, PhD, was quoted as saying. The research team is now conducting experiments to explore differences in this pathway between cells taken from allergic and healthy individuals and testing the efficacy of an inhalable drug that mimics the function of GRB10 and p70S6K to shut off the development of M2 macrophages in the lungs of mice.

"One of the advantages of working with lung macrophages is that they are one of the first cells that see anything that gets put in an inhaler," continues Dr. Heller. "So we hope to modulate their activity in this way." The study was published in a recent edition of the *Journal of Biological Chemistry*. ■



New Hope for Pulmonary Fibrosis



Researchers publishing in a recent edition of *Nature Medicine* have discovered a possible cause of the lung scarring seen in pulmonary fibrosis (PF). In a study that focused on the epithelial cells that line the alveoli, they found that stem cells known as AEC2s, which normally help repair and regenerate epithelial cells, were fewer in number in people with PF and were less able to renew themselves. They also had lower concentrations of hyaluronan, a chemical that promotes tissue repair and renewal. When this substance was deleted in laboratory mice, scarring similar to that seen in PF patients after lung injury occurred. The investigators now plan to look for possible drug candidates that could treat the problem.

"The exciting aspect is that we have learned how to isolate these stem cells from diseased lungs," notes study author Paul W. Noble, MD. "We can use these cells to create tiny 'lungs in a dish' as tools for drug development." ■

Telemedicine Facilitates Neonatal Resuscitations

High-risk deliveries can be a challenge in smaller community hospitals without a neonatologist on staff. Telemedicine can bridge the gap, say Mayo Clinic researchers publishing in a recent edition of *Mayo Clinic Proceedings*.

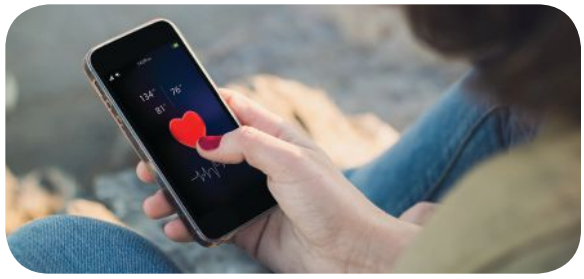
They reported results from 84 telemedicine consultations that took place over 20 months. About a third of the babies were able to remain in the hospital where they were born due to the advanced knowledge relayed by the Mayo neonatologists to the health care team at the hospital. A survey of providers who took part in the telemedicine-based neonatal resuscitations gave the program good marks in terms of teamwork, patient safety, and quality of care. ■

Health Care Apps Fall Short

Apps designed to help people better manage their chronic health conditions are readily available in the Apple Store and Google Play. But do they get the job done? It's a mixed bag, report researchers at the University of Michigan who studied 137 of the most highly rated apps in both the major app venues. Among the results —

- App store ratings, supplied by other users, may not be all that reliable. The researchers found physicians and non-physicians on their evaluation team often rated apps much higher or lower than the app store ratings.
- Nearly all the apps allowed people to enter information into their phone about their health that day, but only 28 reacted appropriately when the reviewers entered a dangerous value, such as a sky-high blood pressure, super-low blood sugar level, or suicidal mood. Results were somewhat better for apps aimed at certain conditions. About half of the asthma apps, for example, did respond appropriately.
- While many apps offered tracking functions, education, reminders, and alerts, few provided tailored guidance based on what the user actually entered into the tracking interface or offered ongoing engagement that rewarded "good" results.
- Only two-thirds of the apps had a written privacy policy spelling out how they protect or use the information supplied by users.

The study was published in a recent edition of *Health Affairs*. ■



Ex Vivo Lung Perfusion Extends Viability of Donor Lungs

Canadian investigators have found that preserving donor lungs with the help of ex vivo lung perfusion can extend the life of those lungs from about 6–8 hours to up to 20 hours, greatly improving the chance that the lungs can be delivered to a person who needs them before they become unviable.

In a study published in a recent edition of *The Lancet Respiratory Medicine*, the investigators outlined results on 906 patients who received lung transplants at Toronto General Hospital from 2006 to 2015. Ninety-seven received lungs that were preserved outside the body for more than 12 hours, with an average of 14.6 hours, while 809 patients received lungs that were preserved for less than 12 hours, with an average of about 6.7 hours. Early outcomes were similar between the two strategies.

The two groups were then followed for 2.5–4 years. No differences were observed in primary graft dysfunction. Hospital and ICU length of stay was the same between the two groups as well. At the one-year follow up, survival was 86% in patients who received lungs preserved less than 12 hours versus 87% for those who received lungs preserved for more than 12 hours. The widely accepted International Society of Heart and Lung Transplantation benchmark for one-year survival of lung transplant patients is 80%. ■

PHOTO CONTEST

Here's Your Chance for a Free AARC Membership Renewal

AARC Times is looking for creative AARC members to enter the AARC Photo-of-the-Year Contest. Finalists will receive a free one-year membership renewal with the chance of their photo being chosen and featured on the front cover of a 2017 *AARC Times* issue. The Photo-of-the-Year Contest link is: http://www.aarc.org/resources/publications/aarc-times/photo-year-contest/

The deadline to submit your photo is **May 1.** ■

Strange But True...

There's some skin in this game: Keeping food allergies from developing may have more to do with the skin than the digestive system. According to Chicago researchers who looked at 1,359 children with and without food allergies, food allergies might really begin with exposure through the skin. They based that finding on the higher incidence of food allergies seen in children who suffered from skin infections or eczema in the first year of life.

Wear this: A smart skin patch about the size of a Band-Aid can effectively measure bodily functions such as how well a heart valve closes, a muscle contracts, a lung expands, or a vocal cord vibrates, according to the authors of a study that examined the device. Weighing less than 1/100th of an ounce and flexible enough to fit comfortably on the patient's skin, the patch is being touted as a "wearable stethoscope" that can listen to and record sounds on a continuous basis.

Deadly combination: Thunderstorm asthma occurs when a storm hits during an unusually high period of pollen and high humidity. According to CNN, Melbourne, Australia, had just such a storm last year, and it put thousands of people in the hospital and reported caused eight deaths.

See the light: Cornell investigators are using ultraviolet light to target enzymes involved in the inflammatory process. If they can design their system so that it only works in tissue affected by chronic inflammation, it could play a role in treating many inflammatory-related conditions, including asthma.

Take a deep breath: Scientists from Northwestern University have found the rhythm of breathing creates electrical activity in the human brain that enhances emotional judgments and memory recall. Specifically, volunteers were better able to do certain tasks if they were inhaling when asked to complete them. The investigators believe neurons in certain areas of the brain are stimulated when someone inhales. ■

Check Out the AARC New Members List Online

The "New Members" column can be accessed at http://c.AARC.org/new_members. Current AARC members are encouraged to check this site on the first of each month to view the names of individuals who have been approved as "Active Members" of the Association. ■

Industry Watch

Anthem launches online tool to minimize asthma disparities

In an effort to help facilitate disparities awareness in the physician community, Anthem, Inc., has launched a new online educational experience — *Moving Toward Equity in Asthma Care*. The tool is designed to promote physician-patient interactions that can minimize disparities in care and lead to an improved quality of life for patients by addressing potential gaps in care. "This new online experience is another step in our overall commitment to help create a greater awareness about health disparities and how a better understanding can help patients successfully control their asthma," says Craig Samitt, MD, chief clinical officer at Anthem, Inc. See the tool here: www.anthem.com/asthma.equity.

Signatures, Inc., reports good results for lung cancer

According to Signatures, Inc., initial results from a collaborative initiative between the company and the Institut Universitaire de Cardiologie et de Pneumologie de Quebec suggest the company's 3D Signatures Molecular Imaging Technology can identify a biological marker to distinguish between two deadly forms of lung cancer known as multiple synchronous lung adenocarcinoma (AC) and metastatic lung AC.

In every blinded patient sample the company analyzed, 3DS technology was able to distinguish between the two types of lung cancer. Investigators presented a poster on the study at the International Association for the Study of Lung Cancer last December.

ApniCure sells OSA device direct to consumers

ApniCure's Winx Sleep Therapy System for obstructive sleep apnea (OSA), which uses oral pressure therapy, is now available for direct purchase by consumers. Winx representatives say it provides relief from OSA without a mask and is designed specifically for the 50% of sleep apnea patients who can't or won't use a continuous positive air pressure (CPAP) machine.

Cleared by the U.S. Food and Drug Administration (FDA) and previously available only in select sleep labs, Winx was first made available to consumers in California. The company notes that broader national distribution is expected this year.

Helix BioPharma encouraged by results for lung cancer drug

Helix BioPharma Corp. presented topline data from its Phase I/II dose escalation study of immunoconjugate L-DOS47 as a monotherapy in non-squamous non-small-cell lung cancer patients at the 17th IASCLC World Conference on Lung Cancer held in Vienna, Austria.

The Phase I/II, open-label, non-randomized study was designed to evaluate the safety and tolerability of ascending doses of the study drug in male and female patients age 18 and older with stage IIIb or IV non-squamous non-small-cell lung cancer. "We are very encouraged by both the safety and efficacy data from the study," Helix CEO Dr. Sven Rohmann was quoted as saying. "This is a major milestone for the company and for our immuno-oncology program."

AMA reaffirms policies on youth smoking

The American Medical Association recently adopted new policies reaffirming its long-time commitment to preventing tobacco use among youth. The policies ask the FDA to require tobacco companies to add graphic warning labels in color to all cigarette packages. They also call for raising the minimum legal purchase age for all tobacco products to 21.

Mylan launches generic version of EpiPen®

Mylan N.V. has launched an authorized generic for the EpiPen® (epinephrine injection, USP) Auto-Injector at a wholesale acquisition cost (WAC) of $300 per epinephrine injection, USP two-pack, more than 50% lower than the WAC of EpiPen 2-Pak® Auto-Injectors. The authorized generic, which began reaching pharmacies at the end of last year, has the same drug

formulation and device functionality as EpiPen Auto-Injector and is administered in the same way.

Medivir moves forward with RSV drug

According to Medivir AB, MIV-323 has been selected as a candidate drug from its fusion inhibitor project for the treatment of respiratory syncytial virus (RSV) infection and has now entered nonclinical development. Medivir AB entered a license agreement with Boehringer Ingelheim International GmbH for exclusive global rights to a drug program for the treatment and prevention of RSV infection in August 2014. Under the terms of the agreement, Medivir received an exclusive global license to research, develop, manufacture, and commercialize RSV drugs resulting from Boehringer Ingelheim's program. "MIV-323 has outstanding potency against diverse RSV isolates and a class-leading preclinical pharmacokinetic and in vitro safety profile," notes Medivir CSO Richard Bethell.

PCORI announces new round of studies

The Patient-Centered Outcomes Research Institute (PCORI) has approved nearly $42 million to fund 19 new studies aimed at finding out which health care approaches work best. Thirteen of the projects will support research comparing treatment options for a range of conditions and problems that impose high burdens on patients, caregivers, and the health care system. Among these projects are a $6 million study to compare the effectiveness of two types of palliative care, hospital-based versus home-based, in reducing patients' pain, anxiety, and depression; and a $3 million project to determine the impact of different health plans on medication use and outcomes among both adults and children with asthma.

AnaptysBio receives FDA clearance for peanut allergy drug

According to AnaptysBio, Inc., the FDA has cleared the company's investigational new drug application for ANB020, a proprietary anti-interleukin-33 antibody, for the treatment of adults with severe peanut allergy. "The recently announced topline data from the Phase I trial of ANB020 in healthy volunteers demonstrate favorable safety and ex vivo pharmacodynamics of ANB020," AnaptysBio President and CEO Hamza Suria was quoted as saying. "We look forward to initiating Phase IIa clinical trials designed to assess the therapeutic potential of ANB020 for the many patients living with atopic conditions."

CSL Behring reports results on Alpha1 drug

Results from the RAPID Open Label Extension study of Zemaira, an Alpha1-proteinase inhibitor (A1-PI) therapy, show the therapy may slow the progressive and irreversible loss of lung tissue, reports CSL Behring. In the study, an early-start group received the therapy for up to four years. This group was compared to a delayed-start group that received a placebo during the first two years and then switched to Zemaira in the extension trial, providing up to two years of active treatment.

While a similar rate of decline was observed in both groups between months 24 and 48, over the four-year period, the early-start group experienced a lower overall rate of lung density decline. The delayed-start group never caught up to their early-start counterparts. "With the publication of the RAPID extension study, we have found that the late introduction of A1-PI therapy is still beneficial — but the lung structure lost by the late introduction is never recovered," according to Kenneth R. Chapman, MD, director of the Asthma & Airway Centre at the University Health Network in Toronto, Canada. "The RAPID extension message is to intervene early."

Windtree Therapeutics presents data on AEROSURF

Windtree Therapeutics' previously released AEROSURF® (lucinactant for inhalation) Phase IIa data was presented at the 6th International Congress of European Neonatal and Perinatal Societies. The data demonstrate that AEROSURF administered noninvasively via nasal CPAP in premature infants 29–34 weeks gestational age with respiratory distress syndrome is generally safe and well tolerated, and it may reduce the incidence of nCPAP failure resulting in the need for intubation and delayed surfactant therapy. The abstract received the 2016 Best Abstract Award at the meeting. ■

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

Industry Update

Featuring information on products and equipment from manufacturers

Classifieds

ADVERTISING SECTION

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Calendar of Events

AARC & State Society Programs

April 5–7
Anaconda, MT
43rd Montana State Respiratory Conference
Contact: www.msrcmt.org

April 9–11
Auburn, WA
44th Annual Pacific Northwest Regional Respiratory Care Conference and Scientific Assembly
Contact: jon.jahns@virginiamason.org, (206) 583-6458

April 13–14
Cedar Rapids, IA
Annual IaSRC Respiratory Care Conference
Contact: scarmody-menzer@scciowa.edu

April 20–21
Cocoa Beach, FL
Space Coast Cardiopulmonary Conference
Contact: fsrc@fsrc.org, (866) 534-6172

April 26–28, 2017
Lincoln, NE
Respiratory Therapy: Navigating the Future
Contact: lisa.fuchs@methodistcollege.edu

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

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

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

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

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

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