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An Official Publication of the American Association for Respiratory Care
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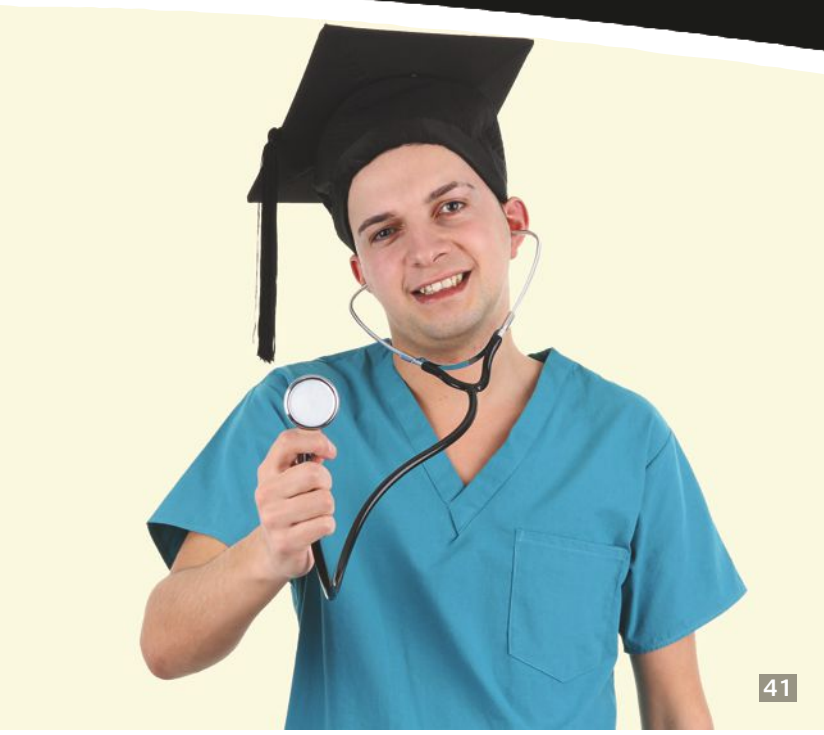
August 2012
Volume 36, Issue 8



## AARC Strategic Plan

**AARC Vision/Mission Statement:** The American Association for Respiratory Care (AARC) will continue to be the leading national and international professional association for respiratory care. The AARC will encourage and promote professional excellence, advance the science and practice of respiratory care, and serve as an advocate for patients, their families, the public, the profession, and the respiratory therapist.

## AARC Strategic Objectives

• Validate the science of respiratory care and the value of the respiratory therapist (RT) in providing respiratory care by supporting, conducting, and publishing research information.

• Promote respiratory therapists as the best providers of respiratory care by assuring that the science that clarifies the value and role of the RT is provided to those stakeholders whose decisions and actions need to be guided by that information.

• Promote respiratory therapists and the American Association for Respiratory Care by developing and implementing promotion and marketing campaigns targeted to unique audiences.

• Assure the Association has the resources to meet the needs of its members and that the AARC has the needed financial, volunteer, and staff resources needed to accomplish the implementation of the strategic plan of the Association.

The complete version of the Association's Strategic Plan is available to AARC members online at www.aarc.org/members_area/resources/strategic.asp.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*AARC Times* and Respiratory Care — official publications of the AARC

Daedalus Enterprises, Inc.
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(972) 243-2272
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Printed in USA


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# Literature Review of Mechanical Ventilation

Here are just a few of the latest studies in the medical literature that take a closer look at aspects of mechanical ventilation.

## Ventilator-associated tracheitis: risks and outcomes

Researchers from MetroHealth Medical Center, Case Western Reserve University, report on their experience with ventilator-associated tracheitis (VAT) in the online ahead-of-print edition of *Pediatric Pulmonology* published on April 24. The study involved 217 trauma patients who were ventilated for 48 hours or longer in their pediatric ICU (PICU) between April of 2002 and April of 2007. Of that group, 113 met study criteria, and their medical records were reviewed for patient demographics, Trauma Injury Severity Score (TISS), Glasgow Coma Scale, type of trauma, risk factors that could have influenced the development of VAT, and PICU outcomes.

Twenty-four of the patients developed VAT, for a rate of 21.2%. When compared to those who did not develop VAT, patients with the infection had higher TISS scores on admission (38.6% vs. 24.2%), longer duration of mechanical ventilation (11.5 vs. 3.7 days), and longer PICU lengths of stay (16.4 vs. 5.4 days). Mortality did not differ between the two groups. When the findings were adjusted for possible confounders, the TISS score and use of pressors/inotropes were identified as the only independent predictors of VAT.

"We conclude that the severity of illness and use of pressors/inotropes are associated with VAT in pediatric trauma patients," write the investigators. "We also conclude that VAT is associated with an increase in days of mechanical ventilation and PICU length of stay."

## Critiquing mechanical ventilation treatments

A computerized system designed to critique mechanical ventilation treatments is being developed by engineering researchers at California State University, Fullerton. Based on the physiological model of the patient's respiratory system, the technique draws from previously developed physiological models used for research and teaching purposes.

In this system, the lung volume is continuously time-varying. The effects of shunt in the lung, changes in cardiac output and cerebral blood flow, and arterial transport delays are included as well. The system has been evaluated using adult and neonatal patients with varying diagnoses. Combined results showed:

- The differences between the arterial partial pressures of $CO_2$ predicted by the system and the experimental values were 1.86 ± 1.6 mm Hg.
- The differences between the predicted arterial hemoglobin oxygen saturation values and the experimental values measured by pulse oximetry were 0.032 ± 0.02.

The authors believe their system "has the potential to be used alone or in combination with other decision-support systems to set ventilation parameters and optimize treatment for patients on mechanical ventilation." The report appeared ahead of print in the *Journal of Clinical Monitoring and Computing* on April 25.

## Stratifying risk for mechanical ventilation in COPD admissions

Identifying which COPD patients who are admitted to the hospital with an acute exacerbation will require treatment with mechanical ventilation could help hospitals better stratify risk in this patient population. A new study out of Washington Hospital Center in Washington, DC, may help.

Researchers there tested the ability of two risk scores, the BAP-65 and CURB-65, to see how well they predicted mechanical ventilation use in 34,478 patients with an acute exacerbation of COPD at 195 U.S. hospitals in 2007. The overall mechanical ventilation rate was 7.9% at admission, and 9.3% of patients required mechanical ventilation at some point during their hospital stay.

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Escalating BAP-65 and CURB-65 scores both predicted the need for mechanical ventilation, but the area under the receiver operating characteristic curve for BAP-65 was higher than that for CURB-65 for both mechanical ventilation on admission and mechanical ventilation at any time during the hospital stay. The researchers conclude the BAP-65 may be the better tool in this situation. The study was published ahead of print by the *Journal of Critical Care* on April 18.

## ECMO in hypoplastic left heart syndrome

Mortality is high for infants treated with extracorporeal membrane oxygenation (ECMO) following Stage 1 palliation for hypoplastic left heart syndrome, find researchers from Children's Hospital Boston and Harvard Medical School.

Their study followed 738 neonates who received cannulation at a median age of seven days. Overall, 31% survived to hospital discharge. Mortality was associated with multiple factors, including black race; mechanical ventilation prior to ECMO; use of positive end-expiratory pressure; longer ECMO duration; ECMO support for failure to wean from cardiopulmonary bypass; and ECMO complications such as renal failure, inotrope requirement, myocardial stun, metabolic acidosis, and neurologic injury. The research appeared ahead of print in the *Journal of Thoracic and Cardiovascular Surgery* on April 13.

## Inspiratory pressure-limited approach benefits sepsis patients with ALI

An inspiratory pressure-limited approach to mechanical ventilation can improve outcomes in sepsis patients undergoing mechanical ventilation for acute lung injury (ALI). That's the take-home message from Spanish investigators who conducted a retrospective analysis of data in the Surviving Sepsis Campaign international database. The study included 15,022 patients from 165 ICUs, 1,738 of whom were diagnosed with ALI and were on mechanical ventilation. These patients had more organ dysfunction and a higher mortality rate than the 13,284 patients without ALI.

In the septic patients with ALI and mechanical ventilation, inspiratory plateau pressures maintained at <30 cm $H_2O$ were associated with lower mortality, 46.4% vs. 55.1%. The authors conclude, "ALI in sepsis was associated with higher mortality, especially when an inspiratory pressure-limited mechanical ventilation approach was not implemented." The study was published ahead of print by the *European Respiratory Journal* on April 20.

## APRV found safe and effective

Yale University investigators who studied 38 patients who were transitioned from either volume- or pressure-targeted ventilation to airway pressure release ventilation (APRV) find APRV may be a useful alternative. Eighty-eight percent of the patients were transitioned due to hypoxemia and 12% due to hypercarbia. Results showed:

- The mean time to correct hypoxemia was 7 minutes ± 4 minutes.
- The mean time to correct $PCO_2$ was 42 minutes ± 7 minutes.
- The mean time to maximal $CO_2$ clearance was 66 minutes ± 12 minutes.
- The mean minute ventilation decreased on APRV by 3.3 L/min ± 0.9 L/min but achieved superior $CO_2$ clearance and oxygenation.
- The mean time to $FIO_2$ ≤0.6 was 5.2 hours ± 0.9 hours.
- Four of the 38 patients developed a pneumothorax.
- 97% of patients on APRV who were transported out of the ICU using bag-valve ventilation (with appropriate positive end-expiratory pressure valve settings) with Phigh ≥20 cm $H_2O$ developed hypoxemia within 5 minutes.
- 100% of patients with a Phigh ≤20 cm $H_2O$ were safely hand ventilated during transport without developing hypoxemia.

The authors conclude, "APRV is a safe mode of ventilation for hypoxemic or hypercarbic respiratory failure. Improvements in $PO_2$ and $PCO_2$ are achieved at lower minute ventilations than with volume- or pressure-targeted modes." The study was published in the March edition of the *Journal of Trauma and Acute Care Surgery*.

## Active surveillance cultures predict MRSA VAP

Once weekly active surveillance culture of methicillin-resistant *Staphylococcus aureus* (MRSA) colonization can predict the development of MRSA ventilator-associated pneumonia (VAP), report University of Washington and Harborview Medical Center investigators publishing in the May edition of *Critical Care Medicine*.

They arrived at that conclusion after studying all patients age 16 and older who were admitted to the ICU and were on mechanical ventilation for 48 hours or longer and met diagnostic criteria for VAP. Among the 924 episodes of suspected VAP that were evaluated, 388 patients were diagnosed with bronchoalveolar lavage-confirmed VAP. These patients underwent surveillance

cultures on admission, every seven days thereafter, and at hospital discharge. Thirty-seven patients, or 9.5%, had MRSA VAP; and another 54, or 13.9%, had MRSA colonization before the development of VAP.

The findings yielded high specificity and negative predictive value, leading the investigators to suggest that "negative active surveillance culture can accurately exclude methicillin-resistant *S. aureus* as an etiology in most patients with ventilator-associated pneumonia and may decrease the need for empirical methicillin-resistant *S. aureus* coverage in patients with suspected ventilator-associated pneumonia."

## Lung protective ventilation reduces two-year mortality

Lung protective ventilation was found to significantly improve two-year survival rates among patients with acute lung injury in a new study conducted by investigators from Johns Hopkins. Using data on 485 patients treated in 13 ICUs at four Baltimore area hospitals, they compared mortality rates with the use of lung protective ventilation derived from 6,240 eligible ventilator settings. Overall, the study included a median of eight eligible ventilator settings per patient, 41% of which adhered to lung protective ventilation. The mortality rate was 64% after two years.

After adjusting for total duration of ventilation and other factors, results showed a 3% decrease in mortality risk for each additional ventilator setting that adhered to lung protective ventilation. The estimated absolute risk reduction in two-year mortality for a patient with 50% adherence to lung protective ventilation was 4% when compared to no adherence, and with 100% adherence the reduction was 7.8%.

"Lung protective mechanical ventilation was associated with a substantial long-term survival benefit for patients with acute lung injury," write the authors. "Greater use of lung protective ventilation in routine clinical practice could reduce long-term mortality in patients with acute lung injury." The study appeared in the April 5 edition of BMJ. ■

Dräger


# Palliative Care: Getting On Board for the Elderly

by Helen M. Sorenson, MA, RRT, FAARC

The aging population is no longer a future concern; it is a reality that must be addressed. Our hospitals and health care institutions are seeing unprecedented numbers of older patients. While many are surprisingly strong and robust, others are frail and apprehensive about hardship. The combination of advanced age, chronic disease, comorbidities, and a decreased immune system often result in complicated medical care that can overwhelm the aging body. It comes as no surprise then that the majority of deaths in the United States occurs in the geriatric population.[1] As health care professionals, how can we best meet their needs at the end of life? How should we deal with "labor pains" as their bodies are shutting down for the last time? The goal of palliative care is to prevent suffering and improve the quality of whatever life remains for the dying. The concept of palliative care is not new, but how we need to practice it is.

Twenty years ago there were few, if any, medical education programs that addressed palliative care in their curricula. When "comfort care only" was written in the chart by the physician, new therapists learned to do palliative care from seasoned therapists and nurses who learned comfort interventions from their mentors. Today, not only is palliative care taught, there are palliative care clinical practice guidelines,[2] palliative care textbooks, palliative care clinical rotations, and thousands of articles on disease-specific palliative care practices. Palliative care has come of age.

about the author...

Helen M. Sorenson, MA, RRT, FAARC, is an associate professor with the department of respiratory care at the University of Texas Health Science Center at San Antonio, TX.

## Elder care

Palliative care for the elderly patient has a somewhat different focus than disease-specific palliative care. Older adult care is more time consuming, and attention must be paid to the geriatric syndromes (groups of signs and symptoms associated with the elderly that can impact their functionality and ultimately morbidity and mortality). For example, in addition to terminal illness, older patients may also be plagued with dementia, delirium, urinary incontinence, persistent pain, and frequent falls. Another confounding factor is that older adults are cared for in a variety of different settings including hospice, nursing homes, subacute care, private homes, and hospitals.

Palliative care may vary widely between different environments. Palliative end-of-life care for older adults is complicated. It is difficult to address symptom control without consideration of the geriatric syndromes. Determining what is most bothersome to the patient is essential, as it may be incontinence, not pain. Just et al, in a 2010 publication, has focused on the development of a curriculum for teaching palliative care to nursing and medical students. The components of palliative care for the elderly have been broken down into the components of necessary care, which include geriatrics, palliative care, communication and patient autonomy, and organization and social networks.[3] All are equally important to address.

## Geriatrics

When looking at the research published on end-of-life needs of the elderly, it becomes clear that there must be a holistic approach to care. Of interest is the fact that most geriatric fellows receive considerable training in palliative medicine,[4] but palliative care physicians are less likely to receive specific training in geriatrics.[5] According to Arnold

et al, the holistic philosophy should require an interest in any problems likely to decrease an older patient's quality of life, not just problems related to their life-limiting disease process.[5] A good geriatric assessment is an important component of care to assess for fall risk, frailty, impaired vision/hearing, delirium, and dementia — all of which can have a negative effect on quality of life. Comorbidities, also common in elderly patients, can confound the prediction of impending death. Their COPD may be stable, but their kidney function may not be. Failure to recognize this can result in poor timing of hospice admission.

## Palliative care

The Latin word for palliation, *palliare*, means to cloak or shield.[6] Bothersome symptom management in a safe, comfortable, clean environment has been the hallmark of palliative care, shielding the sick and/or dying from suffering. In addition to the reduction of pain, dyspnea, secretions, and other physical symptoms, also needing to be addressed are personal, psychological, and existential issues.[7] When interventions, in addition to symptom management, include spiritual dialog, psychosocial counseling, and guidance in advance directives, the results show improvement in psychosocial quality-of-life measures and improved perception of communication and treatment.[8] Palliative care requires a team effort. Cultural issues, when apparent, also need to be addressed. Caring successfully for older adults rarely happens in a vacuum. Different disciplines working together will likely result in what family and friends would refer to as a "good death" of their loved one.

## Communication and patient autonomy

What type of care does the patient want? Is there, or has there been effective communication between the caretakers and the patient? While this may seem intuitive, it does not always happen. A study published by Nahm and Resnick showed that many older people do not want invasive interventions but prefer comfort measures.[9] They also found that preferences change over time, thus it is important to reevaluate them regularly. Regarding place of death, preference for terminally ill patients often changes when the need for care increases. This change may be prompted by the patient or by the caregivers who are uncomfortable with comfort care and now want therapeutic interventions. Another study by Laakkonen and colleagues looked at older adults' preferences for CPR and their role in the decision-making process. Less than half of the participants wanted to initiate the discussion with their physicians. They wanted the physician to take the initiative for the discussions, but the majority (80%) wanted to be involved in end-of-life care decision making.[10]

## Organization and social networks

Advanced age often results in a reduction of social networks. Elderly patients may have already lost a spouse, close friends, and/or family. Their children may live far away, and their remaining friends may not have access to transportation. This void leads to a lack of individuals with whom they can have conversations about personal, spiritual, and existential issues. Older patients who are institutionalized and have lost mobility and freedom of choice may suffer with isolation and loneliness. They may wish to have conversations with their caregivers but do not ask for fear of becoming a burden. Those providing palliative care for older adults should consider their need for — and the importance of — social networks. Caregivers should also appreciate older patients' fears of being separated from the support of friends and family and their fear of dying.[11]

## Interventions

What does this all mean? We have all passed by the room of an elderly do-not-resuscitate (DNR) patient on our shift. Sometimes there are family members in the room; often the patient is alone. Sometimes we are delivering nebulizer treatments to the patient or just checking now and then on their oxygen. We are doing our job. However, if we stop for a moment and understand that the elderly are less likely to have family and social support, less likely to have communicated with anyone about their wishes for end-of-life care, and more likely to have multiple disease- and age-related issues to deal with, should trigger a response. You may ask, what can I do? You can stop by for a minute, hold their hand, say hello, ask them if they need anything, and give them a smile. They may or may not respond; it does not matter. If they request pain medication, talk to their nurse. If they want to talk to a minister or priest or rabbi, let the charge nurse know and he/she will make it happen. If they are cold (and they often are), give them a blanket. Caring is not time consuming and costs us nothing. Whatever you do, no matter how small, it is something that will make both you and them feel better.

## Update on the role of palliative oxygen

As an addendum to this article, the use of oxygen as a palliative measure in end-of-life care is now being questioned. According to on-going research, the routine use of palliative oxygen therapy without assessment of reversibility of symptoms cannot be justified.[12] The evi-

dence for use of long-term oxygen therapy for severely hypoxemic patients with COPD is strong. The evidence for routine use of palliative oxygen in patients with a non-pulmonary diagnosis is not strong. A study done by Abernethy et al and published in Lancet in 2010 showed that oxygen delivered by nasal cannula provided no additional symptomatic benefit for relief of breathlessness compared with room air.[13] Although this may be foreign to many of us who have long advocated for oxygen on our dying patients, perhaps medical air or the use of a fan in the patient's room may be just as effective. This is something for us all to think about.

To learn more about palliative care, access the fourth edition of the Institute for Clinical Systems Improvement (ICSI) "Health Care Guideline: Palliative Care," a 2011 publication designed to assist clinicians by providing a framework for the evaluation and treatment of patients who require good palliative care regardless of their age.[14] ■

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# The RT as COPD Coordinator in the Hospital

by Martine J. Eon, BS, RRT-NPS, RPSGT

MaineHealth is a not-for-profit family of leading high-quality providers and other health care organizations working together to make our communities the healthiest in America. Ranked among the nation's top 100 integrated delivery networks, MaineHealth includes 12 member organizations and four affiliates. Our primary goal is the continual improvement of the general health of the communities we serve.

As a respiratory therapist working in the clinical integration chronic disease program at MaineHealth, I have the opportunity to share my experience and passion for education to improve the health of people living with chronic lung disease. Every day brings new challenges. No two days are the same, and I love that aspect. I may be asked to provide an in-service on oxygen therapy to registered nurses and medical assistants in a physician's practice or review order sets for COPD exacerbations to standardize care across all MaineHealth hospitals as we build our new electronic medical record system. By reviewing evidence-based guidelines for the management of chronic lung disease, I help create educational tools for providers, patients, and their families. Recently, I collaborated with my medical advisor to summarize the updated "Global Initiative for Chronic Obstructive Lung Disease" (GOLD) guideline recommendations[1] into a document that is clear, condensed, and practical for providers to access and reference.

We discovered that "hospital-based COPD care" is only one very small part of the continuum of care that enables patients to be successful in self managing their COPD. Our work is closely aligned to our system's Transition of Care Program as patients move from one care setting to another. COPD management involves an ongoing assessment and evaluation of an individual's needs and barriers to care and whether or not we're reaching them where they are, at the right moment and time. As health care providers, we may think we know what our patients' needs are and may have a "one size fits all" approach. But every patient is different; every hospital or health care system is different. Plus, through research we now know so much more about COPD — how the various genomes influence susceptibility to disease development and progression, and that it's not just emphysema, chronic bronchitis, or chronic asthma anymore.

I participate on several committees and workgroups that bring together key stakeholders such as hospital-based providers, community organizations, home health agencies, and out-patient practice providers to discuss best evidence-based practice and how we can implement interventions to improve processes. I travel throughout Maine to do in-services on inhaled medication devices and how to perform office spirometry, oxygen administration, and disease-specific training — just to name a few. Meeting the providers in their medical home setting is important to help them reach quality care measures for their patients.[2] With practices working so hard just to meet their commitments, traveling to them is often the only way to reach the staff members who need the education the most.

At a recent Ambulatory and Preventative Health workgroup meeting, one of the providers identified that he practices evidence-based medicine and follows the GOLD guidelines for treatment recommendations. Unfortunately, many of his patients often cannot afford the medications he prescribes and generally are not proficient in the usage of the inhaled medication devices. To address

**about the author…**

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this need, we collaborated with another MaineHealth program, MedAccess, and our largest hospital within the MaineHealth family, Maine Medical Center (MMC), to identify which patients may have this barrier to care. We now have a program that notifies the MedAccess specialist at MMC if a patient has insurance coverage gaps or polypharmacy needs (five or more medications) that may inhibit their ability to provide the best self care. We're working on expanding this service to include an assessment by a respiratory therapist trained in inhaled medication techniques. Since the literature has identified that a majority (up to 79% in some studies) of patients prescribed inhaled medications are not taking them correctly, inhaler technique education plays an integral part in reducing preventable readmissions for COPD exacerbations while improving quality of life for patients with COPD.

In our quest for the most efficient and valuable provider and patient tools, we often develop our own or adapt aspects of tools already available to us. One tool originally created by the National Jewish Research Medical Center is the COPD Action Plan. By adding key points learned from the recent GOLD update that stress early recognition and intervention of a COPD exacerbation, we hope to reduce ER visits and hospitalizations for COPD. A proactive approach to this critical aspect of self management — in addition to optimizing medication usage through correct inhaler technique — is a golden opportunity to improve outcomes. Implementation of policies and education for providers to reduce preventable readmission rates for COPD will keep us ahead of the impending penalties for preventable readmissions. As a clinician who has sung this song for years, I'm so excited that something as simple as inhaled medication technique and a COPD Action Plan educational tool have so much potential in building self-management skills.

In promoting healthy air and disease prevention, I work with staff from the Center for Tobacco Independence to promote smoking cessation and further develop smoke-free policies for our campuses. This philosophy is at the core of the work we do every day to reduce tobacco use and the comorbidities associated with tobacco.

I approach my work from the perspective that although Mr. Jones is not my father, husband, brother, or son, he is someone's. By utilizing shared decision-making principles, I advocate for recognition of a patient's preferences and values in their informed health care decisions.[3] If we all care for patients as if they were family, patients would be empowered and more engaged in their own care. I would venture to guess this may also translate into lower health care costs in the long run.

With tightening budgets and a shrinking health care dollar, we are forced to reevaluate the care we give and how every dollar is spent. The Centers for Medicare and Medicaid Services' proposed changes in COPD 30-day readmission reimbursement to hospitals also heightens the need for improvements in chronic disease management and preventive care education.[4] These initiatives will create opportunities for respiratory therapists who share my passion for lung health and patient education. My work to support the MaineHealth system's goal of improving care for people living with COPD, reducing avoidable readmissions, and ultimately improving quality of life for this population of patients makes me so proud to be a respiratory therapist. ■


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As health care budgets shrink and patient care becomes increasingly complex, our mutual challenges become greater. The synergy of the corporate partner concept is an effective way to address those needs utilizing our combined skills and resources.

# What Is the Standard of Care for Sleep Apnea Patients?

by Karla Smith, BS, RRT, RPSGT

"That is the best night's sleep I have had in a long time" is the greatest phrase any sleep technician can hear. Those words are so gratifying, knowing that literally overnight you were able to help with the diagnosis and treatment of a sleep disorder and change someone's life so significantly. It is disheartening then to know that almost one-half of these happy endings are temporary because patients are lost to follow-up regarding their obstructive sleep apnea (OSA) or they are not given the proper education regarding their diagnosis and how to manage their treatment.

Long-term compliance after five years of use is estimated to be 68%.[1] Most studies indicate that in order for the majority of patients to wear positive airway pressure (PAP) appropriately, compliance must be established very early after diagnosis. Early steps to gain compliance along with follow-up can only help patients understand the importance of PAP therapy and thus treat their OSA effectively.

## Patient education

Immediately following the diagnosis of OSA either by in-lab polysomnography or home sleep test, the patient should be seen by a sleep specialist.[2] The initial follow-up appointment is a perfect time to discuss the specifics of OSA, such as severity of the disease, pathophysiology and explanation of the course of the disease, treatment options, and what to expect from treatment. Patient education should be delivered from a multidisciplinary chronic disease team management standpoint. This team should include the primary care provider, the sleep physician, and other allied health care providers.

Patients should be aware of all types of therapy available. The patient should be an active participant in choosing the treatment best for him/her, and the sleep specialist should be available to assist in finding the treatment that is most appropriate for the severity of their disease. The "gold standard" treatment for moderate-to-severe OSA is PAP therapy.

## Follow-up

The average OSA patient should be followed routinely by a sleep specialist. Once the OSA diagnosis is made and PAP therapy has been initiated, most patients are seen within two months of continuous positive airway pressure initiation. This is an opportunity for the sleep specialist to review PAP download data to review apnea-hypopnea index (AHI) numbers. This data is used in conjunction with information from the patient regarding decrease or increase of symptoms like snoring and continued daytime fatigue. This initial follow-up visit can also be used to troubleshoot problems the patient may be having regarding regular therapeutic use of PAP and also to reinforce the importance of regular use.

There are considerations to be made regarding further follow-up, and this should depend on the effectiveness of the PAP therapy. Those patients who are treated effectively should be seen by a sleep specialist at six– to 12-month intervals to reinforce daily use, troubleshoot new problems, and also to determine if current PAP pressures are still effective in treating OSA symptoms.

Patients with OSA who are found to have sub-optimal compliance or sub-therapeutic benefit should follow up with the sleep specialist approximately every two to three months. Patients may also be seen more frequently in order to identify problems causing decreased PAP use as well as taking steps to eliminate problems like breakthrough snoring or continued daytime fatigue. If the issues are not resolved, a repeat titration may be necessary.

about the author...

Karla Smith, BS, RRT, RPSGT, is the sleep center coordinator at St. Alexius Medical Center in Bismarck, ND.

A common problem that should be addressed is the mask interface size and fit. Patients should be encouraged with the help of their durable medical equipment (DME) supplier to find a mask/interface that fits them properly. An ill-fitting mask/interface can cause problems with patient compliance. According to Kim Hirchert, RRT, team leader of the respiratory department at Great Plains Rehabilitation Services in Bismarck, ND, some patients may need up to three months to find a mask that they are able to tolerate. In addition, some patients may require multiple interfaces before they are able to find the perfect fit. It is important that the physician, patient, and DME provider all understand mask issues and how important a properly fitting mask is to increase compliance and satisfaction with treatment.

Repeating polysomnograms routinely or yearly is not necessary for patients who report improved symptoms. The positive reporting together with data downloaded from a PAP device that shows satisfactory compliance and an AHI that is within normal limits provide sufficient data to determine that the patient is being treated properly with his or her current PAP pressure settings.

Re-titration of PAP therapy is usually indicated for those patients who do not seem to be getting relief from their symptoms regardless of intervention. This is also true in cases where patients who had initially experienced relief but later present at follow-up with complaints of returning symptoms. Most often, the symptoms are found to recur as a result of weight gain.

## Alternative therapy and follow-up

There may be instances where PAP therapy is not the treatment of choice and an alternative form of therapy is chosen. Some of the alternative therapies used to treat OSA include oral appliances, behavioral modification, and surgical procedures such as uvulopalatopharyngoplasty or mandibular advancement. Patients who choose alternative therapy should still receive regular follow-up to monitor their response to therapy and adherence to their treatment plan, and also to assess the continued alleviation of their symptoms.

Since obesity is a risk factor for OSA, it is important for patients to be counseled regarding weight loss and diet modification.[3] According to the American Academy of Sleep Medicine, dietary weight loss should be combined with a proven treatment for OSA. It should also be noted that bariatric surgery may be used as an adjunct to therapy like PAP.

## Surgical risks

Many studies have been published regarding OSA patients and the risks they face from perioperative complications. Proper identification of these patients in the preoperative period can dramatically decrease perioperative and postoperative complications.[4] Patients with an OSA diagnosis should also be educated regarding this risk, and they should inform their surgeons about their diagnosis. All patients, whether they are compliant or noncompliant, should be asked to bring their PAP device to the hospital with them for use during the postoperative period. Failure to do so could mean a rocky recovery with the worst-case scenario being death.

It is also worth noting that all patients at risk for OSA should be screened preoperatively and managed postoperatively to assure the postoperative course is a smooth one. There are many different screening tools available for these screenings, and these should be utilized to raise the standard of care for patients who may be at risk for obstructive sleep apnea.

## Role of the respiratory therapist

Respiratory therapists are a perfect fit in any aspect of the diagnosis and treatment of patients with obstructive sleep apnea as it is a sleep-breathing disorder. RTs can be there for the screening process pre-operatively or post-operatively while monitoring oxygenation and ventilation. RTs are also able to screen patients for whom they perform routine floor therapy as many pulmonary patients may be at risk for OSA.

Respiratory therapists also have the opportunity to become sleep-disorder specialists by taking advantage of the NBRC SDS exam. This will enhance the skills needed to acquire data to diagnose OSA. This is a great adjunct to being an RRT or CRT working in a sleep center or sleep lab.

Of course, RTs also have the advantage of being experts in positive airway pressure (PAP) therapy as this is part of the respiratory therapy education curriculum. This knowledge is helpful when educating patients regarding continuous PAP and bi-level PAP treatment for obstructive sleep apnea. ■

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# Election 2012

by Cheryl West, MHA

With both national and statewide elections set for Nov. 6, now is the time to let your legislators know about the respiratory therapy profession and the issues that are important to the profession. This is important now because those who are running for public office tend to listen a "tad" more intently to your concerns during election years.

Of course, this year is a presidential election. And while our specific respiratory therapy issues don't rise to the lofty level of presidential debate, there is an indirect aspect of a presidential election year: More voters come out to vote, thus those who are on the ballot (state, local, national) will garner more votes. And that means candidates want to appeal to you, the potential voters. It's a "follow the bouncing ball" type of thing. But the bottom line is that legislators at all levels who are running for any elected office this year will be willing to meet with groups and make themselves more accessible to you, the voters.

about the author...

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

## They want to meet you

One example of this on the national level is the very positive response RTs received from members of Congress during the AARC's annual Hill Advocacy Day this past March. Over 135 respiratory therapists — the AARC state societies-appointed Political Advocacy Contact Team (PACT) representatives — along with 30 patient advocates came together to lobby Congress for support of our Medicare Respiratory Therapy Initiative (H.R. 941). Your PACT representatives have always received a positive response from their state congressional delegations, but this year that positive response was even more pronounced. Before the day was over, we had garnered 11 new co-sponsors for our bill, received assurance (confirmed a week later) that all the House members from Arkansas would sign a joint letter supporting our requests, and received "how can our office help you?" follow-ups from at least 10 Hill offices.

Those who are running for election — no matter the "level" — want to meet you, the voter. And they'll do this in a number of ways. Members of Congress hold "town hall meetings," usually at locally accessible facilities. Those who are running for state or local offices will take the opportunity to make remarks at nearly any gathering place that attracts people. State fairs held in the summer or fall are a prime place for those up for election to appear. The more local the election, the more local the meeting place or gathering event. Local events such as Meet the Candidates are a prime opportunity to hear what those running for election have to say and provide you with the chance to let them know how you feel about the issues and perhaps note that you are a respiratory therapist concerned about health issues.

Finding out when these "meet and greet" events are happening is simplified through use of the Internet. For your congressional House and Senate delegation, the AARC's Capitol Connection (besides providing you a way to email your members) includes two other links that will assist you with background information. First, http://aarc.capwiz.com/election/home/ will let you know who is running for federal office for each seat in Congress. If you want to tap into a particular sitting member of Congress to find out when local events are scheduled, go to http://aarc.capwiz.com/aarc/dbq/officials/, which will provide contact information for each of your Congress members' offices. These congressional websites will have a "Contact Us" link, and the best bet to find local events is to call or email the district office closest to you.

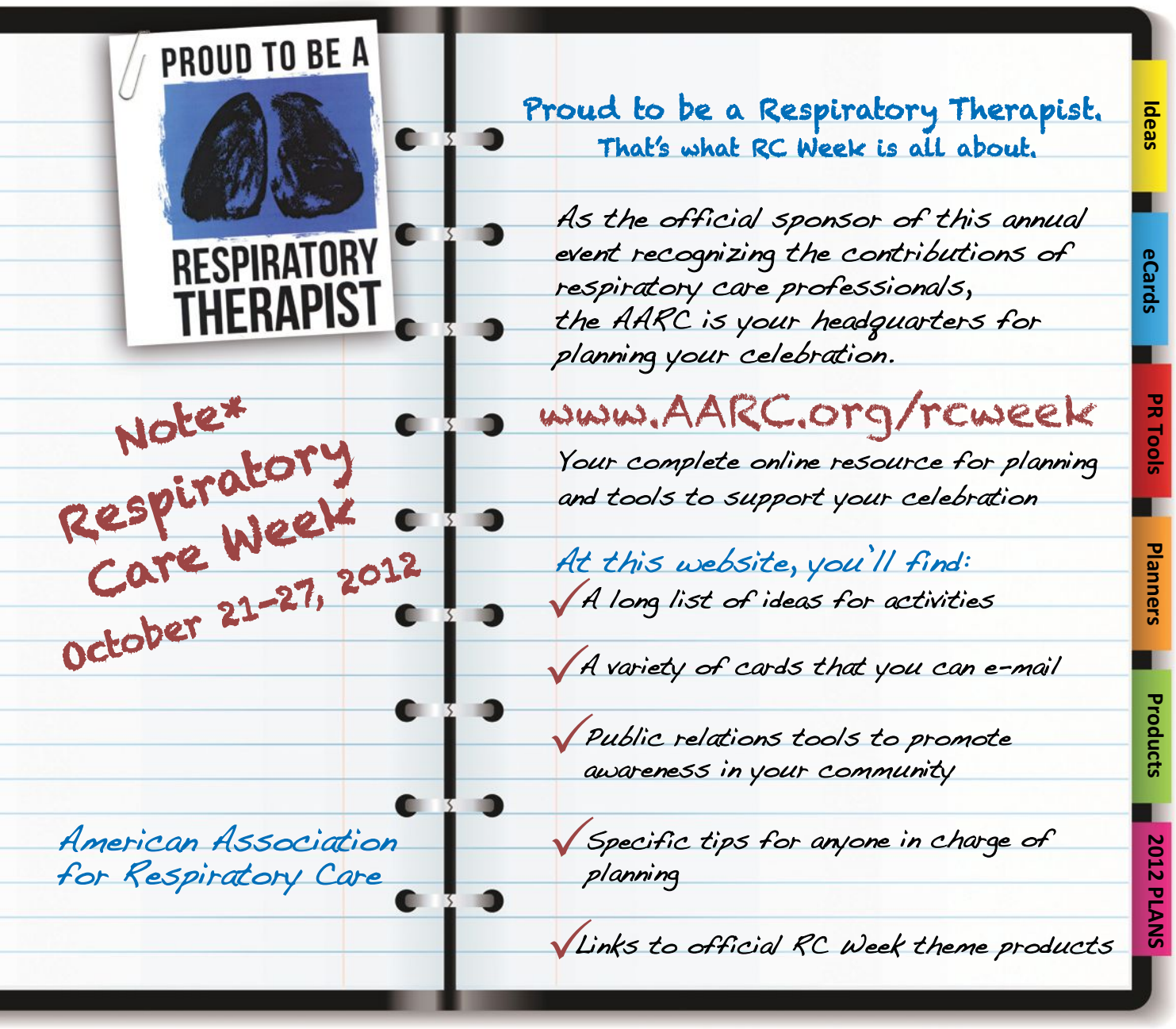
Another way to find out who is running for office at the state level is to search the Internet for "State Board of Elections" and then input your state. That should bring up the slate of candidates at all levels.

In 2012, communicating with potential voters spans many platforms in addition to the "traditional" face-to-

face events or TV appearances. It is a safe bet to assume that anyone running for elected office will have a website, if not a Facebook page or a Twitter account. Information on scheduled events will assuredly be posted somewhere; after all, the point is to reach as many voters as possible. And, of course, the local newspaper often will announce when a candidate running for office will be attending some local event.

## Speak up

We at the AARC fully realize that your time is precious and limited. As the 2012 elections approach, we do urge you over the summer and fall to take the opportunity to meet those who are running for office as the occasion arises. Whoever is elected will have a hand in writing the laws or amending policies that may impact not just your professional life as a respiratory therapist but many other personal daily aspects of your and your family's lives. ■




# Value for Value

by Anthony L. DeWitt, JD, RRT, FAARC

Generally speaking, when you pay money for something, you want to get your money's worth. If you are like my wife, who has a black belt in shopping, you sometimes get a bargain — and every now and then, a great deal. Being a savvy shopper usually means finding the bargains in advertisements and acting on them. Most reputable stores honor their ads and their bargains, but there are some businesses that will work very hard not for honest exchange, but rather to separate you from your money. In the law this is called fraud.

Fraud is difficult to prove in a court of law. Among other things, a consumer must prove that they relied on a party's representations and that they had "the right to rely." There are a dozen or more exceptions and twists in the law of fraud that almost seem to favor the scammer over the honest person.

Nearly every state now has some version of a "Little FTC" (Federal Trade Commission) statute that essentially attempts to level the playing field. These statutes came about in the 1960s and 1970s when consumers sought help from unscrupulous business practices of car dealers and "easy credit" rip-offs. The back pages of tabloids like the *National Enquirer* were full of ads for work-at-home schemes that promised hundreds of dollars for "stuffing envelopes."

While the scams and flim-flam artists of today are more likely to post an ad on craigslist or advertise online, the classic elements of a scam remain the same. A consumer is offered what appears to be a deal that is just too good to be true. In one famous con game, a man advertised that he would sell a famous copper engraving of "The Great Emancipator" (Abraham Lincoln) for only $19.95. The engraving was said to be "suitable for framing." When recipients got their copper engraving in the mail, it was in the form of a penny.

**about the author...**

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

## State statutes

State merchandising practices statutes turn the tables on scammers and con artists and help people get money back when they've been unfairly cheated. In Missouri, where I practice, our Chapter 407 is a particularly robust statute. It provides:

*"The act, use or employment by any person of any deception, fraud, false pretense, false promise, misrepresentation, unfair practice or the concealment, suppression, or omission of any material fact in connection with the sale or advertisement of any merchandise in trade or... is declared to be an unlawful practice."*

It then goes on to define people providing services — like hospitals and respiratory therapists — as persons who are engaged in trade or commerce. The statute was created to supplement the definition of common-law fraud and preserve fundamental honesty, fair play, and right dealings in public transactions.

Regulations and case law spell out the limits of the statutes. One of those regulations provides:

*(1) An unfair practice is any practice which —*

*(A) Either —*

1. *Offends any public policy as it has been established by the Constitution, statutes or common law of this state, or by the Federal Trade Commission, or its interpretive decisions; or*
2. *Is unethical, oppressive or unscrupulous; and*

*(B) Presents a risk of, or causes, substantial injury to consumers.*

Another regulation issued by the attorney general and defining the statute's terms provides:

*(1) It is an unfair practice for any person in connection with the advertisement or sale of merchandise to —*

*(A) Take advantage of a person's physical or mental impairment or hardship caused by extreme temporary conditions, and charge a price substantially above the previous market price of the merchandise in seller's trade area….*

Recently, while speaking before the Missouri Society for Respiratory Care, I outlined how these statutes could be used by a consumer to challenge a hospital bill. For example, a bottle of Ecotrin®, arguably the most expensive brand of enteric-coated aspirin available, costs about $5.98 at Wal-Mart or roughly $0.05 per aspirin. Some hospitals, however, have been known to charge as much as $5 for a single aspirin administered in the ER. Marking up an aspirin by roughly 10,000% might well be thought of as charging a price substantially above the previous market price, and certainly a patient in a hospital having a myocardial infarction might be considered to be a patient who is under extreme physical hardship.

Additionally, I noted that the practice of "stacking therapy" or "concurrent therapy" — something the AARC published a White Paper on in 2002 — is considered by many therapists to be an unethical practice. One reason therapists are instructed to stay at the bedside is to monitor the patient, the theory being that the patient is paying not only for the medication he is being administered, but also for the therapist's time and attention. An unmonitored patient, at least as far as what many therapists believe, presents an unacceptable risk of injury from unwitnessed drug reactions, paroxysmal coughing, or other sequelae.

## Is "stacking" consumer fraud?

Could a patient who received "stacked" therapy challenge that under the consumer fraud statutes? Certainly this has not happened yet, but it could happen if a knowledgeable nurse or therapist believed a family member received substandard care or was hit with a bill that was unreasonable. More and more, hospitals are seeing their insurance and payment policies challenged as unfair and unscrupulous practices.

Recently, hospitals in Minnesota were caught placing employees from a debt collection company in their emergency room. Their purpose in the ER was to ferret out serial users of the ER who run up large bills but fail to pay them. One woman, who had health insurance and whose family members used the hospital on more than one occasion, still had outstanding bills due because the hospital had incorrectly submitted the costs to the insurer. So when she went to take her son in for ear surgery, she was told the estimated costs were twice what was charged and was asked to prepay her co-insurance in an amount over $800. She could never get a refund and filed a complaint with the Minnesota Attorney General.

The Minnesota Attorney General sued the hospital and the debt collector for violations of the state's "little FTC" statute and for violations of the health privacy laws (sharing patient information about a prospective patient with a debt collector is prohibited). At present, the case is still ongoing.

The Emergency Medical Treatment and Active Labor Act prohibits financial discrimination of an ER patient, and there are both civil remedies as well as federal penalties for institutions that adopt policies restricting access to emergency services.

## Cautionary involvement

If you have identified a practice in your hospital that you feel is unscrupulous or unethical, the corporate compliance officer is the person to tell. The compliance officer is tasked with investigating those kinds of issues and reporting on them to the hospital board of directors. You could save your hospital a great deal of time and money if you identify a practice that might otherwise lead to litigation. But remember to report these kinds of things anonymously, because sometimes — and this is unfortunate — there is a tendency to "kill the messenger" in these kinds of situations. ■

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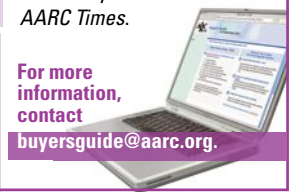

**For more information, contact buyersguide@aarc.org.**

# The Shoes...

by James C. Woods III, RRT

My pager chirped to life, reminding me that I was still responsible for all of the trauma alerts. The message read, "LEVEL 1 TRAUMA, ETA 8 MINUTES, 9-YR-OLD PEDS VS AUTO."

"The same age as my oldest son," I thought. It always would be there, the worry.

"What if it were someone I knew — or even worse, one of my own kids?"

I was just finishing an aerosol therapy and had to excuse myself, waving to the RN as I passed by the nursing station where she was charting. "Gotta run, trauma coming," and she waved, letting me know she understood.

Taking the stairs, I made my way down the four flights to the ED. I waved my ID badge past the scanner, and the doors opened. Several staff members, sitting at the desk of the day clinic, waved as I passed by; and I scanned again to enter the trauma suite, walking in to the expected level of chatter that I had come to know.

The pharmacy staff were setting up in their spot, always two of them. The frightened resident/intern couple, vaguely familiar with the procedure, were struggling with their gowns and masks as the portable x-ray machine rumbled into the room. The surgical attending was just arriving through the opposite doors. Catching his eye, I nodded and readied myself for what was ahead.

"A 9-year-old male, on his bike, turned right into the car and went over the hood," the charge RN was saying to the medic who entered sometime before me.

Putting on my impermeable gown, I asked if he was intubated. "Yes" was the response, with a "GCS of 3."

Grabbing my face shield and mask, I made my way to the head of the bed, set up my resuscitation bag with a No. 4 mask and non-rebreather, in case he really wasn't intubated.

I pulled on size 8 surgical gloves; they were longer and better fitting than the boxed disposable gloves. The pager captured my attention again as a second trauma was announced. "What a morning it is becoming," I thought as I checked my suction. Let's see, a 9-year-old, probably a 4 or 5 ET, so I pulled out a selection of catheters and opened a 10-Fr just in case. I set a Yankauer up on the second of four suction canisters that were available.

I opened the airway cart and retrieved a laryngoscope and blades just in case we would need to re-intubate, setting a few tubes out as well, along with a stylet.

The noise level seemed to increase by four after the second alert came through. A second group of gowned saviors began to appear and circle the beds.

Brad, a PICU therapist, called my name as he entered the room. When a second alert is called, the PI is my backup. I pointed to bed 2 and let him know that another 9-year-old was coming and that he was conscious and complaining of leg pain. Brad said, "Need anything?" "I'm good, man," was my response. He turned and began to gown when we were told that the first squad had arrived. Instantly the noise level went to zero. I took a deep breath and waited.

The meditative silence was broken as the doors flew open, not with a bang but a whoosh as the room decompressed. The squad entered, pushing the patient feet first while calling out vitals: "GCS of 3, HR 164, BP 90 over palp, 4.0 ET in place, secure."

about the author...

James C. Woods III, RRT, is the T-5 pulmonary unit chairperson, Interdisciplinary Forum, at Nationwide Children's Hospital in Columbus, OH.

I always look at the shoes when the age and sex match one of my own children. There they were. These shoes I knew.

The medics turned and rolled up beside the cart where I was standing. The boy's eyes were open but had a film over them. I had come to know this film as a sign of death. Once the squad's cart was in place and wheels locked, I asked if everyone was ready to move over to our cart. "On three," I said. "One, two, three." Quickly, as one, we moved. I connected my resuscitation bag to the ET and began bagging.

The boy had dark hair that was stuck to his forehead. It looked so much like him, but I couldn't be sure. Trying to control my thoughts, still bagging, I stepped to the side of the cart so I could look at his face. My eyes were starting to tear as my heart raced. I blinked and looked hard. I only had a second. It was not him.

> The meditative silence was broken as the doors flew open, not with a bang but a whoosh as the room decompressed. The squad entered, pushing the patient feet first while calling out vitals: "GCS of 3, HR 164, BP 90 over palp, 4.0 ET in place, secure."

I coughed out a sigh of relief and stepped back into place. My mind was working hard on retracting emotions that were usually contained. We continued our resuscitation efforts for another 20 minutes. The attending called it. The parents were at the bedside with the chaplain. Sometimes you see them more than other times. Today I saw them. I felt their sighs. I heard them cry.

As I looked at this boy once more before I left, I could not help but examine the emotions that had captured me, contained me — the fright I felt as I recognized the shoes! When the medics had turned toward me, it looked so much like my son. The sense of relief I felt when I realized it was not him was echoed by the sadness of another's loss. Was that guilt tugging at my heart or just a reminder of how fleeting life is?

My pager came to life, reminding me that someone else needed me. ■


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# HEDIS Measures for Treating Asthma

by Bill Pruitt, MBA, RRT, AE-C

Asthma is a common disease affecting millions of people around the world and in the United States. Figures from the National Heart, Lung, and Blood Institute's "Expert Panel Report 3" (EPR-3) put its prevalence in the United States at more than 22 million cases, with over 6 million occurring in children.[1] More recent numbers from the Centers for Disease Control and Prevention place the incidence at 18.7 million for the general population and 7 million for children.[2] Despite the prevalence of asthma in our population and notwithstanding the millions of dollars spent on researching, publishing, and implementing the most up-to-date and thorough evidence-based medicine guidelines, somewhere between 28–40% have uncontrolled asthma based on large studies.[3,4] Many issues affect the level of control for patients, and efforts to discover and change these elements generate study after study. One tool that has been cited in many of these studies is the "Healthcare Effectiveness Data and Information Set" (HEDIS®).

about the author...

Bill Pruitt, MBA, RRT, AE-C, is a senior instructor and director of clinical education in cardiorespiratory sciences at the College of Allied Health Sciences, University of South Alabama in Mobile, and a PRN therapist at Springhill Medical Center and Mobile Infirmary Medical Center in Mobile, AL.

## What is HEDIS?

HEDIS evolved through the efforts of the National Committee for Quality Assurance (NCQA). The NCQA is a not-for-profit private organization whose stated mission and vision is: "to improve the quality of health care" and "to transform health care quality through measurement, transparency and accountability, respectively."[5] According to the NCQA website (www.ncqa.org), HEDIS is utilized by more than 90% of the health care plans in America to measure issues related to quality of care and performance of health plans. The information provided by HEDIS aids in benchmarking by tracking 76 measurements in five domains of care. Some of the items included in the measurements are:

- Asthma medication use
- Appropriate continuation of beta-blocker therapy after a myocardial infarction
- Management of hypertension and diabetes
- Cholesterol management
- Smoking cessation
- Antibiotic utilization
- Childhood and adult weight/BMI assessment
- Physician visits
- ED visits and hospitalizations.

The major component of HEDIS information related to asthma is medication use and its link to persistent asthma. HEDIS defines persistent asthma based on one or more of the following criteria being met over a one-year period:[3]

- Four or more asthma medications being dispensed
- One or more visits to the ED or hospitalization due to asthma
- Four or more outpatient visits with two or more asthma medications begin dispensed.

## Variability causes issues for asthma care

Using evidence-based guidelines for treating diseases such as diabetes or heart or renal failure has shown a decline in the progression of these diseases. On the other hand, asthma does not follow this pattern. Despite careful implementation of the EPR-3 guidelines to manage an asthma patient, year-by-year variations in control can

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occur. Variability in the response to asthma medications has been identified as a major cause of this problem, and the issue has been found in all the usual asthma medications (including inhaled steroids, beta agonists, and leukotriene modifiers). During the course of one year, an asthmatic patient who diligently self-manages and follows their asthma action plan exactly as prescribed may be in good control throughout the year. However, the next year that patient may drift into being poorly controlled despite taking all the proper steps just as they had done in the first year. Because asthma behaves in this manner, the use of HEDIS alone to evaluate who is at high risk of moving into poor control has been found to be lacking in both sensitivity and specificity.[6] (See Box 1.)

## Sharpening the HEDIS tool

With this in mind, researchers have continued to emphasize the usefulness of "data-mining" with the use of HEDIS but have urged that the information gathered be linked with patient-reported outcomes (specifically tracking symptoms by using validated asthma questionnaires and surveys) and adding medical and pharmacy administrative claims data, then using predictive modeling to look for trends and "hot spots" in both patient populations and in practice patterns. By identifying patients who are at risk for exacerbations and hospitalizations (thus predicting those who may move from being in control of their asthma to being out of control), steps can be taken proactively to help manage these patients better by early intervention:

- selecting the best medications,
- improving education,
- increasing monitoring by both patient and provider,
- verifying proper technique for taking the medications, or
- setting up visits in the home environment to evaluate and help change issues there that could lead to poor control (i.e., dealing with dust, smoke, mold, animal dander, cockroaches, etc.).

By identifying practice patterns that reflect increased issues with poor control, improved education, added training, and/or improved resources may be offered to help redirect the provider to better evidence-based practices.[7]

## Conclusion

HEDIS is a "big-picture" tool that can look across medical practice expanses and find areas that can be improved so that better quality of care takes place and better outcomes are the result. However, it cannot be expected to carry this load alone. Added information from several other sources and proper statistical analysis is needed to maximize the impact of this approach to improving the asthma condition. As the electronic medical record (EMR) becomes a standard, HEDIS and other administrative data sources can be tied together with the EMR to form a valuable asset to clarify the big picture and improve the care of the individual. ■

### Box 1. Sensitivity and Specificity

In this setting, these terms describe how well a test can distinguish between patients who are or are not at high risk. Sensitivity is the percentage of those truly at high risk who are found during testing as being at high risk. Specificity is the percentage of those who are truly at low risk who are found in testing as being negative for a high risk. When sensitivity and specificity are both high, we have many who are true positives for being at high risk who also test positive as well as many who are true negatives who test negative.[8]

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# Bedside Shift Promotes and Increases

by Laurene Eckbold, BA, RRT-NPS, and Gary Dombroski, RRT

An emerging trend in health care facilities today is the practice of increased and improved bedside rounding. There are two factors driving this change:

- A Joint Commission-mandated focus on improving patient safety through more effective caregiver communication
- Patients' desire to be more involved in their plan of care.

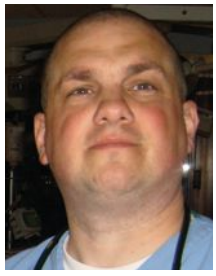
Since the issuance of The Joint Commission's "2007 National Patient Safety Goals for Hospitals," the focus on improving communication among caregivers has increased. According to The Joint Commission, an estimated 80% of serious medical errors are attributable to miscommunication between caregivers when transferring responsibility for patients.[1] Furthermore, breakdown in communication was the third leading root cause of Sentinel Events reported to The Joint Commission between 2004–2011.[2] Standard PC.02.02.01 of The Joint Commission's 2010 National Patient Safety Goals requires health care organizations to "…provide[s] for the opportunity for discussion between the giver and receiver of patient information."[3] The main forum in which this information sharing takes place in hospitals is the shift report.

A vast amount of information about illness and wellness is available to people today via television and the Internet. There are entire TV networks, like Discovery Fit & Health, devoted to providing around-the-clock health news and in-depth features. Most daily news programs include a segment about health. On the Internet, people with a particular disease or condition can usually find a website providing resources and information specifically about that disease or condition. Other websites like WebMD.com and the National Institutes of Health (http://health.nih.gov), among others, provide searchable information on a wide variety of topics. As a result of the foregoing, patients today are more knowledgeable about their health and expect more involvement in their own plan of care. Bedside re-

# Report
# *Teamwork Patient Safety*

about the authors...

Laurene Eckbold, BA, RRT-NPS, is a neonatal ICU specialist at Christiana Care Health System in Wilmington, DE. She is also the president-elect of the Delaware Society for Respiratory Care.



Gary Dombroski, RRT, is a respiratory care coordinator of the Surgical Critical Care Team at Christiana Care Health System in Wilmington, DE.

porting allows patients to be better informed about their conditions and treatment options and facilitates their active participation.

## Reorganization drives change

Traditionally, shift reports are conducted away from the bedside, either verbally or sometimes (probably less commonly) via audiotape or written report. The long-standing practice for the respiratory therapists at Christiana Care Health System in Wilmington, DE, has been to deliver shift reports in a conference room or, within ICUs, in a small respiratory room that functions as a combined office and equipment storage space. However, in March 2011, Christiana Care RTs working in the ICUs began bedside rounding for change-of-shift reports.

A few months prior to changing the shift report practice, our respiratory department had begun a major reorganization centered on the concept of developing teams of RTs assigned to work in dedicated practice areas. Some important goals behind the reorganization were to:

- Position RTs as a more integral and visible part of the multidisciplinary team in each practice area
- Make the RTs' individual workloads more amenable to providing patient-focused care.

As a part of the reorganization, the department was approved to hire several additional full-time employees. Having more staff helped us achieve the second stated goal of making individual workloads more manageable. With that improvement, we were free to explore other initiatives that might enable us to provide more value to those we serve — patients as well as our professional colleagues.

Having the same group of RTs working in an ICU provides continuity of care and allows the RTs to establish better relationships with physicians and registered nurses (RNs). Physicians are more receptive to treatment suggestions from RTs who are familiar with the patients' histories and the details of their course of stay in the ICU.

Having the patient present during shift report helps the off-going RT recall the patient's history, current therapies, and any particular difficulties the patient may have experienced during the shift. In a large ICU where there may be several patients with a similar diagnosis, there may be a tendency (albeit unintentional) to depersonalize patients by referring to them by their

diagnosis. For example, "the head bleed in Room 2" or "the GSW in Room 8."

When you give report in the presence of the patient, it is more likely that you will refer to the person by name and be more attuned to their circumstance and needs. The oncoming RT obtains a quick visual assessment of the patient to compare against changes that may occur later during the shift. Direct observation of the patient by both the off-going and oncoming RTs promotes accountability between shifts and makes it less likely that inaccurate or incomplete information will be passed along. Jennifer Britton, an ICU RN, had this to say about the benefits of directly observing patients: "Seeing the patient — their color, respiratory effort, etc. — is obviously preferable to an individual's subjective interpretation of a patient's condition. My 'pretty good' could be your 'pretty bad.'"

> In March 2011 respiratory therapists working in our ICUs began bedside rounding for change-of-shift reports.

## Improving teamwork with nurses

Bedside shift reporting also fosters better teamwork with nurses. When first implemented at Christiana Care, RTs were concerned that the bedside reports would be hindered by interruptions from RNs. What they have found instead is that the interruptions tend to enhance the report by providing necessary information. For example, the RN may mention that a patient is scheduled for a diagnostic test or procedure at a certain time, which allows the RT to prioritize and manage his/her patient care around that. Or the RN may have another piece of important information about the patient's condition that will be relevant to developing the respiratory care plan for that day.

As it happens, RNs initially had their own concerns and some skepticism upon receiving the announcement of bedside reporting by RTs. "After all," said one ICU RN, "who really needs a cluster of people in the hallway at shift change?" The ICU RNs, however, have recognized the benefits of bedside rounding and appreciate the increased visibility of their therapists. The RNs in Christiana Care's ICUs have implemented their own bedside reporting program in recent months.

## Improving communication with patients and families

If patients are alert and able to communicate, staff can and should solicit information from them about their current respiratory status and whether they feel they are benefitting from the treatment they are receiving. Patients witnessing the RN-to-RT or RT-to-RT interaction during bedside report are reassured that the staff caring for them work as a professional team. Even if the patient is unable to communicate, family members who are present feel more comfortable asking questions or voicing concerns, and are less likely to have the worrisome perception that "no one is around" during shift change. This increases the patient's and family members' level of trust in their respiratory care providers. Another benefit to patients is that if there is an acute change in their respiratory status, they are fortunate to have multiple RTs on the scene to address the problem.

An unanticipated benefit of bedside shift reporting at Christiana Care is that it has, on average, shortened the report time by several minutes. There were some initial concerns that the report time would be lengthened due to requests from RNs or questions from patients or their families. Instead, reports conducted in the presence of the patient tend to be more focused on the business of providing the best plan of respiratory care. It is generally acknowledged that shift report is time for the facts, not opinions or extraneous conversations.

Finally, there have been some intra-departmental benefits to bedside shift reporting. As a teaching hospital, we frequently have respiratory students rotating through their clinicals in various areas of the hospital. Bedside shift reports provide an open forum that invites questions and can provide good opportunities for teaching points. It can also be a chance to mentor newer respiratory therapists in our department.

## Conclusions

Bedside reporting provides RTs with an opportunity to exchange real-time information that improves the quality of patient care, increases patient safety, and strengthens teamwork between RTs working different shifts and also between RTs and other health care professionals. ■

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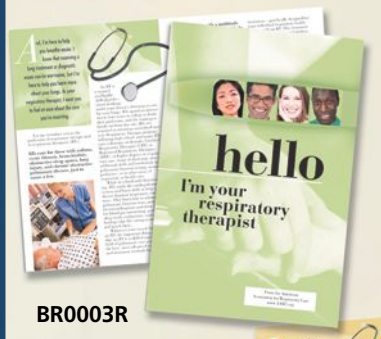


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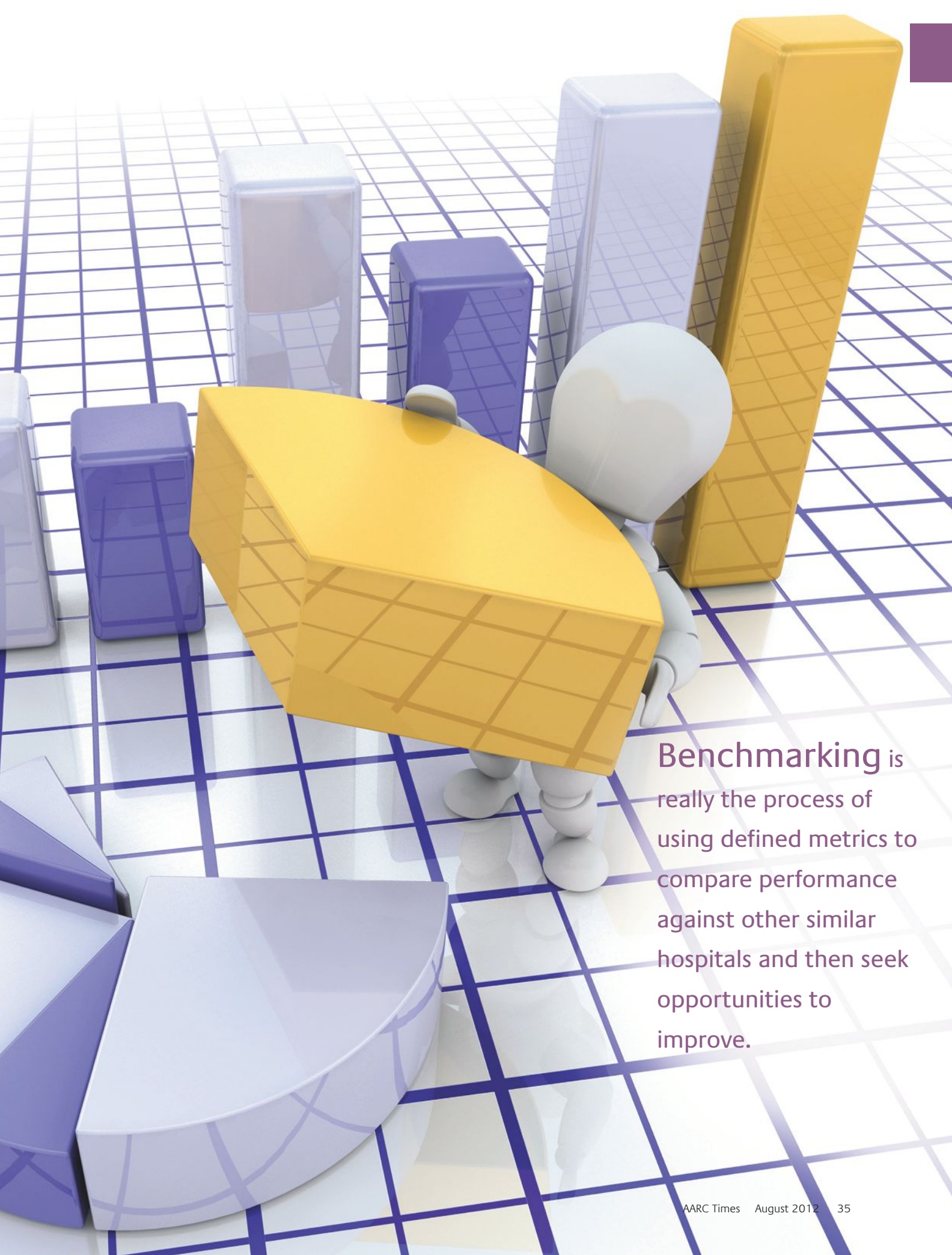
# Benchmarking in the Trenches

## Lessons learned from the 25th percentile

by Richard M. Ford, BS, RRT, FAARC

If your current location in your compare group just doesn't feel right, maybe it's because you don't really belong there.



**Benchmarking** is really the process of using defined metrics to compare performance against other similar hospitals and then seek opportunities to improve.

**Many times,** hospital administrators who are faced with declining reimbursements due to health care reform or other factors will turn to benchmarking to justify a hiring freeze or salary reductions. They'll look at how you compare to other hospitals in your compare group; and unless you're at the top of the pack, they'll use that data as evidence of why you should not fill your open positions or why you should reduce the number of managers in your department. In short, benchmarking is often used as a tool to cut dollars.

But keep in mind that nowhere in the benchmarking definition does it say it is a tool to cut dollars. Benchmarking is really the process of using defined metrics to compare performance against other similar hospitals and then seek opportunities to improve. The idea is to identify best performers so others can adopt their practice.

In an ideal world, it would work exactly like that. But we don't live in an ideal world, and benchmarking metrics are far from ideal themselves. So, yes, you want to adopt best practices. But if you do find yourself in the bottom half of your compare group or worse, the first thing you need to do is determine if you really belong there. I believe AARC Benchmarking is the right tool for the job.

## Benchmarking:
# The Numbers and the Means

**Who:** Chuck Menders, BA, RRT
**What:** Director, Respiratory Care
**Where:** Charleston Area Medical Center, Charleston, WV
**AARC Benchmarking user since:** 2005

■ **Why he chose the system:** Karen Stewart, MSc, RRT, FAARC, who is currently the president of the AARC, was our associate administrator in 2005. Early on, she saw the value of the Benchmarking System and the benefit of being able to compare ourselves to similar facilities. In her role as associate administrator, she was responsible for bringing in and implementing this in our hospital. I was very fortunate to have support for the system from the top down, rather than trying to extol the virtues of the system from the bottom up.

■ **How it has helped his department:** Productivity is such a hot issue in hospitals. Departments consistently have to validate their value and efficiency. The AARC Benchmarking System allows me to compare my department with departments of similar facilities to see how we stack up. We are able to demonstrate to administration that the values and targets that they often want us to achieve, or that consultants or other benchmarking systems say we should be able to achieve, are not realistic or obtainable. AARC Benchmarking also allows me not only to select comparable facilities to benchmark against, but also gives me the flexibility of being able to contact departments that demonstrate best practice to learn how they are functioning in various areas. It provides not only the numbers to gauge yourself against, but also the means to network with those experts. ■

### Voice of experience

I speak from experience. In preparing our 2012–2013 operating budget, the budget director here at the University of California, San Diego (UCSD) Medical Center presented benchmarking data provided by an independent benchmarking group that indicated my cost per unit was in the highest 25th percentile — not a good place to be during budget approval. Secondary to that bit of information, I learned our respiratory care department was being targeted for a much larger expense reduction than the 3.5% across-the-board reduction being applied to the rest of the medical center.

It proved to be very difficult to get any additional data to determine why UCSD respiratory care ranked so low. I knew that my staff was actually working about as efficiently and productively as possible, despite the benchmark ranking. With some persistence I navigated through the benchmarking system used by the medical center in an attempt to get some answers. I was able to run a report telling me how many worked hours I have and found I'm actually working slightly fewer hours than the mean in the compare group.

If high worked hours wasn't the problem, why were my ratios so bad? From there, I took a closer look at the units of service and found that I don't capture a lot of the procedures that are captured by others. I can chalk that up to the fact that our billing system is not set up to capture every procedure in the benchmarking worksheet. But more importantly, we have an aggressive and successful protocol program to reduce unnecessary care; and as a result, we don't capture as many of the eligible procedures that determine units of service. If my units of service gauge is low, then naturally my ratio would look bad when compared to hospitals in my compare group.

It was a start, but I needed more to convince decision-makers there was limited room for expense reductions.

### Enter AARC Benchmarking

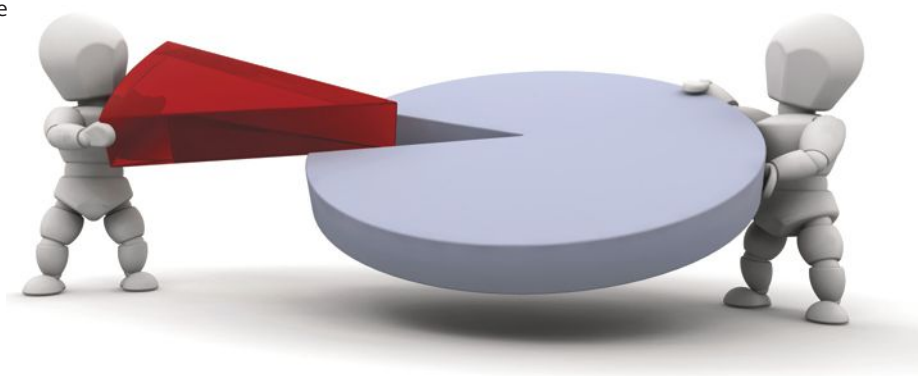
They say necessity is the mother of invention, and that was definitely the case with the development of AARC Benchmarking. When Association leaders realized that standard benchmarking systems on the market today often fail to accurately measure the performance of respiratory care departments (e.g., one popular system captures only procedures that have CPT codes, and as the AARC "Uniform Reporting Manual" shows, only about half of RC procedures have them) they went to work to develop a program that would capture a common and easily reported subset of data that reflects the majority of what is done in the typical RC department. This "tighter" data set can help departments more accurately rank their performance in compare groups of their own choosing. Additional activities performed by RC departments are captured in a 64-question profile to account for differences in scope of service and department structure.

In my case, that tighter data set was just what I needed to truly measure my performance against similar hospitals.

about the author…

Richard M. Ford, BS, RRT, FAARC, is director of respiratory services for the University of California, San Diego Health System in San Diego, CA, and a member of the AARC's Benchmarking Committee.

**For more information on the AARC's Benchmarking System, log on to www.AARC.org/resources/benchmarking/**



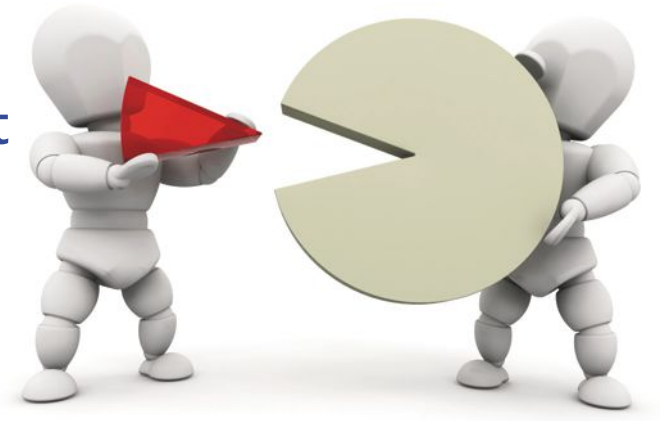
As an AARC Benchmarking subscriber, I went into the system and with a few mouse clicks over a few minutes I was on my way. I set up a custom compare group for university-based centers between 200–500 beds that have protocols in place. Data from this compare group yielded about 15 facilities from which I elected to export both metrics and raw data into an Excel spreadsheet.

Realizing that expenses per unit can only be higher than others if expenses are higher or units are lower, I discovered I was suffering on both ends of the equation. On the expense side, UCSD respiratory care had some big-ticket items such as the cost of nitric oxide and medical center bulk/cylinder gases. On the procedure side, we noted that UCSD RC provided about 5,000 medicated aerosols per quarter, while others in the compare group were providing 15,000–25,000 medicated aerosols.

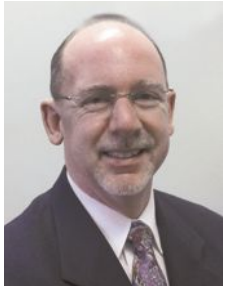
So using data from AARC Benchmarking, I was able to clearly demonstrate that we had components in our expenses that were not routinely included in other RC budgets and that the effectiveness of our protocol program had driven our treatment levels so low, with fixed cost remaining about the same, that our hours per unit of service were much higher. Getting a like compare group set up and having the ability to easily export hour and unit of service data gave me the edge I needed. I demonstrated to my administrator that worked hours were in line but noted that I could get our hours per unit lower if we were able to deliver enough non-needed care to get our treat-

## Benchmarking:

# Defense Against the Consultants



**Who:** Robert S. Pikarsky, BSRT, RRT, CPFT
**What:** Administrative Director, Cardiac, Neurophysiology, Respiratory Care & Sleep Services
**Where:** Crouse Hospital, Syracuse, NY
**AARC Benchmarking user since:** 2011



■ **Why he chose the system:** In August of 2010, Crouse Hospital contracted with a consulting firm to evaluate the departmental structures across the organization. The evaluation of the respiratory care department included an evaluation of work content, productivity, and staffing levels. Based on their database and productivity model — which they would not disclose — the consulting firm made recommendations to significantly reduce staffing positions within the respiratory care department. We utilized the AARC Benchmarking System to acquire the most accurate and reliable data to compare against that of the consulting firm.

■ **How it has helped his department:** AARC Benchmarking allowed the respiratory care administrative and medical leadership the ability to evaluate and compare departmental procedure volumes, productivity, and staffing levels to like-sized hospitals. The system provides key information and comparative analysis on the type and volume of various units of service, such as aerosol therapy, mechanical ventilator days, airway clearance, etc., along with other primary performance metrics, including standard hours per variable hours. This critical information supports our ability to objectively evaluate and, as necessary, defend against the recommendations made by the consultants. It further provides accurate data to make correct administrative decisions and identify and promote best professional practice. ■

ments up to the 20,000 per quarter level. She agreed that would not be a good idea, and AARC Benchmarking effectively provided the data to minimize the reduction target to an achievable level.

**It's a team sport**

Clearly, in terms of benchmarking, it comes down to who's counting what. If you're in a system where people are counting a group of procedures and you leave any one of those out, you are basically on the losing end of the stick. However, as my experience shows, if you invest the time and energy into investigating why you ended up where you did in the compare group rankings, and you use AARC Benchmarking to more clearly define your issues, you may find that you can neutralize any negative effects on your department.

It also helps to have your medical director on your side. Medical directors are responsible for establishing standards and policies that provide for quality respiratory services, and a component of ensuring quality is the provision of adequate numbers of respiratory therapists. So when benchmarking indicates the need for a reduction in RC staff, the medical director must be concerned because those reductions could impact the delivery of safe services. Department managers need to partner with their medical directors to keep that from happening. Often, it is the firm stance of a medical director that will influence consultants/administrators to reconsider a reduction in workforce.

Tim Morris, MD, is our medical director at UCSD; and while he is not directly engaged in assessing the validity of benchmarking data, he does step forward if such data may lead to staffing decisions that will adversely impact care delivery. What we do and how we do it are discussions the UCSD respiratory therapy leadership team has with Dr. Morris on a weekly basis.

> "If you're in a system where people are counting a group of procedures and you leave any one of those out, you are basically on the losing end of the stick."

**All about best practices**

Of course, as noted earlier, benchmarking is really all about identifying best practices — finding out what others are doing that is better than what you are doing, and then doing the same. And that's another major advantage of AARC Benchmarking. You can click on any of the information for any of the hospitals in your compare group and immediately view not only the data but also a profile that includes their contact information. If a perusal of the metrics for another hospital makes you want to know more, you can go into their profile and find the telephone number for their manager. From there, it's just a matter of making a call to that manager.

I have done that on several occasions, and I have gained some valuable insights into how to put best practices to work in my department. UCSD programs such as protocols, MDI conversions, ventilator liberation, frequency of ventilator checks, clinical affiliations, engagement in research, and structure of leadership are just a few examples of best practices that are described in the AARC Benchmarking profile. None of these originated at UCSD but are best practices observed and implemented through the support of our medical director.

**Advantage: You**

"Benchmarking" may not be the favorite word of respiratory therapy managers; but as my experience shows, it does not have to be the end of the world either — even when you initially end up in the 25th percentile. By digging into the data and taking advantage of the benchmarking system available to you from the AARC, you can not only survive benchmarking but use it to your — and your department's — advantage. ■

## Benchmarking:

# A Straight-forward, Sensible Approach

**Who:** Edward Burns, BA, RRT, CPHQ
**What:** Quality Improvement Coordinator–Respiratory Care Department
**Where:** Massachusetts General Hospital, Boston, MA
**AARC Benchmarking user since:** 2011

■ **Why he chose the system:** We have been collecting and analyzing our internal workload activity data for at least 15 years. Our actual productivity or relative efficiencies are currently being calculated and analyzed monthly through our financial management group. However, we had no means to compare ourselves to other "like" institutions, so we never really knew how we ranked. The AARC Benchmarking System uses a straight-forward and sensible approach to calculate and analyze metrics that can easily be compared to other "similarly profiled" respiratory care departments from around the country. The ease of selecting specific hospital and departmental profile characteristics when selecting compare groups greatly enhances your ability to benchmark as accurately as possible. The report functions and graphical presentations are simple to prepare and easy to understand.

■ **How it has helped his department:** Hospital administration has contracted with an outside benchmarking firm, and we have begun to submit data into this system. The AARC Benchmarking program will provide us with additional data to validate the outside benchmarking system's numbers by allowing us to select institutions with similar departmental profiles and characteristics. We are only beginning to focus in on the significance of being able to benchmark and assess how we rank within our compare group on select efficiency metrics. I suspect that the trended data will become meaningful over time, and the opportunities for improvement will become more evident by how we rank within our compare groups. ■

# Getting the Job

## In today's market, added value counts

**by Debbie Bunch**

**Competition for respiratory therapy positions is getting stiffer all the time. If you want to get a job these days, you need to bring something extra to the table.**

According to the latest report from the U.S. Bureau of Labor Statistics, the job outlook for respiratory therapists continues to be a bright one, with the profession expected to grow by 28% between 2010 and 2020. But if you're a new or recent graduate in some parts of the country today, you might wonder whether that pretty picture applies to your community. Anecdotal reports from RTs across the nation suggest the job market has tightened up in many places, most likely due to uncertainties surrounding health care reform and ongoing pressures on hospitals to cut costs wherever possible. The economic downturn hasn't helped the situation either, as baby boomer RTs who have seen their retirement nest eggs deteriorate are opting to stay on the job longer.

All this translates to more competition for every job out there. To find out how this brave new job market is impacting the respiratory care profession — and what new graduates can do to improve their chances in it — we turned to educators and managers from Indiana, Ohio, New York, Texas, Colorado, and California. Their comments bear out the buzz: in some places hiring is down, while in others jobs are holding their own or even growing slightly. But regardless of the situation, putting your best foot forward during the interview process is the key to success.

# What Educators and Managers Are Saying

## The Educators

# Still Going Strong

**Linda Van Scoder, EdD, RRT, FAARC**

Linda Van Scoder, EdD, RRT, FAARC, is the program director for the Indiana Respiratory Therapy Education Consortium in Indianapolis, IN. Her program generally admits around 30 students to the junior year; but with attrition, it graduates around 25. So far, none have had a very hard time finding a job. "Over the past several years our job placement rate has been 100% for those who seek RC jobs after graduation, although I suspect it might not be quite that good this year" says the AARC member. "I'm not sure why the job market has remained relatively strong in the Indianapolis area, but I — and my graduates — are very happy that it has." Still, she and her fellow faculty members do everything they can to ensure their graduates are ready for those all-important interviews. The process starts well before they don the cap and gown.

"One of the things we emphasize with our students is that their clinical rotations are like a two-year job interview," says Dr. Van Scoder. "The staff at the clinical sites will remember how they performed when it comes time to decide which graduates to hire." Attitude and interpersonal skills are stressed as well, and resume writing and interviewing are covered during special sessions that take place a few months before graduation. "We bring in a human resources professional who has many years of interviewing experience, and she frankly discusses with them what it takes to stand out in the application and interview process. She also discusses the common mistakes job applicants make."

## Biggest challenges new grads have to overcome:

Dr. Van Scoder says it can be hard to convince students to look beyond the facilities where they did clinical rotations when it comes time to apply for jobs. "They're just more comfortable sticking with the known." Convincing them how important the job interview is can be an uphill battle, too. She emphasizes to them that many employers in the Indianapolis area will subject potential candidates not just to interviews with the manager but to interviews with RC staff members too, and those staff members will have a big say in who gets hired. "What we tell students is that they really need to prepare for the interview and be ready to sell themselves."

## The Educators

# Belts Are Tightening

**David Lucas, MS, RRT-NPS**

At Cuyahoga Community College in Parma, OH, Program Director David Lucas, MS, RRT-NPS, and his colleagues have seen about a 7% drop in new graduate placements over the past couple of years. "It may be that hospitals are tightening their belts, preparing for health care reform," says the AARC member. Still, about 90% of the approximately 20 students they graduate every year will find employment in the profession, a pretty good outcome in an area of the country that's been especially hard hit by the economic downturn.

Lucas starts preparing his students to compete for the jobs that are available right at the beginning of the program, telling them that they "are being watched for employment potential, whether or not they are aware of it." The college has a department called The Career Centers that helps immensely as well. "The public, the students, administrators, faculty, anyone can get employment information, search for jobs online, receive help with updating a resume, etc.," says Lucas. "We have someone at The Career Centers speak to our senior students a few months before graduation. The students are thankful for this information."

## Biggest challenges new grads have to overcome:

Lucas notes that for many of his students, their respiratory therapy job search is the first professional job search they've ever attempted. To help them avoid the newcomer's pitfalls, he emphasizes the importance of preparing for the interview questions, dressing professionally, and making a list of questions to ask the interviewer about the job to show that they know what they're looking for in a position and have a vision for where they want to go in their careers.

## The Educators

# Four Months to Six Months, Then to Nine

**Thomas J. Johnson, MS RRT**

Several factors have combined to put a damper on job placements for students graduating from the bachelor's degree program at Long Island University in Brooklyn, NY, reports Program Director Thomas J. Johnson, MS, RRT. "Here in New York City, not only have we experienced the results of the recession and uncertain reimbursement, but we have also had three hospitals close in the last two and a half years — St. Vincent's, North General in Manhattan, and Peninsula General in Queens." Students in Johnson's program are still finding jobs, but it's taking them longer to acquire a position.

"Prior to 2009, our placement rate was above 90% in full-time RC positions within four months of graduation. 2010 saw that attenuated to six months," he says. The 2011 graduating class of 25 achieved 96% placement, but it took them nine months after commencement to get there; and in April of this year two of the RTs were laid off after only two months on the job when Peninsula General closed.

However, Johnson sees hope on the horizon. "NYC hospital occupancy rates are at or very nearly 100% even now," he said in late April. "Therefore, the situation is ripe for RC departments to expand." He doesn't expect an immediate impact on placement but does believe hiring will pick up over the next 18 months or so.

Like his colleagues in Indiana and Ohio, Johnson equips his students with the skills they will need to stand out from the crowd in this increasingly competitive market. "Together with the university's career counseling service, we offer resume and interview skills to the job search program." He also has students consider the military for their first job placement and brings in military recruiters to fill them in on that option.

## Biggest challenges new grads have to overcome:

Knowing how to dress professionally tops Johnson's list. He also believes students have a tendency to either understate or overstate their achievements and qualifications; and he emphasizes the need for them to be open and honest at all times, particularly regarding background checks. He warns his students that Facebook and other social media can harm their chances. "Stop silly social media now!" he says.

## The Managers

# Moldable Minds

**Jeffrey Davis, BS, RRT**

Jeffrey Davis, BS, RRT, department director at the UCLA Ronald Reagan Medical Center in Los Angeles, CA, has seen a slight increase in the number of FTEs in his department over the past few years, a fact he attributes to the willingness of his administration to work closely with department managers to staff appropriately to provide optimal patient care.

"I currently employ 135 respiratory therapists. This number increased by 14 in 2011; however, my FTE staffing standard has adjusted minimally over the past two years as we attempt to 'right size,'" he says. The department currently stands at 119 FTEs.

While he isn't hiring a lot of people right now, Davis says when he does have an opening, he often turns to a new grad to fill it. "I actually prefer new graduates, as they are 'moldable minds,'" he says. But he does have one caveat: The new grad must truly be a newly graduated RT. "The biggest challenge is to new therapists who have been out of the acute care setting for an extended period of time, such as last year's graduates who have not yet gained employment — these candidates may require too great of an investment to consider."

For Davis, "fit" is the most important thing for a job candidate. "They must be the right fit for our department in terms of personality and confidence," he says. Coming through the door with the CRT credential already behind the name and being able to show active involvement in the California Society for Respiratory Care are big pluses too, and he says students who did a clinical rotation at his hospital and impressed him while they were there have a leg up on the competition.

## Biggest challenges new grads have to overcome:

At ULCA, Davis says job candidates go up in front of a panel of interviewers who aren't afraid to ask the tough questions, so being unprepared is the fastest way to get your name marked off the list of possible hires. Job candidates who note they are "planning" to take the CRT take a back seat to those who have already passed it and have scheduled their RRT exam. "Make yourself stand out," says the manager. "It is a manager's market right now." Case in point: he had 200 applicants for the 14 per diem positions he filled last year. "I can choose the cream of the crop right now. Make yourself the therapist I cannot do without."

## The Managers

# Modest Growth

**Allen Wentworth, MEd, RRT, FAARC**

In an era when many hospital departments are losing staff, Allen Wentworth, MEd, RRT, FAARC, director of the WELLS Center, respiratory care, ancillary health technicians, pulmonary diagnostics, and pulmonary rehabilitation at the University of Colorado Hospital in Denver, feels fortunate to have been able to actually boost his full-time staff total a bit over the past few years. It went from 47.7 FTEs in 2010 to 49.1 in 2011 to 50.6 this year. He attributes this to the growth in the department's unit of service (UOS) capture. "Our UOS is derived from Clinical Activity Time Standards (CATS)," explains the AARC member. "We modify our EMR documentation build as we can to include as many CATS as possible."

Of course, in combination with only a 4% annual turnover rate, this modest growth in FTEs hasn't exactly translated into a wealth of opportunities for new graduates. Still, the director says when he does hire, he typically will select a new graduate for the job simply because he feels they interview better when it comes to soft skills like patient- and family-centered care.

"We want to see how they interact with people," says Wentworth. "Do they smile, frown, make eye contact, seem sincere with their interactions?" He also looks for independent thinkers who nevertheless can be team players, and he wants to see motivation. "What do they want to do in one year, or in five years?" he asks. "We want individuals who are more career oriented than just there for a job."

## Biggest challenges new grads have to overcome:

Wentworth will quickly turn away from candidates who come to the interview unprepared to answer clinical and service excellence questions, and he also shies away from anyone who can't clearly articulate his/her personal philosophies. Dressing inappropriately is a turn-off as well, as is speaking poorly about other hospitals, schools, or peers. Like many of his peers, he also believes the job interview starts during clinicals. "When you are at clinicals, you are at a job interview every hour you are there. Make sure you want to do everything, see everything, and be willing to admit you don't know something but will find out." Students who turn to their preceptor and say, "I've already seen one of those. I don't need to see another one," will have cratered their job chances at his facility before interview day ever arrives.

## The Managers

# Setting the Bar High

Michael G. Nibert, BSRT, RRT

With a turnover rate of only 10%, open positions are few and far between at Hillcrest Baptist Medical Center in College Station, TX. Michael G. Nibert, BSRT, RRT (who at press time had just left his manager's position at the hospital to devote full-time attention to his own consulting firm), says the department of 32 generally hires three to five new graduates a year, but those positions are mainly limited to pool positions. "The number of full-time positions available is minimized by the fact that employees value their positions in this ever-changing era of health care reform," says the AARC member.

New grads who do come on board at Hillcrest are expected to meet some high standards. Nibert says the department requires RTs to obtain their CRT within three months of hire and their RRT within six months. Right now ACLS, PALS, and NRP certifications must also be achieved within six months; but Nibert believes those certifications will soon be required to even be considered for a position.

Given the competition in today's job market, Nibert says Hillcrest sets the bar high when it comes to interviewing new grads. Candidates who are prepared to answer behavioral-based questions focused on both patient advocacy and customer service, and those who show a willingness to work any available shift and as many shifts as are necessary for the department to meet safe staffing levels, receive favor. Professional appearance and body language are important, too, as is showing a willingness to go the extra mile by joining the AARC, earning advanced credentials, or getting involved in professional activities such as DRIVE4COPD.

## Biggest challenges new grads have to overcome:

While Nibert encourages new graduates to make sure their resumes are accurate and free from typos and misspellings, he says he is most impressed by those who come to an interview prepared to show professional achievements that set them apart from other applicants. Applicants who come in without having first researched the hospital send up a red flag, as do those who fail to present an appropriate professional appearance. Being late for the interview or calling to ask to reschedule, and failing to show interest in the job by asking questions during the interview, are other negatives.

# AARC Election 2013

**All active and life members of the American Association for Respiratory Care will soon vote for the candidates running for 2013 officer and director positions in the AARC leadership on an online secure website.**

As an AARC member, you have the important responsibility of choosing individuals to lead the profession and our professional association. All of the candidates are introduced briefly here in *AARC Times*.

A biographical sketch about each candidate, and their answers to questions posed by the AARC Elections Committee, are available for your review on the secure election website at **www.aarc.org/member_services/election13/**. The actual voting site will not be activated until **Sept. 4, 2012**, and voting will continue through **Oct. 3, 2012**. All AARC members who are eligible to vote will sign on with their member number and password. Only active and life members of each specialty section may vote for the chair of their respective sections.

If you cannot access the website, contact the AARC Executive Office to request a ballot:
AARC Elections Committee
9425 N. MacArthur Blvd., Suite 100
Irving, TX 75063-4706
(972) 243-2272, Fax (972) 484-2720.

The election secure website includes a ballot for you to cast your vote for each candidate. Please be sure to read through all the biographical information and questions the candidates have answered online before proceeding to the ballot Web page for casting your votes. Your thoughtful consideration of this information before voting will help ensure the most qualified people are chosen to lead your professional association.

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**Bill Lamb, BS, RRT, CPFT, FAARC**
National Clinical Manager
Ohio Medical Corp.
Gurnee, IL

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Children's Medical Center Dallas
Dallas, TX

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Apria Healthcare
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**Colleen Schabacker, BA, RRT, FAARC**
Director of Respiratory Care
Cookeville Regional Medical Center
Cookeville, TN

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Supervisor of Respiratory Care Education
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**Gary Wickman, BA, RRT, FAARC**
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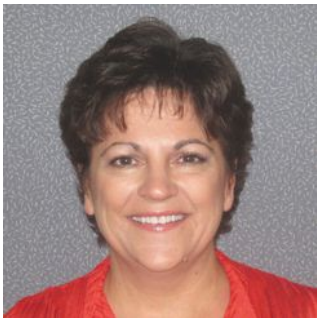
Everett, WA

## Home Care Section Chair



**Kimberly Wiles, BS, RRT, CPFT**
VP of Respiratory Services
Klingensmith Healthcare
Ford City, PA

## Neonatal-Pediatrics Section Chair

**Kathleen Deakins, MHA, RRT-NPS, FAARC**
Manager, Women's & Children's
Respiratory Care
University Hospitals Rainbow
Babies & Children's
Cleveland, OH

**Natalie Napolitano, MPH, RRT-NPS, FAARC**
Clinical Specialist, Research
Children's Hospital of Philadelphia
Clinical Specialist, Respiratory
Care Department
Philadelphia, PA

## Sleep Section Chair

**Craig Johnson, BBA, RRT, AE-C**
Manager of Respiratory, Sleep and
Neurodiagnostics
St. Luke's The Woodlands Hospital
The Woodlands, TX

**Russell Rozensky, BS, RRT-SDS, RPSGT, CPFT**
Clinical Assistant Professor
Stony Brook University
Stony Brook, NY

***All AARC election candidate information is available beginning Aug. 15 at www.aarc.org/member_services/election13/. Vote online at this secure election site and make a difference in your profession.***


# NBRC To Use Abbreviated Terminology To Describe Patterns of Mechanical Ventilation in Credentialing Examinations

by Robert C. Shaw, Jr., PhD, RRT, FAARC

"The patient's PIP has been high while receiving VC in the A/C mode with negative effects on BP, HR, and $S_PO_2$."

If you can interpret this quote, then you must be a respiratory therapist. A layperson unfamiliar with the six acronyms in this sentence would likely give up before reaching the end. Acronyms serve a useful purpose among those who regularly use the same lexicon. Verbal communication particularly requires less time when peppered with acronyms that both parties understand. Additionally, acronyms take less space in written communications.

Why not abbreviate terms all of the time, including within credentialing examinations since using them seems to be more efficient? One limiting factor when examination content will interact with a national population of candidates is that some may use a different abbreviation than others to describe the same thing. Another limiting factor is that some may not use an abbreviation at all. Therefore, examination committees of the NBRC have historically been cautious about using abbreviations within content of multiple-choice items and simulation problems.

A typical trustee of the NBRC or member of an examination committee is uncomfortable with the proposition that the primary reason a candidate is unable to select a correct response to an item or problem is because he or she cannot make sense of an abbreviation. In other words, if spelling out a phrase means that more candidates can select a correct response, then those in charge of NBRC examination content have been inclined to do so.

Acronyms are still used to describe some content on NBRC examinations, but only after careful evaluation of the impact on candidates. An acronym must be perceived to be ubiquitous before it will be used to describe test content. The intent of the rest of this article is to announce the fact that the NBRC has decided that the threshold has been reached regarding two acronyms that can describe some patterns of mechanical ventilation.

about the author...

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

## The variable controlled during inspiration

Back when ventilation was first reliably mechanized so it could support the exchange of gases for patients who had experienced respiratory failure, a common challenge was to guarantee that the lungs would expand by a known volume each time. It became clear over time that a single-minded pursuit of a constant tidal volume could harm pulmonary tissues under some circumstances. Hence, modern ventilators often give a practitioner the ability to either control volume or control pressure as the lungs of a patient are expanded during a breath.

About a decade ago, an ad hoc group of NBRC trustees who had been appointed by the president of the Board agreed that it was routinely critical to identify the control variable of a pattern of mechanical ventilation. What troubled the group was the fact that the term assist/control could imply that the volume of each breath was controlled in some multiple-choice items and simulation problems. However, in other items and problems, assist/control merely indicated that there was a mandatory rate and patient efforts would trigger more breaths in which either volume or pressure could be controlled.

Therefore, a couple of common phrases were developed that candidates have encountered over the last decade as they have taken NBRC examinations, which are as follows:

- The patient is receiving pressure-controlled ventilation.
- The patient is receiving volume-controlled ventilation.

When pressure is controlled, tidal volume will vary with the compliance and resistance properties of the pulmonary system. A high flow is required to quickly elevate the pressure early in the breath, but the flow required to maintain pressure decreases until a termination point is reached. The flow of gas into the lungs will decelerate over time. However, the rate of flow deceleration is not controlled. When volume is controlled, compliance and resistance properties will influence the pressures observed throughout the breath. Importantly, peak pressure occurs at the end of each breath in contrast to what a practitioner observes during pressure-controlled ventilation. A typical ventilator will permit control of the flow pattern when volume is controlled.

## The mode

Within a typical multiple-choice item or simulation problem, one will typically find additional information about the pattern of mechanical ventilation. A mode description communicates information about the regularity of breaths (that have just been characterized as either pressure-controlled or volume-controlled).

When a mandatory breath is delivered according to a time schedule **and** in response to an effort from a patient to take a breath, the term "assist/control" has been used in NBRC examinations. When spontaneous breaths from a patient can occur between mandatory breaths, then the abbreviation "SIMV" has been used. The word "synchronous" in the phrase Synchronous Intermittent Mandatory Ventilation has meant that the ventilator will take on a monitoring role so that a mandatory breath cannot cut short the exhalation of a preceding spontaneous breath.

For those occasions when a patient breathes no faster than the rate that the ventilator mandates, multiple-choice items and simulation problems will describe equal values for the mandatory rate and the total rate of breathing. In other words, do not expect to see references to a mode described as "control" in contrast to "assist/control."

As the design of mechanical ventilators has advanced, respiratory therapists have come to expect that spontaneous breaths can take on different characteristics. An important difference lies in whether the patient gets a boost from the ventilator after he or she has triggered a breath between mandatory breaths whose volume will depend on the effort that the patient makes.

## Those responsible for standardized examination content

Each NBRC trustee serves on at least one examination committee (except for the trustee who represents the public), which means that person takes direct responsibility for the content of test forms for at least one NBRC examination. The membership of a typical examination committee is supplemented with other therapists or physicians as consultants depending on the expertise that is needed to support examination content. However, a consultant's role is limited to examination content. In other words, consultants do not vote on policy decisions of the NBRC. Each trustee also serves on several of the standing committees of the NBRC Board.

One of these standing committees has the quizzical title of the Committee of Examination Committee Chairmen. The chairperson and vice-chairperson from each examination committee serve on this committee. A critical role of this group is to direct guidelines that encourage standard descriptions of content. Importantly, the NBRC Board has constituted the Committee of Examination Committee Chairmen in part to guard against two or more examination committees describing the same content in different ways. This group considered a proposal from one of the examination committees to abbreviate some descriptions of mechanical ventilation patterns. The primary motivation of the recommending committee was to encourage efficiency in examination development and test taking. However, efficiency alone is not enough to justify potentially removing information on which some test takers rely to select correct responses, so the Committee of Examination Committee Chairmen decided to study the proposal before acting.

## Gathering information

Before reaching a decision about whether to add more abbreviations to the test-taking lexicon, the Committee of Examination Committee Chairmen decided to collect some information from their fellow trustees and the consultants to the examination committees. The committee developed a survey to assess perceptions that focused on identifying whether abbreviations would be well understood by the test-taking population so that no disadvan-

## Table 1. Consensus about Abbreviations of Ventilator Terms That Candidates Will Comprehend

| Element of Ventilation Pattern | Abbreviated Term | Phrase the Abbreviation Replaces |
|---|---|---|
| Mode | SIMV | Synchronous Intermittent Mandatory Ventilation |
| | A/C | Assist/control |
| Parameter Controlled During Inspiration | VC | Volume-controlled |
| | PC | Pressure-controlled |

tage would result. Survey results coalesced around four abbreviated terms shown in Table 1.

Other survey items asked about the best way to combine abbreviated terms. Table 2 summarizes the format around which survey responses coalesced.

### Implementation

The NBRC Committee of Examination Committee Chairmen decided to phase in a transition to this format for describing the four patterns of mechanical ventilation shown in Table 2. As new test forms are developed, these combinations of acronyms will be presented in the content of multiple-choice items and simulation problems. The first test forms that will make use of these new descriptors will be the practice examinations for the Neonatal/Pediatric Specialty Examination and the Adult Critical Care Specialty Examination. Content of these practice examinations can be accessed at no charge from the NBRC's website at www.nbrc.org.

To illustrate the changes that candidates can expect to see, two examples are given below. Instead of the following description:

## Table 2. Combined Abbreviations

| | Mode | |
|---|---|---|
| Parameter Controlled During Inspiration | A/C | SIMV |
| PC | PC,A/C | PC,SIMV |
| VC | VC,A/C | VC,SIMV |

**A patient is receiving pressure-controlled ventilation with the following settings:**
**Mode** **Assist/control**
**Mandatory rate** **14**

A candidate can expect to see the following description:

**A patient is receiving PC,A/C with the following settings:**
**Mandatory rate** **14**

Instead of the following description:

**An order is written to initiate volume-controlled ventilation in the SIMV mode with a tidal volume of…**

A candidate can expect to see this description:

**An order is written to initiate VC,SIMV with a tidal volume of…**

### Summary

These are subtle changes from the original content. The intent is to gain a small efficiency with each multiple-choice item or simulation problem that relies on descriptions of mechanical ventilation while preserving candidates' abilities to comprehend examination content.

The NBRC Committee of Examination Committee Chairmen continues to support the decision from a decade ago since it is often relevant to identify the variable that is controlled during inspiration in addition to the mode. It is possible that some test takers could assume that A/C communicates that volume will be controlled during inspiration without saying so. The committee decided to standardize on routinely describ-

ing both the mode and the control variable for each pattern of mechanical ventilation to remove confusion. Describing the mode and control variable will remain as critical content for many multiple-choice items and simulation problems. The NBRC will soon transition to using acronyms to describe these elements.

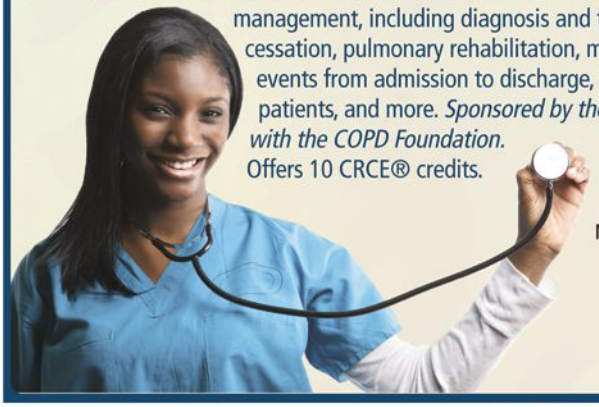
### Contact the NBRC

The NBRC Board of Trustees and its committees are interested in your questions, comments, and concerns. You may contact the NBRC at 18000 W. 105th St., Olathe, KS 66061-7543, by email at nbrc-info@nbrc.org, by phone at (888) 341-4811, or visit the NBRC website at www.nbrc.org. ■


## Respiratory Therapists Can Be the COPD Educators of Choice

A 2009 study published in the New England Journal of Medicine cited COPD as the third most frequent reason for hospital readmission. In these times, hospitals are looking closely at the reasons for costly readmissions and ways to reduce the number. They need clinicians who can provide the disease management services necessary to keep patients out of the revolving door. The ideal candidate is the respiratory therapist.

The **COPD Educator Course** can equip you with the tools you need to become the COPD educator of choice. This online course covers the essentials of COPD disease management, including diagnosis and treatment, smoking cessation, pulmonary rehabilitation, managing hospital events from admission to discharge, interviews with patients, and more. *Sponsored by the AARC in conjunction with the COPD Foundation.* Offers 10 CRCE® credits.



Nonmember Price $225
**Member Price $165**

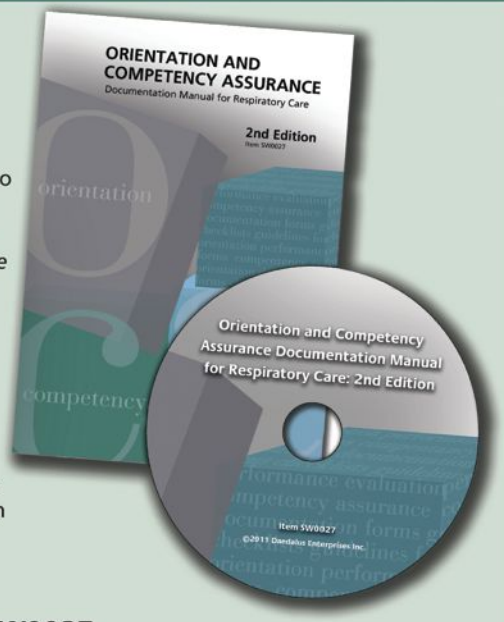
MEMBERS SAVE $60

**Learn more and register at www.aarc.org/education/copd_course/**

## An Idea for Competency Assurance

There are times when you send staff to a clinical training session, only to have them return with a certificate and no documentation of their newly-acquired skills. **Here's an idea...** Utilize the *AARC's Orientation and Competency Assurance Documentation Manual for Respiratory Care* as part of your own in-service training, incorporating the appropriate Clinical Performance Evaluation form. By using the evaluation forms provided, you can secure documentation of competency that you can immediately place in the individual's personnel file.

Here is what one user had to say: "I'm using the Orientation and Competency Assurance Manual to create a 'Scope of Practice' document for my entire system. Because individuals and groups sometimes challenge a list of tasks, I wanted to anticipate any possible push-back by invoking an authoritative and comprehensive reference. I consider it the **ONLY** authoritative and comprehensive source for this type of data."
— *Robert Demers, RRT, Pasadena, CA*




**Available in the AARC Store at www.aarc.org/store.cfm**

| | |
|---|---|
| **Item SW0027** | |
| **Nonmember Price** | **$159.00** |
| **MEMBER PRICE** | **$119.00** |

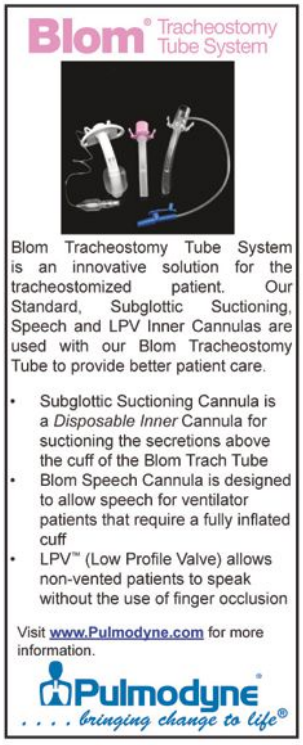
MEMBERS SAVE $40

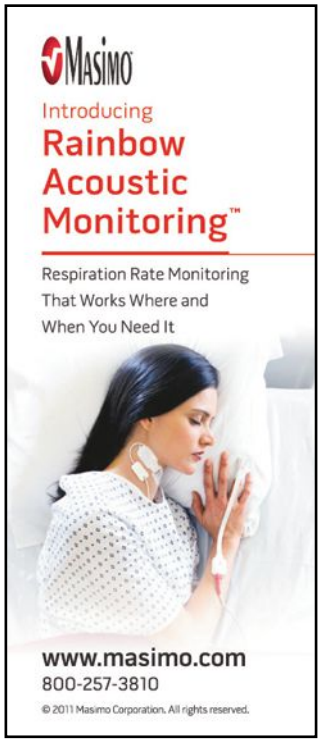
**Learn more about the manual at http://www.aarc.org/go/mc1**

# Marketplace

Featuring information on products and equipment from manufacturers

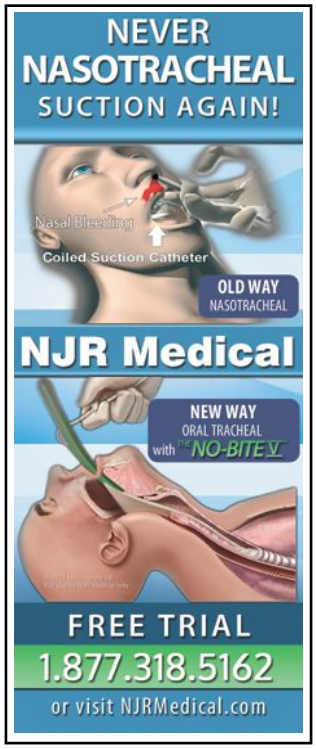












### Disposable NIV Mask

Sleepnet Corporation recently introduced the Veraseal™ single-use mask for noninvasive ventilation. According to the company, Veraseal is the lightest full-face mask in existence and the only disposable gel mask featuring an ergonomically designed AIRogel™ cushion. They say it combines a reliable seal with unsurpassed facial comfort and skin protection, and the quick-release, breathable headgear saves clinicians and patients valuable time. www.SleepnetMasks.com

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

## Cleaning Device

Byrne Medical's new Mini PULL THRU™ small channel cleaning device for GI endoscopy and pulmonary labs features a 3-wiper element design to provide a complete circumferential seal in the lumen tube, thereby removing residue from the internal channels in one simple operation. It also completely wipes the lumen clean, providing a smooth, non-abrasive, non-damaging, and time-saving method to pre-clean bronchoscopes in the most effective way. The product line consists of the PULL THRU™ and the PULL THRU™ Combo for endoscope channel sizes 2.8–5.0 mm ID and the Mini PULL THRU™ for bronchoscope and GI endoscopes with channel sizes 1.4–2.6 mm ID. www.byrnemedical.com

## Continuous Flow POC

SimplyGo from Philips Respironics is the only portable oxygen concentrator (POC) to offer continuous flow up to 2 liters per minute and pulse-dose delivery in a single device weighing 10 pounds or less. With oxygen output of up to four times that of some lightweight POCs, SimplyGo can meet the portable needs of nearly all oxygen users. SimplyGo comes with an attractive, functional carrying case; fold-up mobile cart; intuitive, easy-to-read screen; and detachable accessory bag. A lightweight and compact battery adds to its portability. Extra batteries are available and can fit easily into the zippered pouch on the carrying case or accessories bag for extended use. www.philips.com/simplygo

## New Ventilator

Newport Medical's HT70 Plus® offers on-airway flow sensor connectivity that provides expanded monitoring with alarms and the choice of flow or pressure trigger. Updated software includes waveform graphics, an oxygen cylinder time calculator, and internal battery use time estimator. All models of the HT70 can be used for home care, transport, hospital, long-term care, and emergency preparedness for invasive or non-invasive ventilation. The full-color touch screen is easy to navigate and offers specific screens for home care, transport, and hospital applications. www.newportnmi.com

## Gel Pad

The Boomerang Gel Pad™ from AG Industries is a patent-pending CPAP accessory that helps to increase patient compliance by creating a more secure seal around both nasal and full-face masks. This enhanced seal decreases irritating air leaks and episodes of apnea so that patients sleep more soundly. Boomerang also improves overall comfort of nasal and full-face masks by reducing skin irritation and soreness across the bridge of the nose and cheeks. It is hypoallergenic and both latex and silicone free. www.agindustries.com

## New POC

O2 Concepts says it has reached full production on its new state-of-the-art portable oxygen concentrator, the Oxlife Independence; and that designed with the provider in mind, it delivers the lowest life-cycle costs for today's declining reimbursement environment. The all-in-one concentrator boasts the smallest footprint and the longest battery life in its class, and its patent-pending ESA Technology complements its core VPSA design, delivering the most energy efficient solution available. www.o2-concepts.com

## Air Purification System

Innovative Labs' Sonoma Breeze is a unique photo catalytic oxidation air purification system that has been designed to address the concerns of formaldehyde, ozone, and volatile organic compounds (VOCs) pollution. Air is continuously drawn into the air purifier, where a strong UV light activates a long-lasting titanium dioxide photo catalytic reactor core, breaking down and destroying airborne biological contaminants, odors, pollutants, and dangerous VOCs. The benefit of Innovative Labs' technology is that it does not emit ozone and can remove 90% of formaldehyde on a single pass, giving consumers a way to mitigate exposure and promote a healthy lifestyle. http://ino-labs.com

## Integrated Kits

New 72-Hour Integrated Kits from Teleflex feature the market-leading heat and moisture exchanger, Gibeck® Humid-Flo®. The kits provide everything required to initiate passive humidification during mechanical ventilation in a single convenient package and are verified for use up to three days, with the same high performance and safety specifications as the selected components. Gibeck Humid-Flo kits reduce the frequency of ventilator circuit breaks by allowing all components, including the HME, to remain in-line during the first 72 hours of mechanical ventilation. http://gibeck-humidflo.com

## Portable Ventilator

Impact Instrumentation Inc.'s new MR conditional ventilator, the Eagle II™ MR, is a full-featured portable ventilator for patients ≥5 kg that can be used in MRI suites operating with 3 Tesla magnets or less. It uses low dead space ventilator circuits and allows users to place the ventilator as close as 2 m (~6.6') to the magnet's bore. An MR-compatible roll stand with 5 locking wheels is available. Weighing less than 10 lbs., the ventilator features AC, SIMV, and CPAP; volume- and pressure-targeted breaths; and both invasive and noninvasive ventilation modes. www.impactii.com

# Industry Watch

### NIH funds global health researchers

To help foster the next generation of global health scientists, Fogarty International Center and the National Institutes of Health are building a network of U.S. academic institutions to provide early-career physicians, veterinarians, dentists, and scientists with a significant mentored research experience in a developing country. About $20.3 million will be awarded over the next five years to support 400 early-career health scientists on research fellowships in 27 low- and middle-income countries.

### Masimo reports good results from PVI study

A recent study published in *BioScience Trends* shows noninvasive and continuous monitoring of Masimo Pleth Variability Index (PVI®) helps clinicians assess fluid responsiveness during major abdominal surgery. PVI results were similar to invasive and more expensive stroke volume variation. Other traditional hemodynamic variables were not significant for assessing fluid responsiveness. The study was conducted in 51 patients, 31 of whom were defined as responders to fluid administration and 20 of whom were defined as non-responders.

### Draeger Medical receives VA waiver

The Veterans Administration has issued a waiver allowing Draeger Medical Inc. to implement its Wi-Fi-based Infinity M300 patient-worn monitor on the existing wireless infrastructures of VA medical centers. Draeger reports it is the only monitoring company approved by the VA to perform telemetry monitoring by utilizing the VA's wireless network. "Because the Infinity M300 utilizes 802.11b/g technology, it allows patients to be monitored wherever there is Wi-Fi coverage in the hospital, rather than restricting them to a telemetry unit," says Rick Sullivan, vice president of government affairs, Draeger Medical Systems Inc.

### TapImmune appoints senior director

TapImmune Inc. has appointed Robert Florkiewicz, PhD, to the position of senior director of molecular biology and virology. "Bob has a unique combination of skills and experience in the fields of virology and molecular biology that encompasses both the science and intellectual property landscapes," Mark Reddish, head of development, was quoted as saying. "His career of distinguished scientific work is made all the more valuable by his experience in the area of intellectual property and business development."

### Covidien teams up with GE Healthcare

Covidien has formed a five-year collaborative with GE Healthcare to incorporate Covidien measurement technologies into GE Healthcare patient monitors. The collaboration leverages the Covidien portfolio of patient monitoring technologies, including Nellcor pulse oximetry with OxiMax™ Technology, INVOS™ Cerebral/Somatic Oximetry, and BIS Brain Monitoring. "GE Healthcare is committed to making a broad range of parameter measurements available on our powerful monitoring technology, including GE's own $SpO_2$ technology," says Matthias Weber, general manager of Monitoring Solutions at GE Healthcare.

### NIH working with pharmaceutical companies

The NIH has unveiled a collaborative program that will match researchers with a selection of pharmaceutical industry compounds to help scientists explore new treatments for patients. NIH's new National Center for Advancing Translational Sciences has partnered initially with Pfizer, AstraZeneca, and Eli Lilly and Company, all of which have agreed to make dozens of their compounds available for the pilot phase.

### Pharmaxis receives EU approval for cystic fibrosis therapy

Pharmaxis has achieved European Union approval for Bronchitol, its cystic fibrosis therapy indicated for use in helping clear the airways of mucus, as an add-on therapy. EU approval was based on data from two Phase III

studies showing the dry-powder inhaled mannitol formulation improves mucus clearance and lung function, as well as reduces infectious episodes.

### Newport Medical to be acquired by Covidien

Newport Medical has signed a definitive agreement to be acquired by Covidien. The proposed acquisition is expected to drive innovation and growth in the respiratory business by expanding their ventilator portfolio and global presence. After the transaction closes, which is expected in the second quarter of 2012, the companies will begin the process of determining how to integrate the Newport Medical organization and teams within Covidien's Respiratory Solutions business.

### Shorter time to early clinical development

According to a panel of leaders from the research-based drug industry that was convened by the Tufts Center for the Study of Drug Development (CSDD) earlier this year, pharmaceutical companies are turning to a host of techniques and approaches to shorten the time from nonclinical to early clinical development. "A growing number of companies, for example, are utilizing biomarkers, modeling and simulation, and advanced statistical methodology," Tufts CSDD Professor and Director Kenneth I. Kaitin was quoted as saying. "Rapid drug prototype creation, combined with novel scientific and formulation approaches, are creating more predictable outcomes of early stage human testing."

### Quidel receives a CLIA wavier

Quidel Corporation has received a Clinical Laboratory Improvement Amendments waiver from the FDA for the Quidel Sofia™ Analyzer and the Sofia Influenza A+B Fluorescent Immunoassay (FIA) for the rapid, differential detection of influenza types A and B in nasal swab and nasopharyngeal swab specimens. The Sofia test system is CE-marked, 510(k) cleared, and commercially available around the world.

### Biota Holdings gives Phase II study results

According to Biota Holdings Limited, the Phase II clinical study of its oral antiviral BTA798 (vapendavir) for the treatment of naturally acquired human rhinovirus infection in asthmatics resulted in a statistically significant reduction in cold symptoms compared to placebo. The successful completion of the Phase II study is a milestone in the development of BTA798 and establishes the basis for the further development of the product. The company will now work on the design of appropriate Phase III studies.

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

NEW!

PROFESSOR'S ROUNDS 2012

**Managing the Chronically Ill Pediatric Respiratory Patient**

**Bruce Rubin, MEngr MD MBA FAARC**
**Timothy R. Myers, MBA RRT-NPS**
**Item # PR20124**

This presentation focuses on management of chronic pediatric respiratory diseases including cystic fibrosis, asthma, neuromuscular, and long-term ventilator-dependent patients in acute care, pulmonary clinics and the home. Best practices supporting delivery of respiratory services to these patients, and the skills and knowledge required of RTs to achieve the best outcomes, are discussed.

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# RC Currents

IN THE NEWS

## Spotlight on: BREATHE LA

Southern California was hit hard by the tuberculosis epidemic back at the beginning of the last century, and from that epidemic grew a new group aimed at raising awareness of the condition and funds to find a cure. The organization that grew into Breathe California of Los Angeles — or "BREATHE LA" for short — was formed in 1903 and has been going strong ever since, tackling lung conditions and their causes.

"BREATHE LA has evolved to address tobacco control and chronic lung health disease management, as well as environmental efforts aimed at curbing rising disease-incidence rates due to air pollution," says Dan Witzling, MBA, director of development and marketing for the organization. "Fueled by partnerships with the National Institutes of Health, leading academic institutions, and allied health organizations like the AARC and its members, BREATHE LA is forging a new path for awareness, early diagnosis, and self-management of asthma and COPD."

Respiratory therapists throughout the community play a vital role in helping the organization achieve its goals. "These volunteers conduct spirometry testing and lung capacity exams, as well as participate in professional seminars, grand rounds, and community outreach to reach the people most vulnerable to adverse lung health conditions in our region," says Witzling. "BREATHE LA's mission continues in promoting clean air and healthy lungs through research, education, advocacy, and technology."

Dan Witzling is available at (323) 935-8050, ext. 288, or dwitzling@breathela.org. ■

## AARC Mourns the Loss of Katie Beckett

The AARC was saddened to learn of the recent death of Katie Beckett, a child who helped focus our nation's attention on the problems of home care reimbursement policy, and a partner with the AARC in the 1980s to expand this coverage.

Katie's name was given to a new policy in the 1980s — the Katie Beckett Waiver — when her plight was detailed in the media. Insurance would not cover her care at home, only in an institution. The AARC got involved because of the ventilator care and other respiratory support she needed at home and our desire to make a change in that reimbursement arena.

Katie lived to the age of 34 and died in May in Iowa. Her legacy was that her situation called attention to the plight of thousands who could not receive home care services because of what President Ronald Reagan called "hidebound regulations." Through the intervention of the Beckett's congressman, a waiver program was established by Reagan's administration, and she was eventually allowed to receive her care at home. Since then it is estimated that over 500,000 children have been able to receive care at home as a result.

For the AARC, working with the Beckett family was the beginning of a great tradition of patient advocacy. Putting a human face on a problem has been what the Association has stressed in all of its government relations work.

We invite you to read the stories of Katie in two 1985 issues of *AARC Times* (at www.aarc.org/headlines/12/05/katie_beckett/index.cfm) and remember the involvement of the AARC in the establishment of this waiver program. ■

## Timothy Myers Joins AARC Executive Office Staff

Timothy Myers, MBA, RRT-NPS, has joined the AARC Executive Office as associate executive director, brands management. In his new position he will oversee Association efforts to ensure a more consistent branding effort for its many projects and programs.

Myers comes to the Executive Office from Rainbow Babies & Children's Hospitals in Cleveland, OH, where he most recently served as administrative director of woman's & children's respiratory care and procedural services and the Pediatric Heart Center; and adjunct assistant professor of pediatrics at Case Western Reserve University School of Medicine.

A member of the AARC since 1986, Myers served as president of the Association in 2009–2010 and was named a trustee of the American Respiratory Care Foundation in 2010. He is a member of the Respiratory Care Editorial Board as well, and has served on numerous AARC committees over the years. He chaired the Clinical Practice Guideline Steering Committee for several years and was the AARC liaison to the American Academy of Pediatrics' Neonatal Resuscitation Steering Committee from 2001–2008 and to the National Heart, Lung, and Blood Institute's National Asthma Education and Prevention Program's Professional and Patient Subcommittee from 2002–2008. He chaired the AARC's Neonatal-Pediatrics Section from 2000–2004.

Myers earned his MBA from Lake Erie College in 2011 and received his bachelor's of science degree in respiratory care from The Ohio State University in 1989. ■

## ▶Transitions


**Dan Jordan, RRT,** has received a Greenville Hospital System House Staff Employee Award. The award recognizes non-physician employees for distinguished expression of positive service stewardship, support, and attitude. Jordan is a clinical coordinator at Greenville Hospital in Greenville, SC. (Photo 1)


**Emilee Lamorena** has been named an Albert Schweitzer Fellow for 2012–2013. Established in 1992, the U.S. Schweitzer Fellows Program offers the opportunity for fellows to spend one year learning to address the social factors that impact health for underserved populations. Lamorena's project will target underserved families affected by cancer. For the children, she will provide support, mentoring, new skills, fun activities to cope with their situations, and therapy to allow the children to open up about their experiences; for the parents: more access to information, treatments, and therapies to support them throughout the illness. She will work with Gilda's Club Chicago, an organization that provides free support for men, women, and children whose lives have been affected by cancer and will also design and implement a new teen program for the organization. Lamorena is an RT student at Rush University in Chicago, IL, and is the first respiratory care student ever to receive a Schweitzer Fellowship. (Photo 2)

**Linda M. Thompson, MEd, RRT-NPS,** passed away in May after a long illness. Thompson, who retired from her position as instructor/chair of the respiratory therapy program at Madison College in Madison, WI, in January of 2011, is remembered fondly by her many colleagues, who recall one of her proudest moments as an RT was winning the Fred Helmholz Sportsmanship Trophy during the 2008 National Sputum Bowl.

We welcome news about AARC members. Submit notices online at www.AARC.org/transitions. ■

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

- National Health Council finds patients support simplification of HIPAA privacy rule — www.aarc.org/headlines/12/06/privacy.cfm
- AARC joins with others in planning for future of health care — www.aarc.org/headlines/12/06/future.cfm
- 2015 Committee releases update report — www.aarc.org/headlines/12/05/2015_update.cfm

# AARC Congress 2013: The Time To Budget Is Now!

**At Duke University Hospital, Janice Thalman uses a multipronged approach to cover the cost of meeting attendance for selected staff.**

**Frank Caruso says attendance at the AARC Congress is part of his department's overall recruiting and professional development plan.**

Right now respiratory therapists everywhere are looking forward to the 58th International Respiratory Convention & Exhibition in New Orleans, LA, this Nov. 10–13. But in administrative offices from Maine to California, hospital leaders are already hard at work deciding what they will include in their 2013 budgets. Department managers who want to acquire funding for themselves and some of their staff to attend the 59th AARC Congress in Anaheim, CA, Nov. 16–19, 2013, need to make their requests for attendance now. Two managers who typically bring several people to the Congress every year explain how they get the job done.

"Hospital budgets are done at a minimum 18 months in advance," explains Janice Thalman, MHS, RRT, FAARC, department director at Duke University Hospital in Durham, NC. "So the planning and the expense dollars must be justified and requested in 2012." In her case, she starts by looking at the annual travel/registration amount that is allotted to her department every year to determine how many staff members she will be able to take along, then she adds unrestricted funds generated by educational activities conducted over the year to the mix. Thalman will often turn to another hospital department for support as well. "For example, we may ask the department of pediatrics or emergency medicine to help support an RT to attend."

Thalman sells the value of Congress attendance to her administrators by touting the ability it gives her staff to actively participate in their profession through lectures and committee memberships. She also assures them that staff who attend will come back prepared to share what they learned with their fellow department members. "It also helps to bring forward some frugal ideas for travel and accommodations and supplemental dollars," she says. Typically, her hospital will cover 80% of the costs for each staff member who attends.

A similar process plays out at the University of Virginia Health System in Charlottesville. Frank Caruso, BS, RRT, says his fiscal year begins July 1 and ends June 30, so the next year's budget is definitely in the works well before the current year is over. "Funding for professional development and continuing education is included as the budget is being planned," says the AARC member. Attendance at this Congress is a component of the department's overall recruiting and professional development plan, and he typically builds funding for five to six people into his institutional budget process.

Caruso suggests managers can improve their chances of acquiring funds for attendance by providing their administrators with a copy of the *AARC Congress Program* from the previous year's event, along with the *Guide to Exhibitors*. These documents will show the value of the Congress lectures and drive home the fact that all the major respiratory companies attend.

Both managers say they follow some informal criteria to decide which of their staff members will receive funding for attendance. "Each year we try to take anyone who has an abstract/poster accepted to the Open Forum, and we support one of our senior staff members to attend as a seniority perk — we just go down the list starting with the most senior RT," says Thalman. From there, she may sponsor a therapist to attend specifically to take a closer look at the new technology being showcased in the exhibit hall and during the lectures. Sometimes she gives the department's Employee of the Year a chance to come along as well.

Caruso also gives priority to staff members who are presenting a lecture or abstract. Those who have otherwise been actively involved in AARC or state society committee work or other initiatives have an advantage in the competition as well. From there, he looks for staff members who consistently conduct their practice of respiratory care in a professional and respectful manner, get involved in professional initiatives undertaken by the department, engage in clinical activities that advance their practice, and demonstrate that they are committed to the profession.

Both managers believe investing in staff attendance at the AARC Congress pays off many times over when these RTs return home. Caruso says the most important benefit his staff members receive from their attendance is "a greater awareness of the issues impacting our profession and access to a variety of resources that can help us address challenges we encounter in our day-to-day practice." Thalman cites the overall enthusiasm these attendees bring back to the department. "They are excited about what others are doing as well as proud of what we are accomplishing," says the AARC member. Many times they come home with great leads on outstanding therapists who may want to come on board at Duke as well. "There is no better recruitment than our own staff encouraging others to join us." ■

## Comorbidities Increase Death Rate for COPD Patients

Comorbidities are common in COPD patients and increase the risk of death. That's the take-home message from Harvard researchers who followed 1,664 COPD patients recruited from five pulmonary clinics in the United States and Spain. Over a median of 51 months, the investigators identified 79 comorbidities in the group, 12 of which were significantly and independently associated with higher mortality: lung cancer, pancreatic cancer, esophageal cancer, breast cancer, pulmonary fibrosis, atrial fibrillation/flutter, congestive heart failure, coronary artery disease, gastric/duodenal ulcers, liver cirrhosis, diabetes with neuropathy, and anxiety.

The investigators used these 12 comorbidities to develop a new comorbidity risk index for COPD patients. The COPD-specific "CO-morbidity Test" (or COTE), was a significant predictor of death after results were adjusted for age, gender, race, and BODE index. Overall, patients in the study had an average of 6.0 comorbidities each, with the average for survivors coming in at 5.8 and the average for non-survivors coming in at 6.5.

"These easily identifiable comorbidities could be screened by health care providers caring for COPD patients, as there may be effective interventions that may help decrease the risk of death," lead author Miguel Divo, MD, was quoted as saying. The study appeared in the online ahead of print edition of the *American Journal of Respiratory and Critical Care Medicine* in May. ■

## Quitting Is Still Not as Simple as the Ads Make It Sound

University of California, San Diego researchers who reviewed 20 years worth of data on smoking cessation find that despite improvements in pharmaceutical medications to aid cessation and free telephone counseling in every state, the proportion of people who have successfully quit smoking has declined. "Widespread dissemination of cessation services has not led to an increase in the probability that a quit attempt will be successful," study author John P. Pierce, PhD, was quoted as saying.

He and his fellow investigators don't believe the problem lies with the cessation services themselves but instead is due to how cessation aids are being marketed by the companies that make them. Many of these ads, for example, make it sound as if quitting smoking is as simple as putting on a nicotine patch. But in reality, quitting smoking is a long process that takes a lot of work. Younger smokers are particularly likely to underestimate the amount of work that goes into a successful quit attempt. They also cite national policy discouraging unassisted quitting, which continues be the main way people quit successfully. They believe this policy may undermine smokers' belief in their ability to quit on their own.

The study was published in the 2012 edition of the *Annual Review of Public Health*. ■

# Honoring Her Mom's Memory

When Meagan Dubosky was growing up, her mother always told her she could be anything she wanted to be and encouraged her to reach for the highest goals, says the RT student at Rush University College of Health Sciences in Chicago, IL.

Respiratory therapy wasn't on the list back then, but when Kathleen Mai was diagnosed with idiopathic pulmonary fibrosis in 2009, it quickly rose to the top of the agenda. During the few days that transpired between her diagnosis — which unfortunately came too late to offer any hope for her condition — and her death, her daughter got a chance to see the RC profession in action, and she liked what she saw.

**The student government organization at Rush University has been the driving force behind Meagan Dubosky's mission to establish an endowment in her mother's honor.**

"I honestly had never heard of respiratory therapy prior to my mom being ill," says Dubosky. But the RTs she met during her mom's ICU stay impressed her with their technical skills and compassionate care. "I was fascinated by them bringing in different equipment and trying a variety of inhaled medications. They were tweaking things on the fly, and that was exactly what was needed to try to keep her comfortable," she says. "When she would have an exacerbation, I was the first to ask someone to page respiratory."

**Meagan Dubosky enjoyed hiking with her mom and her daughter Hazel Kathleen (who was named after her grandmother) before her mom fell ill with idiopathic pulmonary fibrosis.**

After her mother passed away, Dubosky found herself seeking out information on the cardiopulmonary system. "I became obsessed with physics and gas laws," she says. She knew respiratory care would be the right fit for her and soon enrolled in the program at Rush University. Now she — along with the help and support of her fellow students in the program's student government organization — is paying it forward by establishing an endowment in her mother's memory.

"The idea to build the endowment happened the first day our respiratory care student government organization met," recalls the AARC member. "The weekend before our first board meeting the movie "Field of Dreams" was on, and the 'If you build it, they will come' chant got to me."

She knew she was meant to build something, but didn't know exactly what until board members at the meeting started going around the table, suggesting initiatives they would like to pursue during the upcoming year. When it was her turn, she blurted out that she would like to raise thousands of dollars for respiratory research.

"I believe I said $30,000 to be exact," recalls Dubosky. Her fellow board members giggled a little at first; but when they looked at her face and saw how serious she was, they quickly rallied around the cause. "They said, 'Let's do it!' and we've been focused since that day."

Dubosky credits her fellow board members for going above and beyond to garner support from everybody in the Rush community. "Our respiratory care student government organization currently has 10 board members who have been working for months on fundraisers and getting the message out nonstop." Also, one of her fellow board members, Anne Grabowski, traveled to an Illinois Society for Respiratory Care meeting to share the story of Dubosky's mother and ended up gaining support there, too. "When you are surrounded by 10 natural leaders like those on this board, initiatives start to take a life of their own. It is powerful to watch."

By late spring, the students had raised nearly $10,000 for the Kathleen Mai Respiratory Research Endowment. "The fund is endowed at $50,000, but we would like to raise $100,000 to ensure an attractive scholarship payout yearly," says Dubosky. Given how far this group of student RTs has gone so far, that certainly seems well within reach.

For more information about the Kathleen Mai Respiratory Research Endowment, go to www.kathleenmai.com. ■

## ▶ Strange But True...

**New cure for hiccups:** South Korean investigators recently used short-term positive pressure ventilation with a short-acting muscle relaxant to cure a bad case of hiccups. The patient had not responded to treatment with pharmacologic agents, and phrenic nerve block was also ineffective. Positive pressure ventilation did the trick.

**Recycled organs:** In the first documented case of its kind, Chicago physicians recently took a transplanted kidney that was failing to work in one patient and implanted it into another patient. The first patient had the kidney for only two weeks when the disease that ravaged his own kidney started to attack the transplanted organ. With permission from the man and his sister, who donated the organ, it was given to another man. The first patient is now back on dialysis, awaiting another transplant.

**A new cut of cookie:** Cookie formulators are hard at work trying to make their products the picture of health. One of the new varieties (a three-cookie serving) has as much fiber as a bowl of oatmeal, as much calcium and vitamin D as an 8-ounce glass of milk, and as much vitamin C as a cup of blueberries. Now, if it will just taste good, we'll have a winner! (April issue of *Food Technology*)

**Lifestyle rationing:** Should smoking, obesity, alcoholism, and other lifestyle traits be considered when offering medical treatments? In a new survey, 54% of British physicians said yes. They believe the country's National Health Service would be justified in denying certain therapies — such as *in vitro* fertilization to women who smoke or liver transplants to obese people or alcoholics — based on the lower rate of success for people with these lifestyle habits. ■

## Health Issues Worsen as Asthma Patients Age

Older people with asthma suffer from more health issues and have a 14 times higher death rate than younger people with the condition, report researchers publishing in the May edition of the *Annals of Allergy, Asthma & Immunology*. Their study involved 77 patients over age 60 with and without asthma. A complete medical history, physical examination, skin prick and breathing tests, and exhaled nitric oxide measurements were performed. Quality of life was measured through a patient questionnaire.

Results showed 89% of patients with asthma also had allergies to mold, animals, and/or dust mites. Poor general health, increased body pain, and worse overall physical health were also reported in asthma sufferers compared to those without the disease. Allergic rhinitis, arthritis, and diabetes were significantly more common as well. However, only 53% of the asthma patients reported using prescribed inhalers to treat their condition. ■

## Gender Gap Seen in Readmissions

A new study out of Boston University School of Medicine finds men are significantly more likely to be readmitted to the hospital within 30 days of discharge than women. The study is based on data from 737 adults who were participating in the Project Re-Engineered clinical trial. The investigators looked for ED visits and hospital readmissions within 30 days after the index hospital stay.

Twenty-nine events per 100 people were seen for the women in the study, compared to 47 events per 100 people for the men. Men were more likely to be readmitted or visit the ED if they had been in the hospital in the six months prior to the index stay, were retired, were unmarried, had a positive depression screen, and had not visited their primary care physician within the past 30 days. The only factor that increased readmission or ED visits for women was a hospitalization in the six months prior to the index stay. The authors believe strategies to address the risk factors seen in men could help reduce readmissions. The study appeared in *BMJ Open* earlier this year. ■

## Celebrate Respiratory Care Week, Oct. 21-27

RC Week is that special time of year when respiratory care professionals everywhere are honored for their contributions. Start planning now to show your enthusiasm and pride in your chosen profession.

- Plan events for recognition and fun with your RC team.
- Encourage your patients and their families with special activities.
- Promote lung health awareness at community fairs.
- Educate local students about the career.
- Demonstrate the value of RC professionals in your facility.

As the official sponsor for Respiratory Care Week, the AARC provides a great website at www.AARC.org/rcweek. Make it your favorite destination for event ideas, planning tips, photo sharing, and more. ■

## Varenicline Cardiovascular Risks Questioned

Researchers from the University of California, San Francisco (UCSF) question results from a previous study showing a higher risk of adverse cardiovascular events with the stop-smoking drug varenicline. The study appeared in the May 4 edition of the BMJ.

The previous study, led by an investigator at Johns Hopkins University, looked at 8,216 patients in 14 trials and reported a 72% relative increase in the risk of heart attack or other serious heart problems. The UCSF analysis included 22 double-blind, randomized controlled trials with 9,232 participants. More than half of the trials included participants with an active or past history of cardiovascular disease. Eight trials had no events. The UCSF researchers found a 0.27% absolute risk difference, which they determined was neither clinically nor statistically significant.

The investigators note varenicline remains in the body for about seven days after a person stops using the medication. The new analysis examined events occurring during the drug treatment window or within 30 days after a patient stopped using the drug. In the previous study, many patients were followed for a year or more.

"The longer you follow heavy, long-term tobacco users — and in these studies, the average participant smoked a pack a day for 25 years — the more likely you will see serious cardiovascular events related to their compromised health," said lead author Judith J. Prochaska, PhD, MPH. ■

## RT Student Members: Send Us Your Stories and Editorials

*AARC Times* is always looking for good stories from AARC student members that relate special experiences and give the RT student perspective on the respiratory care profession they have chosen as a career. We have published the stories of several student members in *AARC Times* this year, and we continue to encourage you to share your experiences.

Have you volunteered at a summer asthma camp or helped organize the DRIVE4COPD program in your state? Have you advocated for respiratory therapy in your state capitol or on Capitol Hill? Maybe you and your RC student friends have collaborated to build a house with Habitat for Humanity. Perhaps you witnessed a lifesaving event outside the hospital setting or experienced something that took your breath away. Whatever the story, we would like to see it.

If you have a story to tell, please contact *AARC Times* Editor Marsha Cathcart at cathcart@aarc.org and include in the subject line, "Student Member Story." Be sure to give us your full name, AARC member number, a brief description of the story subject, and why you would like to have it published. Then attach a Word document of the story. We hope to hear from you soon! ■

# New Members

## Welcome to the AARC

### U.S. Members

#### A

Arthen, Rebecca, Eagle River, Ak*
Baker, Melinda, Wasilla, Ak*
Caldwell, Harry, Wasilla, Ak*
Carloni, Ray, Chugiak, Ak*
Coronado, Ben, Anchorage, Ak*
Cuff, Fran, Eagle River, Ak*
Graves, Erin, Anchorage, Ak*
Jacobs, Jake, Wasilla, Ak*
Kane, Tanya, Chugiak, Ak*
Kantowski, Kent, Anchorage, Ak*
Kindgren, Randi, Anchorage, Ak*
Racela, Raymond, Anchorage, Ak*
Rodgers, Gregory, Eagle River, Ak*
Tsosie, Deanna, Anchorage, Ak*
Woods, Linda, Girdwood, Ak*

East, Laura, Vestavia, Al*
Thrasher, Kelli, Muscle Shoals, Al*

Scheer, Lindsey, Jonesboro, Ar*
Smith, Joan, Booneville, Ar*
Wright, Andrea, Paragould, Ar*

Baker, Debra, Chandler, Az*
Banks, Morgan, Glendale, Az
Bruno, Jane, Tucson, Az*
Crooks, Deborah, Waddell, Az*
Hambra, Sara, Tucson, Az*
Hochstrasser, Alicen, Phoenix, Az*
Huerta, Gisela, Yuma, Az*
Hutton, Philip, Tucson, Az*
Jurado, Olivia, Sun City, Az
Mangum, Julie, Tucson, Az
Reily, Susan, Flagstaff, Az*
Reynolds, Catherine, Oro Valley, Az
Roberts, Beth, Marana, Az*
Rodriguez, Alejandro, Tucson, Az*
Roncancio, Monica, Apache Junction, Az*
Scardaci, Joseph, Phoenix, Az*
Taran, Nicole, Gilbert, Az*
Vega, Victor, Phoenix, Az*
Zimmerman-Pigusch, Amy, Chandler, Az*

#### C

Burke, Charles, Palmdale, Ca*
Burns, Rhonda, Fresno, Ca*
Cabral, Jonathan, Hayward, Ca
Carrillo, Jessica, Lancaster, Ca
Castro, Vann, Chino Hills, Ca*
Cerame, Christopher, Winchester, Ca*
Dalangin, Joel, Perris, Ca*
Davis, Tracy, Modesto, Ca*
Dimacali, John-Erick, Lancaster, Ca
Diwa, Jayson, Long Beach, Ca*
Evans, Katrina, Simi Valley, Ca*
Grossman, Jean, Corona, Ca*
Hess, Jeanette, Cameron Park, Ca*
Hong, Steve, Huntington Beach, Ca*
Jackel Smith, Cindy, Clayton, Ca*
Johnson, Manvel, Antelope, Ca
Larios, Kimberly, Fresno, Ca*
Mai, Tam, Fountain Valley, Ca*
Mock, Joseph, Irvine, Ca
Moreno, Rosa, Perris, Ca*
Nguyen, Diem-Tran, Garden Grove, Ca
Nguyen, Lisa, San Diego, Ca
Ostroff, Elizabeth, Yucaipa, Ca*
Padamada, Mirasol, San Diego, Ca
Parker, Dawn, Chula Vista, Ca
Patel, Punita, Fremont, Ca
Punzal, Jeffree, San Diego, Ca
Rodriguez, Joseph, La Mesa, Ca
Santos, Vickie, Clovis, Ca*
Satterfield, Charmaine, Lancaster, Ca
Scardino, Christopher, Oceanside, Ca*
Serrano, Joy, Spring Valley, Ca
Souza, Lorna, Elk Grove, Ca*
Teears, Jessica, Bakersfield, Ca*
Turner, Bridgett, Stockton, Ca*
Valenzuela, Richard, Santa Maria, Ca*
Vicens Bueno, Jenna, La Crescenta, Ca*
Violanti, Angela, Camarillo, Ca*
Walker, Marguerite, Salinas, Ca*
Yip, Mindy, San Diego, Ca
Yogi, Shilu, Newark, Ca

Albright, Ryan, Denver, Co
Anderson, Kristin, Denver, Co
Bamu, Divine, Aurora, Co
Bolze, Matthew, Denver, Co
Bright, John, Peyton, Co
Broadwater, Kyle, Lone Tree, Co
Burgr, Shelby, Kiowa, Co
Chaffee, Nathan, Milliken, Co
Clarke, Adam, Denver, Co
Crow, Stephen, Grand Junction, Co*
Dickey, John, Fort Collins, Co
Donato, Deborah, Evergreen, Co
Dress, Leticia, Aurora, Co
Etherington, Robert, Aurora, Co
Fetzer, Carla, Arvada, Co
Garcia, Natalie, Aurora, Co
Gentile, Robert, Littleton, Co
Haines, Theresa, Lafayette, Co
Harem, Cara-Lynn, Denver, Co
Harrison, Kayla, Broomfield, Co
Havens, Autumn, Brighton, Co
Helton, Charles, Thornton, Co
Henley, Kenneth, Colorado Springs, Co*
Holte, David, Denver, Co
Johnson, D'anna, Denver, Co
Johnson, Kevin, Denver, Co
King, Jody, Castle Rock, Co
King, Micah, Aurora, Co
Klingensmith, Eric, Castle Rock, Co
Krienke, Nicola, Aurora, Co
Letcher, Katherine, Parker, Co
Lopez, Ricardo, Denver, Co
Lowstuter, Robert, Lakewood, Co
Maestas, Kelly, Commerce City, Co
Maginn, Leslie, Aurora, Co
Marostica, Jacob, Pueblo, Co*
Miller, Elise, Denver, Co
Nguyen, Giang, Aurora, Co
Olsson, Troy, Denver, Co
Pacheco, Luis, Brighton, Co
Qeuzada, Miriam, Denver, Co
Rabe, Casey, Boulder, Co
Rausch, Carly, Boulder, Co
Rutherford, Elizabeth, Aurora, Co
Rydlewski, Sharon, Broomfield, Co
Schwalick, Bethany, Brighton, Co
Scott, John, Aurora, Co
Sirovatka, Charlotte, Denver, Co
Smith, Parrish, Aurora, Co
Smith, Whitney, Greeley, Co
Spencer, Scott, Castle Rock, Co
Trujillo, Renee, Arvada, Co
Waitsman, Dustin, Denver, Co
Welsh, Meghan, Aurora, Co
Wilson, Desiree, Denver, Co
Yarbrough, Melissa, Aurora, Co
Zoll, Aryn, Loveland, Co

Edwin, Andre, Brandford, Ct
Flynn, Gail, Branford, Ct*

#### D

Eddy, Michael, New Castle, De*
MacDonald, Thomas, Wilmington, De*
Vander Meulen, Jennifer, New Castle, De*
Wheeler, Jennifer, Camden, De*

#### F

Alfonso, Joseph, Orlando, Fl
Bliss, Elisa, Avon Park, Fl
Boumougay, Ali, Auburndale, Fl
Carroza, Emilia, Orlando, Fl
Chartrand, Michael, Lakeland, Fl*
Chatteram, Vanasa, Orlando, Fl
Clark, Marissa, Orlando, Fl*
Daal, Melissa, Deerfield Beach, Fl
Daniels, Mark, Seffner, Fl*
Dardour, Fatima, Kissimmee, Fl
Dias, Carlos, Miami, Fl*
Erickson, Alexandria, Orlando, Fl
Faustino Bennett, Angeline, Jacksonville Beach, Fl*
Furber, Andrew, StCloud, Fl
Garcia, Talyna, Orlando, Fl
Germain, Jean, Port St Lucie, Fl*
Gross, Karen, Tampa, Fl*
Gulley, Kathleen, Orlando, Fl
Harrell, Matt, Winter Garden, Fl
Hester, Veva, Orlando, Fl
Hidalgo, Juan, Miami, Fl*
Hulett, Gloria, Ocala, Fl*
Izquierdo, Juan, Fort Lauderdale, Fl*
Jean, Charles, Kissimmee, Fl
Loriston, Marie, Boynton, Fl
Lynn, Justin, Winter Garden, Fl
Melo, Odaliris, Winter Park, Fl*
Mendones, Samuel, Kissimmee, Fl

These individuals have been approved for membership in the AARC. Any member may object to a new membership by filing a written objection with the Executive Office within 30 days. *Active Members

Molle, Jeanne, Lakeland, Fl
Muszynski, Christine, Orlando, Fl
Negron, Nitza, Orlando, Fl
Orgill, Renae, Orlando, Fl
Pabon, Noriscellie, Saint Cloud, Fl
Padgett, Tawnya, Saint Cloud, Fl
Patarroyo, Elizabeth, Orlando, Fl
Paul, Shirley, Pembroke Pines, Fl*
Ramrattan, Vijay, Orlando, Fl
Schwartz, Sarah, Sanford, Fl*
Tran, Phuong, Ocoee, Fl
Urbino, Victor, Homestead, Fl*
Waldman, Christina, Orlando, Fl
Ward, William, Winter Garden, Fl
Watson, Krystina, Orange Park, Fl*
Weaver, Brittney, Winter Park, Fl

## G

Bland, David, Acworth, Ga*
Carter, Rhonda, Marietta, Ga*
Cooper, Anthony, Atlanta, Ga*
Davis, James, Pooler, Ga*
Griffin, Kelly, Waycross, Ga*
Johnson, Carolyn, Ellijay, Ga*
Johnson, Tiffany, Blackshear, Ga*
Johnson, Tonya, Rome, Ga
Jones, Joseph, Martinez, Ga*
Kinsler, Kenneth, McDonough, Ga*
Marchiolo, Pamela, Tucker, Ga*
Maze, Emery, Jefferson, Ga*
Price, Mason, Tifton, Ga*
Rice, Jared, Ray City, Ga*
Washington, Tiffany, Augusta, Ga*
Williams, Emma, Dallas, Ga*

## I

Bundy, Shelly, Lewiston, Id*
Ellis, Jeffrey, Idaho Falls, Id*
Sager, Shane, Burley, Id*
Stockwell, Jonathan, Nampa, Id*
Weinand, Lisa, Twin Falls, Id*

Asama, Igbinuwen, Country Club Hills, Il*
Bell, Russell, Chicago, Il*
Campbell, Brittany, Hickory Hills, Il
Creger, Andrea, Burbank, Il*
De Bisschop, Elizabeth, Moline, Il*
Dotson-Caples, Jacqueline, Chicago, Il*
Edingburg, Mariyam, Glenwood, Il*
George, Bincy, Des Plaines, Il*
Hansen, Terri, Woodridge, Il*
Hauch, Monty, Davis, Il*
Hengels, Jeffrey, Woodridge, Il*
Hyles, Aaron, Freeport, Il*
Johnson, Tiffany, Chicago, Il
Joseph, Crison, Westmont, Il*
Kardas, Kristie, Palos Hills, Il
Kumar, Hemisha, Bolinbrook, Il*
Laforest, Marie G, Bolingbrook, Il*
Lonergan, Jim, Burbank, Il
Maciag, Anne, Oak Lawn, Il
Martin, Molly, Paxton, Il*
Mathai, George, Morton Grove, Il*
Mitchell, Tyrone, Chicago, Il
Muhammad, Naimah, Chicago, Il
Oluwole, Olamide, Calumet City, Il*
Pesantez, Pablo, Chicago, Il*
Ramos, John, Hickory Hills, Il
Richmond, Joyce, Hazel Crest, Il*
Saputo, Katherine, Crystal Lak, Il*
Setter, Thomas, Skokie, Il*
Simental, Nicole, Rockford, Il
Wilson, Christina, Burbank, Il
Wright, Linda, Elgin, Il*

Azeem, Mohammad, Schererville, In*
Bowman, William, Indianapolis, In*
Bunnell, Mary, Columbus, In*
Delong, Jeffrey, Richmond, In*
Heise, Julie, Kokomo, In*
Hiatt, Denise, Star City, In*
Kennedy, Amanda, Greenwood, In
Mahrenholz, Jennifer, Crawfordsville, In*
McCormick, Susette, Winimac, In*
Nevil, Tonya, Indianapolis, In*
Pulley, Teresa, Wabash, In*
Turney, Amie, Warren, In
Wyrick Shepherd, Terri, Tipton, In*

## K

Brickey, Rosemary, Morehead, Ky*
Horton, Jessica, Grayson, Ky*
Logan, Jeanna, Madisonville, Ky*
Luttrell, Samantha, Louisville, Ky*
McQuain, Wayne, Louisville, Ky*
Simpson, Sonya, Pikeville, Ky*
Wilson, Maria, East Point, Ky

## L

Mansfield, Youlanda, Bonita, La*

## M

Brunton, Kevin, Haverhill, Ma*
Lafontant, Roumel, Brockton, Ma*
Payen, Jerome, Medford, Ma*
Suarez, Clorinda, Roslindale, Ma*

Beaverson, Melissa, California, Md*
Blais, Jean, Bethesda, Md*
Brantley, Carla, Salisbury, Md*
Chandler, Stephanie, Silver Springs, Md*
Ebrahimi, Gail, North Potomac, Md*
Friskey, Nicole, Baltimore, Md*
Garcia, Julio, Fork, Md*
King, Jennifer, Bel Air, Md*
Mohammed, Ahtesham, Ellicott Citty, Md*
Moore, Laura, Frederick, Md*
Robert, Sheela, Silver Spring, Md*
Rosenberg, Louis, Rockville, Md*
Weller, Melinda, Belcamp, Md*
Witte, Ronald, Salisbury, Md*

Breton, Michael, Roxbury, Me*
Burke, Veronica, Corinna, Me*
Gulesian, Christopher, Monticello, Me*
Holt, Denise, Burnham, Me*
Jones, Dana, Houlton, Me*
Joy, Michael, Westbrook, Me*
Leo, Joseph, Rumford, Me*
Michie, Lela, Levant, Me*
Miller, Edward, Auburn, Me*
Schwarze, Sr., John, Brewer, Me*
Smith, Maureen, Topsham, Me*

Harvey, Chad, Westland, Mi*
Hollenkamp, John, Rochester Hills, Mi
Richard, Jillian, Plymouth, Mi
Shah, Payal, Clinton Township, Mi*
Shelton, Daniel, Goodells, Mi*

Berger, Chris, Roseau, Mn*
Drangeid, Kelli, Elk River, Mn*
Elam, Robert, Winona, Mn*
Gavin, Margaret, Farmington, Mn*
Leger, Aleisha, Winona, Mn*
Liban, Mohamed, Duluth, Mn*
Lisok, Henry, Eagle Lake, Mn*
Mace, Barry, Crosby, Mn*
McLaughlin, Robert, Deerwood, Mn*
Phillips, James, Minneapolis, Mn
Struve, Matthew, Minneapolis, Mn*
Varnadore, Johnita, Rochester, Mn*
Xiong, Sue See, Saint Paul, Mn

Grinko, Tatyana, St.Louis, Mo*
Long, Buddy, Carthage, Mo*
Lora, Carolyn, Saint Louis, Mo*
Quartaro, Michael, St Louis, Mo*
Schmick, Jeanne, Archie, Mo*

Ailes, Brandon, Indianola, Ms*
Ashmore, Jennifer, Hattiesburg, Ms
Harmon, Harold, Magee, Ms*
Holt, Kim, Terry, Ms*
Ickom, Jeffrey, Newton, Ms*

Bowman Lyonos, Cherie, Great Falls, Mt
Crawford, Danielle, Sidney, Mt*
Hallman, Karl, Missoula, Mt*
Marshall, Jennifer, Great Falls, Mt*
McAllister, Shannon, Shelby, Mt
Tracy, Tammie, Helena, Mt*

## N

Bates, Debra, Franklin, NC*
Burrow, Kelly, Mount Gilead, NC*
Garcia, Delly, Graham, NC*
Hartman, Laura, High Point, NC*
Hubbard, Mary, Monroe, NC*
Kelly, S Elizabeth, West End, NC*
Parker, Christen, Albemarle, NC
Przydzial, Michael, Greenville, NC*
Shiffman, Ronald, Chapel Hill, NC*
Slaughter, Lisa, Ahoskie, NC*
Spivey, Debra, Hobbsville, NC*
Stevens, Valerie, Ayden, NC*
Sullivan, Kristen, Battleboro, NC*
Thompson, Elizabeth, Albemarle, NC*

Cape, Denise, Blair, Ne*
Cline, Emily, Omaha, Ne*
Douglas, Tammy, Denton, Ne*
Junker, Carrie, Culbertson, Ne*
Monrovia, Carmella, Omaha, Ne*
Ridder, Joshua, Grand Island, Ne*
Volkmar, Casie, La Vista, Ne*

Antoine, Barthelemy, Jersey City, NJ
Barclay, Andrea, Ridgewood, NJ*
Lichtman Jr, Norman, Woodbury, NJ*
Merlo, Greg, Andover, NJ*
Vargsa-Lopez, Ana, North Bergen, NJ*

Carrillo, D'ann, Albuquerque, NM
Dang, Duy Anh, Albuquerque, NM
Hendrick, Carmelita, Albuquerque, NM*
Jennings, Richard, Albuquerque, NM
Johnson, Margie, Albuquerque, NM
Martinez, Caitlin, Albuquerque, NM
Morgan, Melissa, Albuquerque, NM
Prazeres, Jerry, Albuquerque, NM
Truong, Cuong, Albuquerque, NM

Cummings, Tawn, Las Vegas, Nv*
Esseltine, Tenna, Henderson, Nv*

Bagley, Sharon, Niagara Falls, NY*
Bennett, Alicia, Kingston, NY*
Brown, Kathy, East Aurora, NY*
Burch, Brandi, Arkport, NY
Catanzaro, Charles, Syosset, NY*
Chang, Raymond, Staten Island, NY*
Crosby, Tanesha, Brooklyn, NY*
Dickinson, Gail, Williamson, NY*
Estevez, Pedro, Bronx, NY*
Gheerwar, Nalini, South Richmond Hill, NY*
Gromada, Jerome, Kenmore, NY*
Houston, Tiffany, Buffalo, NY*
Johnson, Kathleen, Niagara Falls, NY*

Joseph, Joji, Valley Stream, NY*
Keller, Mary, East Aurora, NY*
Khrapunovich, Peter, Brooklyn, NY
Kirkland, Gertha, Valley Stream, NY*
Mbeke, Cyprian, Buffalo, NY*
Myrie, Kerrian, Bronx, NY
O'Connor, Neill, Briarcliff Manor, NY*
Omoirawua, Osamwonuyi, Bronx, NY*
Pajak Kozminski, Cheryl, Buffalo, NY*
Payne, Larry, Bronx, NY
Renfro, Loretta, Buffalo, NY*
Shameer, Sheleena, South Richmond Hill, NY
Slowik, Wayne, Cheektowaga, NY*
Thomas, Cassandra, Bronx, NY
Thomas, Cassundra, Saratoga Springs, NY*
Trafalski II, Timothy, Amherst, NY*
Twichell, Lucy, Oneida, NY*
Welsh, Wayne, Lockport, NY*
Yu, Tsz Wing Eunice, Brooklyn, NY

## O

Abbott, Brian, Cleveland, Oh*
Burckhart, Lisa, Canal Fulton, Oh*
Digman, Steven, Marietta, Oh*
Dirr, Debbie, Liberty Twp, Oh*
Donaldson, Jennifer, Ottawa, Oh*
Effat, Monica, Liberty Township, Oh*
Fiorita, Kathryn, Dayton, Oh*
Gillespie, Miki, Botkins, Oh
Grogan, Jaanis, Grove City, Oh*
Hanna, Christine, Massillon, Oh*
Jacobson, Daniel, Mentor, Oh*
Johnstone, Daniel, Lebanon, Oh
Kan, Darlene, Brookpark, Oh*
Kehr, Cinde, Huron, Oh*
Kemp, David, Englewood, Oh
Kendrick, Felicia, Lebanon, Oh*
Kerro, Michelle, Sandusky, Oh*
Keyser, Michelle, Massillon, Oh*
Lambert, Mona, Delaware, Oh*
Landis, Kerri, West Carrollton, Oh
McCullough, Mark, Kitts Hill, Oh*
Mescher, Cynthia, Ansonia, Oh*
Miller, Rebecca, Loveland, Oh*
Mook, Daniel, Youngstown, Oh*
Myers, Marie, Risingsun, Oh*
Petrak, Nancy, Berea, Oh*
Phillips, Criste, Galloway, Oh*
Robertson, Michael, Columbus, Oh*
Sedgwick, Matthew, Antwerp, Oh*
Shue, Robin, Broadview Heights, Oh*
Specht, Eric, Medina, Oh*
Wimberly, Janette, Cincinnati, Oh*

Anthony, Suzanne, Oklahoma City, Ok
Birney, Anthony, Oklahoma City, Ok
Dorrell, Carol, Norman, Ok
Elmore, Jennifer, Oklahoma City, Ok
Garrett, Shiana, Oklahoma City, Ok
Gross, Emily, Midwest City, Ok
Hoehns, Jenny, Norman, Ok
Knapp, April, Mustang, Ok
McPherson, Sofia, Oklahoma City, Ok
O'Keefe, Oleva, Moore, Ok
Seiden, Natalie, Oklahoma City, Ok
Shade, Nicole, Del City, Ok
Wageck, Roger, Del City, Ok
Willis, William, Oklahoma City, Ok*

Hendrix, Casey, Medford, Or*

## P

Bellows, Tonya, Millerton, Pa
Bowne, Mark, Blossburg, Pa
Brady, Alexander, Mountain Top, Pa
Daddario, Jennifer, Sunbury, Pa
Deeter, Tera, Oil City, Pa
Finch, Danielle, Brackney, Pa
Forsythe, Janelle, Lebanon, Pa*
Fry, Martin, West Newton, Pa*
Gessner, David, Macungie, Pa*
Good, Craig, Lancaster, Pa*
Kalloorthottiyil, George, Drexel Hill, Pa*
Kanazawich, Pamela, Sellersville, Pa*
Kander, Kaylee, Athens, Pa
Karetsky, Anna, Drexel Hill, Pa*
Kemberling, Amber, Danville, Pa*
McHale, Maureen, Philadelphia, Pa*
McNally, Sean, Coatesville, Pa*
Mitchell, Dannette, Danville, Pa*
Polanin, David, S Abington Township, Pa*
Pond, Brian, Milan, Pa
Rafalko, Janet, Scranton, Pa*
Roberts, Laurie, Coal Center, Pa*
Stiver, Autumn, Berwick, Pa*
Taylor, Michael, Dallastown, Pa*
Thiem, Eric, McDonald, Pa*
Walsh, Jackie, Norristown, Pa*
Woughter, Noel, Gillett, Pa
Zimniski, Marcia, Dallas, Pa*

## S

Bendixon, Sarah, Myrtle Beach, SC*
Bryant, Krystal, Greenwood, SC*
Parr, Thelma, Fort Mill, SC*
Simmons, Mary, Florence, SC*

## T

Beatty, Cory, Nashville, Tn*
Cabiness, Sharon, Calhoun, Tn*
Draper, Lauren, Memphis, Tn*
Hampton, Danielle, Celina, Tn*
Harden, Lani, Oakland, Tn*
Howard, Melvin, Chattanooga, Tn*
Jessee, James, Bristol, Tn*
Judge, Shannon, Nashville, Tn*
Kibble, Dewayne, Chattanooga, Tn*
Knowles, Tara, Old Hickory, Tn*
Panter, Erika, Oak Ridge, Tn*
Stewart, Virginia, Signal Mountain, Tn*
Twitty, Donald, Smithville, Tn*

Bakare, Ramotalai, Arlington, Tx*
Elder, Anthony, Cedar Hill, Tx*
Fitchett, Nicholas, Converse, Tx*
Fountain, Natalie, San Antonio, Tx*
Gaines, Juanita, Keller, Tx*
Garcia, Joe, Lubbock, Tx*
Gibbs, Sean, San Antonio, Tx*
Guajardo, Esther, North Richland Hills, Tx*
Herbrich, Jessica, Houston, Tx*
Holloway, Bettye, Rowlett, Tx*
Koffi, Martial, Houston, Tx*
Lewis, Tabatha, Houston, Tx
Locksey, Timothy, Houston, Tx*
McElyea, Denise, League City, Tx*
McNeely, David, Midland, Tx*
Mendoza, Katheryn, Humble, Tx*
Moser, Emery, San Antonio, Tx*
Nguyen, Huy, Friendswood, Tx*
Nolden, La-Treshia, Fort Worth, Tx*
Occena, Roy, Missouri City, Tx*
Patrick, Megan, Farwell, Tx*
Pete, Jonathan, Houston, Tx*
Salinas, Guillermo, Laredo, Tx*
Sandra, Green, McKinney, Tx*
Schoenmakers, Misty, McAllen, Tx*
Shoemaker, Lynda Kay, Iola, Tx*
Stolte, Jessica, Humble, Tx
Stuart, Stacy, Bastrop, Tx*
Sylvie, Andrea, Murphy, Tx*
Thadamalla, Rosemary, Fort Worth, Tx*
Thompson, Dawn, Plano, Tx*
Travis, George Matt, Austin, Tx*
Tshibuikila, Kapinga, Euless, Tx*
Valdez, Christopher, San Antonio, Tx*
Wagner, Michael, San Antonio, Tx*
Walling, John, North Richland Hills, Tx*
Waters, Karen, Richmond, Tx*
Williams, John, Bedford, Tx*
Wilson, Lisa, Humble, Tx*
Wingard, Sharon, Denison, Tx*
Yeldell, Victor, Fresno, Tx*

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Bird, Terry, Orem, Ut
Chambers, Rhett, Spanish Fork, Ut*
Hunter, Kristin, Logan, Ut
Nalder, Whitney, Layton, Ut
Webster, Kristin, Layton, Ut

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Brundridge, Jennifer, Christiansburg, Va*
Decker, Sara, Virginia Beach, Va*
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Stiltner, Greg, Virginia Beach, Va*
Thomas, Michael, Woodbridge, Va*
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# Classifieds

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

**Classified Word Advertisements**

AARC Members: $50 for 50 words or less; each additional word, $1. Free Internet placement. Nonmembers: $60 for 50 words or less; each additional word, $1.20. Listings are categorized by state. Following the state listings are United States/International, For Sale/For Rent, Miscellaneous, and Situations Wanted. All copy should be typed double-spaced. All ads will be set in 8-point type. To calculate the cost per advertisement, a "word" is considered to be one or more letters, numbers, or special characters with a space before and after.

Ads are featured on the AARC website for one month after publication. Ad may only be placed on the website with an insertion order for placement in an AARC publication. Ad is noncancelable after placement on the website. NOTE: *AARC Times* reserves the right to refuse any advertisement not directly relevant to respiratory care. *AARC Times* does not endorse any advertiser, its positions, practices, services, or products.

We reserve the right to make editorial changes for reasons of clarity and consistency. Every effort is taken to avoid mistakes, but *AARC Times* cannot be responsible for clerical or printing errors. **Deadline for Ad Placement/Cancellation** Deadline for ad placement and written cancellations for the next available issue is August 17. Blind ads available. **For Recruitment Advertising Information, Contact Classified Advertisement** Andrea Conté • Alhambra Plaza • 725 N. Highway A1A, Suite C-106 • Jupiter, FL 33477 • (561) 745-6793 • Fax (561) 745-6795 • AARCAD@aol.com

**Recruitment Display Advertisements**

For Recruitment Display Ad Rates, go to www.aarc.org/marketplace/media_kit/recruitment_12.pdf, or contact Tim Goldsbury and Associates, Alhambra Plaza, 725 N. Highway A1A, Suite C-106, Jupiter, FL 33477, (561) 745-6793, Fax (561) 745-6795

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**Lecturer Job Functions:**

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**To apply and for further details, please contact:**
**RC Program Supervisor, Abdulaziz Alshehri**
**Email ashehri@mcst.edu.sa**

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NovaSom®
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NovaSom is a privately held diagnostic-service provider for home testing and evaluation of sleep-disordered breathing, including obstructive sleep apnea (OSA). We currently have an opening for a FT Clinical Sleep Tech. This position will be a key member of the clinical team supporting accurate and timely processing of Home Sleep Studies, Patient Education and CPAP Titration Studies. The ideal candidate will have 3 years cardio respiratory or Sleep Lab experience and a minimum of an AAS in respiratory therapy or related discipline. Must possess either of the following active credentials: RRT, CRTT, CPSGT, RPSGT and possess strong knowledge of evidence based guidelines on the use of CPAP, BiPAP, APAP and titrations and mask interface fittings. The candidate must possess clinical/physiological knowledge of cardio respiratory system, knowledge of obstructive sleep apnea diagnosis, treatment and management.

For more information and/or to apply please follow this link:

https://home.eease.adp.com/recruit/?id=555252

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NEW!

# PROFESSOR'S ROUNDS 2012

## Reducing Cost While Adding Value—Critical Roles for Respiratory Therapists

**Rick Ford, BS RRT FAARC**
**Doug Laher, MBA RRT**

**Item # PR20123**

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DukeMedicine

**Manager of Clinical Services - ECMO**

Duke University Hospital in Durham, North Carolina will be combining its existing pediatric and adult ECMO programs. This merger will establish Duke Hospital as the 4th largest ECMO center nationally. Duke's pediatric ECMO program has received the Center of Excellence award from ELSO for the past four years. The Manager of Clinical Services - ECMO will be responsible for planning and coordinating the clinical operations, technical interfaces, outcome measures and database, ECMO transport, education and regulatory standards.

**Minimum Requirements**

Candidates are required to have a Bachelors' Degree in a clinical field, (respiratory care, perfusion or nursing preferred) as well as necessary professional licenses, and certifications in ACLS, PALS and NRP. Work requires a minimum of five years of clinical experience, including supervisory experience. Prefer a minimum of three years experience in ECMO technology, supervisory and clinical leadership experience and the interpersonal skills necessary to interact with medical staff and technical specialists.

**How to apply**

Candidates should submit an electronic resume at the Duke HR website (www.hr.duke.edu). Apply to position requisition number 400610181 – Manager, Clinical Services (direct link: Manager, Clinical Services Requisition 400610181).

**Duke University & Health System is an Equal Opportunity/Affirmative Action Employer**

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Northwest Respiratory Services

Northwest Respiratory Services, a market leader in home oxygen and respiratory services in the Midwest, is seeking an experienced RESPIRATORY THERAPIST for our Sioux Falls, SD office. The ideal candidate would enjoy working independently and working "out in the field," as we service customers primarily in nursing homes and private residences. Daily duties would include driving our company vehicle within Sioux Falls and the surrounding areas.

Experience in homecare is preferred, but not required.
Previous supervisory/management experience
is also a plus, but not required.
Qualified candidates must have a current South Dakota RCP license.

– FULL-TIME, PART-TIME & PER DIEM openings are available –

Successful candidates must past the following pre-employment screens:
criminal background history, motor vehicle record,
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St. Paul, MN 55104
651-632-6344 fax

*Please attach your resume to your completed online employment application

EOE/AA

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ETSU
East Tennessee State University

East Tennessee State University
College of Clinical and Rehabilitative Health Sciences
Department of Allied Health Sciences

## Cardiopulmonary Science Program Director

East Tennessee State University invites applications and/or nominations for a tenure/clinical track position of Assistant/Associate Professor (Program Director) in the Department of Allied Health Sciences. Essential Functions: The individual will become an integral part of the Bachelor of Science in the Allied Health, Cardiopulmonary Science Program. Qualifications: Minimum qualifications include a master's of science degree (doctorate preferred) with at least four (4) years experience as a Registered Respiratory Therapist; of which at least two (2) years must include experience in clinical respiratory care. The Program Director must have a minimum of two (2) years experience teaching in an accredited respiratory care program either as an appointed faculty member or as a clinical preceptor and eligible for licensure in Tennessee. Preferred qualifications include specialty certifications and proficiency in curriculum design/development, program administration, student evaluation, and counseling. A description of the Department of Allied Health Sciences can be found at http://www.etsu.edu/crhs/alliedhealth/.

Johnson City is in the Tri-Cities region of East Tennessee with about half a million residents. It is ranked as a desirable place to live. There is affordable housing, excellent schools, and a strong healthcare infrastructure. ETSU is located in a picturesque lake and mountain region of east Tennessee with many art, musical, and outdoor recreational activities available.

Review of applications will begin October 1, 2012 and continue until the position is filled. Send letter of application, vitae and the names, addresses and telephone numbers of at least three references to the Office of Human Resources, East Tennessee State University, Box 70564, Johnson City, TN 37614-1701.
AA/EOE

# Calendar of Events

**AARC & State Society Programs**

**August 9–10**
Weston, FL
Florida Society for Respiratory Care Annual Sunshine Seminar
Contact Dennis Willerth at fsrc@fsrc.org or call toll free (866) 534-6172.

**August 14**
AARC Live Webcast
The Future of the RT in Homecare (Competitive Bidding, Reimbursement)
Contact AARC, (972) 243-2272, www.aarc.org/education/webcast_central

**September 18–19**
Honolulu, HI
39th Annual Hawaii State Respiratory Care Conference
Contact jikehara@lava.net.

**September 26**
AARC Live Webcast
Advances in Transport Mechanical Ventilation
Contact AARC, (972) 243-2272, www.aarc.org/education/webcast_central

**September 26–28**
Hot Springs National Park, AR
41st Annual Arkansas Society for Respiratory Care State Meeting
Contact John Lindsey at John.Lindsey@Mercy.Net or call (501) 622-1974

**October 21–27**
Respiratory Care Week
Contact AARC, (972) 243-2272, www.aarc.org

**October 24**
Lung Health Day
Contact AARC, (972) 243-2272, www.aarc.org

**October 24–26**
Atlantic City, NJ
New Jersey Society for Respiratory Care Annual Shore Conference
Contact Michele DaSilva at education@njsrc.org or www.njsrc.org

**November 9–13**
New Orleans, LA
AARC Congress 2012, Mechanical Ventilation 2012 (pre-course), Patient Safety Starts with You! (pre-course)
Contact AARC, (972) 243-2272, www.aarc.org/education/meetings

**December 12**
AARC Live Webcast
How Quality Care Impacts Payment — What You Need To Know
Contact AARC, (972) 243-2272, www.aarc.org/education/webcast_central

**Submissions for the next available issue are due Aug. 17.**

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


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# *AARC Times*

# Photo Contest

## Call for Entries


Go to
http://tinyurl.com/72qfqt5

- Take the photo at your highest quality setting
- Email your photo to knauf@aarc.org or send a CD to:
  Photo Contest, *AARC Times*, 9425 N. MacArthur Blvd., Irving, TX 75063

- You must be an AARC member.
- Contest finalists will receive one year *FREE DUES* on membership renewal.
- Finalists will be in the Nov. 2012 issue for members to vote on.
- The winning photo will be on the Feb 2013 cover.
- All photos become the property of the AARC.
- You must provide a signed release form for everyone in the photo.
- Go to www.aarc.org and type *photo release* in the search box or have Karen fax you one. Call (972) 406-4661.
- If you have a story for the photo, please send that, too.

# Advertiser Index

To advertise, contact: Tim Goldsbury, Advertising Sales, Alhambra Plaza, 725 N. Highway A1A, Suite C -106, Jupiter, FL 33477, (561) 745-6793, Fax (561) 745-6795, goldsbury@aarc.org. Or contact Beth Binkley, Advertising Assistant, Daedalus Enterprises, Inc., 9425 N. MacArthur Blvd., Suite 100, Irving, TX 75063-4706, (972) 243-2272, Fax (972) 484-2720, binkley@aarc.org.




NEW!

PROFESSOR'S ROUNDS 2012

**Effectively Treating Tobacco Dependence: We Can Move the Mountain!**

**Michael C. Fiore, MD MPH MBA**
**Sam Giordano, MBA RRT FAARC**

New and effective treatments for tobacco dependence place respiratory therapists in an unequaled position to deliver these treatments and assume a key role in preventing adverse pulmonary and other outcomes from tobacco use.

**Item # PR2012B**

$320 for Nonmembers
**$290 for MEMBERS**

MEMBERS SAVE $30

Order this program individually or receive it as a complimentary bonus with a subscription for the full 2012 series.

***Get even more value and savings when you order the entire series!***

***AARC Professor's Rounds Series 2012***
***Includes 8 lecture topics + the bonus topic***

This year's topics are:
- The Mandate to Reduce Hospital Readmissions – How Respiratory Therapists Can Help
- Medical-Legal Implications of the Changing Healthcare System for Respiratory Therapists
- Reducing Cost While Adding Value - Critical Roles for Respiratory Therapists
- Managing the Chronically Ill Pediatric Respiratory Patient
- Educating Patients with Chronic Respiratory Disease – RTs Make the Difference
- Palliative and End-of-Life Care: What Respiratory Therapists Need to Know
- Get 'Em Movin' – Early Mobility for Ventilator-Dependent Patients
- Improving Patient Safety – How Respiratory Therapists Can Contribute

Each topic in the series (including the bonus) is approved for one [1] nontraditional CRCE per participant.Topics are delivered on DVD and include full course materials, proctor guide and more.

**Item # PR2012S**

$1,605 for Nonmembers
**$1,420 for MEMBERS**

MEMBERS SAVE $185

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**References: 1.** Han J, Liu Y. Effect of ventilator circuit changes on ventilator-associated pneumonia: a systematic review and meta-analysis. *Respiratory Care*. 2010;55:467-474. **2.** Coffin S MD, MPH, Klompas M MD, Classen D MD, et al. Strategies to Prevent Ventilator-Associated Pneumonia in Acute Care Hospitals. *Infect Control Hosp Epidemiol*. 2008;29:S31-S40.

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