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Times

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- Registration Info**
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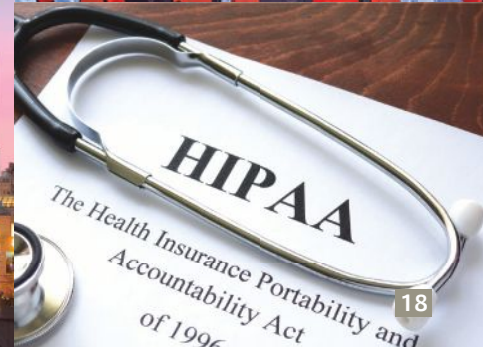
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References:

1. Frat JP, Thille AW, Mercat A, et al. High-Flow Oxygen through nasal cannula in Acute Hypoxemic Respiratory Failure. *N Engl J Med* 2015; 372:2185-2196. doi: 10.1056/NEJMoa1503326
2. Dysart K, Miller TL, Wolfson MR, Shaffer TH. Research in high flow therapy: mechanisms of action. *Respir Med*. 2009;10:1400-5. Cited in support of HFNCT benefits not including CPAP as CPAP is off-label for Comfort Flo Humidification System.



**Ventilation for Life:
Capnography Monitoring of
the Neo/Peds Mechanically
Ventilated Patient | Page 10**
Monitoring carbon dioxide during
neonatal and pediatric ventilation.
By Craig Smallwood, BS, RRT

**Cast Your Vote Online for the
AARC Zenith Awards | Page 20**
Help select the winning companies of
the 29th Annual Zenith Awards.

AARC Election 2018 | Page 22
Meet the candidates for AARC leadership
positions.

Indy Insider | Page 24
Indiana Society for Respiratory Care
members call out their favorite
restaurants around Indianapolis. By
Charity Bowling, MA, RRT, and Cheri
Bate, MA, RRT

**Cover Story: AARC Congress
Advance Program | Page 29**
Join us in Indianapolis, IN, for Congress
2017 October 4-7
(Wednesday-Saturday).

From the President's Desk | Page 8
General Counsel | Page 18
RC Currents | Page 104
Industry Watch | Page 109
Industry Update | Page 111
Classified Advertising | Page 112
Calendar of Events | Page 112

AARC Strategic Plan

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

Bookmark this page:
[http://www.aarc.org/
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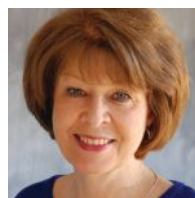
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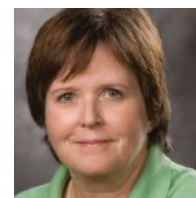
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Indication

UTIBRON™ NEOHALER® [indacaterol and glycopyrrolate] is a combination of indacaterol and glycopyrrolate indicated for the long-term, maintenance treatment of airflow obstruction in patients with chronic obstructive pulmonary disease (COPD), including chronic bronchitis and/or emphysema.

Important limitations: UTIBRON NEOHALER is not indicated to treat acute deteriorations of COPD and is not indicated to treat asthma.

Important Safety Information



WARNING: ASTHMA-RELATED DEATH

Long-acting beta₂-adrenergic agonists (LABAs) increase the risk of asthma-related death. Data from a large placebo-controlled US study that compared the safety of another LABA (salmeterol) or placebo added to usual asthma therapy showed an increase in asthma-related deaths in patients receiving salmeterol. This finding with salmeterol is considered a class effect of all LABAs, including indacaterol, one of the active ingredients in UTIBRON NEOHALER.

The safety and efficacy of UTIBRON NEOHALER in patients with asthma have not been established. UTIBRON NEOHALER is not indicated for the treatment of asthma.

Please see additional Important Safety Information, including **BOXED WARNING**, and Brief Summary of Prescribing Information on adjacent pages.

LABA = long-acting beta₂-agonist; LAMA = long-acting muscarinic antagonist.

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BRIEF SUMMARY OF FULL PRESCRIBING INFORMATION

Please see package insert for full Prescribing Information, including Patient Information.

INDICATIONS AND USAGE: UTIBRON™ NEOHALER® is a combination of indacaterol and glycopyrrolate indicated for the long-term, maintenance treatment of airflow obstruction in patients with chronic obstructive pulmonary disease (COPD), including chronic bronchitis and/or emphysema.

Important Limitations of Use: UTIBRON NEOHALER is NOT indicated for the relief of acute bronchospasm or for the treatment of asthma.

CONTRAINDICATIONS: UTIBRON NEOHALER is contraindicated in patients with asthma without use of a long-term asthma control medication. UTIBRON NEOHALER is contraindicated in patients who have demonstrated hypersensitivity to indacaterol, glycopyrrolate, or to any of the ingredients.

WARNINGS AND PRECAUTIONS:

WARNING: ASTHMA-RELATED DEATH

Long-acting beta₂-adrenergic agonists (LABAs) increase the risk of asthma-related death. Data from a large, placebo-controlled U.S. study that compared the safety of another LABA (salmeterol) or placebo added to usual asthma therapy showed an increase in asthma-related deaths in patients receiving salmeterol. This finding with salmeterol is considered a class effect of all LABAs, including indacaterol, one of the active ingredients in UTIBRON NEOHALER. The safety and efficacy of UTIBRON NEOHALER in patients with asthma have not been established. UTIBRON NEOHALER is not indicated for the treatment of asthma.

Data from a large, placebo-controlled U.S. study in asthma patients showed that LABAs may increase the risk of asthma-related death. Data are not available to determine whether the rate of death in patients with COPD is increased by LABAs. A 28-week, placebo-controlled U.S. study comparing the safety of another LABA (salmeterol) with placebo, each added to usual asthma therapy, showed an increase in asthma-related deaths in patients receiving salmeterol (13/13,176 in patients treated with salmeterol versus 3/13,179 in patients treated with placebo; RR 4.37, 95% CI 1.25, 15.34). The increased risk of asthma-related death is considered a class effect of the LABAs, including indacaterol, one of the ingredients in UTIBRON NEOHALER. No study adequate to determine whether the rate of asthma-related death is increased in patients treated with UTIBRON NEOHALER has been conducted. The safety and efficacy of UTIBRON NEOHALER in patients with asthma have not been established. UTIBRON NEOHALER is not indicated for the treatment of asthma. **Deterioration of Disease and Acute Episodes:** UTIBRON NEOHALER should not be initiated in patients with acutely deteriorating or potentially life-threatening episodes of COPD. UTIBRON NEOHALER has not been studied in patients with acutely deteriorating COPD. The initiation of UTIBRON NEOHALER in this setting is not appropriate. UTIBRON NEOHALER should not be used for the relief of acute symptoms, i.e., as rescue therapy for the treatment of acute episodes of bronchospasm. UTIBRON NEOHALER has not been studied in the relief of acute symptoms, and extra doses should not be used for that purpose. Acute symptoms should be treated with an inhaled, short-acting beta₂-agonist. When beginning UTIBRON NEOHALER, patients who have been taking oral or inhaled, short-acting beta₂-agonists on a regular basis (e.g., 4 times a day) should be instructed to discontinue the regular use of these drugs and use them only for symptomatic relief of acute respiratory symptoms. When prescribing UTIBRON NEOHALER, the healthcare provider should also prescribe an inhaled, short-acting beta₂-agonist and instruct the patient on how it should be used. Increasing inhaled beta₂-agonist use is a signal of deteriorating disease for which prompt medical attention is indicated. COPD may deteriorate acutely over a period of hours or chronically over several days or longer. If UTIBRON NEOHALER no longer controls the symptoms of bronchoconstriction; the patient's inhaled, short-acting beta₂-agonist becomes less effective; or the patient needs more inhalation of short-acting beta₂-agonist than usual, these may be markers of deterioration of disease. In this setting, a re-evaluation of the patient and the COPD treatment regimen should be undertaken at once. Increasing the daily dose of UTIBRON NEOHALER beyond the recommended dose is not appropriate in this situation. **Excessive Use of UTIBRON NEOHALER and Use with Other Long-Acting Beta₂-Adrenergic Agonists:** As with other inhaled drugs containing beta₂-adrenergics, UTIBRON NEOHALER should not be used more often than recommended, at higher doses than recommended, or in conjunction with other medications containing LABAs, as an overdose may result. Clinically significant cardiovascular effects and fatalities have been reported in association with excessive use of inhaled sympathomimetic drugs. Patients using UTIBRON NEOHALER should not use another medicine containing a LABA for any reason. **Paradoxical Bronchospasm:** As with other inhaled medicines, UTIBRON NEOHALER can produce paradoxical bronchospasm that may be life-threatening. If paradoxical bronchospasm occurs following dosing with UTIBRON NEOHALER, it should be treated immediately with an inhaled, short-acting bronchodilator; UTIBRON NEOHALER should be discontinued immediately and alternative therapy instituted. **Immediate Hypersensitivity Reactions:** Immediate hypersensitivity reactions have been reported after administration of indacaterol or glycopyrrolate, the components of UTIBRON NEOHALER. If signs suggesting allergic reactions

occur, in particular, angioedema (including difficulties in breathing or swallowing, swelling of tongue, lips and face), urticaria, or skin rash, UTIBRON NEOHALER should be discontinued immediately and alternative therapy instituted. UTIBRON NEOHALER should be used with caution in patients with severe hypersensitivity to milk proteins. **Cardiovascular Effects:** Indacaterol, like other beta₂-agonists, can produce a clinically significant cardiovascular effect in some patients as measured by increases in pulse rate, systolic or diastolic blood pressure, or symptoms. If such effects occur, UTIBRON NEOHALER may need to be discontinued. In addition, beta-agonists have been reported to produce ECG changes, such as flattening of the T-wave, prolongation of the QTc interval, and ST segment depression, although the clinical significance of these findings is unknown. Therefore, UTIBRON NEOHALER should be used with caution in patients with cardiovascular disorders, especially coronary insufficiency, cardiac arrhythmias, and hypertension.

Coexisting Conditions: UTIBRON NEOHALER, like all medicines containing sympathomimetic amines, should be used with caution in patients with convulsive disorders or thyrotoxicosis, and in patients who are unusually responsive to sympathomimetic amines. **Worsening of Narrow-Angle Glaucoma:** UTIBRON NEOHALER should be used with caution in patients with narrow-angle glaucoma. Prescribers and patients should be alert for signs and symptoms of acute narrow-angle glaucoma (e.g., eye pain or discomfort, blurred vision, visual halos or colored images in association with red eyes from conjunctival congestion and corneal edema). Instruct patients to consult a physician immediately should any of these signs or symptoms develop. **Worsening of Urinary Retention:** UTIBRON NEOHALER should be used with caution in patients with urinary retention. Prescribers and patients should be alert for signs and symptoms of urinary retention (e.g., difficulty passing urine, painful urination), especially in patients with prostatic hyperplasia or bladder-neck obstruction. Instruct patients to consult a physician immediately should any of these signs or symptoms develop.

Hypokalemia and Hyperglycemia: Beta₂-adrenergic agonists may produce significant hypokalemia in some patients, which has the potential to produce adverse cardiovascular effects. The decrease in serum potassium is usually transient, not requiring supplementation. Inhalation of high doses of beta₂-adrenergic agonists may produce increases in plasma glucose. In patients with severe COPD, hypokalemia may be potentiated by hypoxia and concomitant treatment, which may increase the susceptibility for cardiac arrhythmias. In 2 clinical trials of 12-weeks duration evaluating UTIBRON NEOHALER in subjects with COPD, there was no evidence of a treatment effect on serum glucose or potassium.

ADVERSE REACTIONS: Clinical Trials Experience: Because clinical trials are conducted under widely varying conditions, the adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in clinical trials of another drug and may not reflect the rates observed in clinical practice. The UTIBRON NEOHALER safety database included 2654 subjects with COPD in two 12-week lung function trials and one 52-week long-term safety study. A total of 712 subjects received treatment with UTIBRON NEOHALER 27.5 mcg/15.6 mcg twice daily (BID). The safety data described below are based on the two 12-week trials and the one 52-week trial. **12-Week Trials:** The incidence of adverse reactions associated with UTIBRON NEOHALER in Table 1 is based on two 12-week, placebo-controlled trials (Trials 1 and 2; N=1,001 and N=1,042 respectively). Of the 2040 subjects, 63% were male and 91% were Caucasian. They had a mean age of 63 years and an average smoking history of 47 pack-years, with 52% identified as current smokers. At screening, the mean post-bronchodilator percent predicted forced expiratory volume in 1 second (FEV₁) was 55% (range: 29% to 79%), the mean post-bronchodilator FEV₁/forced vital capacity (FVC) ratio was 50% (range: 19% to 71%), and the mean percent reversibility was 23% (range: 0% to 144%). The proportion of patients who discontinued treatment due to adverse reactions was 2.95% for the UTIBRON NEOHALER treated patients and 4.13% for placebo-treated patients.

Table 1. Adverse reactions with UTIBRON NEOHALER (greater than or equal to 1% incidence and higher than placebo) in COPD patients

	UTIBRON NEOHALER 27.5/15.6 mcg BID (N=508) n (%)	Indacaterol 27.5 mcg BID (N=511) n (%)	Glycopyrrolate 15.6 mcg BID (N=513) n (%)	Placebo (N=508) n (%)
Nasopharyngitis	21 (4.1)	13 (2.5)	12 (2.3)	9 (1.8)
Hypertension	10 (2.0)	5 (1.0)	3 (0.6)	7 (1.4)
Back pain	9 (1.8)	7 (1.4)	2 (0.4)	3 (0.6)
Oropharyngeal pain	8 (1.6)	4 (0.8)	8 (1.6)	6 (1.2)

Other adverse reactions occurring more frequently with UTIBRON NEOHALER than with placebo, but with an incidence of less than 1% include dyspepsia, gastroenteritis, chest pain, fatigue, peripheral edema, rash/pruritus, insomnia, dizziness, bladder obstruction/urinary retention, atrial fibrillation, palpitations, tachycardia. **52-Week Trial:** In a long-term safety trial, 614 subjects were treated for up to 52 weeks with indacaterol/glycopyrrolate 27.5 mcg/15.6 mcg twice-daily, indacaterol/glycopyrrolate 27.5/31.2 mcg twice-daily or indacaterol 75 mcg once-daily. The demographic and baseline characteristics of the long-term safety trial were similar to those of the placebo-controlled efficacy trials described above. The adverse reactions reported in the long-term safety trial were consistent with those observed in the placebo-controlled trials of 12 weeks. Additional adverse reactions that occurred with a frequency greater than or equal to 2% in the group receiving indacaterol/glycopyrrolate 27.5 mcg/15.6 mcg twice-daily that exceeded the frequency of indacaterol 75 mcg once-daily in this trial were upper and lower

respiratory tract infection, pneumonia, diarrhea, headache, gastroesophageal reflux disease, hyperglycemia, rhinitis. **Postmarketing Experience:** The following additional adverse reactions of angioedema and dyspnea have been identified during worldwide post-approval use of indacaterol/glycopyrrolate at higher than the recommended dose. Because this reaction is reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate the frequency or establish a causal relationship to drug exposure.

DRUG INTERACTIONS: Adrenergic Drugs: If additional adrenergic drugs are to be administered by any route, they should be used with caution because the sympathetic effects of indacaterol, a component of UTIBRON NEOHALER, may be potentiated. **Xanthine Derivatives, Steroids, or Diuretics:** Concomitant treatment with xanthine derivatives, steroids, or diuretics may potentiate any hypokalemic effect of beta₂-adrenergic agonists such as indacaterol, a component of UTIBRON NEOHALER. **Non-Potassium-Sparing Diuretics:** The electrocardiographic (ECG) changes and/or hypokalemia that may result from the administration of non-potassium-sparing diuretics (such as loop or thiazide diuretics) can be acutely worsened by beta-agonists, such as indacaterol, a component of UTIBRON NEOHALER, especially when the recommended dose of the beta-agonist is exceeded. Although the clinical relevance of these effects is not known, caution is advised in the coadministration of UTIBRON NEOHALER with non-potassium-sparing diuretics. **Monoamine Oxidase Inhibitors, Tricyclic Antidepressants, QTc-Prolonging Drugs:** Indacaterol, one of the components of UTIBRON NEOHALER, as with other beta₂-agonists, should be administered with extreme caution to patients being treated with monoamine oxidase inhibitors, tricyclic antidepressants, or other drugs known to prolong the QTc interval because the action of adrenergic agonists on the cardiovascular system may be potentiated by these agents. Drugs that are known to prolong the QTc interval may have an increased risk of ventricular arrhythmias.

Beta-Blockers: Beta-adrenergic receptor antagonists (beta-blockers) and UTIBRON NEOHALER may interfere with the effect of each other when administered concurrently. Beta-blockers not only block the therapeutic effects of beta-agonists, but may produce severe bronchospasm in COPD patients. Therefore, patients with COPD should not normally be treated with beta-blockers. However, under certain circumstances, e.g., as prophylaxis after myocardial infarction, there may be no acceptable alternatives to the use of beta-blockers in patients with COPD. In this setting, cardioselective beta-blockers could be considered, although they should be administered with caution.

Anticholinergics: There is potential for an additive interaction with concomitantly used anticholinergic medicines. Therefore, avoid coadministration of UTIBRON NEOHALER with other anticholinergic-containing drugs as this may lead to an increase in anticholinergic adverse effects. **Inhibitors of Cytochrome P450**

3A4 and P-gp Efflux Transporter: Drug interaction studies with indacaterol, a component of UTIBRON NEOHALER, were carried out using potent and specific inhibitors of CYP3A4 and P-gp (i.e., ketoconazole, erythromycin, verapamil, and ritonavir). The data suggest that systemic clearance of indacaterol is influenced by modulation of both P-gp and CYP3A4 activities and that the 2-fold area under the curve (AUC) increase caused by the strong dual inhibitor ketoconazole reflects the impact of maximal combined inhibition. Indacaterol was evaluated in clinical trials for up to 1 year at doses up to 600 mcg. Inhibition of the key contributors of indacaterol clearance, CYP3A4 and P-gp, has no impact on safety of therapeutic doses of indacaterol. Therefore, no dose adjustment is warranted at the recommended 27.5/15.6 mcg twice-daily dose for UTIBRON NEOHALER when administered concomitantly with inhibitors of CYP3A4 and P-gp.

USE IN SPECIFIC POPULATIONS: Pregnancy: Teratogenic Effects: Pregnancy Category C: There are no adequate and well-controlled studies with UTIBRON NEOHALER or its individual components, indacaterol and glycopyrrolate, in pregnant women. Animal reproduction studies were conducted with individual components, indacaterol and glycopyrrolate. Because animal reproduction studies are not always predictive of human response, UTIBRON NEOHALER should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. Women should be advised to contact their physician if they become pregnant while taking UTIBRON NEOHALER. **Indacaterol:** Indacaterol was not teratogenic in Wistar rats and New Zealand rabbits at approximately 340 and 770 times, respectively, the MRHD in adults (on an AUC basis at maternal subcutaneous doses up to 1 mg/kg/day in rats and rabbits). **Glycopyrrolate:** Glycopyrrolate was not teratogenic in Wistar rats or New Zealand White rabbits at approximately 1400 and 530 times, respectively, the MRHD in adults (on an AUC basis at maternal inhaled doses up to 3.83 mg/kg/day in rats and up to 4.4 mg/kg/day in rabbits). **Non-teratogenic Effects: Indacaterol:** There were no effects on perinatal and postnatal developments in rats at approximately 110 times the MRHD in adults (on an AUC basis at maternal subcutaneous doses up to 0.3 mg/kg/day). **Glycopyrrolate:** There were no effects on perinatal and postnatal developments in rats at approximately 1100 times the MRHD in adults (on an AUC basis at maternal subcutaneous doses up to 1.88 mg/kg/day).

Labor and Delivery: There are no adequate and well-controlled human trials that have investigated the effects of UTIBRON NEOHALER during labor and delivery. Because beta-agonists may potentially interfere with uterine contractility, UTIBRON NEOHALER should be used during labor only if the potential benefit justifies the potential risk. In human parturients undergoing Caesarean section, 86 minutes after a single intramuscular injection of 0.006 mg/kg glycopyrrolate, umbilical plasma concentrations were low. **Nursing Mothers: UTIBRON NEOHALER:** It is not known whether UTIBRON NEOHALER is excreted in human



breast milk. Because many drugs are excreted in human milk, caution should be exercised when UTIBRON NEOHALER is administered to a nursing woman. Since there are no data from well-controlled human studies on the use of UTIBRON NEOHALER by nursing mothers, based on the data for the individual components, a decision should be made whether to discontinue nursing or to discontinue UTIBRON NEOHALER, taking into account the importance of UTIBRON NEOHALER to the mother. **Indacaterol:** It is not known whether indacaterol is excreted in human breast milk. Indacaterol (including its metabolites) have been detected in the milk of lactating rats. **Glycopyrrolate:** It is not known whether glycopyrrolate is excreted in human breast milk. Glycopyrrolate (including its metabolites) have been detected in the milk of lactating rats and reached up to 10-fold higher concentrations in the milk than in the blood of the dam. **Pediatric Use:** UTIBRON NEOHALER is not indicated for use in children. The safety and efficacy of UTIBRON NEOHALER in pediatric patients have not been established. **Geriatric Use:** Based on available data, no adjustment of UTIBRON NEOHALER dosage in geriatric patients is warranted. UTIBRON NEOHALER can be used at the recommended dose in elderly patients 75 years of age and older. Of the total number of subjects in clinical studies of UTIBRON NEOHALER, 45% were aged 65 and older, while 11% were aged 75 and older. No overall differences in safety or effectiveness were observed between these subjects and younger subjects, and other reported clinical experience has not identified differences in responses between the elderly and younger patients, but greater sensitivity of some older individuals cannot be ruled out. **Renal Impairment:** Based on the pharmacokinetic characteristics of its monotherapy components, UTIBRON NEOHALER can be used at the recommended dose in patients with mild to moderate renal impairment. In patients with severe renal impairment (estimated GFR less than 30 mL/min/1.73 m²) or end-stage renal disease requiring dialysis, UTIBRON NEOHALER should be used if the expected benefit outweighs the potential risk since the systemic exposure to glycopyrrolate may be increased in this population. **Hepatic Impairment:** Based on the pharmacokinetic characteristics of its monotherapy components, UTIBRON NEOHALER can be used at the recommended dose in patients with mild to moderate hepatic impairment. Studies in subjects with severe hepatic impairment have not been performed.

OVERDOSAGE: In COPD patients, doses of up to 600/124.8 mcg UTIBRON NEOHALER were inhaled over 2 weeks and there were no relevant effects on heart rate, QTc interval, blood glucose or serum potassium. There was an increase in ventricular ectopies after 14 days of dosing with 300/124.8 mcg and 600/124.8 mcg UTIBRON NEOHALER, but low prevalence and small patient numbers (N=49 and N=51 for 600/124.8 mcg and 300/124.8 mcg UTIBRON NEOHALER, respectively) precluded accurate analysis. In a total of four patients, non-sustained ventricular tachycardia was recorded, with the longest episode recorded being 9 beats (4 seconds). UTIBRON NEOHALER contains both indacaterol and glycopyrrolate; therefore, the risks associated with overdosage for the individual components described below apply to UTIBRON NEOHALER. Treatment of overdosage consists of discontinuation of UTIBRON NEOHALER together with institution of appropriate symptomatic and/or supportive therapy. The judicious use of a cardioselective beta-receptor blocker may be considered, bearing in mind that such medicine can produce bronchospasm. Cardiac monitoring is recommended in cases of overdosage. **Indacaterol:** The potential signs and symptoms associated with overdosage of indacaterol are those of excessive beta-adrenergic stimulation and occurrence or exaggeration of any of the signs and symptoms, e.g., angina, hypertension or hypotension, tachycardia, with rates up to 200 bpm, arrhythmias, nervousness, headache, tremor, dry mouth, palpitation, muscle cramps, nausea, vomiting, drowsiness, dizziness, fatigue, hypokalemia, hyperglycemia, metabolic acidosis and insomnia. As with all inhaled sympathomimetic medications, cardiac arrest and even death may be associated with an overdose of indacaterol. In COPD patients, single doses of indacaterol 3000 mcg were associated with moderate increases in pulse rate, systolic blood pressure and QTc interval. **Glycopyrrolate:** An overdose of glycopyrrolate may lead to anticholinergic signs and symptoms such as nausea, vomiting, dizziness, lightheadedness, blurred vision, increased intraocular pressure (causing pain, vision disturbances or reddening of the eye), obstipation or difficulties in voiding. In COPD patients, repeated orally inhaled administration of glycopyrrolate at total doses of 124.8 mcg and 249.6 mcg once-daily for 28 days were well tolerated.

PATIENT COUNSELING INFORMATION: Advise the patient to read the FDA-approved patient labeling (Medication Guide and Instructions for Use).

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From the President's Desk

International Congress

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

As preparations for the 63rd AARC International Congress are in full swing, I reflect on my first Congress. I recall it as if it were just last year.

My Congress experience has had an overwhelmingly positive influence on my career. It changed my trajectory and infused me with hope and enthusiasm for the profession. I have met many amazing people who not only are great colleagues but also have become wonderful friends and resources I can count on when I need help to better serve my patients. I have come to realize that what made my first Congress so impactful were the people who made it happen: everyone from the Program Committee to the Executive Office staff, who truly put in countless, thankless hours of time out of love for the profession. They say that culture eats strategy for lunch — it is our culture that has enabled us to produce best-in-class conferences.

I left my first Congress mentally exhausted but emotionally empowered, excited, and — as some might say — dangerous with the knowledge I obtained. To quote Maya Angelou, “I’ve learned that people will forget what you said, people will forget what you did, but people will never forget how you made them feel.” If you ask me to pinpoint why I left my first Congress promising never to miss another one, I would struggle. Maybe it was the breadth of clinical topics in my specialty (neonatal/pediatrics), maybe it was the top-notch presenters, or perhaps it was the variety of formats such as pro/con (which I love), keynote addresses, open forum, and intimate conversations in hallways and over dinners with experts on various topics.

Every year after that first Congress, the timing of the Congress always seems to come just when I need

it. If you are like me, the grind of day-to-day operations and what sometimes seems like insurmountable odds of making a difference, the stress of seeing patients chronically suffer or die from disease, not to mention the ever-changing and more difficult patients

to manage, can pull you into a mindset of doom and gloom. When I go to the Congress and see all the wonderful work being done in our field, I am exposed to inspiring individuals and I immediately get excited again. I never leave the Congress with those negative feelings. I guess you can say I get refueled, and then I go back home and continue to make a difference. It’s this “making a difference” in the lives of the patients we serve that makes all the hard work of the Congress worth it.

Speaking as a fairly experienced Congress-goer, I believe it would be a shame for you to miss out on that experience. To that end, I would like to share some tips to improve your Congress adventure.

about the author...



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

Plan

Plan to go the Congress each year. If you don’t make it a goal, you will surely not go. While I know that not everyone can attend each year for a variety of reasons, look at Congress as an investment in your profession and not as an expense. You won’t regret it. I know many of you pay over 50% of the cost to attend, and we do everything in our power to make the Congress as affordable as possible.

Once you decide to go, you will need to plan ahead. The content of the Congress is enormous. I did not plan the first time I attended, and I was heartbroken when I missed some really good talks. The app for the Congress is great and will allow you to create a

schedule so that you will not miss out — but a program, a highlighter, and dog-eared pages work, too.

Get involved

The Congress will give you as much as you put into it. Once you have planned your schedule and have made it to the Congress, get involved.

- Attend the lectures and OPEN FORUM sessions, even the early and late ones.
- Ask questions. Not only is asking questions a good way to get additional information, but it also gives the lecturers or authors much-needed feedback. If time does not allow it, please seek out the faculty to tell them what you think of their position or research.
- Put some thought into completing the speaker evaluations fully. This will give the AARC feedback on how we did, as an organization, in meeting your educational needs.
- Attend social events. There is no better way to get to know others in your area of expertise than by chatting them up.
- Attend the specialty section meetings. Even if you are not a section member and are just interested in learning more about a particular section, this is a good way to network with folks in a given specialty.
- Visit our vendor hall. The best-in-class Exhibit Hall is always full of great information. The AARC and our industry partners work hard to create this massive display of the latest and greatest products and resources needed to do our job well. I often challenge others to explore and tell me about the next greatest product. But remember, I will ask why.
- Drop by the AARC Booth in the center of the hall. We would love to meet you. We often have fun things going on there for you to do. We are also happy to answer any questions you may have about the AARC.

Follow up

Take what you learn back to your patients and colleagues by becoming an active learner.

- Take notes for yourself, but also to help those in your department who can't attend. I use an app to take notes. Many of these apps do a nice job of incorporating pictures (yes, I'm one of those who will take pictures of really good slides), slides, and PDFs into notes. Also, many of them are free. Can't beat that.
- If you participate in the Respiratory Care Open Forum, don't stop at just presenting your abstract

— please follow it up with a manuscript and submit it to Respiratory Care.

- Submit proposals. Our Program Committee relies heavily on getting ideas from you. If you feel there was a gap, let us know by submitting a proposal.

Remember, it's the people who make Congress so worth it. The only way to meet this community is to attend in person. If you have never been to a Congress, you should make it a goal to go at least one time, if not this year, maybe next year. Give us a chance to meet you — and be prepared to be wowed. If you have been to several, then welcome back.

I thank you for contributing to the culture we have created over the years. I look forward to seeing you there, and I hope my tips resonate with you.

Lastly, we are excited to be going to a new Congress city this year, Indianapolis. I think you will be pleasantly surprised by the number-one convention destination in the country. Folks are already thinking of economical and fun ways of getting to this year's Congress, from sharing rooms and carpooling to chartering a bus. I can't wait to hear the stories. Let's break records. ■

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Monitoring Carbon Dioxide during Neonatal and Pediatric Ventilation

by Craig D. Smallwood, PhD(c), RRT

Humans principally utilize aerobic metabolism to break down macronutrients and convert them into the energy necessary to sustain life. This process consumes oxygen gas (O_2) and produces carbon dioxide (CO_2) as a waste product. Assisted ventilation is often required in neonatal and pediatric subjects with respiratory failure to ensure adequate oxygenation and ventilation. For a respiratory therapist in the intensive care unit, it is fair to say that ventilation is basically half of the job. Noninvasive monitoring of CO_2 is an essential part of neonatal and pediatric respiratory care. For clinicians to maximize the benefits of CO_2 monitoring, a comprehensive understanding of the underlying principles, limitations, and pitfalls of operation as well as proper application and interpretation of the data are required. This article provides a summary of existing technologies and methods that support CO_2 monitoring: capnometry, capnography, and volumetric capnography.

Carbon dioxide monitoring

There is nothing like CO_2 monitoring to capture the imagination of a respiratory therapy student; at least that's how it was for me. It is our secret weapon. Its application spans simply monitoring the patency of artificial airways, ensuring adequacy and optimization of ventilation, providing decision-making support for bedside interventions, and predicting outcomes for critically ill infants and children. End-tidal CO_2 monitoring ($P_{ET}CO_2$) is the partial pressure measurement of CO_2 at the end of an exhaled breath. Typical units for $P_{ET}CO_2$ are partial pressure (mmHg, kPA, etc.) or fraction (%). Sometimes there is confusion around the terms capnometry and capnography. Capnometry refers to the use of the numeric value of $P_{ET}CO_2$ (e.g., 40 mmHg), while

capnography refers to the display and interpretation of $P_{ET}CO_2$ plotted against time.

Principle of operation

There are two camps for obtaining gas samples to monitor exhaled CO_2 : mainstream and side-stream $P_{ET}CO_2$ monitoring. These camps have been locked in an eternal struggle for dominance that makes the Red Sox—Yankees rivalry look like child's play. During mainstream monitoring, CO_2 is detected using a nondispersive infrared sensor located at the airway. On the other hand, a side-stream capnometer draws gas from the airway through a sample tube to a water trap and filter assembly (preventing condensation buildup in the device) before finally passing an infrared sensor.¹ Although both types are capable of displaying the $P_{ET}CO_2$ as well as graphical data, there are some important advantages and disadvantages that should be carefully considered. The speed with which the CO_2 is measured and displayed is much faster with a mainstream device. Mainstream devices also carry a reduced risk of blockage and measurement interruption from

accumulation of water condensate compared to a side-stream device because the adapter is heated. Most important, the accuracy and agreement with arterial CO_2 is superior in the neonatal and pediatric population with mainstream capnography.^{2,3} On the other hand, a side-stream device uses an airway adapter that is much lighter and less bulky than mainstream devices (most relevant in the neonatal population). The device is more readily integrated with noninvasive interfaces to provide $P_{ET}CO_2$ monitoring during spontaneous, unassisted

about the author...



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breathing by incorporation of a specialized nasal cannula. However, operation of a side-stream device incorporates a delay of up to several seconds, offers reduced agreement with P_aCO₂, and sometimes yields inaccurate waveforms.^{3,4} Recently, some devices have incorporated a selective, semi-permeable membrane into the sample lines of side-stream devices to remove humidity from the circuit and thus reduce the risk of condensation buildup and interruption of measurements. In many cases, this technology should improve side-stream monitoring. However, there are limited data demonstrating this in the neonatal and pediatric literature. The volume of the sample line and the flow rate at which the sample is aspirated contribute to the delay noted during side-stream monitoring. Stated plainly, a larger sample line volume and slower aspiration rate results in longer delay time.⁴

For both mainstream and side-stream monitoring, the selection of the appropriate airway adapter for the size of their patient is important as it affects mechanical dead-space and airway resistance. Most devices offer multiple airway adapters that can have mechanical dead-space volumes from 1.5 mL for a neonatal airway adapter to 5 mL for a pediatric adapter. Adult adapters can have dead-space volumes in excess of 10 mL and should be used with caution in children. It is important to note that the dead-space volume is manufacturer-specific, and clinicians should refer to the technical specifications for their device or measure the dead-space themselves.

Once the measurements can be reliably recorded, we must determine at which point of the breath CO₂ is obtained to call P_{ET}CO₂. Historically, manufacturers have: 1) displayed the value just before the marked decrease in CO₂ concentration is observed, 2) displayed the average value across the entire exhalation, or 3) displayed the maximum value observed during exhalation. The specific methodology depends on the manufacturer and the device, but most devices stick to the purest definition of method 1.

Indications

Tracheal intubation

Confirmation of an adequate artificial airway is a chief use of P_{ET}CO₂ devices. Its use is indicated in neonates, infants, and pediatric patients following intubation and during mechanical ventilation.⁵⁻⁷ Sometimes a colorimetric CO₂ device can be used to confirm tube placement in the absence of an electronic device.⁸ In most cases, however, it is preferred to assess the CO₂ waveform. Use of continuous monitoring is also import-

ant during transport of a mechanically ventilated child and provides assurance that the artificial airway is in the trachea.⁹

Adequacy of ventilation and severity of illness

Continuous monitoring of P_{ET}CO₂ can be useful to ensure adequate ventilation in both mechanically supported and spontaneously breathing patients.¹⁰⁻¹² In a healthy child (breathing through an artificial airway), the expected gradient between P_aCO₂ and P_{ET}CO₂ is 2-5 mmHg. Factors that increase P_aCO₂ and P_{ET}CO₂ include increases in alveolar dead-space (such as decreases in pulmonary perfusion), increases in anatomic/mechanical dead-space, inadequate exhalation, and endotracheal tube leak. Presuming that endotracheal tube leak is either nonexistent or minimal, a common misconception is that P_{ET}CO₂ ceases to correlate with P_aCO₂, particularly in severely ill patients. However, a more accurate statement is that values always correlate, but changes in the physiological dead-space affect P_{ET}CO₂ and P_aCO₂. Therefore, the increased gradient is a reflection of ventilation efficiency, ventilation/perfusion matching, and, more broadly, the severity of illness.¹³

Cardiopulmonary resuscitation

The utility of P_{ET}CO₂ has been noted during cardiopulmonary resuscitation. An P_{ET}CO₂ target of >10 mmHg is associated with a return of spontaneous circulation and can be useful in deciding when to terminate cardiopulmonary resuscitation.^{14,15} P_{ET}CO₂ monitoring is an effective metric to assess quality of external chest compressions where higher values are associated with improved survival rates as well as a gross marker of return of spontaneous circulation.¹⁶⁻¹⁷

Recovering from anesthesia and use in conscious sedation

Another important application of P_{ET}CO₂ is in the non-intubated child receiving or recovering from anesthesia. Capnography may improve recognition of respiratory depression and improve safety.^{11,18} Importantly, the nasal cannula interface may not be tolerated in all subjects, and care should be taken to ensure proper cannula placement and device function.¹⁹ The use of capnography during postanesthesia care demonstrates different rates of adverse respiratory events over time in children undergoing capnography compared to only pulse oximetry.²⁰ Capnography appears to improve the efficacy of staff interventions but does not have a significant effect on oxygen desaturation events.

Waveform interpretation

The capnogram has several features that permit clinical interpretation.²¹ The best thing a clinician can do is thoroughly understand each portion of the normal capnogram. Abnormalities observed in individual subjects can then be interpreted relative to the expected. The normal pediatric waveform is depicted in Figure 1.²¹ A comparison of a normal neonatal and pediatric capnogram is shown in Figure 2. Although many distinct pathophysiological phenomena can be detected on the capnogram, a few important ones that are often observed are airway obstruction (Figure 3), patient effort/dysynchrony (Figure 4), and CO₂ rebreathing (Figure 5).

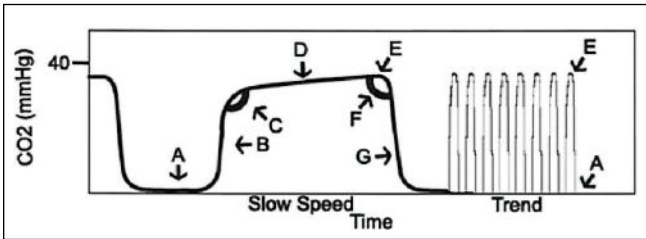


Figure 1

Limitations and future directions of investigation

Capnography waveforms should be interpreted complementary to the clinical picture. Findings can facilitate hypothesis formulation, serve as an early warning sign, or provide corroborative evidence (e.g., a clinician may suspect an acute worsening in obstruction by auscultation and then confirm this by inspecting the capnograph).

Future directions include automated waveform interpretation and alerting; e.g., Kazemi et al. have devised a method to automatically detect from capnographic information the severity of obstruction during asthma.²² Importantly, collaboration between respiratory clinicians, engineers, and data scientists should be pursued to improve the clinical utility of capnometry and capnography and enhance decision support at the bedside.

Volumetric capnography

Volumetric capnography comprises the application of a device to measure and graphically display the flow (volume per unit time, into and out of the body) of CO₂ being eliminated in the subjects' exhaled breath. CO₂ elimination is the volume of CO₂ eliminated per unit time (V_{CO₂}, typically expressed in mL/min).

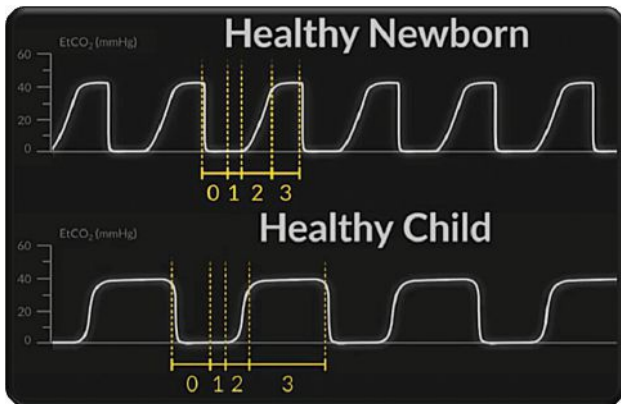


Figure 2

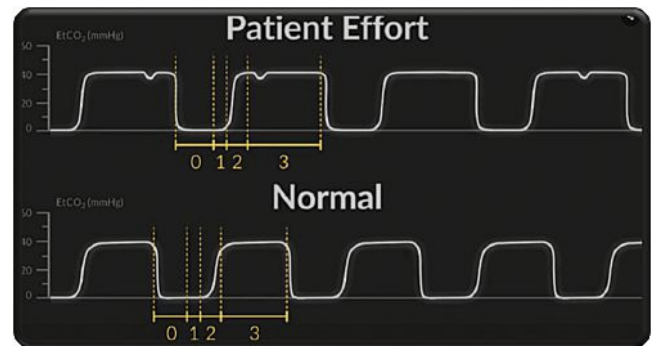


Figure 4

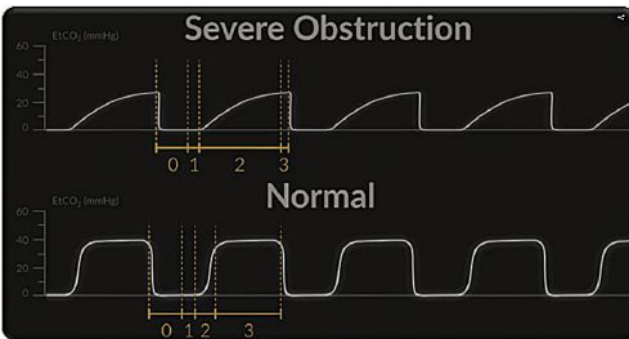


Figure 3

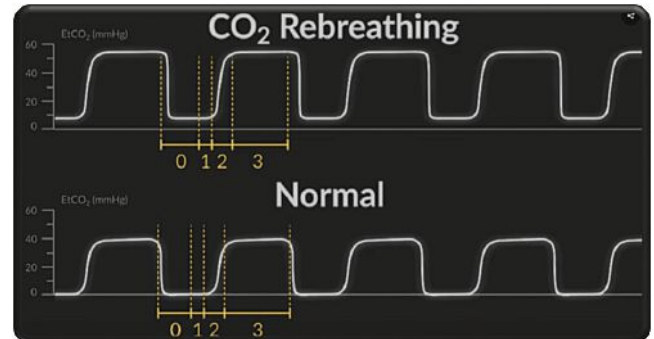


Figure 5

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Principle of operation

There are various devices available to measure Vco₂. The partial pressure of CO₂ is measured with a nondispersive infrared sensor, and flow is measured with a pneumotachometer. CO₂ concentrations and inspired/expired gas volumes are integrated to yield Vco₂ values on a breath-by-breath basis. Vco₂ monitors are increasingly incorporated into modern mechanical ventilators used in critical care. A nonexhaustive list of ventilators with integrated Vco₂ monitoring capability available in the United States is provided in Table 1.²³

Dead-space fraction

The physiological dead-space fraction (V_d/V_t) is an important concept. It represents the proportion of dead-space volume (V_d) to tidal volume (V_t). The Enghoff modification of the Bohr equation is the standard method for assessing V_d/V_t.

$$V_d/V_t = (P_aCO_2 - P_ECO_2)/P_aCO_2$$

V_d/V_t measurement requires a volumetric capnographic device measuring CO₂ concentrations as well as flow to calculate the volume-average exhaled CO₂ concentration (P_ECO₂). V_d/V_t is associated with the severity of lung injury (increasing V_d/V_t) and oxygenation disturbances, prediction of extubation success,

and mortality risk.²⁴⁻²⁷ In general, a non-intubated healthy child will have a V_d/V_t of 0.3–0.4. This means that 30–40% of each tidal breath does not participate in gas exchange. In severely ill children, this value can become very high. I have seen values as high as 0.9 in a child with congenital diaphragmatic hernia — in other words, this is an extremely low tidal volume. Typically, a value of 0.5 is observed for relatively healthy children who are on the mechanical ventilator. The increases in V_d/V_t relative to normal are a function of small tidal volume strategies. A helpful image to remember normal V_d/V_t (0.3–0.4) is to picture a giraffe parading through a savannah in central Africa. What is the V_d/V_t of a giraffe? Higher, the same, or lower than humans? One may suspect that, because the giraffe has such a long neck (and therefore a high volume of conducting upper airways), it may have an increased V_d/V_t relative to humans. That is a very thoughtful and rational answer...but it's wrong. The giraffe has approximately the same V_d/V_t of 0.3–0.4. They compensate for the large conducting airways volume by increasing tidal volume and taking <10 breaths/minute at rest. In short, normal V_d/V_t is typically similar in healthy subjects, regardless of size (or even species).

Table 1. Specifications of gas exchange monitors available in mechanical ventilators

Device	CO ₂ Sensor Type (sampling)	CO ₂ Specification Range (accuracy)	O ₂ Sensor	O ₂ Specifications Range (accuracy)	Vco ₂ Accuracy Range (accuracy)	Vo ₂ Accuracy Range (accuracy)
Carefusion Avea	NDIR (mainstream)	0–150mmHg (±2 mmHg for 0–40 mmHg)*	N/A‡	N/A‡	not specified	N/A
Drager V500	not specified	0–100mmHg (±2 mmHg for 0–40 mmHg)**	N/A‡	N/A‡	0–999 mL/min (±12%)	N/A
GE R860	NDIR (side-stream)	0–15% (±0.2% + 2% of reading)	Paramagnetic	0–100% (±1% +2% of reading)	20–1,000 mL/min (±10% or 10 mL for O ₂ <65%)#	20–1,000 mL/min (±10% or 10 mL for O ₂ <65%)#
Hamilton G5	NDIR (mainstream)	0–150mmHg (±2 mmHg for 0–40 mmHg)*	N/A‡	N/A‡	0–5,000 mL/min	N/A
Maquet Servo-u	NDIR (mainstream)	0–150mmHg (±2 mmHg for 0–40 mmHg)*	N/A‡	N/A‡	not specified	N/A

All % values expressed as volume% unless otherwise noted. NDIR, nondispersive infrared sensor.

* Accuracy ±5% of reading for 41–70 mmHg, ±8% of reading for 71–100 mmHg, ±10% of reading for 101–150 mmHg.

** Accuracy ±5% of the measured value in the range 41–100 mmHg.

‡ Not applicable as ventilator is not setup to measure oxygen consumption, although as a safety feature an O₂ sensor is incorporated but only to verify oxygen delivery to the patient.

±15% or 15 mL for Fio₂ 65–85%.

Nutrition optimization

Volumetric capnography may also play an important role in nutrition. Tailoring nutrient intake to actual patient needs is especially important in neonatal and pediatric subjects because they are at a high risk of nutrition deficiency due to high-energy demand and relatively small energy reserves.²⁸⁻³⁰

Typically, an indirect calorimeter is required to extract a subject's energy expenditure based on oxygen consumption (V_{O₂}) and V_{CO₂}. The modified-Weir equation below is used to calculate energy expenditure (EE) from these measurements.^{31,32}

$$EE = [3.941(V_{CO_2}) + 1.106(V_{CO_2})] \times 1440$$

Indirect calorimetry is recommended to help titrate energy prescriptions in critically ill children.³³

Why not use V_{CO₂} to estimate energy expenditure, especially considering that V_{CO₂} can be easily and continuously recorded with select ventilators? Recently, our group (and others) have described methods that do just that.^{34,35} The respiratory quotient (V_{CO₂}/V_{O₂}) is assumed to be 0.89 and the Weir equation is rearranged with some elementary level algebra skills to give us the following:

$$EE = 5.534(V_{CO_2}) \times 1440$$

where V_{CO₂} is in L/min and 1440 corresponds to the number of minutes in a day. EE is expressed in kcal/day.

The EE-V_{CO₂} equation has a handful of advantages over existing indirect calorimetry methods: 1) V_{CO₂} measurements are more readily available (especially since many ventilators offer integrated V_{CO₂} sensors only and not V_{O₂}); 2) V_{CO₂} can be measured for much longer periods of time and may more accurately capture variability in energy expenditure that occurs over time (indirect calorimetry is typically only applied for 30-minute snapshots); and 3) V_{CO₂} measurement may be more cost-effective because the cost of adding a V_{CO₂} monitor is far less than purchasing an indirect calorimeter. In general, this means we may be able to extend the benefits of energy-expenditure monitoring to a wider patient population. There are, however, some very important limitations. A certain degree of error is introduced if the subject's actual respiratory quotient deviates from the assumed value. Although this can be significant in a small proportion of subjects, the method should provide energy estimates that are within ±10% for a respiratory quotient range of 0.79–1.02.³⁴ At Boston Children's Hospital, this range accounts for the majority of subjects. Optimizing nutrition in critically ill infants and children poses a Goldilocks conundrum. Too little or too much results in suboptimal outcomes. Energy estimates from V_{CO₂} (EE-V_{CO₂}) can potentially allow clinicians to identify gross over- or underfeeding. As a respiratory therapist, the more interesting case is that of

overfeeding. Overfeeding, in cases of severe respiratory insult, can actually mitigate efforts to discontinue mechanical ventilation. If energy intake exceeds that which is required, an increased amount of CO₂ is produced. This is sometimes referred to as a CO₂ burden, since the subject now has to increase minute ventilation and effort to eliminate the excess CO₂ to maintain appropriate pH and P_aCO₂. If the subject is unable to increase minute ventilation, then a concomitant rise in P_aCO₂ may be observed. Overfeeding adult subjects with respiratory disease results in significant respiratory deterioration and capacity to increase physical work.³⁶

Optimizing mechanical ventilation

Other potential applications of V_{CO₂} monitoring include titration of end-expiratory pressure during critical illness, titration of minute ventilation during severe obstruction, and response to pulmonary vasodilation therapy. In an experimental model of pediatric lung disease, Hanson et al. demonstrated that maximizing the volume of CO₂ eliminated per breath was associated with maximal pulmonary recruitment.^{37,38} The physiological rationale for the highest CO₂ elimination being associated with optimal positive end-expiratory pressure (PEEP) is that it represents the balance between atelectasis and overdistension. During marked atelectasis, lung units stop participating in gas exchange because no gas is able to interface with blood (shunting). Consequently, the efficiency of ventilation is reduced and manifests as a reduction in V_{CO₂} (or CO₂ volume per breath). On the other hand, as pressure and volume in the lungs are increased to the point that blood flow is impeded, V_{CO₂} decreases as a result of increased dead-space ventilation. The trend of a PEEP titration maneuver while monitoring V_{CO₂} is shown in Figure 6. Importantly, it is difficult to parse specific underlying pathophysiology

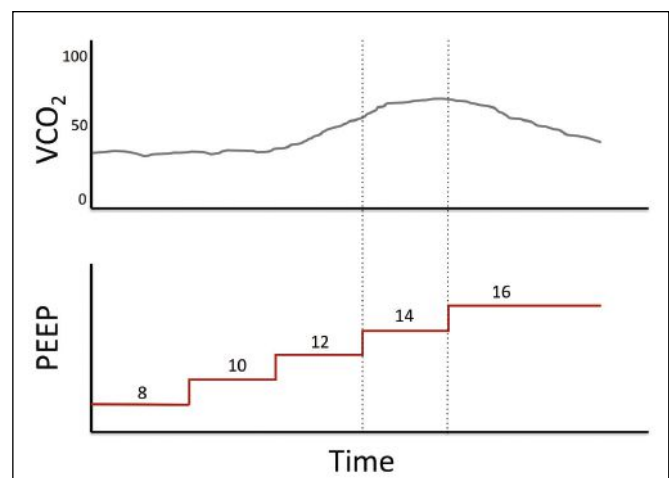


Figure 6

(i.e., shunt versus dead-space) from assessing VCO₂ alone, so interpretation of these data must be done with caution.

During severe obstruction, VCO₂ can be utilized to titrate inspiratory and expiratory times to maximize ventilation. Because the optimal change in ventilator support during severe obstruction may be to decrease respiratory rate to facilitate alveolar emptying, VCO₂ can be used to assess the initial response by the patient to the ventilator intervention. In the case of obstruction, you can decrease the mandatory respiratory rate in the subject during controlled ventilation. This increases expiration time and improves alveolar ventilation. If this is your patient, WATCH THE VCO₂! If the VCO₂ increases, great job, you have improved ventilation. If the VCO₂ immediately decreases, go back to the old settings or try another strategy. Although the rationale for this application is sound, there are limited data describing it.

Limitations and future directions of investigation

Limitations of gas exchange monitoring include errors in calibration and selection of appropriate airway adapter on the basis of patient size. Furthermore, some methods require more frequent or extensive calibration, and failing to follow manufacturer recommendations may result in erroneous values. In nutrition applications, timing of study and achievement of steady state are essential to minimize error. When applying the EE-VCO₂ equation, clinicians must be mindful that the assumed respiratory quotient of the equation and significant deviations from this may yield inaccurate results. In titration of ventilation and assessment of therapy, it is important to interpret VCO₂ data alongside changes in clinical condition and achievement of stability/steady state.³⁹ Changes in level of consciousness, agitation, temperature, feeding, and other attributes can affect VCO₂ and must be carefully assessed to safely interpret data at the bedside.^{40,41} Because many manufacturers do not provide accuracy and precision data for gas-exchange devices, clinicians must rely on independently published data and personally conducted bench tests. I will be the first to admit that, when it comes to using VCO₂ to optimize PEEP or alveolar minute ventilation, there is a paucity of data — we need more studies in these areas.

Capnography is an important tool for neonatal and pediatric subjects, but like many things in life, the beauty is in the eye of the beholder. The longer you study it, the more you will learn from it (and love it). ■

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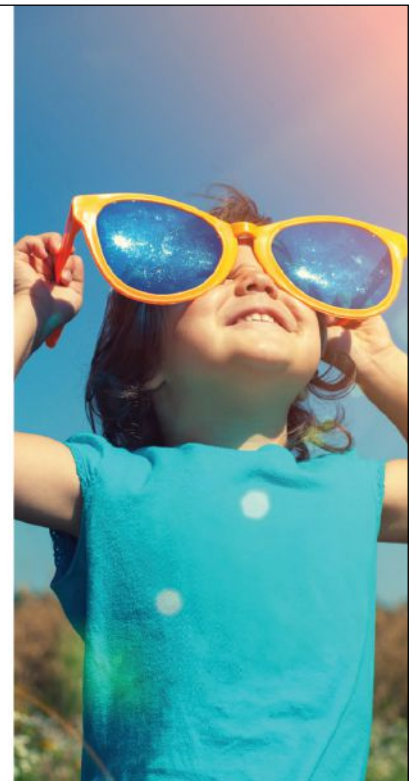
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The Shadow Government

by Anthony L. DeWitt, JD, RRT, FAARC

Some of the most powerful people in Washington, DC, are people who have never been elected to any office. They are federal appointees. They are individuals who are sought out for their expertise in a subject area and to whom the job of writing rules and regulations is given. They may be nameless and faceless to the general public, but these people wield enormous power over the daily lives of everyday Americans. These people are sometimes referred to, rather uncharitably, as “shadow government.” They take statutes and prescribe rules for how those statutes will be implemented.

On the old children’s television show “Schoolhouse Rock,” you may have learned how a bill becomes a law. While the description is accurate to a point, it does not provide a full view of federal law, or its enforcement, in any respect. This is because every federal law falls under a cabinet-level department for administration. Farm bills go to the Department of Agriculture. Health care laws fall under the Health and Human Services (HHS) Department. And for every statute passed, there are myriad federal rules and regulations that govern how a statute will be interpreted and enforced.

The process is public, but the public as a whole is rarely, if ever, involved in that process. Rather, it is the domain of specialized lawyers and lobbyists who represent interest groups to go about shaping the federal regulations that have the full force and effect of law. Like their counterparts in government, they are not people you’ll ever see on television, but they are every bit a part of that shadow government, because what they do impacts the regulations created.

So how do these regulations take shape? Let’s examine the regulations that set up nursing home resident rights as one example. Medicare generally provides by statute that the Secretary of Health and Human Services has the authority to prescribe regulations pertaining to Medicare (42 USC § 1395hh). Another statute gives the secretary authority to prescribe ethics rules (42 USC § 1320a-7j). Finally, 42 USC § 1395i-3 sets statutory standards

for the quality of life in nursing homes. Taken together, these three federal statutes allow the secretary to issue regulations stating how the federal government (and any state government operating under federal authority) will interpret the federal law with respect to nursing homes. The specific rights of residents, expanded from the language of the statutes, are contained in regulations found in the Code of Federal Regulations at 42 C.F.R. § 483.10.

But how did those impressive nursing home resident rights regulations get there?

The first step on the long road to federal regulations is the passage of the statute. The same statute that provides Medicare funding to skilled nursing facilities is the jumping off point for these regulations. Once the law is passed and signed into law, HHS begins the task of drafting regulations. It’s quite a complex task.

First, the regulations have to be drafted and reviewed within the agency. Here an assistant to the secretary will review the drafted regulations to make sure that the intent of the Congress as well as the intent of the current occupant of the secretary’s office are reflected in the

about the author...



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regulations. Next the regulations are sent to the Office of Management and Budget (OMB) for fiscal review. Will the regulations cost too much to implement? Do the regulations exceed statutory authority? The OMB makes its recommendation, and the regulations are either sent back to be reworked or are approved and published in the *Federal Register* as a “Notice of Proposed Rulemaking.”

In the *Federal Register*, the federal government provides notice to all the people in the country who may be affected by the regulations. A “notice and comment period” allows anyone — no matter what their personal or political affiliation — to chime in on whether the regulation should be approved, withdrawn, corrected, or abandoned. After the notice and comment period, the agency sets about working these comments into the review process. Sometimes reviewing parties point out flaws in the regulations. Sometimes, when those flaws assist them, they don’t point them out. Depending on the type of regulation, the comments may be very few or quite extensive (federal income tax regulations often draw mountains of comments). Agencies study the comments, look for problems, and often make adjustments to the language of the rules.

After the rules are adjusted based on the notice and comment period, they are sent back to the OMB for a second review. Final rules are then published in the *Federal Register* a second time and codified in the Code of Federal Regulations. But this isn’t necessarily the end of the matter.

When an agency issues a rule, a person directly affected by that rule can challenge it in court, or Congress can, if it chooses, exercise its authority to review the regulation. Court challenges are the most frequent manner in which regulatory changes take place.

In the 1970s, the Carter Administration promulgated Environmental Protection Agency (EPA) rules that defined polluting sources in a particular way. The Reagan Administration EPA changed that definition by rule, and Chevron used that rule to its benefit. The National Resources Defense Council sued Chevron, claiming that the rule was unreasonable. Local courts ruled in favor of the environmentalists, and Chevron appealed to the Supreme Court

to uphold the EPA regulation. The Supreme Court held that if the statute was clear, that was the end of the court’s inquiry. But if the statute was ambiguous, the question was not whether the court would adopt a different rule, but whether the agency’s rule was a reasonable interpretation of the statute. The Court ruled for Chevron and the “Chevron Deference Test” has been the guiding force for how regulations are interpreted by federal courts ever since.

One of the many benefits of the American Association for Respiratory Care is representation in Washington, DC. The AARC has lawyers and lobbyists examine proposed rules for their impact on respiratory therapists. This advocacy is not inexpensive, and some of the AARC’s biggest successes for therapists have come because they have successfully argued for changes and modifications to agency rules.

In law school, the administrative law professor once quipped that the surest cure for insomnia is the *Federal Register*. It is an arcane document, found only in most federally supported libraries, and it is written in arcane legal language so thick that even trained lawyers lose their way reading it. But it is one of the most important resources for those who want to have a say in how federal laws are enforced. The next time you review Health Insurance Portability and Accountability Act (HIPAA) compliance documents, thank someone at the HHS, because the people at that agency wrote the implementing regulations for this statute. Their attempts to make a murky law clearer have gone a long way toward making HIPAA something clinicians can live with. ■



Cast Your Vote Online for the 29th Annual AARC

The AARC presents the Zenith Awards each year to the top corporations in the respiratory care industry during our annual International Respiratory Convention & Exhibition. Considered the “people’s choice” award of the respiratory care profession, they are highly prized by the recipients, who proudly display them on their company websites and in their Exhibit Hall booths.

Now it is up to you to choose the recipients for 2017. This is your opportunity to say “thank you” to your favorite industry team members and the companies that research and develop new products and enhancements to make life better for patients, whose representatives

are just a phone call away when you need them, who stand behind their products and their promises.

The AARC will present the Zenith Awards to executives representing the winning companies when the Association convenes Congress 2017 in Indianapolis, IN, beginning Wednesday, October 4. Your vote could place your favorite company in the spotlight during this year’s Awards Ceremony.

When making your choice, evaluate the manufacturers, service organizations, and supply companies that have done the most outstanding job for you over the past year according to these criteria:



Zenith Awards



- Quality of equipment and/or supplies
- Accessibility and helpfulness of sales personnel
- Responsiveness
- Service record
- Truth in advertising
- Support of the respiratory care profession

Vote for the Zenith Awards online at www.aarc.org/aarc-zenith-award-voting-underway-now/. There you will see the list of companies serving the respiratory care markets. You may vote for up to 10 companies by submitting the online ballot. Online voting will end on August 12th. ■

Log on to
www.aarc.org/aarc-zenith-award-voting-underway-now/

**Cast your vote from
 June 12th to August 12th**



AARC Election 2018



All AARC election candidate information is available beginning July 17th at www.aarc.org/aarc-membership/member-services/aarc-election-2018/. Then cast your vote between August 7th and September 6th.

If you cannot access the information online, contact the AARC to request a paper ballot: AARC Elections Committee, 9425 N. MacArthur Blvd., Suite 100, Irving, TX 75063-4706, (972) 243-2272.

All members of the American Association for Respiratory Care will soon vote for the candidates running for 2018 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 online beginning July 17, 2017.

The actual voting website will not be activated until August 7th, and voting will continue through September 6th.

Be on the lookout for an AARC email containing the unique link to your ballot and the instructions to vote. You can vote only upon receipt of the email, and you will vote using the unique link the AARC has generated to take you directly to your ballot.

AARC active members of record as of August 1st of this year will be eligible to vote. Only Active and Life members of each specialty section may vote for the chair of their respective sections.

The secure election website includes your 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 will lead your professional association. ■

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KUMC Respiratory Care Education
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Neurodiagnostics & Sleep Disorder Center
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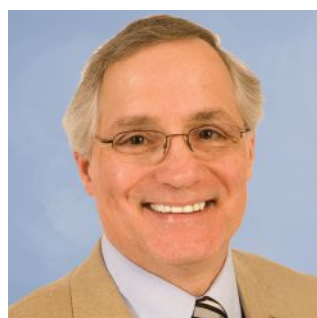
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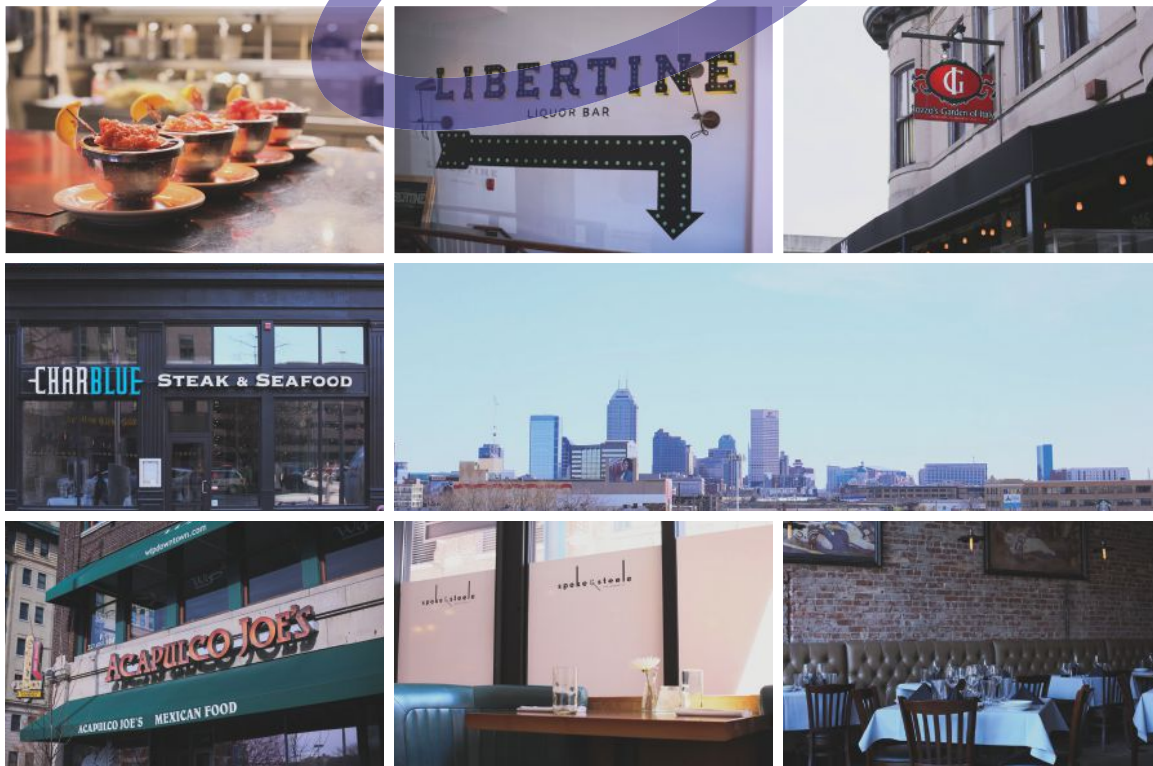


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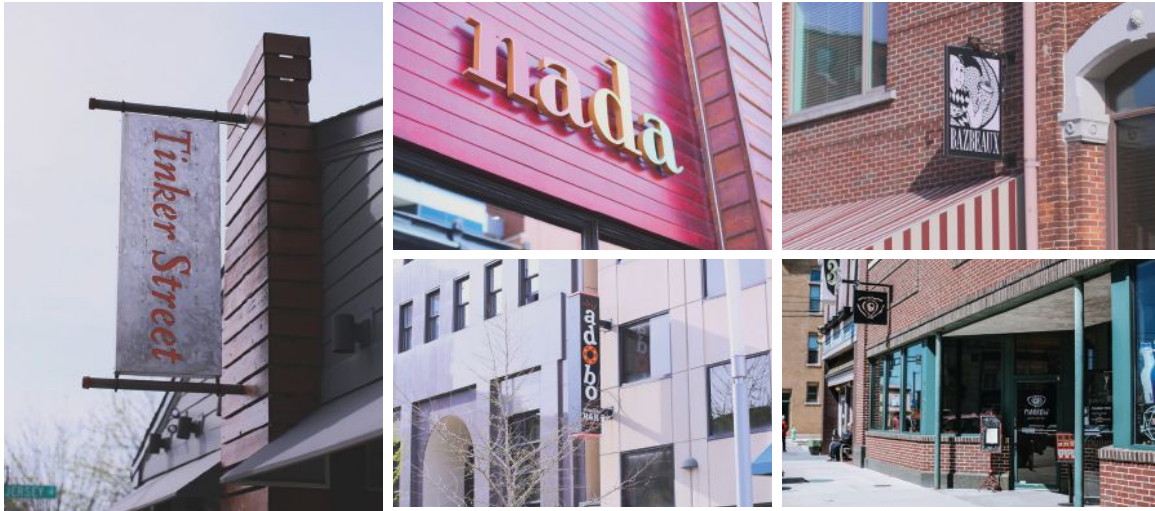
INSIDER



All photos in this article are courtesy of Samuel Bate (sambat photography.com). Samuel is the son of AARC member and Indiana native Cheri Bate, MA, RRT.

Restaurants, Restaurants, and More Restaurants!

by Charity Bowling, MA, RRT, and Cheri Bate, MA, RRT



One reason Indianapolis tops the list for best convention cities is because there are literally hundreds of great places to grab a bite to eat within easy walking distance of the convention center — and hundreds more just a quick ride away. In this edition of our Indy Insider, Indiana Society for Respiratory Care members share their favorite restaurants.

Indianapolis, nestled in the heart of the Midwest, has many tasty offerings for those visiting the city. As a city that thrives on conventions, Indianapolis' many local eateries are perfect for those who want to experience the homegrown feel of great food and hospitality. Many of the restaurants are within walking distance of the convention center and downtown hotels. Epicureans who want to explore a little further can venture to one of the bistros or pubs situated just a short distance away. Pricing and a wide variety of food options are sure to fit the budget and palate of all.

In the wholesale district, it would not be Indianapolis without the historic **St. Elmo's**, a dining destination serving steaks and seafood and boasting a cocktail lounge that has been a favorite of many celebrities and athletes for years. NBC's former

"Parks and Recreation" show once filmed a scene at St. Elmo's. The shrimp cocktail is a local favorite appetizer and one that's sure to please even the most persnickety taste buds. Reservations are preferred, and be prepared to spend a little money. \$\$\$

Harry and Izzy's restaurant was created by the same restaurateurs who built the successful St. Elmo's. These childhood friends knew what it took to make a successful business and good food. The more casual Harry and Izzy's has three locations in Indianapolis, with one being downtown. From steaks and seafood to pizza, there is something for everyone on the menu. They even have the signature St. Elmo's shrimp cocktail. Reservations accepted. \$\$\$

The Slippery Noodle is a great place to hang out with friends, grab a bite to eat, and listen to great music. One of Indiana's oldest bars, The Slippery Noodle features an American menu, live blues bands, and a fun atmosphere. \$\$

Serving the Indianapolis community for more than 110 years is **Shapiro's**. This kosher-style delicatessen has a rich family tradition of great food. Reuben sandwiches, matzo ball soup, stuffed cabbage, and latkes are just a few of the mouthwatering offerings on the menu. But don't stop there — end your meal with something from the bakery, such as cheesecake topped with strawberries and whipped cream! \$

If you prefer, you can experience a busy upbeat breakfast, lunch, or brunch at **Café Patachou** located near the convention center. The friendly atmosphere makes this a great place to enjoy three-egg omelets, soups, chicken salad, or the best cinnamon toast

As you can see, there are options for everyone! We have highlighted just a few of the most unique restaurants close to the AARC Congress. We are looking forward to seeing you during the AARC Congress in October — maybe at one of these fine establishments!

around. Café Patachou offers intimate dining for you and your besties at a reasonable price. \$

Located on the southeast edge of downtown in a renovated 1924 factory warehouse in the Holy Rosary Neighborhood is a delightful restaurant called **Bluebeard**. Bluebeard offers modern-day American cooking and features local meat and produce from area farmers. Bluebeard was a finalist for the “Best Restaurants in the U.S.” competition sponsored by *Food and Wine Magazine*. The menu changes daily, and the restaurant is open for lunch and dinner. \$\$\$

A converted garage in Fountain Square houses a unique restaurant named **Milktooth**. The trendy eatery serves brunch and sources meat and produce from local farmers to help create their delectable

dishes. Lamb burgers, sourdough carrot cake waffles, and heirloom blue grits are just a few of the offerings. The chef at Milktooth was named “Top New Chef of 2015” by *Food and Wine Magazine*. No reservations are taken, and they are closed on Tuesdays.

Also located in the Fountain Square area is **Marrow**. Marrow features a daily inspired menu based on the seasonal harvest of some of the best farms in Indiana. Whether you want a cheese tray to share or are ready to venture into some grilled quail, this restaurant will soothe your appetite. \$\$

Located in the hotel Le Méridien in the wholesale district, **Spoke and Steele** is easily accessed by the skyway from Circle Centre Mall and the Indiana Convention Center. They use fresh, local ingredients to create mouthwatering dishes such as short-rib hash, farm-raised duck breast, or Viking lamb steak. Complement your meal with a mimosa, Bloody Mary, or Bellini while accessing the complimentary Wi-Fi. Reservations recommended. \$\$\$

Spice up your menu by stopping by **Adobo Grill**, **Acapulco Joe’s**, or **Nada** in the downtown area. Adobo Grill offers Mexican



Device Quality Matters.



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Improved Quality of Life By Design

The **Aerobika® OPEP device** has been clinically proven to reduce the recurrence of COPD exacerbations¹, reduce breathlessness and deliver significant improvements in patient quality of life². The **Aerobika®** device is easy to use and offers natural, reliable airway clearance for your patients and has undergone rigorous testing to ensure consistent performance every time.

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References: 1. Burudpakdee C et al. Pulm Ther 2017 DOI 10.1007/s41030-017-0027-5. Pub online 6 February 2017. 2. Svenningsen S. et al. COPD 2016;13(1):66 - 74
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dishes using ingredients such as jicama and cactus, which add a lot of flavor. Acapulco Joe's opened more than 50 years ago and specializes in the taste of the Western Coast. With its authentic Mexican ingredients, it is sure to please those who want a taste of the Southwest. Nada, established in 2016, is the newest addition to downtown Mexican eateries. Grab an adult beverage with your tacos, enchiladas, or mac n' cheese (yes, really!), and enjoy the lively atmosphere. \$\$

If you are in the mood for a wonderful Italian meal, hop over to **Iozzo's Garden of Italy**. Originally established in 1930, it serves traditional Italian fare along with some contemporary Italian dishes. Housed in a historic building with a cobblestone courtyard, it's sure to help you unwind after a busy day of educational opportunities at the AARC Congress. Iozzo's Garden serves everything from pizza and fettuccini alfredo to signature cocktails at a reasonable price. Reservations accepted. \$\$

If you like a good steak, then step into **CharBlue**. This restaurant has the backing of former Indianapolis Colt Gary Brackett. When you visit, CharBlue wants you to feel special, and they do that as soon as you are seated! Your waiter will arrive with an "amuse booze," which is a 2-oz. house cocktail that changes daily. Whether you are hungry for filet mignon, alligator gumbo, or salmon, CharBlue will delight all who enter. Reservations accepted. \$\$\$

Located near Lockerbie Square is **The Rathskeller**. It is burrowed into the 19th-century Athenaeum Building and showcases Bavarian surroundings, live music, and a beer hall serving more than 50 imported bottled beers. Here you can dine on schnitzel or sauerbraten and a piece of Black Forest cake for dessert. Reservations accepted. \$\$

Meeting friends for a bite to eat and some adult beverages? Try the **Tomlinson Tap Room**, which serves Indiana-brewed craft beers. The pub is located on the second floor of the historic Indianapolis City Market.

On Mass Avenue, **Libertine** is known for its fabulous craft cocktail menu, wines, and light food bites. This hip pub is one to visit with friends. \$\$

Warm conversation with new or old friends may be in order at the **Barcelona Tapas Restaurant**. Taking pride in the traditional tapas bar atmosphere, they bring you your order a few plates at a time, not family style. The atmosphere encourages sharing of food over good conversation and maybe some sangria. \$\$

Near the old historic Northside District of Indianapolis is a restaurant and bar called **Tinker**. This place, just a short ride from downtown, won't disappoint your taste buds. Recognizing the changing dining experience, they offer vegan and gluten-free options. The menu changes seasonally and provides diners with some of the best ingredients around. \$\$

Want a slice of heaven? Then travel into **Bazbeaux** and get a mouthwatering slice of pizza for lunch or a whole pizza for dinner. You can dine in or take it with you. Wine and beer is also served. Bazbeaux is located in what is now called the Mass Ave Arts District, which has many distinctive retail shops, restaurants, and music spots. Bazbeaux's downtown location was established in 1989, but the first eatery was started in 1986 in Broad Ripple. The restaurant has grown to include a third location in Carmel. No reservations required — just your appetite! \$\$ ■

Charity Bowling is the respiratory care program chair at Ivy Tech Community College in Indianapolis. Cheri Bate is manager of education in the respiratory care department at Indiana University Health in Indianapolis.

AARC Congress 2017

The 63rd International Respiratory
Convention & Exhibition



Advance Program

Indiana Convention Center • Indianapolis, Indiana USA
October 4 – 7, 2017 (Wed–Sat) • AARC.org

Welcome To

Patients Take Center Stage

These are uncertain times for health care. What we thought was set in stone a year ago is now in flux. Keeping up with the ever-changing developments is a challenge, but we have to keep our eye on the ball. Patient care must always come first.

You'll find patients at the center of everything that happens in Indianapolis. They'll be right there in every lecture room as leading experts in respiratory care cover the latest in treatment and technology. They'll be at the forefront of every display in the Exhibit Hall.

They'll be top of mind as respiratory therapists gather in informal networking sessions to share their processes and programs.

Come to AARC Congress 2017 to learn what works for your patients, what doesn't, and how you can contribute to the understanding of respiratory care and all that means for the people who depend on you and your organizations for the breath of life.

Unless specified differently, all Congress events will be held at the
Indiana Convention Center

The 63rd International Respiratory Convention & Exhibition

AARC Congress 2017

On behalf of AARC President Brian K Walsh and the Board of Directors, we invite you to attend the largest respiratory care meeting in the world. At AARC Congress 2017 in Indianapolis, the AARC Specialty Sections and the Program Committee have developed a curriculum that will offer more of everything that matters to you and your patients. You may attend other educational meetings, but none of them offer you all of the following...

- The latest information on Value Based Purchasing and its impact on hospitals, patients and the respiratory therapist.
- The AARC Exhibit Hall where you can learn, see and touch the latest advancements in technology showcasing all manufacturers in the industry...more than 200 exhibitors in total and 8 hours of unopposed exhibit time.
- The result of original research presented by your peers in 12 OPEN FORUMS over the 3 1/2 days.
- All the continuing education credit (CRCE) you need to maintain your state license.
- Programs in all areas of respiratory care: adult critical care, neonatal and pediatric care, home care, continuing care, rehabilitation, diagnostics, transport, management, education, sleep, and long-term care, all presenting the most current and cutting-edge information.

Read through this program and very rapidly you will realize why you must come to Indianapolis and be part of the largest and most comprehensive respiratory care meeting anywhere in the world...AARC Congress 2017.

See you there!

300+ original research projects

130+ speakers

200+ sessions on current respiratory care topics

3½ days of networking and education

3 days of exhibits with all companies in the industry

20+ CRCE credits

Register now and connect to the professional event where everything is about quality respiratory care.

PROGRAM COMMITTEE

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Garry Kauffman MPA RRT FACHE FAARC
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Sarah L Varekojis PhD RRT FAARC
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Industry-Sponsored Pre-Courses

Arterial Fundamentals: Ultrasound Guided Arterial Catheter Insertion

Tuesday, October 3, 2017 • Indianapolis, IN

8:00 am – 5:00 pm (lunch on your own)

Registration Fee: Members – \$100; Non-members – \$150

Applied for continuing education credits (CRCE). You must attend the entire course to receive CRCE credit; no partial credit will be awarded.

DESCRIPTION: This 8-hour course provides best practices for ultrasound guided peripheral access insertion, including PICCs, Midlines, Peripheral IV and Arterial Catheter insertion for new and experienced inserters. This program includes didactic and simulation training with rotations through hands-on stations reinforcing insertion practice and increasing procedural confidence. Hands-on stations including: compliance and device insertion, needling with ultrasound, RAPEVA assessment, device considerations and device management. A review and practice of aseptic technique including hand hygiene, gowning, gloving, establishing a sterile field, draping, proper dressing and securement of vascular access catheters will also be completed. Attending this course allows you to gain knowledge and comfort with proper insertion as well as, prevention, recognition and management of insertion-related complications with vascular access catheters.

Learning Objectives:

1. Perform ultrasound scanning to identify anatomical structures, verify vessel health and identify appropriate insertion area.
2. Demonstrate the use of ultrasound for arterial catheter insertion.
3. Review and practice aseptic technique including hand hygiene, gowning, gloving, establishing a sterile field, draping, proper dressing and securement.

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



Amy Bardin



Keegan Mahoney

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8:00 am – 8:15 am

Introductions and Course Overview

8:20 am – 9:20 am

Accountable for Vessel Health and Preservation

Amy Bardin MS RRT VA-BC

9:25 am – 10:25 am

Ultrasound Essentials

Darla Tarvin RN VA-BCe

10:25 am – 10:40 am

BREAK

10:40 am – 11:40 am

Understanding Catheter to Vessel Ratios

Keegan Mahoney BS RRT VA-BC

11:40 am – 5:00 pm

Session Break-outs

Industry-Sponsored Pre-Courses

RT Leader Workshop: Defining and Communicating The Value

Tuesday, October 3, 2017 • Indianapolis, IN

1:00 pm – 5:00 pm

Registration Fee: Members – \$75; Non-members – \$100

Applied for continuing education credits (CRCE). You must attend the entire course to receive CRCE credit; no partial credit will be awarded.

Unless you can see into the future, RT leaders cannot predict the future of health care. However, everything points in the continued direction of replacing volume with value. For RT leaders, we must direct practice according to science, employ patient-focused respiratory care protocols, and measure the impact of our services in terms of quality improvement, cost management, and satisfaction.

This workshop is expressly designed to provide the RT leader with the insight into senior executives' focus and priorities, examining the science that supports our services, how to properly define productivity, and how to market your value as an RT leader.

The course will include both lecture and interactive sessions, with the goal of providing attendees with an implementable action plan to demonstrate, document, and communicate your value as a health care leader and the value of the services your department provides.



Garry Kauffman



Judy Schloss

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Preparing for a Pandemic: The Strategic National Stockpile – Mechanical Ventilation Workshop

Tuesday, October 3, 2017 • Indianapolis, IN

Approved for 3.25 hours of continuing education credits (CRCE). You must attend the entire course to receive CRCE credit; no partial credit will be awarded.

DESCRIPTION: Pandemic events present multiple challenges to the health care environment and the ability of the respiratory therapist to provide mechanical ventilation to all persons in need. The Strategic National Stockpile is a repository of ventilators that would be used to supplement the supply currently in use by the nation's acute care facilities. These ventilators can be requested and allocated to areas of need in the event of a pandemic.

Learning Objectives:

1. Discuss the issues that would be encountered regarding pandemic events and the need for mechanical ventilation
2. Describe capabilities of the three SNS ventilators
3. Identify how the SNS ventilators are allocated and utilized during a pandemic event
4. Identify how the SNS ventilators are stored and maintained

1:00 pm – 1:30 pm

Mass Respiratory Failure

Dario Rodriquez MS RRT RPFT FAARC, Union KY

This session will focus on how a pandemic event will impact acute care facilities and the provision of mechanical ventilation. The respiratory therapist's role in these events will also be discussed.

1:35 pm – 2:05 pm

RT Roles in Mass Respiratory Failure

Richard Branson MSc RRT FAARC, Cincinnati OH

This session will concentrate specifically on the respiratory therapist's role in mass respiratory failure.

2:10 pm – 2:40 pm

SNS Stockpile: Ventilator Allocation, Storage and Maintenance

Catherine Mitchell MSN BSN RN, Atlanta GA

This session will describe how SNS ventilators are requested and delivered. In addition, the presenter will discuss how the SNS ventilators are stored and maintained.

2:40 pm – 2:55 pm

BREAK

2:55 pm – 3:25 pm

A Clinician's Perspective: The SNS Ventilators

Richard Branson MSc RRT FAARC

The Strategic National Stockpile consists of three specific mechanical ventilators. This session will discuss the capabilities of all three mechanical ventilators.

3:30 pm – 5:00 pm

SNS Hands on Ventilator Training

**Richard Branson MSc RRT FAARC
Dario Rodriquez MS RRT RPFT FAARC**

This session will provide the respiratory therapist with the opportunity to gain hands-on experience with all three SNS ventilators.



Dario Rodriquez



Richard Branson



Catherine Mitchell

Wednesday



Opening Session

8:00 am - 10:30 am

Thomas J Kallstrom MBA RRT FAARC
AARC Executive Director | CEO | Presiding

AARC Awards Ceremony

8:00 am - 9:30 am

The ceremony recognizes the “doers” in the profession, from students to long-established practitioners. Be there and applaud your peers. Today it’s them; tomorrow it may be you!

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Keynote Address

9:35 am - 10:25 am

Lecture TBA

Opening of Exhibit Hall

10:30 am

Brian K Walsh PhD RRT-NPS FAARC
AARC President | Presiding

The 2016/2017 AARC President opens the Exhibit Hall. As the Gold Standard of all respiratory care meetings, AARC Congress 2017 presents to you all the manufacturers and suppliers in the industry. The Exhibit Hall offers attendees an opportunity to see, touch, and try out the latest technology in the field and have clinical conversations with manufacturers’ representatives. Don’t miss this great opportunity!

Sputum Bowl Preliminaries

8:00 am - 6:00 pm

Renee Wunderley BS RRT-NPS/Presiding

Teams from the AARC State Societies compete in the preliminary competitions. The top four teams will advance to the Finals on Friday evening, Oct. 6.

Supported by an unrestricted educational grant from

Medtronic
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AARC Congress 2017

Wednesday, October 4

Orientation for First-Time Attendees

11:00 am - 12 noon

**Thomas Lamphere BS RRT-ACCS RPFT
FAARC, Sellersville PA**

Are you a first-time attendee with unanswered questions about who to see, where to go, and what to expect from your first AARC Congress? If so, then attendance at this presentation is a **MUST** for you! This presentation provides first-time attendees with an overview of the entire AARC Congress and includes suggestions on how to maximize your time, not only at the educational session but also at the exhibits and peripheral activities as well.

Presenting an OPEN FORUM Abstract

12:05 pm - 12:35 pm

**Teresa A Volsko MBA RRT CMTE
FAARC, Akron OH**

This presentation will introduce the neophyte research presenter to the customs, roles, and experience of presenting an OPEN FORUM Session. The stages of an OPEN FORUM presentation including poster set-up, interacting with participants and moderators, presenting at the podium, and participating in moderated audience discussions will be addressed.

Diagnostic Section Membership Meeting

1:00 pm - 1:30 pm



**Katrina Hynes MHA RRT RPFT/
Presiding**

Section members meet to determine their needs and priorities, as well as how to use AARC resources to accomplish them. All Congress attendees, including section non-members, are invited to attend and participate.

The Advanced Practice Respiratory Therapist (APRT): Exploring the Potential

1:30 pm - 2:05 pm

John Wilgis MBA RRT, Orlando FL

**Robert L Joyner Jr PhD RRT RRT-ACCS
FAARC, Salisbury NY**

**Shane Keene FAARC RRT-NPS DHSc,
Telford TN**

Content Category: Education

This panel discussion by the Ad Hoc Committee on Advanced RT Practices, Credentialing, and Education will discuss the effort over the past year of exploring the need for an advanced practice provider caring for patients with cardiopulmonary disease.



Thomas Lamphere



Teresa A Volsko



Katrina Hynes



John Wilgis



Robert L Joyner



Shane Keene

Exhibit Hours at The Buying Show:

Wednesday, Oct. 4, 10:30 am - 4:00 pm

Thursday, Oct. 5, 9:30 am - 3:00 pm

Friday, Oct. 6, 9:30 am - 2:00 pm

Patient-Centric Care: What is It and What's the Fit for the RT?

1:30 pm - 2:05 pm

**Garry W Kauffman MPA RRT FACHE
FAARC, Winston Salem NC**

Content Category: Management

Patient-centric care has been around for decades in different forms. In the 1980s the first salvo included staff reduction, clinician elimination, de-skilling, and reduction of mid-level management. What has changed about this focus on patients – other than a catchy new phrase? Absolutely everything! Patient-centric care is about providing the right care, at the right time, with the right quality, by the right person, and being able to measure the outcomes of this care. For RTs there is no better time to demonstrate your value, and for RT managers this is the best time to demonstrate your knowledge and ability to manage this new care delivery system based on evidence-based medicine, system-wide cost-effectiveness, and patient/family satisfaction.

Standardization and Application of the Single-Breath Determination of Nitric Oxide Uptake in the Lung

1:30 pm - 2:05 pm

**Gerald S Zavorsky PhD RPFT FACSM,
Atlanta GA**

Content Category: Pulmonary Function

This lecture will discuss the recent European Respiratory Society task force paper published in the *European Respiratory Journal* in 2017 on the standardization and application of pulmonary diffusing capacity for nitric oxide (DLNO). The talk will include a discussion of the differences between DLNO and pulmonary diffusing capacity for carbon monoxide (DLCO), the prediction equations developed for DLNO, and the summary consensus statement for DLNO.

Medicinal Marijuana: What are the Physiologic Effects?

1:30 pm - 2:05 pm

**Mary Martinasek PhD MPH RRT-NPS
AE-C, Tampa FL**

Content Category: Clinical Practice

This lecture will educate participants on marijuana and its effects on the respiratory system.

Telemonitoring: Vital Sign vs Vitality Monitoring To Identify Pending Hospitalizations

1:30 pm - 2:05 pm

Dan Easley BA, Apollo PA

Content Category: Clinical Practice

Is telemonitoring really the right tool to use for the pulmonary patient? Once vital signs are outside of normal range, pulmonary patients are often symptomatic and hours from a hospitalization. This presentation will show how the use of vitality monitoring can be much more effective and can pick-up changes.

Breath Sounds: Are We Getting It Right?*

1:30 pm - 2:05 pm

**Brian Cayko BS MBA RRT,
Great Falls MT**

Content Category: Clinical Practice

This session will examine the need for a common pulmonary nomenclature for auscultation of lung sounds. This lecture will include an audio presentation and interactive audience polling using your mobile devices!



*Chosen from the 2016 Speaker Academy



Gary W Kauffman



Gerald S Zavorsky



Mary Martinasek



Dan Easley



Brian Cayko

PRO/CON: Optimizing Lung Volume Optimizes Outcome for Pediatric ARDS

1:30 pm - 2:45 pm

PRO: Alenandre T Rotta MD, Cleveland OH

CON: Ira Cheifetz MD, Durham NC

Content Category: Neonatal/Pediatric

Although data exist that lung recruitment is associated with improved physiologic parameters and much has been discussed regarding the importance of 'optimal lung volumes', no one has proven that optimizing lung volumes optimizes clinical outcomes. Two international experts will go head-to-head in this debate focused on optimizing the care of the pediatric patient with ARDS. An interactive discussion with the audience will follow the debate.

(Symposium) Myth Busting

1:30 pm - 4:05 pm

▶ PRO/CON: Patient/Ventilator Synchrony

1:30 pm - 2:45 pm

PRO: Robert L Chatburn MHHS RRT-NPS FAARC, Cleveland OH

CON: Eduardo Mireles-Cabodevila MD, Cleveland OH

Content Category: Adult Acute Care

This talk will discuss the importance of definitions and evidence in identifying problems with patient-ventilator synchrony and what to do about them. The myths (in the literature and everyday practice) will be identified and categorized as "Busted," "Plausible," or "Confirmed."

▶ PRO/CON: Liberation from Mechanical Ventilation

2:50 pm - 4:05 pm

PRO: Robert L Chatburn MHHS RRT-NPS FAARC

CON: Eduardo Mireles-Cabodevila MD

Content Category: Adult Acute Care

This talk will discuss the chain of events from intubation to liberation for the adult patient. The mathematics of diagnostic tests for weaning success will be explained. Current guidelines and their criticisms will be debated. The myths (in the literature and everyday practice) will be identified and categorized as "Busted," "Plausible," or "Confirmed."

Collegiality Among Colleagues

2:10 pm - 2:45 pm

Douglas S Gardenhire EdD RRT-NPS FAARC, Atlanta GA

Content Category: Education

The relationship between colleagues may be the most important aspect of any department or team. Collegiality has been and continues to be of interest in academia, however as inter-professional education continues to dominate, health care collegiality should be considered for all team members no matter the setting. This lecture will define collegiality as well as address why it is important. Finally, the presenter will discuss strategies on how to achieve collegiality in a department or team.



Alexandre T Rotta



Ira Cheifetz



Robert L Chatburn



Eduardo Mireles-Cabodevila



Douglas S Gardenhire

Accountable Departments are Successful Departments

2:10 pm - 2:45 pm

Dana Evans MHA RRT-NPS, Chicago IL

Content Category: Management

The word “accountability” tends to make people cringe and yet we all want to work with co-workers, staff, and leaders who are accountable. How do we move from blame to ownership and empowerment? Empowered employees are more focused, motivated, and engaged with your vision. Empower your staff to take ownership in the organization. The presenter will discuss why getting past the blame and excuses will allow your department to thrive.

(Symposium)

PFT Laboratory Accreditation Readiness

2:10 pm - 4:45 pm

► The Onsite Visit

2:10 pm - 2:45 pm

Katrina Hynes MHA RRT RPFT, Rochester MN

Content Category: Pulmonary Function

The American Thoracic Society has identified the need and the importance of a Pulmonary Function Laboratory Quality Assurance Accreditation Program at a national level. The Mayo Clinic Pulmonary Function Laboratory conceived a Pulmonary Function Quality Assurance Program to assure accreditation readiness which debuted July 2016. The first lecture of this four lecture symposium will discuss the first critical component of the program – the onsite visit.

► Biological Control Subjects

2:50 pm - 3:25 pm

Carl D Mottram RRT RPFT FAARC, Rochester MN

Content Category: Pulmonary Function

This lecture will discuss the second critical component of a Pulmonary Function Laboratory Quality Assurance Accreditation Program – biological control subjects.

► Mechanical Models

3:30 pm - 4:05 pm

Katrina Hynes MHA RRT RPFT

Content Category: Pulmonary Function

This lecture will discuss the third critical component of a Pulmonary Function Laboratory Quality Assurance Accreditation Program – mechanical models.

► Reporting Requirements

4:10 pm - 4:45 pm

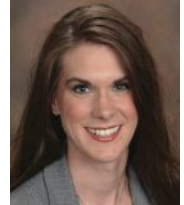
Carl D Mottram RRT RPFT FAARC

Content Category: Pulmonary Function

This lecture will discuss the fourth critical component of a Pulmonary Function Laboratory Quality Assurance Accreditation Program – reporting requirements.



Dana Evans



Katrina Hynes



Carl D Mottram

Continuing Respiratory Care Education (CRCE)

AARC Congress 2017 is approved for all the credit hours you need to maintain your state license, more than 20 hours.

The Latest Evidence-Based Recommendations for Assessing and Monitoring Patients Receiving Opioids

2:10 pm - 2:45 pm

Kevin M McQueen MHA RRT CPPS CM, Oceanside CA

Content Category: Clinical Practice

This presentation will discuss the latest published, evidence-based recommendations related to assessment tools and monitoring of patients receiving opioid pain medications. Utilizing the current published research in conjunction with the 2014 San Diego Patient Safety Council's (SDPSC) Tool Kit "Respiratory Monitoring of Patients Outside the ICU," the presenter will outline ways that hospitals may improve their ability to protect patients from preventable respiratory depression and adverse harm.

The A B C & Ds of Personalities in Rehabilitation

2:10 pm - 2:45 pm

Aaron McColpin BHS DNP RRT-NPS NP CPFT, Camarillo CA

Content Category: Clinical Practice

This lecture focuses on the relationship between personality characteristics and disease acceptance on the Health-Related Quality of Life (HRQOL) in those with chronic obstructive pulmonary disease (COPD) who had been referred for pulmonary rehabilitation.

(Symposium)

Year in Review

2:10 pm - 5:25 pm

► Cystic Fibrosis

2:10 pm - 2:45 pm

Bruce Rubin MD MBA FAARC, Richmond VA

Content Category: Clinical Practice

This presentation covers the most important published literature on cystic fibrosis in the past year.

► Idiopathic Pulmonary Fibrosis

2:50 pm - 3:25 pm

Mridu Gulati MD, New Haven CT

Content Category: Clinical Practice

This presentation covers the most important published literature on idiopathic pulmonary fibrosis in the past year.

► Pulmonary Hypertension

3:30 pm - 4:05 pm

Speaker TBA

This presentation covers the most important published literature on pulmonary hypertension in the past year.

► Alpha-1 Antitrypsin Deficiency: State-of-the-Art for the RT

4:10 pm - 4:45 pm

Robert Sandhaus MD PhD, Denver CO

Content Category: Clinical Practice

This presentation covers the most important published literature on alpha-1 antitrypsin deficiency (AATD) in the past year.



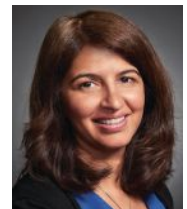
Kevin M McQueen



Aaron McColpin



Bruce Rubin



Mridu Gulati



Robert Sandhaus

► Neuromuscular Disease

4:50 pm - 5:25 pm

Lisa Wolfe MD Chicago IL

Content Category: Clinical Practice

This presentation covers the most important published literature on neuromuscular disease/ALS in the past year.

Creating a Village: Building a Long-Term Research Agenda for Your Department

2:50 pm - 3:25 pm

Dave Burnett PhD RRT AE-C, Kansas City KS

Content Category: Education

Exploring the opportunity to develop research within your department and mentoring faculty to help build a successful long-term research agenda.

Pencils Down: Using an Internally Developed Electronic Workload Division Tool

2:50 pm - 3:25 pm

Jennifer Smith AAS RRT-ACCS, Belle MO

Content Category: Management

Are respiratory care departments keeping up with the rapid pace of a technology-driven medical field? This presentation will address the challenges faced by a respiratory department when assigning scheduled work. The lecturer will discuss the benefits of developing an electronic workload tool that allows assignments to be made more efficient electronically than counting by hand.

An Update on Current E-Cigarette and Hookah Smoking Research

2:50 pm - 3:25 pm

Mary Martinasek PhD MPH RRT-NPS AE-C, Tampa FL

Content Category: Clinical Practice

This presentation will focus on an update of the scholarly literature related to both hookah smoking and electronic cigarettes. A clinician's perspective and guidance will be presented.



Dave Burnett



Mary Martinasek

Wednesday, October 4

Special Note

The largest respiratory care Exhibit Hall in the world will be open in Indianapolis, Indiana, Wednesday through Friday, October 4-6.

Exhibitors will have clinical specialists on hand to answer questions on products, services and technology. Don't miss this unique opportunity with all companies in the respiratory care industry.

(Symposium) Pediatric Respiratory Care 2017

2:50 pm - 5:25 pm

▶ Mechanical Ventilation 2:50 pm - 3:25 pm

Ira Cheifetz MD FAARC, Durham NC

Content Category: Neonatal/Pediatric

Mechanical ventilation remains the mainstay of ICU management. This presentation will review current guidelines for ventilation of the infant and child with respiratory failure. Recommendations from the Pediatric Acute Lung Injury Consensus Conference (PALICC) will be discussed as well as the subsequent related data. Thoughts for the future will also be offered.

▶ Pediatric ARDS: Beyond Mechanical Ventilation 3:30 pm - 4:05 pm

Alexandre T Rotta MD, Cleveland OH

Content Category: Neonatal/Pediatric

Management of children with ARDS continues to be a real challenge for the pediatric clinician. The management of this critically ill population goes beyond mechanical ventilation. This presentation will review adjunct management approaches for pediatric ARDS with a focus on the relevant data from the medical literature.

▶ Chronic Respiratory Failure: The New Long-Term Ventilation Challenge

4:10 pm - 4:45 pm

**Kathleen Deakins RRT-NPS FAARC,
Cleveland OH**

Content Category: Neonatal/Pediatric

An increasing number of infants and children live with a tracheostomy and long-term mechanical ventilation. An optimal approach to ventilatory management is critical to improving the quality of life and survival for this vulnerable population. This presentation will discuss the available medical literature as well as ethical challenges related to this complex group of patients.

▶ Aerosol Delivery 4:50 pm - 5:25 pm

**Bruce Rubin MD MBA MEngR FAARC,
Richmond VA**

Content Category: Neonatal/Pediatric

The field of aerosol delivery has greatly advanced over the past several years. This presentation will discuss technologic and pharmacologic improvements as well as some thoughts on a standardized approach to aerosol delivery in pediatrics. Speculation on the future of this advancing field will be offered.



Ira Cheifetz



Alexandre T Rotta



Kathleen Deakins



Bruce Rubin



Delivering Quality Care to Reduce COPD Readmissions: Not all COPD Readmissions are Avoidable

2:50 pm - 3:25 pm

Scott Cerreta BS RRT, Flagstaff AZ

Content Category: Clinical Practice

This lecture will describe several best practice models for delivering quality of care that leads to outcomes of reduced COPD readmissions. It is important to avoid the common pitfall of setting COPD Readmission Reduction as a primary goal.

OPEN FORUM POSTER DISCUSSION #1

3:15 pm - 5:10 pm

Supported by an unrestricted educational grant from



Researchers and clinicians present findings of studies on aerosol therapy, mechanical ventilation, neonatal and pediatric care, education, management, and every other mode of practice in our profession.

OPEN FORUM POSTER DISCUSSION #2

3:15 pm - 5:10 pm

Supported by an unrestricted educational grant from



Researchers and clinicians present findings of studies on aerosol therapy, mechanical ventilation, neonatal and pediatric care, education, management, and every other mode of practice in our profession.

Pursuing an Expanded Scope of Practice: To the Top of Your License

3:30 pm - 4:05 pm

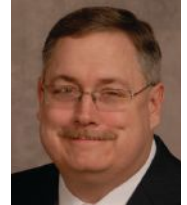
Robert L Joyner Jr PhD RRT RRT-ACCS
FAARC, Salisbury NY

Content Category: Education

Patient care continues to evolve at a brisk pace with sicker patients being cared for with fewer resources. Sufficient staffing expansion is not usually an option and other providers do not have our specialized education, training, or expertise. This presents a conundrum. Our patients need us to fulfill our roles and assure they are receiving the best care possible; we should all be prepared to practice at the top of our license.



Scott Cerreta



Robert L Joyner Jr

OPEN FORUM[®] Symposia sponsored by



Clinicians present the results of their scientific studies.

Abstracts with a similar focus are clustered into a symposium to encourage discussions and interactions among investigators and observers; posters expand the information presented.

12 OPEN FORUM Symposia will be presented during the 3 1/2 days of AARC Congress 2017.

AARC Congress 2017

Wednesday, October 4

Things That Make You Go “Hmm?” Non-Evidence-Based Respiratory Care

3:30 pm - 4:05 pm

**Thomas Lamphere BS RRT-ACCS RPFT
FAARC, Sellersville PA**

Content Category: Management

This lecture will review common respiratory therapies and practices that have little or no evidence to support their use yet are still utilized in many facilities. This “non-evidence-based” care uses valuable financial resources including both manpower hours and equipment/disposable supplies. Attendees will be provided with current evidence to use as tools to effect a change in their facility to improve the quality of the care provided while at the same time utilizing their resources more wisely!

Producing Quality Research on a Shoestring Budget

3:30 pm - 4:05 pm

**Keith D Lamb RRT-ACCS FCCM,
Des Moines IA**

Content Category: Clinical Practice

In a time where every dollar is closely watched research is often put on the back burner. This lecture will demonstrate ways of producing quality research without spending a lot of money.

Vitality to You: Continuity of Care in the Home

3:30 pm - 4:05 pm

Michael Caron RRT-NPS, Northford CT

Content Category: Clinical Practice

“Vitality to You” is a rehab pilot program consisting of PT, OT, and speech therapy utilizing respiratory care professionals. This is a multidisciplinary approach focused on continuing care in the home for recently discharged long-term patients.



Thomas Lamphere



Keith D Lamb



Michael Caron

Special Events

AARC Awards Ceremony

Wednesday, October 4, 8:00 am - 9:30 am

Sponsored by **Teleflex®**

Keynote Address

Wednesday, October 4, 9:35 am - 10:25 am

AARC Welcome Party

Wednesday, October 4, at 8 pm

Big Ideas Theatre

Wednesday and Thursday, October 4- 5

Sponsored by **Dräger**

Flag Folding Ceremony

Friday, October 6, 8:50 am - 9:20 am

40th Sputum Bowl Finals

Friday, October 6, at 5 pm

Sponsored by **Medtronic**
Further. Together

Closing Ceremony

Saturday, October 7, 12:45 pm - 2:15 pm

Developing Future Respiratory Care Practitioners: Programs and Departments Working Together: Clinical Sites, Preceptor Staff, and Departments, Oh My!

4:10 pm - 4:45 pm

De De Gardner MS RRT FAARC FCCP, San Antonio TX

Content Category: Education

Clinical sites for education programs are becoming a challenge for programs using the preceptor model. Many hospital managers and staff see having students as a “burden” and not a “pleasant” experience. This presentation will discuss the clinician-student model experience as a win-win for the student/educational program and the staff/respiratory care department. The presentation will also share the use of career ladders and expectations for staff to precept students and provide a positive experience for the student.

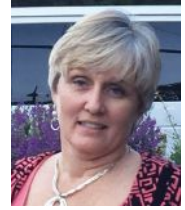
Regional Management of Respiratory Care Services in a Multi-Site Health System*

4:10 pm - 4:45 pm

Holly Williams MHA RRT, Greer SC

Content Category: Management

Managing multiple respiratory care departments across multiple sites poses many challenges that differ from those that arise in a single location department. Ensuring that each site is successful requires careful planning and commitment from the respiratory care manager. The unique challenges that regional managers face require creative thought and adaptability. This session will review some of the specific challenges as well as essentials for success. Communication is always identified as a number one barrier; different techniques to address this barrier will be discussed. There will be several organizational charts presented to demonstrate various models that can work in respiratory care departments.



De De Gardner



Holly Williams

Wednesday, October 4



*Chosen from the 2016 Speaker Academy



Medication Safety: Why Errors Occur and What RTs Can Do To Reduce the Risks

4:10 pm - 4:45 pm

**Kevin M McQueen MHA RRT CPPS
CM, Oceanside CA**

Content Category: Patient Safety

This presentation is designed to provide attendees with an appreciation of why medication errors occur, the impact of medication errors on patients/outcomes, monitoring requirements, and various methods to improve processes with regard to delivering safe and effective care.

End-of-Life Discussions from an RT Perspective

4:10 pm - 4:45 pm

**Stephanie Williams BS RRT,
Nashville TN**

Content Category: Ethics

As RTs we offer a unique perspective into the questions that arise as people near the end of their lives. Using our knowledge of respiratory disease progression we can help people begin that conversation with their family and loved ones at appropriate times.

PRO/CON: Prone Positioning Should Be Used in Moderate ARDS

4:10 pm - 5:25 pm

**PRO: Thomas Piraino RRT,
Beamsville ON**

**CON: John Emberger RRT-ACCS CPHQ
FAARC, Newark DE**

Content Category: Adult Acute Care

Prone positioning alters lung mechanics and improves the distribution of ventilation in ARDS. Prone positioning has been shown to reduce mortality in severe ARDS. But how early should prone position be initiated? Can it improve outcomes in mild or moderate ARDS?

Finding the Evidence: Separating Science from Fake News

4:50 pm - 5:25 pm

**Dean R Hess PhD RRT FAARC,
Boston MA**

Content Category: Management

What is the best evidence? When do you trust a colleague and when do you need a randomized controlled trial? This lecture will describe an approach to the scientific method to facilitate decision-making based on evidence rather than anecdote.



Kevin M McQueen



Stephanie Williams



Thomas Piraino



John Emberger



Dean R Hess



The Association Between Fitness and Pulmonary Diffusing Capacity

4:50 pm - 5:25 pm

Gerald S Zavorsky PhD RPFT FACSM, Atlanta GA

Content Category: Pulmonary Function

Exercise capacity (cardiorespiratory fitness) is a powerful predictor of mortality. This lecture will examine cardiorespiratory fitness, how it is related to pulmonary diffusing capacity, and its significance to overall health.

Understanding the Maze of Energy Systems: Maximizing Training for Pulmonary Rehab

4:50 pm - 5:25 pm

Dennis J Guillot PhD RRT CSCS, Thibodaux LA

Content Category: Clinical Practice

This presentation will review the metabolic energy systems pathways and discuss/debate how best to modify training considering these pathways to enhance conditioning in pulmonary rehabilitation programs.

DNR Under the Stethoscope: Hearing the Need for a Different Approach*

4:50 pm - 5:25 pm

Jim Damron MDiv RRT CPFT, Charlotte NC

Content Category: Ethics

The health care industry is continuously changing and patient-provider relationships are being affected. Interventions that were once requested are now being demanded. This presentation will look at how changes have affected our approach to code status and propose a different approach which could improve the patient-provider relationship.

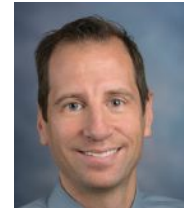
A Rose by Any Other Name: Perceptions of Palliative Care

4:50 pm - 5:25 pm

Shawna Strickland PhD RRT-NPS RRT-ACCS AE-C FAARC, Irving TX

Content Category: Ethics

Many experts recommend early initiation of palliative care to improve patients quality of life. However, the perception of palliative care – patient, caregiver, and health care provider – steers many away from this beneficial service. This presentation will discuss perspectives of palliative care and provide strategies to engage the RT to improve patient quality of life.



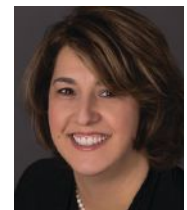
Gerald S Zavorsky



Dennis Guillot



Jim Damron



Shawna Strickland



*Chosen from the 2016 Speaker Academy

AARC LEADERSHIP INSTITUTE



EST. 2014



Positioning Respiratory Therapists for Career Advancement

The Leadership Institute is a real-world education course for respiratory therapists, developed by content experts in respiratory care education, management, and research. The course includes supplemental readings, activities, module quizzes and the unique opportunity to engage with the authors, experts in the field, and fellow Leadership Institute participants through AARConnect. Offered in three formats: as a web-based course, PDF documents for download, or as an ePub for electronic readers. Learn at your own pace, at the location and time that works best for you.

Choose All 3 Course Tracks or Select Single Course Tracks:

Education – 15 CRCE CREDITS

- Principles and Methods of Respiratory Therapy Adult Education
- Developing Respiratory Therapy Courses and Evaluation of Learning
- Clinical Instruction Techniques for Students and Employees
- Classroom and Laboratory Instruction Technique
- Educational Technology
- Continuing Education

Management – 15 CRCE CREDITS

- Health Care Infrastructure and Economics
- Leadership and Your Organization
- Leadership and Teambuilding
- Integrated Business Topics for Managers
- Law and Ethics: Practice and Application
- Managing Human Capital
- Finance and Budgeting for Departments
- Data Driven Performance Improvements

Research – 15 CRCE CREDITS

- Overview of Respiratory Care Research and Ethics
- Performing Physical Measurements in Research
- Developing a Research Study
- Conducting a Research Study
- Basic Statistics
- Reporting Clinical Research Results

Sponsored in part by an unrestricted educational grant from

Dräger

Pricing

Member
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SINGLE TRACK

\$225 per track
\$320 per track

3-TRACK BUNDLE

\$600 for all three tracks
\$695 for all three tracks

All non-member prices include 1-year AARC membership and access to AARConnect



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Thursday



AARC Annual Business Meeting

7:30 am – 8:30 am

Brian K Walsh PhD RRT-NPS FAARC | *Presiding*

This is the official Annual Business Meeting of the AARC. 2018 AARC Officers, Board of Directors, and Officers from the House of Delegates are installed. Reports from AARC leadership are presented. The meeting concludes with an address from 2017/2018 AARC President Brian K Walsh.

Sputum Bowl Preliminaries

8:00 am - 6:00 pm

Renee Wunderley BS RRT-NPS | *Presiding*

Teams from the AARC State Societies compete in the preliminary competitions. The top four teams will advance to the Finals on Friday evening, Oct. 6, along with the Student Sputum Bowl finalists.

Supported by an unrestricted educational grant from

Medtronic
Further, Together

5th Annual Thomas L Petty Memorial Lecture

8:40 am - 9:30 am

Meeting the Challenge of COPD Care in the U.S.

Meilan Han MD, Ann Arbor MI

Content Category: Adult Acute Care

COPD is a leading cause of death in the U.S., and yet it remains underdiagnosed and access to critical



services for these patients remain challenging. Patients with COPD and the providers who care for them face unique obstacles, particularly in the current health care environment. The impact of

these obstacles on patient care and how we as providers can help to address them will be discussed.

Neonatal/Pediatrics Section Membership Meeting

9:35 am - 10:15 am

Steven Sittig RRT-NPS FAARC/
Presiding



Section members meet to determine their needs and priorities, as well as how to use AARC resources to accomplish them. All Congress attendees, including section non-members, are invited to attend and participate.

OPEN FORUM POSTER DISCUSSION #3

10:00 am - 11:55 am

Supported by an unrestricted educational grant from



Researchers and clinicians present findings of studies on aerosol therapy, mechanical ventilation, neonatal and pediatric care, education, management, and every other mode of practice in our profession.

OPEN FORUM POSTER DISCUSSION #4

10:00 am - 11:55 am

Supported by an unrestricted educational grant from



Researchers and clinicians present findings of studies on aerosol therapy, mechanical ventilation, neonatal and pediatric care, education, management, and every other mode of practice in our profession.

Respiratory Therapists as Members of the Multi- Disciplinary ALS Team

10:30 am - 11:05 am

**Garner Faulkner II BSRC RRT AE-C, San
Diego CA**

Content Category: Clinical Practice

Amyotrophic lateral sclerosis (ALS) is not a respiratory disease yet respiratory failure is the leading cause of death and terminal dyspnea is a major fear among patients with ALS. Respiratory therapists are uniquely qualified to provide much of the care and support these patients so desperately need to improve their quality of life and extend their survival. This lecture will focus on the unique features of neuromuscular respiratory failure treatment goals and the important role of the respiratory therapist in the management of these patients.

How To Lie With Statistics and Figures - What's a "p" Anyway?

10:30 am - 11:05 am

**Dean R Hess PhD RRT FAARC,
Boston MA**



Garner Faulkner II



Dean R Hess



Content Category: Management

To many, if not most of us in health care leadership “research” is not something we learned in RT school. Additionally many of us do not have the resources to do clinical research within our organization. This lecture will take some of the mystery out of the language of research.

High-Frequency Ventilation During Transport

10:30 am - 11:05 am

Dario Rodriquez Jr MSc RRT FAARC, Cincinnati OH

Content Category: Adult Acute Care

The ability to utilize high-frequency ventilation during patient transport has been realized during the past few years. This lecture will look at the pros and cons of high frequency ventilation during transport.

Snoozing on Performance: The Mental and Physical Connection with Sleep

10:30 am - 11:05 am

Dennis J Guillot PhD RRT, Thibodaux LA

Content Category: Sleep

This presentation will discuss the effect of sleep deprivation on physical and mental performance and address strategies to limit the effect of deprivation.

(Symposium) Neonatal Respiratory Care 2017

10:30 am - 12:25 pm

► The Respiratory Therapist in the Delivery Room: Management of Neonatal Airway Emergencies

10:30 am - 11:05 am

Janet Lioy MD, Philadelphia PA

Content Category: Neonatal/Pediatric

Airway emergencies in the delivery room can rarely be anticipated. A chaotic environment can arise suddenly and lead to a fatal outcome if caregivers are not trained, prepared, or properly equipped. Role awareness, airway knowledge, and hands-on experience in the emergency setting must be discussed, reviewed, and practiced regularly. This presentation will discuss these key aspects from the respiratory care perspective.

► Infant PFTs – Purpose, Practice, and Data

11:10 am - 11:45 am

Stephanie Davis MD, Indianapolis IN

Content Category: Neonatal/Pediatric

Despite the commonplace use of pulmonary function testing in children and adults, the technology and experience with PFTs in the infant population continues to lag. This presentation by a pioneer in the field will review the purpose and practice of infant pulmonary function testing including a discussion of the usefulness of the data obtained.

► When Conventional Ventilation Fails for the Neonate: What To Do Next?

11:50 am - 12:25 pm

Keith Hirst MS RRT-ACCS RRT-NPS AE-C, Wilmington MA

Content Category: Neonatal/Pediatric

How do we define failure of conventional ventilation in neonates? How should the clinician decide when to move beyond conventional ventilation and what should be the next steps? This presentation will review the available data and proposed potential approaches.



Dario Rodriquez Jr



Dennis J Guillot



Janet Lioy



Stephanie Davis



Keith Hirst

(Symposium)

State Medicaid and Payer Innovation Models

10:30 am - 11:45 am

► Two-Year Results of an RT Designed and Led Medicaid Initiative with Pay-for-Performance Reimbursement Model

10:30 am - 11:05 am

Gene Gantt RRT FAARC, Livingston TN

Content Category: Clinical Practice

For over two years Tennessee Managed Medicaid patients in skilled nursing facilities have benefited from an RT designed and led quality initiative. Not only did the initiative improve outcomes in the tracheostomized and ventilator populations, it also resulted in substantial savings to the payers and state.

► New York State Innovative COPD Medicaid Reform

11:10 am - 11:45 am

Frederic D Seifer MD FCCP, Potsdam NY

Content Category: Clinical Practice

Like many other states New York is taking a hard look at health utilization. More and more health plans are recognizing an overwhelming need to reform the way chronic disease management is delivered. Medicaid in NY State, or DSRIP “Delivery System Reform Innovation Program” has approved a program pilot which funds the use of RTs in the outpatient management of COPD in upstate New York. This lecture will describe the program and its intended outcome.

(Symposium)

Ventilator Waveforms – Reading Between the Lines

10:30 am - 12:25 pm

► Using Waveforms to Evaluate Asynchrony

10:30 am - 11:05 am

David Vines MHS RRT FAARC, Chicago IL

Content Category: Adult Acute Care

Mechanical ventilation waveforms are essential for evaluating asynchrony. This talk will demonstrate the most common kinds of asynchrony and provide examples of each. Ventilator changes to alleviate asynchrony will be discussed.

► Advanced Ventilator Waveforms

11:10 am - 11:45 am

Keith D Lamb BS RRT-ACCS FCCM, Des Moines IA

Content Category: Adult Acute Care

This lecture will describe ventilator waveforms that require additional maneuvers including pressure volume curves, flow volume curves, and evaluating stress index.

► Esophageal Pressure Monitoring

11:50 am - 12:25 pm

Rich Kallet MS RRT, San Francisco CA

Content Category: Adult Acute Care

Esophageal manometry allows the determination of transpulmonary pressure and chest wall mechanics. This lecture will describe the utility of esophageal manometry for setting PEEP, evaluating the work of breathing, and guiding lung protection.



Gene Gantt



Frederic D Seifer



David Vines



Keith D Lamb



Rich Kallet

The Other Side of Midnight – A Personal Journey into Palliative and Hospice Care

10:30 am - 11:05 am

**Kim Bennion MHS BSRT RRT CHC,
Salt Lake City UT**

Content Category: Ethics

The presenter will share her intimate journey with her mother during the final stages of her COPD as she sought palliative and hospice care orders, end-of-life discussions, and the impact of “last dose syndrome.”

PFTs in the Neuromuscular Disease Patient: More than Meets the Eye

11:10 am - 11:45 am

Garner Faulkner II BSRC RRT AE-C, San Diego CA

Content Category: Pulmonary Function

This presentation is intended to help the RCP/PFT specialist identify the importance of PFTs in the patient with neuromuscular disease (NMD). Often PFTs in the NMD patient are also used as a screening tool for implementation of further respiratory modalities. Since no one specific test predicts the course of NMD, it is suggested that multiple types be used to increase the precision of diagnosis and improve monitoring.

(Symposium)

How to Implement a New Ventilator Platform

11:10 am - 12:25 pm

► How to Choose the Right Machine

11:10 am - 11:45 am

**Dave Crotnell BA RRT-NPS FAARC,
Seattle WA**

Content Category: Management

Given the increasing scrutiny of capital expenditures, our selection of high technology and its attendant costs is more important than ever. This discussion will address how to select the right ventilator for your institution or unit from kicking the tires to performing a trial and selecting the machine.

► Roll Out: Once Selected How to Roll out the New Fleet of Ventilators

11:50 am - 12:25 pm

**Matthew McNally BS RRT,
Lebanon NH**

Content Category: Management

Once a trial is completed and the device is selected this presentation will address the process associated with implementing the new ventilator platform.



Kim Bennion



Garner Faulkner II



Dave Crotnell

Thursday, October 5

Exhibit Hours at The Buying Show:

Wednesday, Oct. 4, 10:30 am - 4:00 pm

Thursday, Oct. 5, 9:30 am - 3:00 pm

Friday, Oct. 6, 9:30 am - 2:00 pm

Determining the Value of the Respiratory Therapist— What Does the Future Respiratory Therapist Look Like?

11:10 am - 11:45 am

**Robert L Chatburn MHHS RRT-NPS
FAARC, Cleveland OH**

Content Category: Management

As our health care system transitions to a value-based system, the manager of respiratory care must determine the clinical areas of practice in which the respiratory therapist plays the most important role. This lecture will show managers how to determine the value of the respiratory therapist within this new environment.

ECMO During Patient Transport

11:10 am - 11:45 am

Edd Shope RN NRP, Raleigh NC

Content Category: Adult Acute Care

Since the early 2000s transportation of a patient on ECMO has risen slowly but steadily. This lecture will discuss the latest issues and resolution of issues related to the transportation of these patients. The 2015 guidelines for transportation of ECMO patients will also be reviewed.

Adaptive Servo Ventilation and Central Sleep Apnea

11:10 am - 11:45 am

**Jessica Schweller MS CNP RRT-SDS
RN, Columbus OH**

Content Category: Sleep

This presentation will include discussion and interactive case presentation regarding indications, device algorithms, and troubleshooting of adaptive servo ventilation for central sleep apnea.

OPEN FORUM POSTERS ONLY #1

11:30 am - 3:30 pm

Supported by an unrestricted educational grant from



Researchers and clinicians present the results of their work in this Posters Only session. Authors available from 12:00 pm – 1:30 pm for questions and interaction.

Equipment Configuration During Transport: How Do You Do It?

11:50 am - 12:25 pm

**Tabatha Dragonberry MEd RRT-NPS
AE-C RRT-ACCS CPFT C-NPT, Coral
Springs FL**

Content Category: Clinical Practice

As transport RTs we work in confined spaces and look to maximize equipment configuration. For this lecture we reached out to the transport RT community comparing their set-ups and what works for them. Learn from your peers how to configure equipment for transport.

The Use of Auto PAP for Hospital Patients

11:50 am - 12:25 pm

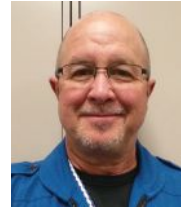
Jessica Schweller MS CNP RRT-SDS RN

Content Category: Sleep

This presenter will discuss use of auto PAP in the inpatient setting and the implications on the hospital and the RT with regards to cost, training, and supply.



Robert L Chatburn



Edd Shope



Jessica Schweller



Tabatha
Dragonberry

Strategies to Optimize Outcome for Respiratory Failure in the Immunocompromised

11:50 am - 12:25 pm

Courtney Rowan MD, Indianapolis IN

Content Category: Neonatal/Pediatric

While managing the immunocompetent pediatric patient with ARDS can be challenging, the approach to the severely immunocompromised is even more difficult. This presentation will review the available literature and discuss various approaches to optimize outcome for respiratory failure in the immunocompromised child.

State Medicaid and Payer Innovation Models Medicaid-Funded RT-Led Population Health Models

11:50 am - 12:25 pm

Zach Gantt RRT, Livingston TN

Content Category: Clinical Practice

Managed Medicaid has become fertile ground for RT-led innovations in population health from COPD to ventilator care. This lecture will describe Medicaid-funded innovations.

Improving Patient Safety Through Reporting of Adverse Events

11:50 am - 12:25 pm

Thomas Lamphere BS RRT-ACCS RPFT FAARC, Sellersville PA

Content Category: Patient Safety

This lecture reviews adverse event reporting and how it relates to health care workers, and specifically, to a respiratory therapist. The reasons practitioners have difficulty in reporting events will be explored and up-to-date state/national statistics will be reviewed.

Surface to Air Transport Section Membership Meeting

12:30 pm - 1:00 pm



Tabatha Dragonberry MEd RRT-NPS AE-C RRT-ACCS CPFT C-NPT | Presiding

Section members meet to determine their needs and priorities, as well as how to use AARC resources to accomplish them. All Congress attendees, including section non-members, are invited to attend and participate.

Sleep Section Membership Meeting

12:30 pm - 1:00 pm



Katherine Turner BSRT RRT | Presiding

Section members meet to determine their needs and priorities, as well as how to use AARC resources to accomplish them. All Congress attendees, including section non-members, are invited to attend and participate.

Long Term Care Section Membership Meeting

12:30 pm - 1:00 pm



Gene Gantt RRT FAARC | Presiding

Section members meet to determine their needs and priorities, as well as how to use AARC resources to accomplish them. All Congress attendees, including section non-members, are invited to attend and participate.



Courtney Rowan



Zach Gantt



Thomas Lamphere

Thursday, October 5

OPEN FORUM POSTER DISCUSSION #5 12:30 pm - 2:25 pm

Supported by an unrestricted educational grant from



Researchers and clinicians present findings of studies on aerosol therapy, mechanical ventilation, neonatal and pediatric care, education, management, and every other mode of practice in our profession.

OPEN FORUM POSTER DISCUSSION #6 12:30 pm - 2:25 pm

Supported by an unrestricted educational grant from



Researchers and clinicians present findings of studies on aerosol therapy, mechanical ventilation, neonatal and pediatric care, education, management, and every other mode of practice in our profession.

Home Care Section Membership Meeting 1:15 pm - 1:45 pm



Zach Gantt RRT | *Presiding*

Section members meet to determine their needs and priorities, as well as how to use AARC resources to accomplish them. All Congress attendees, including section non-members, are invited to attend and participate.

Management Section Membership Meeting 1:15 pm - 1:45 pm



Cheryl Hoerr MBA RRT CPFT FAARC | *Presiding*

Section members meet to determine their needs and priorities, as well as how to use AARC resources to accomplish them. All Congress attendees, including section non-members, are invited to attend and participate.

The Importance of Cultural Awareness 1:45 pm - 2:20 pm

Crystal Dunlevy EdD RRT,
Columbus OH

Content Category: Education

We cannot expect everyone to be culturally competent with every minority group (ethnic and otherwise), but we should all make an effort to be culturally sensitive and aware. This presentation will cover what questions to ask (and how to ask them) in order to make every patient feel like they are being heard and respected with regard to their cultural needs.

Telehealth and Home Care Interventions for COPD Readmission Prevention 1:45 pm - 2:20 pm

Troy Whittaker BS MHA RRT,
Salt Lake City UT

Content Category: Clinical Practice

This lecture is a report on the results, patient outcomes, and readmission data of the Tele-COPD pilot program currently underway at Intermountain Healthcare in Salt Lake City, Utah.



Crystal Dunlevy



Troy Whittaker

Professional Evolution: Transitioning from Staff Therapist to Supervisor/ Manager

1:45 pm - 2:20 pm

**Amanda Richter MHA RRT-NPS
RRT-ACCS RPFT, Kempner TX**

Content Category: Management

With the continued growth of technology and new practices in respiratory therapy across the country many staff therapists are finding opportunities to professionally grow into the supervisory ranks. Although many good therapists feel prepared for such a transition, some find it more difficult than anticipated. This presentation discusses components of preparation for a successful transition into supervising a therapy team. This presentation will explore strategic and tactical tools as well as philosophical and practical points to consider.

Lights or No Lights? Fly or Don't Fly? Controversies in Transport

1:45 pm - 2:20 pm

**Edd Shope RN CCRN PNCCT ENPC,
Durham NC**

Content Category: Clinical Practice

This lecture will discuss both current and ongoing controversies in transport. Topics will include the decision to use or not use emergency lights during ground transport and the decision to transport a patient by air vs ground transport and more.

Update on Ventilator- Associated Pneumonia

1:45 pm - 2:20 pm

**Rich Kallet MS RRT FAARC,
San Francisco CA**

Content Category: Adult Acute Care

VAP continues to be a common and expensive complication in the hospital. This lecture will focus on respiratory care interventions to prevent and treat VAP.

Navigating the Sleep- Disordered Breathing Course: Diagnostics to Successful Treatment

1:45 pm - 2:20 pm

**Kimberly S Wiles RRT CPFT,
Kittanning PA**

Content Category: Sleep

Numerous obstacles exist in the diagnosis and treatment of sleep-disordered breathing. This lecturer will discuss how these obstacles do not have to be road blocks but only "bumps in the road." Developing a model that overcomes barriers drives quality outcomes; a successful patient experience is key to self-management.

Ventilatory Care of the Infant with Severe Bronchopulmonary Dysplasia

1:45 pm - 2:20 pm

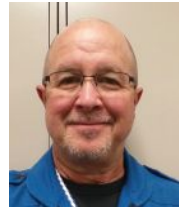
Ioana Cristea MD MS, Indianapolis IN

Content Category: Neonatal/Pediatric

Despite decades of experience in the management of the infant with bronchopulmonary dysplasia, ventilator management remains inconsistent. This presentation will describe optimal approaches to ventilator management including approaches to assist with determining the optimal PEEP for each patient.



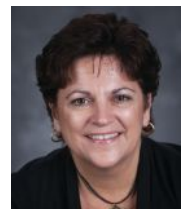
Amanda Richter



Edd Shope



Rich Kallet



Kimberly S Wiles



Ioana Cristea

Respiratory Care Symposium

RESPIRATORY CARE

1:45 pm - 5:00 pm

What Could I Possibly Publish in Respiratory Care?

1:45 pm - 2:20 pm

Jeffrey M Haynes RRT RPFT FAARC, Pembroke NH

Content Category: Clinical Practice

This presentation will provide advice for persons who wish to submit their research to RESPIRATORY CARE.

Retrospective Studies and Quality Assurance Projects

2:25 pm - 3:00 pm

Dean R Hess PhD RRT FAARC, Boston MA

Content Category: Clinical Practice

This lecture will address the potential for and the pitfalls of publishing retrospective studies and quality assurance projects.

Equipment Evaluations: Lung Models, Ventilators, Filters, and Nebulizers

3:05 pm - 3:40 pm

Robert M Kacmarek PhD RRT FAARC, Boston MA

Content Category: Clinical Practice

This presentation will cover the good, bad, and ugly of equipment evaluation.

Narrative Reviews, Systematic Reviews, and Meta-Analyses

3:45 pm - 4:20 pm

Ellen Becker PhD RRT-NPS RPFT AE-C FAARC, Chicago IL

Content Category: Clinical Practice

A discussion of how narrative reviews, systematic reviews, and meta-analyses can be published in RESPIRATORY CARE.

Anatomy of the Research Paper

4:25 pm - 5:00 pm

Rich D Branson MSc RRT FAARC, Cincinnati OH

Content Category: Clinical Practice

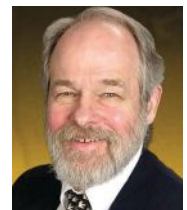
This lecture will provide an overview of the important elements of a research paper.



Jeffrey M Haynes



Dean R Hess



Robert M Kacmarek



Ellen Becker



Rich D Branson

Plowing the Path for RTs to Earn Bachelor's Degrees

2:25 pm - 3:00 pm

Ellen Becker PhD RRT-NPS RPFT AE-C FAARC, Chicago IL

Content Category: Education

The AARC set a goal in 2015 for 80% of all respiratory therapists to have a bachelor's degree by 2020. This presentation will highlight the ways that educators in associate and baccalaureate degree programs can help RT students in associate degree programs plan to complete a bachelor's degree. Further, RT managers will learn how to guide working therapists toward helpful resources for completing this advanced degree.

Utilizing Telehealth to Manage Neuromuscular Disease Patients

2:25 pm - 3:00 pm

Micaela Sarazen BS RRT, Sacramento CA

Content Category: Clinical Practice

This lecture will explore a program (utilizing FaceTime and iChat devices) that allows neuromuscular patients and their caregivers to receive quick answers to their questions. A respiratory support pilot program showed improvements in all outcome parameters and will be presented at this lecture.

TU-BE or Not TU-BE? That Really is the Question – Bedside Decisions in Critical Care Transport

2:25 pm - 3:00 pm

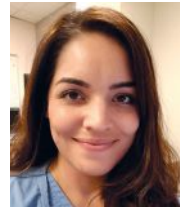
Jon C Inkrott RRT-ACCS, Orlando FL

Content Category: Adult Acute Care

It has been well established and demonstrated that noninvasive ventilation (NIV) can reduce intubation and mortality rates in patients with acute exacerbation of respiratory failure in COPD and congestive heart failure patients. By contrast, the benefit of NIV in the de novo hypoxemic patient remains unclear. So when is NIV failing? When do you intubate the patient prior to transport? We will explore case studies which define these patients and discuss the outcomes.



Ellen Becker



Micaela Sarazen



Jon C Inkrott

Thursday, October 5



Honor Our Troops

ATTEND THE AARC FLAG FOLDING CEREMONY

Friday, October 6

8:50 am - 9:20 am

Sagamore Ballroom

Why are Circadian Rhythms Important for RCPs?

2:25 pm - 3:00 pm

**Lutana Haan MHS RRT RPSGT,
Boise ID**

Content Category: Sleep

An overview of the body's biological clock will be presented with a focus on an understanding of our own and our patients' responses to circadian timing. Learn methods to best interact with our 24-hour clock.

(Symposium) Noninvasive Respiratory Support

2:25 pm - 5:00 pm

► Neonatal Heated High Flow Nasal Cannula: Just Say No or Go with the Flow?

2:25 pm - 3:00 pm

**Rob DiBlasi BSRT RRT-NPS FAARC,
Seattle WA**

Content Category: Neonatal/Pediatric

An increasing number of institutions are using heated high flow nasal cannula as a primary form of noninvasive respiratory support for infants. This presentation will explore the available data to improve our understanding of how HFNC works and how it can safely and effectively be used to reduce WOB, improve gas exchange, and reduce the need for invasive mechanical ventilation.

► Working Towards Perfect: Optimizing NIV in the Neonate

3:05 pm - 3:40 pm

**Keith Hirst MS RRT-ACCS RRT-NPS
AE-C, Wilmington MA**

Content Category: Neonatal/Pediatric

Noninvasive ventilation is being used more and more in the neonatal population. What strategies are best suited to optimize success? Why do some infants benefit from this approach while others fail? This presentation will examine strategies to maximize NIV success as well as objective criteria for failure.

► Pediatric HFNC: Effective and Safe?

3:45 pm - 4:20 pm

**Natalie Napolitano MPH RRT-NPS
AE-C FAARC, Philadelphia PA**

Content Category: Neonatal/Pediatric

The use of high flow nasal cannula in pediatrics is increasing at an exponential rate. This presentation will discuss the practice rationale and evidence behind the utilization of HFNC for children. The presenter will discuss effectiveness and safety with a focus on the medical literature.

► Pediatric Noninvasive Ventilation: What Does the Research Say?

4:25 pm - 5:00 pm

Dana Evans MHA RRT-NPS, Chicago IL

Content Category: Neonatal/Pediatric

Noninvasive ventilation is a vital modality for the prevention of intubation in acutely ill pediatric patients. This presentation will review current evidence for the use of NIV in pediatric patients including patient selection, interface selection, management approaches, and patient compliance.



Lutana Haan



Rob DiBlasi



Keith Hirst



Natalie Napolitano



Dana Evans

(Symposium)

Guidelines Update – What You Must Know

2:25 pm - 5:00 pm

► The 2017 ERS-ATS Guidelines for Noninvasive Ventilation

2:25 pm - 3:00 pm

Stefano Nava MD, Bologna Italy

Content Category: Adult Acute Care
Noninvasive ventilation is the standard of care for COPD exacerbations. The role of NIV in other disease states is becoming increasingly clear. These guidelines define the role of NIV in hypoxemic respiratory failure and preventing reintubation.

► The 2017 ATS-ACCP Guidelines on Ventilator Liberation

3:05 pm - 3:40 pm

Neil MacIntyre MD FAARC, Durham NC

Content Category: Adult Acute Care
Ventilator liberation (formerly weaning from mechanical ventilation) has undergone whole-scale revision in the last two decades. The use of spontaneous breathing trials and spontaneous awakening trials are the standards of care. This update will cover the newest guidelines.

► The 2017 ATS-SCCM Guidelines on Mechanical Ventilation for ARDS

3:45 pm - 4:20 pm

Rich D Branson MSc RRT FAARC, Cincinnati OH

Content Category: Adult Acute Care
Ventilatory support of ARDS has changed markedly since the ARDSNet ARMA trial in 2000. In recent years the role of recruitment maneuvers, HFO inhaled vasodilators, and how to set PEEP have become clearer. This guideline uses GRADE methodology to identify treatment options with high-level evidence.

► The GOLD Guidelines for COPD

4:25 pm - 5:00 pm

Neil MacIntyre MD FAARC, Durham NC

Content Category: Adult Acute Care
COPD continues to be a health care burden claiming lives and resources around the world. New guidelines for the treatment of COPD will be reviewed.

PRO/CON: Specialize or Generalize Staffing Specialty Areas?

2:25 pm - 3:40 pm

PRO: Matthew McNally BS RRT, Lebanon NH

CON: Dave Crotwell BA RRT-NPS FAARC, Seattle WA

Content Category: Management
Many respiratory care directors lead their departments to cover multiple specialized areas of care (MICU SICU PICU NICU ED). This is particularly challenging, especially with regard to deciding whether to create specialty-trained RTs who only work in these units or to train all RTs to cover all units. With both models, there are obvious advantages and disadvantages, as you'll hear from both presenters. Given the two sides to this issue, each of the presenters will do their best to convince you to select their methodology, both arguing that their model will provide the highest quality and most cost-effective care for their patients.



Stefano Nava



Neil MacIntyre



Rich D Branson



Dave Crotwell

Thursday, October 5

Moving up the Ranks: Developing Career Ladder/ Job Enrichment Programs That Benefit Clinicians and Respiratory Schools

3:05 pm - 3:40 pm

**Diane Oldfather MEd RRT FAARC,
Rolla MO**

Content Category: Education

In this era of “do more with less” it is often difficult to get buy-in from highly skilled RRTs to participate in the training of future therapists. What can be done to encourage their involvement? Is there a way to balance their workload career goals and participate in training students? Attend this presentation to discover how to develop potential tactics to benefit communities of interest, get more bang for your buck, and create a win-win situation!

Telehealth in Transitional Care and Population Health

3:05 pm - 3:40 pm

Zach Gantt RRT, Livingston TN

Content Category: Clinical Practice

Technology innovation in post-acute care offers the opportunity to extend care relationships into the post-acute arena. These innovations are hard to keep up with, hard to manage, and even harder to integrate into your current electronic charting/management systems. This presentation will outline the integration process.

Resuscitation and Stabilization of the Adult Trauma Patient

3:05 pm - 3:40 pm

**Joe Hylton MA RRT-ACCS RRT-NPS
NRP FAARC, Charlotte NC**

Content Category: Adult Acute Care

Patients experiencing illness from trauma require rapid assessment and often require critical interventions for stabilization. This presentation will discuss resuscitation and stabilization techniques along with life-saving interventions that can be performed.

Noninvasive Ventilation in the Treatment of SDB and Obesity Hypoventilation

3:05 pm - 3:40 pm

Meena Khan MD, Columbus OH

Content Category: Sleep

The presenter will give a discussion and interactive case presentation regarding indications, device types, and troubleshooting methods for noninvasive ventilation in SDB and obesity hypoventilation.

OPEN FORUM POSTER DISCUSSION #7 3:10 pm - 5:05 pm

Supported by an unrestricted educational grant from



Researchers and clinicians present findings of studies on aerosol therapy, mechanical ventilation, neonatal and pediatric care, education, management, and every other mode of practice in our profession.



Diane Oldfather



Zach Gantt



Joe Hylton



Meena Khan

OPEN FORUM POSTER DISCUSSION #8 3:10 pm - 5:05 pm

Supported by an unrestricted educational grant from



Researchers and clinicians present findings of studies on aerosol therapy, mechanical ventilation, neonatal and pediatric care, education, management, and every other mode of practice in our profession.

Minimizing Implicit Bias 3:45 pm - 4:20 pm

**Crystal Dunlevy EdD RRT,
Columbus OH**

Content Category: Education

All of us carry implicit biases based upon a lifetime of experiences and interactions. It is important to be aware of these so that we can minimize the impact that they have on patient care and outcomes. This presentation will briefly review the definition of implicit bias as well as how to determine individual bias. The majority of the presentation will describe and discuss strategies that have been proven to reduce implicit bias.

Dynamic Dialogue – The Key to Patient Engagement

3:45 pm - 4:20 pm

**Frederic D Seifer MD FCCP,
Potsdam NY**

Content Category: Clinical Practice

One of the key challenges in chronic disease management is often related to bad behaviors that need to be changed by the patient. Respiratory care practitioners should lead the charge in understanding dynamic dialogue to cause the needed behavior modifications.

Balancing the Workload for Great Patient Care and Managing Productivity 3:45 pm - 4:20 pm

**Peggy Reed-Watts MS RRT,
Saint Louis MO**

Content Category: Management

The key vehicle to leveling the workload is by changing select respiratory services administration times. This requires support from pharmacy, nursing, and information technology. The speaker will describe 7 steps taken to implement a process that offered a stronger alternative to the current administration of respiratory scheduled services. Tools created and used during this process will be shared.

Noninvasive Ventilation During Transport

3:45 pm - 4:20 pm

**Dario Rodriquez Jr MSc RRT FAARC,
Cincinnati OH**

Content Category: Adult Acute Care

As the use of noninvasive ventilation has dramatically increased in recent years, the demand for transportation of these patients has also increased. This lecture will review difficulties encountered during transport of patients on NIV and the current literature on this growing practice.

Continuing Respiratory Care Education (CRCE)

AARC Congress 2017 is approved for all the credit hours you need to maintain your state license, more than 20 hours.



Crystal Dunlevy



Frederic D Seifer



Peggy Reed-Watts



Dario Rodriquez Jr

Alternative Treatment Options for Sleep Apnea

3:45 pm - 4:20 pm

Peter Gay MD FCCP, Rochester MN

Content Category: Sleep

PAP therapy has been the standard treatment for obstructive sleep apnea but compliance remains a problem. This lecture will discuss alternative treatment options that exist for sleep apnea.

Adopting New HME Revenue Models in Chronic Care

4:25 pm - 5:00 pm

Nicholas J Macmillan BGS RRT FAARC, Bargersville IN

Content Category: Clinical Practice

Integrated Care Models (ICMs) and incentives for decreased readmissions are being explored as payer's transition away from traditional care models. Hospitals are beginning to partner with HME companies who can play a pivotal role in working with vulnerable patient populations. This session will identify key steps for HME RTs to prove their value with measurable data and deliverables that improve outcomes.

RRT Case Manager – You Can Do It All!

4:25 pm - 5:00 pm

Dianne L Lewis MS RRT FAARC, Naples FL

Content Category: Management

RTs are qualified to do hospital case management not just with pulmonary patients. This presentation will include a personal experience of one RRT who has done it and will explain how others can do so. Also, it will review the criteria for RRTs to take the case management certification and how the AARC enabled RRTs to qualify for the exam.



Peter Gay



Nicholas J Macmillan



Dianne L Lewis

Industry Support Statement

- The AARC is proud of the collaboration we have had with friends in industry for many years, and we wish to acknowledge our appreciation for their unrestricted educational grants for AARC Congress 2017.
 - All sponsored sessions will be identified in the program, with signage, and verbally at the lectern.
 - The AARC accepts support only on the condition that the Program Committee be the sole owner of all sessions, including selection of speakers and topics.
-

Patient Safety During Inter-Facility and Intra-Facility Transport

4:25 pm - 5:00 pm

Jon C Inkrott RRT-ACCS, Orlando FL

Content Category: Patient Safety

This presentation will expand on the definition of a Just Culture and relate this to the current practices used during inter- and intra-facility transport to ensure patient safety. It will also look at some of the pitfalls and mistakes that professionals make that can lead to a disastrous outcome for all involved.

OSA: Preoperative Screening and Postoperative Care

4:25 pm - 5:00 pm

Peter Gay MD FCCP, Rochester MN

Content Category: Sleep

Millions of patients undergo surgery every day that may have obstructive sleep apnea. In order to reduce the risk of adverse outcomes in the postoperative patient, it is imperative that we improve perioperative care by identifying patients with confirmed or suspected OSA. his lecture will discuss how perioperative programs can reduce the risk of adverse outcomes for OSA patients receiving sedation.

Breaking Bad in the Lung Lab: Clinical Scenarios To Improve Quality and Enhance Safety

4:25 pm - 5:00 pm

**David M Wheeler MEd RRT-NPS
FAARC, Charleston SC**

Content Category: Adult Acute Care

This discussion will utilize videos of human, canine, and porcine lungs in the ex-vivo state to illustrate the authenticities of conventional clinical interventions. This lecture will concentrate on clinical adjuncts that can both enhance safety and improve quality through mindful, evidence-based application of mechanical ventilation. Participants will see real lungs in real time authentically demonstrating the consequences of our interventions both strategic and unintentional.



John C Inkrott



David M Wheeler

Thursday, October 5





RENEW YOUR NBRC CREDENTIALS

IN JUST A FEW CLICKS.

Experience the priceless benefit of an AARC membership. AARC members will now find the easiest way to renew their credentials will be by submitting AARC CRCE® credits to the NBRC. By simply entering an AARC member number into the NBRC's website, AARC members can now import their entire AARC CRCE® credits and transcript, and eliminate any need for manual entry of their CRCE® continuing education credits on the NBRC's website.

Visit **AARC University** at <http://c.aarc.org/go/nbrc.aarcu> to take CRCE® courses today!



Friday



44th Donald F Egan Scientific Memorial Lecture

8:00 am - 8:45 am

Tom Lamphere BS RRT-ACCS RPFT FAARC / Presiding

Caring for the Mechanically Ventilated Patient – a Patient-Centered Approach

Sangeeta Mehta MD, Toronto CA

Content Category: Adult Acute Care

Admission to the ICU and mechanical ventilation are difficult experiences for patients and their family members. The goals of patient care have changed tremendously, and now focus on an awake, comfortable, and interactive patient, who can mobilize and participate in care. Achievement of these goals presents new challenges to ICU clinicians. This presentation will highlight important evidence related to comfort and sedation management, ICU delirium, mobilization, and the patient experience.



Flag Folding Ceremony

8:50 am - 9:20 am

Joseph Buhain EdD MBA RRT FAARC / Presiding



Student Symposium for New Professionals

This symposium is not eligible for CRCE

9:10 am – 12:25 pm

Strategic Marketing: Getting That Dream Job

9:10 am - 9:45 am

Cheryl Hoerr MBA RRT CPFT FAARC, Rolla MO

This presentation will provide an explanation of the value of marketing and how you can use key marketing principles to position yourself for your dream job. We will discuss trends in the respiratory field and show how to gather detailed information about the companies you would like to work for. We will also outline techniques to conduct an effective job search along with a brief overview on how to develop your cover letter and resume and prep for that all-important interview.

How To Lose a Job Before You Are Hired

9:50 am - 10:25 am

Dana Evans MHA RRT-NPS, Chicago IL

You have just landed an interview for your dream job. You are nervous, excited, and really want to impress the hiring leader. Did you know you could lose the job before you even arrive to the interview? The presenter will discuss common mistakes and pitfalls of job seekers, including those that may cost you the position before you are hired.

What It Means To Be a Professional

10:30 am - 11:05 am

Crystal Dunlevy EdD RRT, Columbus OH

This presentation will provide an overview of the profession of respiratory care including its history, evolution, role, and value. Emphasis will be placed on the characteristics and behaviors of a professional and the critical importance of being involved and engaged in the profession and maintaining professional membership.

Acquiring Your Credential: Success on the Therapist Multiple Choice Examination

11:10 am - 11:45 am

Bill Galvin MEd RRT CPFT AE-C FAARC, Havertown PA

The presentation will address the factors that make for success in the examination process. It will cover preparatory issues and what you will experience onsite as well as test-taking strategies and techniques. Emphasis will be placed on the new Therapist Multiple-Choice Examination (TMC) implemented by the NBRC in January 2015.

Acquiring Your Credential: Success on the Clinical Simulation Examination

11:50 am - 12:25 pm

Bill Galvin MEd RRT CPFT AE-C FAARC

This presentation will serve as a sequel to the previous one and will address the factors that make for success on the Clinical Simulation Examination. It will cover such issues as exam content structure and unique strategies for progressing through a branching logic type of exam. It will also highlight recent changes implemented in January 2015.



Cheryl Hoerr



Dana Evans



Crystal Dunlevy



Bill Galvin

OPEN FORUM Editors' Choice

9:30 am - 12:15 pm

Supported by an unrestricted educational grant from



Reviewers and Journal editors chose these abstracts as the most significant ones at this year's Congress. Each author of the Editors' Choice abstracts will give a 10-minute slide presentation, followed by 10 minutes of audience questions and discussions.

Adult Acute Care Section Membership Meeting

9:55 am - 10:25 am



Keith D Lamb BS RRT-ACCS FCCM/
Presiding

Section members meet to determine their needs and priorities, as well as how to use AARC resources to accomplish them. All Congress attendees, including section non-members, are invited to attend and participate.

OPEN FORUM POSTERS ONLY #2

10:00 am - 2:30 pm

Supported by an unrestricted educational grant from



Researchers and clinicians present the results of their work in this Posters Only session. Authors available from 12:00 pm – 1:30 pm for questions and interaction.

Entering into Uncharted Territory: Hospital RT to Home Care RT

10:30 am - 11:05 am

Kimberly S Wiles RRT CPFT,
Kittanning PA

Content Category: Clinical Practice

With the surge of transition of care programs across the country many hospitals are incorporating a home visit by an RT from the hospital. This lecture will discuss the competencies required for the RT to navigate the home setting and uncover potential barriers to care.



Kimberly S Wiles

Applying Artificial Intelligence to Optimize Respiratory Therapy Staffing

10:30 am - 11:05 am

Madhu Sasidhar MD FCCP, Pepper
Pike OH

Content Category: Management

The field of artificial intelligence is expanding rapidly with promising applications in health care. Platforms such as IBM Watson are being applied to optimize health care delivery in a variety of settings. This talk will focus on a real-world example of applying artificial intelligence algorithms to predict short-term respiratory therapist staffing requirements for an integrated health care system.

Friday, October 6

RESPIRATORY CARE

OPEN FORUM® Symposia
sponsored by



Clinicians present the results of their scientific studies. Abstracts with a similar focus are clustered into a symposium to encourage discussions and interactions among investigators and observers; posters expand the information presented. 12 OPEN FORUM Symposia will be presented during the 3 ½ days of AARC Congress 2017.

PFT Interpretation Part One: Reference Equations and Test Quality

10:30 am - 11:05 am

**Jeffrey M Haynes RRT RPFT FAARC,
Nashua NH**

Content Category: Pulmonary Function

There are several factors involved in the accurate interpretation of pulmonary function test results. Part one of this two-lecture symposium will review the process of selecting the best reference equations for the patient population being tested and ensuring a high level of test quality.

The Manikin Challenge

10:30 am - 11:05 am

**Sherry Whiteman MS RRT,
Neosho MO**

Content Category: Clinical Practice

High-fidelity simulation has proven to be a useful tool for the health care educator, but purchasing the manikins can be quite costly. This lecture will look at various options to increase the fidelity of simulations without breaking the bank!

Visualizing Infant Ventilator Synchrony

10:30 am - 11:05 am

**John Emberger BS RRT-ACCS CPHQ
FAARC, Newark DE**

Content Category: Neonatal/Pediatric

This lecture will cover the literature as well as review video cases of graphics to improve ventilator synchrony of very low birth weight infants. Attendees will understand how to identify asynchrony and optimize the ventilator to improve synchrony for premature infants receiving mechanical ventilation.

Incorporating Complementary and Alternative Medicine into Pulmonary Rehabilitation Programs

10:30 am - 11:05 am

**Aaron McColpin BHS DNP RRT-NPS NP
CPFT, Camarillo CA**

Content Category: Clinical Practice

This lecture will review the most commonly used complementary and alternative medicine (CAM) therapies used by patients today. Also, we'll review the current evidence for these common CAM therapies and ways to incorporate them into your pulmonary rehabilitation program.

PRO/CON: High Flow Nasal Oxygen is First-Line Treatment for ARF Not NIV

10:30 am - 11:50 am

**PRO: Keith D Lamb BS RRT-ACCS
FCCM, Des Moines IA**

**CON: Brady Scott MS RRT-ACCS
FAARC, Chicago IL**

Content Category: Adult Acute Care

High flow nasal oxygen by nasal cannula has been applied to any number of disease states. Recent publications suggest HFNC is better tolerated and more effective than noninvasive ventilation. However, while HFNC reduces ventilator requirements, it doesn't reduce the work of breathing in the same fashion as NIV. So, which should be applied first?



Jeffrey M Haynes



Sherry Whiteman



John Emberger



Aaron McColpin



Keith D Lamb



Brady Scott

Maintaining Quality with Declining Reimbursement

11:10 am - 11:45 am

Cynthia Anne Gray BS RRT RPFT, Edmond OK

Content Category: Clinical Practice

This lecture will look at the techniques and skills that allow home care companies to maintain or enhance quality with a declining reimbursement. Understanding how Quality Improvement programs can make the difference between surviving and thriving will be reviewed and presented.

Interdisciplinary Care Redesign: Achieving Continuous Improvement in Quality, Cost, and Patient Experience Through a Standardized Approach

11:10 am - 11:45 am

Julianne Buchler MBA BN, Chicago IL

Content Category: Management

Care Redesign aims to improve outcomes through a structured, interdisciplinary process of standardizing approaches to patient management. A key goal to success of such a process is the need for Management to empower their staff to 'think outside the box.' This presentation will provide an overview of this novel approach, including tools and key success factors for achieving sustained change aligned with organizational objectives and informed by data.

PFT Interpretation Part Two: Statistics and Normal vs Abnormal

11:10 am - 11:45 am

Jeffrey M Haynes RRT RPFT FAARC, Pembroke NH

Content Category: Pulmonary Function

There are several factors involved in the accurate interpretation of pulmonary function test results. Part two of this symposium will review the best method of utilizing statistics to determine "normal" and "abnormal" results. Percent predicted, lower limit of normal, and z-scores will be discussed and case studies will be included.

Designing a Simulation of Any Kind*

11:10 am - 11:45 am

Phillip Stark RRT, Hershey PA

Content Category: Clinical Practice

Simulation has become the premiere educational method to obtain and enhance clinical skills. Incorporating an educational curriculum into any simulation session is essential to its success. This discussion will focus on describing and implementing the 6 steps of Kern's educational curriculum into a simulation of any kind.



Julianne Buchler



Jeffrey M Haynes



Phillip Stark



*Chosen from the 2016 speaker Academy

Exhibit Hours at The Buying Show:

Wednesday, Oct. 4, 10:30 am - 4:00 pm

Thursday, Oct. 5, 9:30 am - 3:00 pm

Friday, Oct. 6, 9:30 am - 2:00 pm

Methods for Surfactant Delivery in Infants: To Tube or Not To Tube?

11:10 am - 11:45 am

Rob DiBlasi BSRT RRT-NPS FAARC, Seattle WA

Content Category: Neonatal/Pediatric

The gold standard in artificial surfactant administration for infants with respiratory distress has been to administer the drug directly through an endotracheal tube during assisted ventilation. With the trend of supporting neonates with noninvasive respiratory support, is there a simple and safe strategy for delivering lung surfactant without intubation? This presentation will review novel, minimally-invasive strategies that offer the potential to effectively deliver surfactant noninvasively.

Pulmonary Rehabilitation: Exercise and Oxygen for the IPF Patient

11:10 am - 11:45 am

Debbie Koehl MS RRT AE-C FAARC, Indianapolis IN

Content Category: Clinical Practice

Cough and severe activity-related hypoxemia (SARH) can be as disabling as dyspnea. Attend this session for a review on supporting evidence for PR exercise and management of supplemental oxygen.

Portable Oxygen Concentrators: Patient-Driven Evidence is Lacking

11:50 am - 12:25 pm

Kimberly S Wiles RRT CPFT, Kittanning PA

Content Category: Clinical Practice

Patients are purchasing small, lightweight portable oxygen concentrators (POCs) to use that only have pulse mode delivery. How effective are these devices? Patients don't care, but the RT should. Multiple variables impact pulse dose delivery. This lecture will discuss the pros and cons of utilizing POCs for long-term use.

Health Care Regulatory Compliance is Boring... Does It Really Apply to Respiratory Care?

11:50 am - 12:25 pm

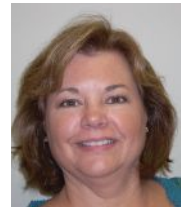
Kim Bennion MHS BSRT RRT CHC, Salt Lake City UT

Content Category: Management

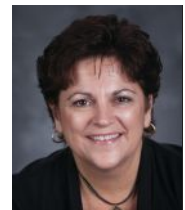
This presenter is certified in health care compliance which is a new role for RTs. She will share her corporation's process of bridging the communication chasm between the clinical and business arms of health care. She will also describe how the corporation's respiratory care clinical service line's annual activity tracker, based on the seven elements of an effective compliance program as well as dimensions of clinical care, assisted in bridging the gap and expanding roles for respiratory therapists in the organization. With this information, attendees will have the knowledge necessary to create this value-added role in your organization.



Rob DiBlasi



Debbie Koehl



Kimberly S Wiles



Kim Bennion

Interventional Pulmonology – A New Horizon Utilizing the Expertise of the Respiratory Therapist

11:50 am - 12:25 pm

Heidi Gibson RRT, Minneapolis MN

Content Category: Pulmonary Function

This lecture will describe the development of an “Interventional Respiratory Therapist” and their role in an Interventional Pulmonology program. The lecture will include a discussion of the essential responsibilities of the respiratory therapist in bronchoscopy. Descriptions of specialized equipment used to perform diagnostic and therapeutic procedures will be covered along with a case review to illustrate the expanding role of the respiratory therapist in the bronchoscopy suite.

The ARISE Project Augmented Reality Integrated Simulation Education

11:50 am - 12:25 pm

Kim Ernstmeyer RN MSN ANP-BC, Eau Claire WI

Theresa Meinen MS RRT CHSE, Chippewa Falls WI

Content Category: Clinical Practice

The Augmented Reality Integrated Simulation Education (ARISE) project was developed as part of a federal grant from the Department of Labor. The ARISE project designs health care simulations using iPads, QR codes, and rich media via the ARISE open-source platform to augment both high- and low-fidelity simulation and enhance learner engagement. Join us and interact with this unique advancement to health care simulation education.

Pediatric Cardiac Critical Care: Essentials for the Respiratory Therapist

11:50 am - 12:25 pm

Alexandre T Rotta MD, Cleveland OH

Content Category: Neonatal/Pediatric

This presentation will discuss the many challenges and common pitfalls of caring for infants and children in a cardiac intensive care unit, including the intended and unintended consequences of “routine” therapies in those with non-traditional cardiorespiratory physiology.

Incorporating Pulmonary Rehab into Skilled Nursing

11:50 am - 12:25 pm

Stephanie Williams BS RRT, Nashville TN

Content Category: Clinical Practice

A golden opportunity is waiting for RTs in the Skilled Nursing space. While RT services cannot be billed as a separate item in skilled facilities, the patient will benefit significantly from having RT expertise in SNFs to help augment the PT/OT departments. This lecture will provide learners with the skills to sell their services to skilled nursing facilities.

Continuing Respiratory Care Education (CRCE)

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Heidi Gibson



Kim Ernstmeyer



Theresa Meinen



Alexandre T Rotta



Stephanie Williams

Friday, October 6

Ex Vivo Lung Perfusion (EVLP): Emerging Role for the Respiratory Therapist in the Assessment, Evaluation, and Resuscitation of the Harvested Human Lung

11:50 am - 12:25 pm

David M Wheeler MEd RRT-NPS FAARC, Charleston SC

Content Category: Adult Acute Care

This discussion will center on the emerging technologies for the evaluation, rescue, and resuscitation of the harvested human lung in the ex-vivo state. The focal point of this discussion will be the crucial role of the respiratory therapist in the process of harvested lung resuscitation. Currently less than 20% of harvested lungs are transplanted while the remaining 80% are wasted. This discussion will identify and explain the management techniques of human lung preservation and rescue, compare competing technologies, and describe the steps needed to create a lung lab. Several videos and pictures of human lungs being treated and evaluated will be utilized to highlight case studies from the lab.

OPEN FORUM POSTER DISCUSSION #9

12:30 pm - 2:25 pm

Supported by an unrestricted educational grant from



Researchers and clinicians present findings of studies on aerosol therapy, mechanical ventilation, neonatal and pediatric care, education, management, and every other mode of practice in our profession.

OPEN FORUM POSTER DISCUSSION #10

12:30 pm - 2:25 pm

Supported by an unrestricted educational grant from



Researchers and clinicians present findings of studies on aerosol therapy, mechanical ventilation, neonatal and pediatric care, education, management, and every other mode of practice in our profession.



David M Wheeler

Education Section Membership Meeting

1:15 pm - 1:45 pm



Ellen Becker PhD RRT-NPS RPFT AE-C FAARC | *Presiding*

Section members meet to determine their needs and priorities, as well as how to use AARC resources to accomplish them. All Congress attendees, including section non-members, are invited to attend and participate.

Win Prizes with the AARC Passport Game!

Download the AARC Mobile App to play the AARC Passport Game during Congress. Collect points to win by posting pictures, scanning QR codes at events, evaluating sessions and more. Winners will be announced daily via app push notifications. Win RC Week merchandise or even a Grand Prize registration for Congress 2018!

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- > Select AARC PASSPORT GAME
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Continuing Care/Rehab Section Membership Meeting

1:15 pm - 1:45 pm



**Krystal Craddock BSRC RRT-NPS CCM/
Presiding**

Section members meet to determine their needs and priorities, as well as how to use AARC resources to accomplish them. All Congress attendees, including section non-members, are invited to attend and participate.

Opening a Can of Worms: What Do I Do Now?

1:45 pm - 2:20 pm

**Brady Scott MS RRT-ACCS FAARC,
Chicago IL**

Content Category: Education

Educational programs have established policies and procedures as well as professional codes of conduct. However, not all situations are included in these documents. How does the program handle unique and unexpected breaches of professionalism? The presenter will provide a series of unique situations to highlight potential gaps in departmental and institutional policy as well as garner discussion about the appropriate courses of action.

(Symposium)

What's In Your Garage?

1:45 pm - 3:00 pm

▶ **How to Fine Tune a Hot Rod – Leading a High- Performing RT Professional**

1:45 pm - 2:20 pm

**Joel M Brown II BS RRT FAARC,
Wilmington DE**

**Cheryl Hoerr MBA RRT CPFT FAARC,
Rolla MO**

Content Category: Management

This lecture will provide the learners with tips and methods for leading, motivating, and retaining high-performing RT professionals. It will also provide insight on how to enhance their leadership skills and explore their untapped potential.

▶ **Tuning Up a Potential Lemon – How to Lead a Low Performing RT Professional**

2:25 pm - 3:00 pm

Joel M Brown II BS RRT FAARC

Cheryl Hoerr MBA RRT CPFT FAARC

Content Category: Management

It has been established that organizations with engaged employees have a better bottom line. This lecture will provide the learners with tips and methods for leading motivating and retaining high performing RT professionals. It will also provide insight on how to enhance their leadership skills and explore their untapped potential.



Brady Scott



Joel M Brown



Cheryl Hoerr

(Symposium)

NIOSH and RTs: Working Together to Support Lung Health in the Workforce

1:45 pm – 4:20 pm

▶ Special Spirometry Training for the Occupational Setting: What's the Big Deal?

1:45 pm - 2:20 pm

Kathleen A Clark PhD MS RRT CPFT, Morgantown WV

Content Category: Pulmonary Function

The first lecture in this four-part symposium will discuss the recommendation that anyone performing occupational testing attend a National Institute for Occupational Safety and Health (NIOSH)-approved Spirometry Training Course. Specific real-time errors that affect the accuracy and precision of spirometry test results will be reviewed and examples demonstrating the need for a properly trained technician/clinician to recognize and troubleshoot errors routinely encountered during occupational spirometry testing will also be given.

▶ Development of a National Spirometry Facility Occupational Surveillance Network

2:25 pm - 3:00 pm

Kathleen A Clark PhD MS RRT CPFT

Content Category: Pulmonary Function

The second lecture in this four-part symposium will discuss the process of developing a national spirometry facility network for the expansion of the NIOSH-based Coal Worker Health Surveillance Program (CWHSP). Key components of this program and specific initial barriers that must be overcome during the developmental stages of the national network will be reviewed.

▶ Management of Work-Related Asthma: When Punching the Clock Gets Serious

3:05 pm - 3:40 pm

Susan Blonshine RRT RPFT AE-C FAARC, Mason MI

Content Category: Pulmonary Function

The third lecture in this four-part symposium will advocate for a paradigm shift necessary to bond the world of occupational health and respiratory care. We will examine the triggers of work-related asthma – new-onset asthma caused by work as well as pre-existing asthma exacerbated by work. The imperative role of the respiratory therapist in closing the gap between prevention and management of work-related asthma will be illustrated through a case presentation.

▶ Occupational Risks: Interstitial Lung Disease

3:45 pm - 4:20 pm

Susan Blonshine RRT RPFT AE-C FAARC

Content Category: Pulmonary Function

The fourth lecture in this four-part symposium will discuss work-related interstitial lung diseases and the five primary industry culprits as described by NIOSH. Personal protective equipment required by employers to prevent the development and progression of disease and key diagnostic tests recommended to expose and prevent the silent disease progression will be reviewed.



Susan Blonshine

Waving the Caution Flag: Why Your Equipment May Not Be Clean

1:45 pm - 2:20 pm

**Cheryl Hoerr MBA RRT CPFT FAARC,
Rolla MO**

Content Category: Patient Safety

The increasing incidents of patients being infected as a result of contaminated equipment has many waving a caution flag and warning that there are gaps in our knowledge and processes. Come and hear what has been discovered about why your “clean” equipment may not be as clean as you think and what steps you can take to minimize your patients’ risk of infection.

(Symposium)

Oxygen: Basics to Cutting Edge

1:45 pm – 3:40 pm

▶ Oxygen Delivery: The Essentials for Every RT

1:45 pm - 2:20 pm

John Kheir MD, Charlestown MA

Content Category: Neonatal/Pediatric

A clear understanding of the physiologic principles of oxygen delivery is essential for every respiratory therapist. This clinically relevant discussion will be presented with a clinical focus by an expert in the field.

▶ Target Oxygen Saturation Limits

2:25 pm - 3:00 pm

**Aasma Chaudhary BS RRT,
Philadelphia PA**

Content Category: Neonatal/Pediatric

The NeOProm Collaboration was expected to help determine the optimal oxygen saturation limits for ELBW Infants. The NeOProm Collaboration was a meta-analysis based on 5 major oxygen trials. However, the results of these trials have raised more questions than answers.

This talk will dissect the current information from these trials to present a more practical approach to help guide clinicians in making their own practice decisions for SpO2 target limits.

▶ IV Oxygen: Not Science Fiction

3:05 pm - 3:40 pm

John Kheir MD

Content Category: Neonatal/Pediatric

Oxygen delivery beyond inhalation – really? This presentation will explore the concept of intravenous oxygen delivery. This novel approach will be discussed by one of the pioneers in the field.

COPD Case Management Led by RTs Reduces Readmissions

1:45 pm - 2:20 pm

**Krystal Craddock BSRC RRT-NPS CCM,
Sacramento CA**

Content Category: Clinical Practice

This lecture will give you a look at what RT COPD case managers at UC Davis have been doing to improve patient education and facilitate health care navigation and utilization to achieve better outcomes and cost savings. A review of the COPD case management program includes education, medication, and treatment recommendations and CMS discharge planning standards.



Cheryl Hoerr



John Kheir



Krystal Craddock



(Symposium)
Controversies in Respiratory Care: Part One

1:45 pm – 4:20 pm

► **PRO/CON: Asynchrony – Sedation/Paralysis vs. the Ventilator**

1:45 pm - 3:00 pm

PRO: David Vines MHS RRT FAARC, Chicago IL

CON: John Davies MA RRT FAARC FCCP, Durham NC

Content Category: Adult Acute Care

Asynchrony is common in mechanical ventilation and is associated with poor outcome. However, the effect is not causal. Is asynchrony a marker of illness or does asynchrony impact outcomes? Is the answer just to take the patient out of the equation? Early sedation and/or paralysis eliminates the WOB and makes asynchrony irrelevant. Or, is maintenance of spontaneous breathing and diaphragmatic function important to outcomes and matching the ventilator to patient demand to relieve asynchrony the key issue?

► **PRO/CON: Recruitment Maneuvers Should be Used Routinely in ARDS**

3:05 pm - 4:20 pm

PRO: Robert M Kacmarek PhD RRT FAARC, Boston MA

CON: Rich Kallet RRT, San Francisco CA

Content Category: Adult Acute Care

Recruitment maneuvers can reverse alveolar collapse and reduce the regional differences in lung mechanics associated with ARDS. Recruitment can increase compliance and improve gas exchange. However, hemodynamic consequences are common and both air leaks and hypoxemia have been reported.

Virtual Respiratory Care: The Future or a Threat to Our Jobs?

1:45 pm - 2:20 pm

Zach Gantt RRT, Livingston TN

Content Category: Clinical Practice

Telemedicine is an exploding industry that is rapidly becoming part of every major Health care ecosystem in the U. S., so why are Respiratory Therapist not in the forefront of the telemedicine movement?

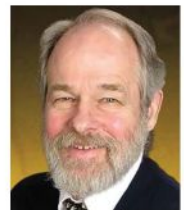
This presentation will outline opportunities to extend Respiratory Care into any environment in the country, including, long term care.



David Vines



John Davies



Robert M Kacmarek



Rich Kallet



Zach Gantt

Friday, October 6



Tips and Tricks for Teaching Systematic Interpretation of Chest Images

2:25 pm - 3:00 pm

Jeff Anderson MA RRT, Meridian ID

Content Category: Education

This lecture will present a systematic approach to teaching interpretation of CXRs and CTs. It will include image acquisition processing and interactive display to students.

The Impact of Common Disasters on the Health Care Provider

2:25 pm - 3:00 pm

Joe Hylton MA RRT-ACCS RRT-NPS NRP FAARC, Charlotte NC

Content Category: Bioterrorism and Emergency Preparedness

Disaster situations can manifest in many forms. This presentation will highlight common disaster types and how it might impact the health care provider in emergency and critical care environments.

Pulmonary Rehabilitation: Where Do We Stand with Reimbursement?

2:25 pm - 3:00 pm

Debbie Koehl MS RRT AE-C FAARC, Indianapolis IN

Content Category: Clinical Practice

CMS coverage rules for COPD and Non-COPD differ. Attend this session for a review and to discuss how to manage a diverse payer referral base.

21st Century RT Practice in Long Term Care

2:25 pm - 3:00 pm

Kathryn Thompson RRT, Masontown PA

Lisa Ziller BS RRT, Bloomsburg PA

Content Category: Clinical Practice

This lecture will explain how value based care delivery meets the objectives of the "Triple Aim" for health care. Identify resources and tools for providing adult patients and families with the best in value based, patient-centered care utilizing top of license practice, evidenced-based approaches and alternative modes of therapy.

OPEN FORUM POSTER DISCUSSION #11

3:15 pm - 5:10 pm

Supported by an unrestricted educational grant from



Researchers and clinicians present findings of studies on aerosol therapy, mechanical ventilation, neonatal and pediatric care, education, management, and every other mode of practice in our profession.

OPEN FORUM POSTER DISCUSSION #12

3:15 pm - 5:10 pm

Supported by an unrestricted educational grant from



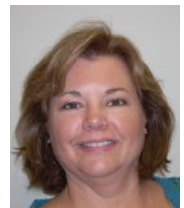
Researchers and clinicians present findings of studies on aerosol therapy, mechanical ventilation, neonatal and pediatric care, education, management, and every other mode of practice in our profession.



Jeff Anderson



Joe Hylton



Debbie Koehl

Interprofessional Education (IPE) – Make It Happen in Your School!

3:05 pm - 3:40 pm

Karen S Schell DHSc RRT-NPS RRT-SDS RPFT, Kansas City KS

Content Category: Education

Interprofessional Education is here! Are you ready for it? Learn what it is and how to implement it in your classroom and courses.

Patient Education and the Respiratory Therapist: Improving Outcomes

3:05 pm - 3:40 pm

Shawna Strickland PhD RRT-NPS RRT-ACCS AE-C FAARC, Irving TX

Content Category: Management

A patient's ability to manage his/her disease process can impact long-term health goals, cost of health care, and whether or not that patient can be successfully managed at home. This presentation will define health literacy and discuss its impact on several factors, including patient health outcomes and health care costs. In addition, the presentation will identify barriers to effective patient education and how the respiratory therapist can overcome those barriers to promote effective disease self-management, reduce readmissions, and improve the burden of health care costs.

(Symposium) Ventilator Alarm Safety

3:05 pm – 4:20 pm

▶ **Ventilator Alarms: Driving Patient Safety or Driving RTs Crazy?**

3:05 pm - 3:40 pm

Marc Schlessinger MBA RRT-NPS RPFT FACHE, Plymouth Meeting PA

Content Category: Patient Safety

A major focus of The Joint Commission's surveys for the next several years will be clinical alarm management. One key component of clinical alarm management is alarm fatigue. There has been much work done on physiologic monitoring and the attention will be now moving toward ventilator alarms. This presentation will help therapists take an objective look at alarm fatigue as it pertains to ventilators, BiPAPs, and pulse oximeters.

▶ **Solutions for Ventilator Alarm Management**

3:45 pm - 4:20 pm

Connie Dills MBA RRT RPFT, West Hartford CT

Content Category: Patient Safety

This presentation will discuss technology solutions for improving ventilator alarm notifications: which alarms are actionable, which are not actionable, and how the clinician is notified.

Pulmonary Rehabilitation: A Year in Review

3:05 pm - 3:40 pm

Brian Carlin MD, Sewickley PA

Content Category: Clinical Practice

Attend this session for a year's worth of review of the more important studies impacting care of the chronic lung disease patient.



Karen S Schell



Shawna Strickland



Marc Schlessinger



Connie Dills



Brian Carlin

Driving Outcomes through Technology in Post-Acute Care

3:05 pm - 3:40 pm

Gene Gantt RRT FAARC, Livingston TN

Content Category: Clinical Practice

The Skilled Nursing Facility (SNF) industry is quickly catching up with the readmission penalties. This presentation will outline the need for the advancement of respiratory technology in the LTC market and how RT's in Tennessee have driven policy to create a successful program.

Interprofessional Coaches: Facilitating Transformational Learning

3:45 pm - 4:20 pm

Jody Delp MEd RRT CPFT, Evansville IN

Content Category: Education

This presentation was created to discuss how interprofessional coaches facilitate transformational learning and inspire teamwork in interprofessional teams working together in outpatient primary health care settings.

The Respiratory Dashboard: What Every Director Needs to Know to Wed Respiratory Care Clinical Goals with the Tenets of a Compliance Program

3:45 pm - 4:20 pm

Kim Bennion MHS RRT CHC, Salt Lake City UT

Content Category: Management

The presenter will share the seven elements of a compliance program as they can relate to Respiratory Care Service Line clinical goals.

(Symposium)

Importance of the Team: Interdisciplinary Approaches to Optimize Quality and Safety

3:45 pm - 5:00 pm

► Improve Quality While Reducing Cost – Really?

3:45 pm - 4:20 pm

Julianne Buchler MBA BN, Chicago IL

Content Category: Neonatal/Pediatric

Care Redesign is a novel process that aims to improve patient outcomes through interdisciplinary teamwork and a carefully structured process designed to improve consistency in the approach to clinical care. The presentation will provide an evidence-based overview of this important strategy while providing specific examples, including the use of non-pharmacologic strategies for patient comfort to reduce reliance on pharmacology and promote earlier extubation.

► Optimize Patient Safety Through Improved Team Dynamics

4:25 pm - 5:00 pm

Ira Cheifetz MD FAARC, Durham NC

Content Category: Neonatal/Pediatric

Optimizing patient safety requires teamwork and effective communication among the entire health care team. This presentation will discuss strategies to optimize team dynamics based on well-established approaches that made aviation one of the safest industries. The discussion will be focused on key approaches for the respiratory therapist.



Gene Gantt



Jody Delp



Kim Bennion



Julianne Buchler



Ira Cheifetz

Pulmonary Rehabilitation and Readmissions: Does Rehab Really Help to Reduce Readmissions?

3:45 pm - 4:20 pm

Brian Carlin MD, Sewickley PA

Content Category: Clinical Practice

Some controversy exists as to the benefits that PR provides in regards to readmission reduction programs. This session will review the literature surrounding the use of PR in regards to readmission reductions as well as discuss a proposed trial for studying such effects in a prospective fashion.

Telemedicine: Remote Ventilated Patient Management Using Mobile Devices

3:45 pm - 4:20 pm

Armando Kurili BS CRT, Canton MI

Content Category: Clinical Practice

This presentation provides background on the adult, ventilator-dependent patient population and the benefits involved with implementing smartphone videoconferencing for remote patient management in outpatient settings.

From the Classroom to the Clinic: Growing Students to Clinicians through Interprofessional Competency and Education

4:25 pm - 5:00 pm

Karen S Schell DHSc RRT-NPS RRT-SDS RPFT, Kansas City KS

Sheri Tooley BSRT RRT-NPS AE-C FAARC, Rochester NY

Content Category: Education

Education is moving to Interprofessional Practices. Many classroom activities are integrating professions to improve communication collaboration and teamwork. This presentation looks at ideas to make the transition to interprofessional education work with limited time and faculty.

Competencies for Complex Medical Technology

4:25 pm - 5:00 pm

Cheryl Hoerr MBA RRT CPFT FAARC, Rolla MO

Julie Jackson BS RRT-ACCS, Des Moines IA

Content Category: Management

As medical technology continues to advance, respiratory therapy managers and educators may struggle with ensuring staff competency to maximize patient safety especially with low volume/high risk procedures. This panel discussion will address the challenges and barriers to developing competencies for complex medical technology from both the manager and educator perspective and provide the attendee with recommendations for improving staff competency assessment.



Brian Carlin



Armando Kurili



Karen S Schell



Sheri Tooley



Cheryl Hoerr



Julie Jackson



Review of the 2017 ATS-ERS DLCO Guidelines

4:25 pm - 5:00 pm

**Jeffrey M Haynes RRT RPFT FAARC,
Pembroke NH**

Content Category: Pulmonary Function

This lecture will review the 2017 ATS-ERS guidelines on the diffusing capacity of the lung (DLCO) and discuss how to implement them and their impact on current testing practices.

Medical Devices at Risk? Introduction to the Cybersecurity Landscape in Health Care

4:25 pm - 5:00 pm

**Marc Schlessinger MBA RRT-NPS RPFT
FACHE, Plymouth Meeting PA**

Content Category: Patient Safety

With today's connected health care environment, medical device cybersecurity can no longer be an option. It must be a strategy for every health care organization. Easy access to the hospital network can be achieved through the many connected medical devices. Many health care systems still utilize outdated and unsupported operating systems which pose an additional threat to the network. This talk will address what actions hospitals should take to address the medical device cybersecurity issue.

Interpreting the Plain Chest X-Ray for RTs

4:25 pm - 5:00 pm

**James K Stoller MD MS FAARC,
Cleveland OH**

Content Category: Clinical Practice

The lecture will provide a systematic review of plain chest X-ray interpretation. The lecture will be sprinkled with cases to make specific points and to engage the audience.

Airway Clearance in Acute Care – Who, When, and How?

4:25 pm - 5:00 pm

**Keith D Lamb RRT-ACCS FCCM, Des
Moines IA**

Content Category: Adult Acute Care

Airway clearance remains a key component of respiratory care but the efficacy of many treatments is unproven. Often therapies are introduced to replace chest percussion – a therapy that has no evidence of efficacy in acute care. What should we do and what should we avoid?

Communication and Quality of Life for the Tracheostomized and Mechanically Ventilated Patient

4:25 pm - 5:00 pm

Millicent Zanders CRT, Norfolk VA

Content Category: Clinical Practice

Effective communication is paramount to patients with a tracheostomy and mechanical ventilation. Use of a one-way tracheostomy and ventilator speaking valve to provide effective communication as well as other quality of life benefits will be examined. Researched evidence in conjunction with case study review will be used to show how the RT and speech-language pathologist work together to achieve improved quality of life.

Sputum Bowl Finals

5:00 pm

**Renee Wunderley BS RRT-NPS/
Presiding**

Supported by an unrestricted
educational grant from

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Further. Together



Jeffrey M Haynes



Marc Schlessinger



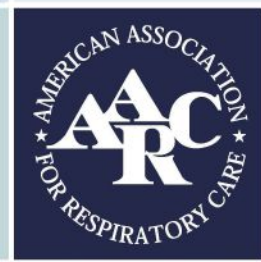
James K Stoller



Keith D Lamb



Millicent Zanders



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By Richard Kallet MS, RRT, FAARC

COPD Case Management By RTs

By Krystal Craddock BSRC, RRT-NPS, CCM

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Capnography in the Neonatal-Pediatric Population

By Craig Smallwood RRT

Sponsored by 

The Future of Mechanical Ventilation for ARDS

By Eddy Fan MD, PhD, FAARC, FCCM

Sponsored by 

ECMO: Who Would Ever Have Imagined?

By Ira M Cheifetz MD FAARC FCCM

Pulmonary Rehabilitation: Where We've Succeeded and Where We've Failed

By Richard Casaburi MD MEngr PhD



33rd Phil Kittredge Memorial Lecture

8:00 am - 8:50 am

Dean R Hess PhD RRT FAARC | *Presiding*

Evaluating the Value of the Respiratory Therapist: Where is the Evidence?

Marin Kollef MD, St Louis MO

Content Category: Clinical Practice

Are respiratory therapists critical thinkers with the ability to work as physician extenders and add



value to the American health care system or does science suggest we're nothing more than task doers? Do respiratory therapist-driven protocols improve care and reduce costs? Can respiratory therapists

properly assess patients and make therapeutic recommendations that adhere to evidence-based

guidelines and rival outcomes achieved by physicians? This honor lecture will explore the answer to these and other questions, and highlight the most recently published literature on the topic. Find out once and for all whether published science suggests that RTs possess the skill-set to work successfully in expanded roles, as physician extenders and really do offer value to the American health care system.

Continuing Respiratory Care Education (CRCE)

AARC Congress 2017 is approved for all the credit hours you need to maintain your state license, more than 20 hours.

PRO/CON: Airway Clearance Improves Outcomes in the Previously Healthy Child with Acute Respiratory Failure

9:15 am - 10:30 am

**PRO: Brian K Walsh PhD RRT-NPS
FAARC, Boston MA**

**CON: Kathleen Deakins RRT-NPS
FAARC, Cleveland OH**

Content Category: Neonatal/Pediatrics

Many clinicians have strong beliefs for or against the use of secretion clearance techniques for the previously healthy patient with acute respiratory failure. In this interactive session, two experts in the field will review the available data and debate this controversy from opposing perspectives. Time will be allocated for open discussion with the audience.

(Symposium) Controversies in Respiratory Care: Part Two

9:15 am – 11:50 am

► PRO/CON: Early Mobility in the Ventilated Patient Pays Outcome Dividends

9:15 am - 10:30 am

**PRO: Carl Hinkson MS RRT-NPS
RRT-ACCS FAARC, Marysville WA**

**CON: Daniel Rowley MS RRT-ACCS
RRT-NPS FAARC, Charlottesville VA**

Content Category: Adult Acute Care

Early mobility has been touted as a major advantage in reducing delirium and shortening length of stay. But the implementation is a huge time and financial commitment. Does the most recent literature still support this procedure?

► PRO/CON: Airway Pressure Release Ventilation Can Prevent ARDS

10:35 am - 11:50 am

PRO: Gary Nieman PhD, Syracuse NY

**CON: Robert M Kacmarek PhD RRT
FAARC, Boston MA**

Content Category: Adult Acute Care

Airway pressure release ventilation has been available for 30 years. Recent animal studies imply a protective effect of APRV on lung injury and progression to ARDS. Clinical evidence with APRV is mixed with some reports of prolonged ventilation times and iatrogenic lung injury. These issues will be debated.

One Hospital's Solution to Training (and Keeping) New Graduates

9:15 am - 9:50 am

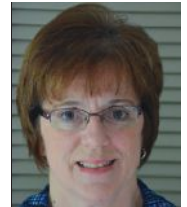
Debra Wakeham MEd RRT, Atlanta GA

Content Category: Education

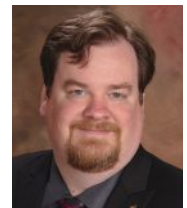
When we asked staff about recent graduates that had joined our ranks they agreed, "They are just not ready!" We had also noticed a high turnover rate of new graduates. Further questioning showed a recurrent theme: they were overwhelmed by the expectations placed on them. This presentation will describe the process and plan to address these issues and more with a residency program for new graduates entering the workforce as well as seasoned therapists transitioning to a higher acuity setting.



Brian K Walsh



Kathleen Deakins



Carl Hinkson



Daniel Rowley



Gary Nieman



Robert M Kacmarek



Debra Wakeham

(Symposium)

Asthma 2017: A Comprehensive Look

9:15 am – 12:30 pm

▶ **Asthma/COPD Overlap Syndrome: A Diagnosis Dilemma**

9:15 am - 9:50 am

**Kathleen O Ververeli MD,
Allentown PA**

Content Category: Clinical Practice

This lecture will focus on the differences and similarities of asthma and COPD and the paradigm of the Asthma/COPD Overlap Syndrome (ACOS). The appropriate screening tools and treatment tools for identifying and managing patients with this syndrome will be described.

▶ **Asthma Prevention: Is It Possible?**

9:55 am - 10:30 am

**Kathleen O Ververeli MD,
Allentown PA**

Content Category: Clinical Practice

This lecture will describe the benefit of both sublingual immunotherapy and subcutaneous immunotherapy as a tool for asthma prevention. The impact of exposures, viruses, and diet on the development of asthma will also be discussed.

▶ **The Impact of Asthma on Educational Outcomes**

10:35 am - 11:10 am

**De De Gardner MS RRT-NPS FAARC
FCCP, San Antonio TX**

Content Category: Clinical Practice

This presentation will discuss the relationship between students diagnosed with asthma and educational outcomes.

Students diagnosed with asthma are known to miss more school than their healthy peers, and missing school means the student is missing out on learning. Students diagnosed with asthma are at high risk for high school drop-out and poor adult outcomes. Research and literature related to this topic will be shared.

▶ **Asthma Update 2017: Traversing the Medication Milieu**

11:15 am - 11:50 am

**Kathleen O Ververeli MD,
Allentown PA**

Content Category: Clinical Practice

This lecture will detail the current, approved medications for asthma including pharmacologic and biologic categories. The various treatment options for asthma specifically based on severity, patient phenotype, and patient lifestyle will be discussed.

▶ **Severe Asthma in the ED: Decisions, Decisions**

11:55 am - 12:30 pm

**Brady Scott MS RRT-ACCS FAARC,
Chicago IL**

Content Category: Clinical Practice

Patients experiencing a severe asthma attack often end up in the emergency room. Treatment for these patients has changed over the years and continues to evolve. Do you know the proper treatment for these patients? This interactive lecture will test your knowledge of how to treat these difficult to treat patients!



Kathleen O Ververeli



De De Gardner



Brady Scott

AARC's 33rd New Horizons in Respiratory Care Symposium

ECMO

9:15 am – 12:30 pm

Technical Advances in the Field of ECMO

9:15 am - 9:50 am

Peter Betit MBA RRT-NPS FAARC, Boston MA

Content Category: Adult Acute Care

This presentation will address the technical aspects of ECMO with an emphasis on recent advances.

ECMO as a Bridge to Transplantation

9:55 am - 10:30 am

Craig Rackley MD, Durham NC

Content Category: Adult Acute Care

The role of ECMO as a bridge to transplantation will be presented.

VV ECMO for ARDS

10:35 am - 11:10 am

Natalie Yip MD, New York NY

Content Category: Adult Acute Care

This lecture will discuss the use of ECMO for ARDS.

ECMO for Ventilatory Failure (Asthma/COPD)

11:15 am - 11:50 am

Stefano Nava MD, Bologna Italy

Content Category: Adult Acute Care

The role of ECMO for ventilatory failure such as in asthma and COPD will be discussed.

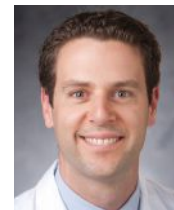
Controversial Indications for ECMO: CPR, Sepsis Pregnancy, Stem Cell Transplantation, and Severe Immunodeficiency

11:55 am - 12:30 pm

Ira Cheifetz MD FAARC, Durham NC

Content Category: Adult Acute Care

The role of ECMO in the management of CPR, sepsis pregnancy, stem cell transplantation, and severe immunodeficiency will be presented.



Craig Rackley



Natalie Yip



Stefano Nava



Ira Cheifetz

Proven Techniques for Growing Staff Expertise, Respect, and Retention

9:15 am - 9:50 am

Thomas Berlin MS RRT, Orlando FL

Content Category: Management

Would you like to see proven techniques for getting staff to engage in professional development including specialty credentials and degree advancement? Would you like to have a department morale so high that it results in a sustained 3% annual turnover for a department with >150 RTs? Would you like a real plan for working with other departments to attain hospital care evaluations that are nationally ranked? See the data that reveals how our methods work and how they can work for you.

Best Practices in Competency Assessment

9:55 am - 10:30 am

Sarah M Varekojis PhD RRT FAARC, Columbus OH

Content Category: Education

Clinical educators, managers, and program faculty all have an ethical and legal mandate to ensure the competency of respiratory therapists. This presentation is designed to help participants develop defensible competency assessments that will help ensure the delivery of quality respiratory care.

The Role of the Pediatric RT in Population Health

9:55 am - 10:30 am

Teresa A Volsko MBA RRT CMTE FAARC, Akron OH

Content Category: Management

Coordination along the continuum of care, patient/family education, addressing social needs, and improving access to care are essential to managing the health and financial risks for care in a capitated environment. Resources are needed to meet patient/family needs and remove access and self-management barriers to improve health, reduce emergency room and hospital visits, and improve the quality of life for children with asthma. This lecture will walk through a "day in the life" of an interdisciplinary asthma care management team and highlight the role of the respiratory therapist in reducing the overall cost of care by improving access to care and asthma management in the home and schools.

Enhancing Students' Clinical Skills through Visual Analysis of Art

10:35 am - 11:10 am

Karen S Schell DHSc RRT-NPS RRT-SDS RPFT, Kansas City KS

Content Category: Education

Learn about a unique program for respiratory care, nursing, and medical students that sharpens observational and descriptive skills to improve patient care through communication and team dynamics led by an Art Educator at the Art Museum. Data from this ongoing research project will be reviewed to demonstrate improvement in the student's ability to improve patient care at the bedside using interprofessional communication, patient assessment, and teamwork, by observing art.



Thomas Berlin



Sarah M Varekojis



Teresa A Volsko



Karen S Schell



Using Happiness to Enhance Your Leadership Ability and Your Life

10:35 am - 11:10 am

**Scott Reistad RRT CPFT FAARC,
Colorado Springs CO**

Content Category: Management

Recent research has shown that the old belief that some people are born happy/sad or positive/negative is simply a myth. It has now been demonstrated that a person can choose happiness and actually “rewire” their brain through conscious effort. The benefits of choosing happiness include improved creativity, productivity, and leadership ability.

Big Data, Little Patients: Ventilator Data, Artificial Intelligence, and the Future of Neo-Peds Respiratory Care

10:35 am - 11:10 am

**Craig Smallwood BS RRT,
Boston MA**

Content Category: Neonatal/Pediatrics

This lecture will provide a state-of-the-art overview of essential concepts in continuous bedside data collection, data cleaning, machine learning, and predictive algorithm development. A select number of publications will also be presented in order to demonstrate the promise of predictive bedside decision support as well as pitfalls in neonatal and pediatric patients.

A Mechanical Ventilation Simulation Curriculum for RTs and Physicians

11:15 am - 11:50 am

Eric Kriner BS RRT, Washington DC

Content Category: Education

This presentation will describe post-graduate mechanical ventilation education utilizing clinical simulation. A needs assessment specific to mechanical ventilation will be offered. The components of a curriculum will be discussed, namely the utilization of bench simulations to demonstrate fundamental concepts and immersive simulations to clinically apply those fundamental concepts. Post-course assessment and competency will also be presented.

Early Identification and Goal-Directed Treatment of Pediatric Sepsis: An RT Perspective

11:15 am - 11:50 am

**Bradley A Kuch MHA RRT-NPS FAARC,
Pittsburgh PA**

Content Category: Neonatal/Pediatrics

Sepsis is associated with an increased risk of the need for critical care intervention and poor outcome. Significant evidence demonstrates early identification and goal-directed resuscitation of children with sepsis improves outcomes. The presentation will review early clinical signs as well as evidence regarding treatment and outcomes. Thoughts regarding future respiratory strategies to optimize outcomes will be considered.



Scott Reistad



Craig Smallwood



Eric Kriner



Bradley A Kuch



Agency Update

11:15 am - 12:30 pm

**Brian K Walsh PhD RRT-NPS FAARC/
AARC President**

Michael T Amato MBA/ARCF Chair

**Bradley Leidich MEd RRT FAARC
CoARC President**

**Robert L Joyner PhD RRT-ACCS
FAARC/NBRC President**

The leadership of the AARC, ARCF, CoARC, and NBRC will present the most up-to-date information affecting the profession, research, accreditation, and credentialing. This is a must-attend session in your agenda!

Long-Term Outcomes of Adult Patients Following Lung Transplantation

11:55 am - 12:30 pm

Craig Rackley MD, Durham NC

Content Category: Clinical Practice

This presentation will discuss the long-term survival and quality of life for adult patients following lung transplantation.



Brian K Walsh



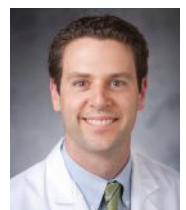
Michael T Amato



Bradley Leidich



Robert L Joyner



Craig Rackley

Disclosure of Faculty Conflict of Interest

- The AARC remains strongly committed to providing the best available evidence-based clinical information to participants of this educational activity and requires an open disclosure of any potential conflict of interest identified by our faculty members.
 - It is not the intent of the AARC to eliminate all situations of potential conflict of interest, but rather to enable those who are working with the AARC to recognize situations that may be subject to questions by others.
 - All disclosed conflicts of interest are reviewed by the AARC Program Committee to ensure that such situations are properly evaluated and, if necessary, resolved.
 - The AARC educational standards pertaining to conflict of interest are intended to maintain the professional autonomy of the clinical experts, which is essential in promoting a balanced presentation of science.
 - Through our review process, all AARC CRCE activities are ensured of independent, objective, scientifically balanced presentations of information,
 - Disclosure for all presenters will be acknowledged in the on-site final program.
-

Your Patient is Dying: Exploring Coping Strategies for the Neo-Peds RT

11:55 am - 12:30 pm

**Jennifer Anderson EdD RRT-NPS,
Wichita Falls TX**

Content Category: Neonatal/Pediatrics

The death of a patient is emotionally and physically taxing on health care professionals. From a health care team perspective the bedside providers are likely to experience the highest degree of stress. This presentation will explore coping strategies that cannot be taught from a textbook.

The Role of Electrical Impedance Tomography during Controlled Mechanical Ventilation

11:55 am - 12:30 pm

**Robert M Kacmarek PhD RRT FAARC,
Boston MA**

Content Category: Adult Acute Care

This lecture will provide the rationale for using EIT to monitor distribution of ventilation while providing full control of mechanical ventilation.

Closing Ceremony

12:45 pm - 2:15 pm



Jennifer Anderson



Robert M Kacmarek

RESPIRATORY CARE

OPEN FORUM® Symposia

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Researches and clinicians present finding of studies on aerosol therapy, mechanical ventilation, neonatal and pediatric care, education, management, and every practice mode in our profession.

Accepted abstracts will be presented in one of 3 formats:

Editors' Choice

**Wednesday and Thursday,
Oct 4-5**

Display of Editors' Choice posters with top 10 abstracts in 2017.

Friday, Oct 6

Ten-minute slide presentations with slides by authors of Editors' Choice, each followed by 10-minute period of audience questions and discussion.

Poster Discussions

Wednesday – Friday, Oct 4-6

Poster sessions grouped by topics. A brief oral presentation (no slides) and questions/discussion allow presenters to expand the work featured on the posters.

Posters Only

Thursday – Friday, Oct 5-6

Posters presented in sessions grouped by category, different every day.

— 2017 —

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

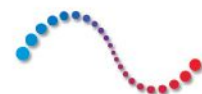
The AARC'S CORPORATE PARTNERS

The collaborative efforts between the respiratory care profession and manufacturers in pursuing unique and innovative ways to improve both the quality and outcomes of our patients makes us natural partners in today's ever changing health care continuum.

As health care finances become more strained and patient care becomes increasingly more complex, the mutual challenges become greater for the profession and its industry partners. The inherent synergies of the corporate partner concept are to provide an effective and efficient way to address those needs utilizing our combined skills and resources.



GETINGE GROUP



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with every breath



AARC Congress 2017

Exhibitors as of 5/23/17

A

AARC
Abbott Point of Care
Aerogen
Airon Corporation
Alere
Allergy & Asthma Network
Allied Powers LLC
ARC Medical Inc
Aureus Medical Group

B

B&B Medical Technologies
Baitella AG
Bay Corporation
Bernoulli
Bio-Med Devices Inc.
Bioteque Corporation
BJC Healthcare
Boehringer Ingelheim
Pharmaceuticals, Inc.
Breas Medical
Bunnell Incorporated

C

Centurion Medical Products
Chiesi USA, Inc.
Ciel Medical, Inc.
Circassia Pharmaceuticals Inc
Commission on Accreditation For
Respiratory Care (CoARC)
COPD Foundation

D

D R Burton
Draeger Inc.

E

Electromed, Inc.
ELSEVIER
Epiphany Healthcare
EspriGas

F

Fisher & Paykel Healthcare Inc
Flexicare Inc.
FloSure Technologies' LLC

G

Gaumard Scientific
GE Healthcare
GEICO
Getinge Group
Goldstein & Associates Inc
Grand Canyon University
GVS North America

H

Halyard Health
Hamilton Medical Inc
Hill-Rom
Hi-Tech Medical
Hollister Incorporated

I

IMT Medical
IngMar Medical Ltd
Instrumentation Industries Inc
Instrumentation Laboratory
International Biomedical
International Biophysics
Corporation
Intersurgical, Inc

J

Jones & Bartlett Learning

K

Kent State University Ashtabula
Kettering National Seminars

L

Lambda Beta Society

M

Mallinckrodt Pharmaceuticals
MARPAC, Inc.
Martian Mechanics
Masimo
Maxtec
Mediware
Medtronic
MEK-ICS Co., Ltd
Mercury Medical
Methapharm
MGC Diagnostics
MIR - Medical International
Research
Monaghan Medical Corporation
Morgan Scientific
MSN Travel Allied
Mylan Inc.

N

National Board For Respiratory Care
(NBRC)
National Heart, Lung, and Blood
Institute
nnd Medical Technologies
Neotech Products Inc
Nephron Pharmaceuticals
Nonin Medical Inc.
Nova Biomedical
nSpire Health

P

Passy-Muir Inc
Percussionaire Corp
Philips Healthcare
Pima Medical Institute
Praxair Healthcare Services
Precision Medical, Inc.
Pulmodyne

R

Radiometer America Inc.
ResMed
Respiralogics
RespirTech

S

Salter Labs
Sentec
Seoil Pacific Corp.
Siemens Healthcare Diagnostics
SoClean Inc.
Splash Medical
SunMed
Sunovion Pharmaceuticals

T

Teleflex
The University of Chicago Medicine
TRACOE medical GmbH
Trajecsys Corporation
Tri-anim Health Services
TSI, Inc.

U

UCLA Health
University of Virginia Health System

V

Vapotherm, Inc.
Ventec Life Systems
VORTRAN Medical
Vyair Medical

W

Westmed Inc
Wexner Medical Center At The Ohio
State University

Z

ZOLL Medical Corporation

Registration and Fees

REGISTRATION FEES (SEE NEXT PAGE FOR THE FORM)

Congress (4 days)	Through Aug 7	After Aug 7 And On-site 4 Days
AARC Member	\$425	\$475
AARC Senior Member	\$110	\$120
AARC Student Member	\$50**	\$75**
Non-member	\$565*	\$600*
Non-member Student	Not Available	\$75** (Must register on-site with proof of current enrollment)
Spouse	Not Available	\$50 (Must register on-site)

*You may become an AARC Member prior to registering (www.aarc.org). If you opt to pay the non-member Congress 4 days fee, you are entitled to a complimentary 12-month AARC membership. Memberships included in the non-member rate will be activated within 30 days after Congress 2017.

Congress Daily Fees (Must register on-site)	Wednesday - Friday	Saturday
AARC Member	\$235	\$150
AARC Senior Member	\$60	\$30
AARC Student Member	\$35**	\$25**
Non-member	\$350	\$215
Non-Member Student	\$35**	\$25**
Spouse	Not Available	Not Available

**Students do not earn CRCE credit.

Active Duty Military

We have a special offer for all health care professionals, not just respiratory therapists, on active duty in all branches of the US armed forces, as well as military reservists recalled to active duty. Go to <http://tinyurl.com/registration-aarc-congress2017>.

Congress Day Tripper Package

A cost-saving group rate is available for AARC members and nonmembers. Four 1-day pre-paid vouchers for \$700. See page 103 for complete details.

REGISTRATION FORM

AARC Congress 2017

October 4 - 7, 2017 • Indianapolis, IN, USA

INTERNET: Go to www.AARC.org to register online and to receive a confirmation.
 or MAIL: Send this form to: AARC Congress 2017, 9425 N. MacArthur Blvd. Ste. 100, Irving, TX 75063-4706 U.S.A.
 Full payment must be included with your registration form. Make check payable to AARC.
 or FAX: If paying by American Express, MasterCard, or VISA, you may fax your registration form to (972) 484-2720.

Do Not E-Mail: Due to credit card protection laws, do not e-mail this form.

PLEASE PRINT

AARC Member # _____ Membership Expiration Date _____

First/Last Name for Badge _____

Credential (check up to three to be printed after your name): RRT CRT PhD MA MD Other _____

Job Responsibility (check one): Dept. Director Supervisor Therapist Educator Other _____

Employment Setting (check one): Hospital School Skilled Nursing Facility Subacute Care Home Care/DME _____

HMO Home Health Agency Manufacturer /Supplier Other _____

Job Title _____ E-Mail Address _____

Employer _____

Preferred Mailing Address: Home or Business Daytime Telephone () _____

City _____ State _____ Zip _____ Country _____

Pre-Courses will be held concurrently. You may only register for one.

AARC Pre-Course

Pre-course will be held on Tuesday, October 3, 2017. You must attend the entire course to receive CRCE credit; no partial credit will be given. Course capacity is limited. Pre-registration is required.
 Deadline: Monday, September 11 or when the course is full.

Preparing for a Pandemic: The Strategic National Stockpile – Mechanical Ventilation Workshop

1:00 pm - 5:00 pm

Course is free.

Industry-Sponsored Pre-Courses

Pre-courses will be held on Tuesday, October 3, 2017. You must attend the entire course to receive CRCE credit; no partial credit will be given. Course capacities are limited. Pre-registration is required.
 Deadline: Monday, September 11 or when the course is full.

Teleflex

Arterial Fundamentals: Ultrasound Guided Arterial Catheter Insertion

8:00 am - 5:00 pm (lunch on your own)

Member Registration Fee: \$100

Non-Member Registration Fee: \$150

Monaghan Medical

RT Leader Workshop: Defining and Communicating The Value

1:00 pm - 5:00 pm

Member Registration Fee: \$75

Non-Member Registration Fee: \$100

Congress Registration

Payment of appropriate fee entitles registrant to attend all Congress activities and social events October 4 - 7, 2017.

CHECK ONE:

	Through May 15	Through Aug. 7	After Aug. 7 (and on-site 4-Days)
AARC Active/Associate Member	<input type="checkbox"/> \$375	<input type="checkbox"/> \$425	<input type="checkbox"/> \$475
AARC Senior Member	<input type="checkbox"/> \$95	<input type="checkbox"/> \$110	<input type="checkbox"/> \$120
AARC Student Member*	<input type="checkbox"/> \$25	<input type="checkbox"/> \$50	<input type="checkbox"/> \$75
Non-member**	<input type="checkbox"/> \$525	<input type="checkbox"/> \$565	<input type="checkbox"/> \$600

Spouses register on-site only. Fee: \$50.

* Students do not earn CRCE credit. Nonmember students must register on-site and show proof of current enrollment.

** You may become a Member prior to registering by going to www.AARC.org. If you opt to pay the non-member fee, you are entitled to complimentary, automatic 1-year AARC membership. Memberships included in the non-member rate will be activated within 30 days after Congress 2017. Check here if you **DO NOT** wish to receive this complimentary 1-year AARC membership.

Method of Payment

Check or Money Order enclosed

Charge my Visa MasterCard American Express

Name of Card Holder (print) _____

Credit Card # _____ Expiration Date _____

Signature _____

OFFICE USE ONLY:

BC PC C CC

Total Received _____ Check # _____ Date _____

No invoices will be issued. Cancellations must be in writing. There will be either a 25% or \$50 handling fee, whichever is less, for cancellations received by Monday, September 18. No refunds will be made thereafter.

Registration Policies

- American Express, MasterCard, and VISA are the only credit cards accepted.
- Members who have paid the current year's dues and are in good standing or whose applications are in process will be admitted at the member rate.
- Members registering on-site will be required to present their current membership card. Any person who does not present a current membership card must register at the non-member rate.
- All students will be required to pay a registration fee. AARC members with student status can register at the student rate. Students who are not members of the AARC are required to pay the non-member student rate. Non-member students must register on-site and show proof of current enrollment.
- An active member is not permitted to register as an exhibitor or to assist in a booth unless he/she is an employee of the exhibiting firm.
- Spouses may register for the Congress on-site only. Any logical proof indicating that the person is a member's spouse will be accepted.
- Advance registration fees must be prepaid. No invoice will be issued. An acknowledgement will be made of the fee paid.
- **Refund requests must be in writing and must be received by Monday, September 18.** A processing fee of 25% or \$50, whichever is less, will be deducted from the refund. No refunds will be made after **September 18.**
- No soliciting from exhibitors or attendees is permitted without AARC permission.

Registration (continued)

Pre-Congress Courses

Pre-courses will be held on Tuesday, October 3, 2017.

- Pre-Courses run concurrently. You may register for only one of the courses.
- You must attend the entire course to receive CRCE credit; no partial credit will be given.
- Course capacities are limited.
- Pre-registration is required. Deadline: Monday, September 11, 2017 or when the course is full.

AARC PRE-COURSE

Preparing for a Pandemic: The Strategic National Stockpile – Mechanical Ventilation Workshop

1:00 pm - 5:00 pm

Course is free, but pre-registration is required.

INDUSTRY-SPONSORED PRE-COURSES

Teleflex

Arterial Fundamentals: Ultrasound Guided Arterial Catheter Insertion

8:00 am - 5:00 pm

Lunch is on your own

AARC member registration: \$100

Non-member registration: \$150

Monaghan Medical Inc.

RT Leader Workshop: Defining and Communicating The Value

1:00 pm - 5:00 pm

AARC member registration: \$75

Non-member registration: \$100

Online Registration

If you are using a credit card, go to <http://tinyurl.com/registration-aarc-congress2017>.

Faxed or Mailed Registrations

Complete the Registration Form on page 97 and mail or fax it to the AARC. Details are on the form.

Receipts

A receipt for your registration fee(s) will be sent to you prior to your departure for Indianapolis. Present this receipt on-site to receive your name badge and your registration packet(s).

On-site Congress Registration Hours

Tuesday, October 3	10:00 am–6:00 pm
Wednesday, October 4	7:00 am–4:00 pm
Thursday, October 5	7:30 am–4:00 pm
Friday, October 6	8:00 am–4:00 pm
Saturday, October 7	8:00 am–10:00 am 8:00 am–2:00 pm—CRCE Assistance Available

You can fill out the Registration Form and bring it with you for on-site registration.

Site All official Congress lectures and exhibits, unless otherwise noted, will take place at the Indianapolis Convention Center, 100 S. Capitol Avenue, Indianapolis, Indiana, 46225; 317-262-3400.

The co-headquarters hotels are the JW Marriott Indianapolis, 10 S. West St., Indianapolis, IN 46204 and the Indianapolis Marriott Downtown, 350 W. Maryland St., Indianapolis, IN 46225.

Travel Discounts

Discounts are offered to AARC Congress attendees, family members and friends.

Airlines Indianapolis International Airport (IND) is approximately 15 miles from the convention center.



- **Online** at www.delta.com. Select Advanced Search and enter Meeting Event Code NMPQ7 in the box provided on the Book A Flight page.
- **Call** Delta Meeting Network at 800-328-1111. Refer to meeting code NMPQ7.



- **Online** at www.united.com. Click "All Search Options" and enter ZXXC512319 in the Promotions/Offer Code box on the Book A Flight page.
- **Call** United Reservations Meetings Desk at 800-426-1122. Refer to Z code ZXXC and Agreement Code 512319.

Ground Transportation

The Ground Transportation Center is located on the first floor of the Terminal Garage.



BlueIndy is the electric car-sharing service that connects you to destinations around Indianapolis. Bluecars are located on the fifth floor of the Terminal Garage.

To find more BlueIndy locations around the city, visit <https://www.blue-indy.com/#easy> or call 800-329-2058.

Shuttle

Go Green Airport Shuttle to downtown Indianapolis departs from Zone #7 in the Ground Transportation Center. Service hours are 5:00 am – 11:00 pm, every half hour, seven days a week. Fare is \$10 one way. Drivers do not accept cash. Reservations are strongly recommended. Visit https://www.goexpresstravel.com/indy_express.

Car Rental

Car rental discounts are available for the Budget, Enterprise and Hertz locations at the Indianapolis International Airport (IND), as well as other locations around the city.



- **Online** at www.budget.com. Choose "Offer Code" box and enter U064639 in the BCD box.
- **Call** 800-842-5628. Refer to Budget Customer Discount (BCD) number U064639.

Taxi/UBER/Lyft

Taxi service is available at the curb on the lower level of the terminal just outside of Baggage Claim. There is a \$15 minimum charge for all fares from the airport, regardless of distance.

UBER and Lyft are located in Zone A at the Ground Transportation Center.



- **Online** at www.enterprise.com. Enter Discount Rate Code L9D0194 in the Promotion Code box.
- **Call** 800-736-8222. Refer to Discount Rate Code L9D0194.



- **Online** at www.hertz.com. Enter 049T0013 in the Convention Number (CV) discount code box.
- **Call** 800-654-2240 or 405-749-4434. Refer to Convention Discount Code 049T0013.

What to See and Do in Indianapolis

Indianapolis was voted #1 Convention City by USA Today. Travel + Leisure magazine named the city one of the top 50 places in the world on their list of "Best Places to Travel in 2017". Come join us in Indy – you'll be pleasantly surprised!

Indy's Top Ten Lists of Top Ten Lists <https://www.visitindy.com/indianapolis-top-ten-lists>

Visit Indy – Guides and Maps <https://www.visitindy.com/indianapolis-guides-maps>

Dallara IndyCar Factory www.indycarfactory.com

NCAA Hall of Champions <http://ncaahallofchampions.org/index.php>

Eiteljorg Museum of American Indians & Western Art www.eiteljorg.org/

Indiana Pacers Bikeshare <https://www.pacersbikeshare.org/>

Indiana State Museum <https://www.indianamuseum.org>

Indianapolis Colts www.colts.com/schedule/season-schedule.html

Indianapolis Cultural Trail <http://indyculturaltrail.org/>

World's Largest Chihuly Sculpture – Fireworks of Glass <https://www.childrensmuseum.org/content/fireworks-glass>

Indianapolis Downtown Restaurants <https://www.visitindy.com/indianapolis-where-to-eat#loadedpage=1>

Square Donuts <https://www.visitindy.com/indianapolis-donuts>

Indianapolis Museum of Art www.imamuseum.org/

Indianapolis Zoo www.indianapoliszoo.com

Wheel Fun Rental <http://wheelfunrentals.com/Locations/Indianapolis-2>

Easley Winery www.easleywinery.com

Indianapolis Motor Speedway Museum www.indyracingmuseum.org/

AARC Congress 2017



DOWNTOWN INDIANAPOLIS HOTELS & ATTRACTIONS AMERICAN ASSOCIATION FOR RESPIRATORY CARE | OCTOBER 4-7, 2017



For information about things to see and do in Indianapolis, go to VisitIndy.com

	Hotel Name	Hotel Address	Room Rates*
1.	JW Marriott Indianapolis Co-Headquarters Hotel	10 S. West St.	\$178 Single – Quad
2.	Indianapolis Downtown Marriott Co-Headquarters Hotel	350 W. Maryland St.	\$168 Single – Quad
3.	Courtyard by Marriott Downtown	601 W. Washington St.	\$155 Single – Quad
4.	Hyatt Regency Indianapolis	One S. Capitol Ave.	\$159 Single – Quad
5.	SpringHill Suites by Marriott Downtown	601 W. Washington St.	\$155 Single – Quad
6.	The Westin Indianapolis	50 S. Capitol Ave.	\$159 Single; \$159 Double; \$179 Triple; \$199 Quad

Single/Double/Triple/Quad represent the number of people in the room (1-4), not the size of the bed.

* All rates are per room per night. The rates above do not include 17% tax (subject to change without notice).



©Visit Indy 4/17

Housing Guidelines

*Notice: Unauthorized housing entities are contacting attendees and exhibitors to book Indianapolis hotel reservations. **Only the phone numbers and links shown below are authorized by the AARC.** Neither the AARC, nor the AARC Congress Housing Bureau, will be making unsolicited calls regarding hotel reservations. Booking through an unofficial housing company puts you at risk for losing significant deposits and hotel reservations, and incurring hidden costs.*

Deadlines

- To take advantage of the special conference rates, book your reservation by **Monday, September 11, 2017**. AARC can not guarantee discounted rates or availability at the conference hotels after that date.

Deposit/Acknowledgements

- All hotels require a deposit of one night's room and tax with each reservation request. Credit cards will be charged the non-refundable deposit on Tuesday, September 12. Credit cards must be valid through October, 2017. If you mail a check for the non-refundable deposit, it should be made out to "AARC Housing Bureau" and mailed with your completed reservation form to 200 S. Capitol Ave., Ste 300, Indianapolis, IN 46225. Checks must be **received by Monday, September 11, 2017**.
- Acknowledgements will be sent after each reservation booking, modification, or cancellation. Review it carefully for accuracy. If you do not receive an acknowledgement via e-mail within the same business day, please contact the Housing Bureau at (317) 262-8191 or e-mail housing@visitindy.com. You will not receive a written confirmation from the hotel.

Cancellation Policy/No Show/Penalties

- AARC Housing Bureau must receive cancellations on or before Monday, August 14, 2017 to avoid any penalties. **Cancellations made from Tuesday, August 15 through Monday, September 11, 2017 will be assessed a \$50 cancellation fee.**
- Starting Tuesday, September 12, 2017, cancellations must be directed to your confirmed hotel. The hotel will retain the non-refundable deposit of one night room and tax.
- Your confirmed hotel may assess an early departure fee for departure date changes made after check in.
- If you do not cancel your reservation and/or do not show, the hotel will retain your non-refundable deposit and your reservation will be forfeited.

Changes

Please contact the AARC Housing Bureau with new reservations, changes or cancellations through Monday, September 11, 2017. Starting Tuesday, September 12, direct all changes to your confirmed hotel.

AARC Congress 2017

Housing Reservation Form



Oct 4 – 7, 2017
Indianapolis, IN

Instructions

Reservations can be made by choosing one of the following methods.

Internet Book your reservation online by visiting www.AARC.org

Phone (317) 262-8191
Mon - Fri, 8:30 am – 5:00 pm Eastern Time

Fax Send a completed form, one copy per room request, to (317) 262-8270 (secure line)

Mail Send a completed form, one copy per room request, to:

AARC Housing Bureau
200 S. Capitol Ave., Ste. 300
Indianapolis, IN 46225

DO NOT E-MAIL Due to credit card protection laws, do not e-mail this form. No form with a credit card number will be accepted.

Deadlines/Room Rates/Taxes

To take advantage of the special conference rates, book your reservation **by Monday, September 11, 2017**. AARC can not guarantee discounted rates or availability at the conference hotels after that date. All rates are per room per night, and plus 17% tax (subject to change without notice).

Deposit

All hotels require a deposit of one night's room and tax with each reservation request. **Credit cards will be charged the non-refundable deposit on Tuesday, September 12.** Credit cards must be valid through October, 2017. If you mail a check for the non-refundable deposit, it should be made out to "AARC Housing Bureau" and mailed with your completed reservation form to the address above. Checks must be **received by Monday, September 11, 2017**.

Acknowledgements

Acknowledgements will be sent after each reservation booking, modification, or cancellation. Review it carefully for accuracy. If you do not receive an acknowledgement via e-mail within the same business day, please contact the Housing Bureau via the phone number above or e-mail housing@visitindy.com. You will not receive a written confirmation from the hotel.

Cancellation/No Show/Penalties

• AARC Housing Bureau must receive cancellations on or before Monday, August 14, 2017 to avoid any penalties. **Cancellations made from Tuesday, August 15 through Monday, September 11, 2017 will be assessed a \$50 cancellation fee.**

• Starting Tuesday, September 12, 2017, cancellations must be directed to your confirmed hotel. The hotel will retain the non-refundable deposit of one night room and tax.

• Your confirmed hotel may assess an early departure fee for departure date changes made after check in.

• If you do not cancel your reservation and/or do not show, the hotel will retain your non-refundable deposit and your reservation will be forfeited.

Changes

Please contact the AARC Housing Bureau with new reservations, changes or cancellations through Monday, September 11, 2017. Starting Tuesday, September 12, direct all changes to your confirmed hotel.

Arrival Date _____ / _____ / _____ Departure Date _____ / _____ / _____

Hotel Selection: (Please number all of the hotels in order of preference.)

_____ JW Marriott Indianapolis, Co-Headquarters Hotel

_____ Indianapolis Downtown Marriott, Co-Headquarters Hotel

_____ Courtyard by Marriott Downtown

_____ Hyatt Regency Indianapolis

_____ SpringHill Suites by Marriott Downtown

_____ The Westin Indianapolis

Reservations will be processed on a first come, first served basis. If all hotels are sold out, you will be placed on a wait list until a room becomes available.

Please process this reservation according to (please check one):

Comparable room rate Proximity to conference site

Check one Attendee Exhibitor

Room Type

Number of people in room _____ Number of beds in room (one or two) _____

Special Requests ADA Other _____

All hotels are smoke free. Hotels will assign specific room types upon check in, based upon availability. Requests are not guaranteed. Send suite requests to housing@visitindy.com.

List all occupants in room (include yourself)

1. _____ 2. _____

3. _____ 4. _____

Hotel Reward # _____ Hotel Brand _____

Send Confirmation to (Fill out this portion completely)

Last _____ First _____

Phone _____ Fax _____

Company _____

Address _____

City _____ State _____ Zip Code _____

Country _____

Check the preferred method of delivery for your confirmation.

Mail (The address above is my home address work address.)

E-mail _____

Type of Card

American Express Visa Discover MasterCard

Other _____

Account # _____

Exp. Date _____

Card Holder Name (print) _____

Signature _____

Reward your staff with a trip to Congress

Day Tripper Group Package \$700

Package includes: 4 one-day vouchers to AARC Congress 2017. Price equates to \$175 per day, a savings of about 25% from the daily full-day rate for AARC members.

This year the AARC is again offering everyone a flexible opportunity to attend this premier event.

Individual Attendees... Want to attend AARC Congress 2017, but can't get the time off from work for all 4 days of the meeting? Perhaps a single day registration is more affordable and right up your alley. The AARC Day Tripper Package is a great opportunity for you and three other therapists to attend the 4-day event that is loaded with education, exhibits, networking, and many other activities.

Managers... Maybe you've wanted to send your staff in the past, but your budget can't absorb multiple, 4-day registrations. Even more importantly, department staffing won't let you give multiple employees off all at the same time.

Here's how it works:

- Order the Day Tripper Voucher Package any time between now and Monday, August 21.
- You will receive 4 one-day vouchers to Congress 2017 in Indianapolis.
- Each voucher is good for one person for any one of the 4 days of Congress (October 4-7).
- The attendee brings the voucher to the onsite Special Services registration counter on the desired day and uses it to register for that day.
- The attendee has all the same privileges as other attendees who purchase a one-day registration onsite at the rate of \$235 for members or \$350 for nonmembers, a savings of up to \$175 per person!

Benefits to Attendees

- Earn CRCEs at premier educational programs
- Opportunity to visit the largest respiratory care exhibit hall in the world
- Network with other professionals and meet the "who's who" in respiratory care

Make it easy on yourself:

- Collaborate with your colleagues and decide at the last minute whom will attend—or change it if circumstances change.
- Mix and match any way that you want. A different person can attend each day. Or 4 people can all attend on one day. Or 2 people can use vouchers for 2 days each. Make it work for you and your schedule.
- Anyone you select can attend... members or non-members.

ANSWERS TO FAQs:

- Day Tripper is a special advance purchase program available only between now and Monday, August 21.
- Payment is required in advance with a check or credit card. Sorry, no purchase orders.
- **The package is nonrefundable.**
- Vouchers may be used by AARC members or nonmembers.
- Vouchers are fully transferable by the purchaser or within the purchasing company, and are not specific to a day of the event or to an individual. They may be used at any time during AARC Congress 2017.

• Lectures will be presented October 4-7, Wednesday through Saturday. Note that exhibits are open October 4-6 only.

- Registration for specific names and dates is not required in advance. The attendee simply brings the voucher to the onsite Special Services registration counter upon arrival.
- Vouchers can be used on four different days, or all on the same day, by 1 person for 4 days, 2 people at 2 days each, or 4 people each attending one day... or any one of the many different combinations. The choice is yours!

To take advantage of this great Day Tripper package visit <http://tinyurl.com/daytripper-aarc-congress2017>.

Questions?

Contact info@aacr.org or call Customer Service at (972) 243-2272.



RC Currents

TRANSITIONS

AARC Mourns the Loss of 1989 President Paul Mathews

The Association was saddened to learn of the death of 1989 AARC President Paul Mathews, PhD, RRT, FCCM, FCCP, FAARC, who passed away in late May after a long illness.

A member of the AARC since 1966, Paul Mathews earned his certificate in inhalation therapy from Yale New Haven Medical Center in New Haven, CT, where his advisor was none other than the world-renowned Donald F. Egan, MD.

Dr. Mathews earned AS and BS degrees from Quinnipiac College in Hamden, CT, a master's degree from the University of Hartford in Hartford, CT, and a PhD and EdS from the University of Missouri in Kansas City. Over his long career, he served many organizations in many capacities, from staff therapist at Yale-New Haven Medical Center to respiratory care manager at Providence Hospital in Holyoke, MA, to associate professor at the University of Kansas.

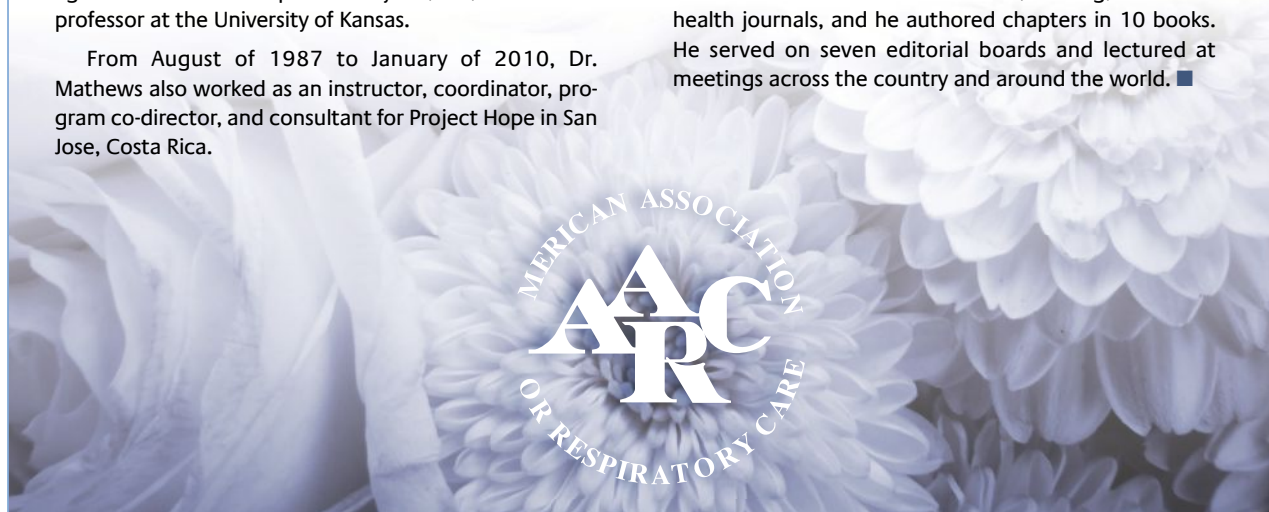
From August of 1987 to January of 2010, Dr. Mathews also worked as an instructor, coordinator, program co-director, and consultant for Project Hope in San Jose, Costa Rica.



Landmark activities during Dr. Mathews' tenure as president of the AARC in 1989 included opening a dialogue with the World Health Organization, welcoming the Mexican Society for Respiratory Care as a new international affiliate, significantly increasing NBRC entry-level exam scores, and declaring the development of clinical practice guidelines as a top Association priority.

In addition to his work within the respiratory care profession, Dr. Mathews served as a consultant/reviewer for the U.S. Food and Drug Administration, the U.S. Public Health Service, and the National Institutes of Health. He received the A. Gerald Shapiro MD Award in 1990.

Dr. Mathews co-authored three textbooks, including *Foundations of Respiratory Care*. He published 200 articles in various national medical, nursing, and allied health journals, and he authored chapters in 10 books. He served on seven editorial boards and lectured at meetings across the country and around the world. ■



SPUTUM BOWL

15 Practitioner Teams Needed by July 15



Time is running out for teams to register for the 2017 AARC Congress in Indianapolis.

The Sputum Bowl is a time-honored tradition held at our Congress every year since 1978. In recent years, however, most of our teams have been in the Student section of the competition. To continue hosting Practitioner teams, Sputum Bowl organizers have decided that we must have 15 Practitioner teams registered for the Sputum Bowl by July 15.

So act now to sign up your group if you want to field a Practitioner team at this year's Congress! Here is where you can find out more about the AARC Sputum Bowl and access the team registration forms: www.aarc.org/resources/programs-projects/aarc-sputum-bowl/. See you at the big event in Indy this October! ■

FDA Recalls EpiPen, EpiPen Jr

The Food and Drug Administration (FDA) has recalled 13 lots of the EpiPen and EpiPen Jr manufactured by Meridian Medical Technologies and distributed by Mylan Specialty. According to the FDA, the recall is based on the potential that these devices may contain a defective part that may result in the devices' failure to activate.

These devices were distributed between December 17, 2015, and July 1, 2016. Health care professionals and consumers are being asked to report any adverse reactions or device malfunctions to the FDA's MedWatch program: www.fda.gov/medwatch/report.htm. ■

**PRODUCT
RECALL**



AARC Times Is Still Looking for Medical Mission Stories

We know many AARC members have reached beyond U.S. borders over the last year to help people in need of respiratory care treatments and education. Now we're hoping you will share your stories with the rest of us through an article in our *AARC Times* international issue. We are beginning to collect medical mission stories, and the story submission deadline is August 1.

The editors give preference to articles by AARC members describing respiratory care activities of volunteer RTs on medical missions. Those who have a medical mission story to share can email the *AARC Times* editor at cathcart@aarc.org. Please place "Medical Mission" in the subject line. ■

Could cord blood predict which infants are most likely to develop bronchopulmonary dysplasia-associated pulmonary hypertension (BPD-PH)? Researchers from Ann & Robert H. Lurie Children’s Hospital of Chicago believe the answer may be yes.

They tested their theory by examining a large repository of cord blood and placental tissues from a wide gestational age range, looking at 15 biomarkers in cord blood and correlations with lesions in the placenta that cause insufficient blood flow between the mother and fetus. They found that two growth factors — granulocyte colony-stimulating factor (G-CSF) and placental growth factor (PIGF) — were decreased with these placental lesions. They also found that these two growth factors were almost undetectable in extremely premature babies who later developed BPD-PH. The findings were validated in a large



Cord Blood Could Predict BPD-PH Risk

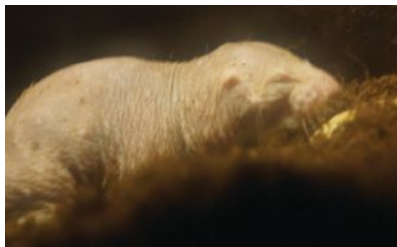
replenish these babies with healthier stem cells or even replenish the growth factors?” asks study author Karen Mestan, MD. “We could then regenerate lung tissue. This is a thrilling area of research that could have huge impact.”

The study was published in a recent edition of the *Journal of Pediatrics*. ■

sample of babies born at less than 28 weeks gestation.

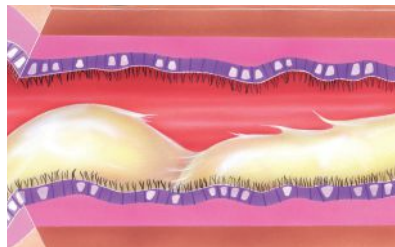
The researchers believe these growth factors could potentially be measured from the mother’s blood prior to birth, giving clinicians a heads up about the risk for BPD-PH in the fetus. They also offer clues about the development of lung disease in the newborn that could lead to better treatments. “Preemies who are deficient in G-CSF and PIGF might not be able to fight off the development of lung damage. But what if we could

Strange But True...



Quick change artist:

No oxygen? No problem — at least for naked mole rats. When oxygen levels drop, they can survive by metabolizing fructose just like plants do, reports an international team of researchers. Essentially, the rats replace oxygen with fructose until they once again have oxygen available. The researchers believe they developed the adaptation to cope with the overcrowded, oxygen-poor burrows where they live.



Fake mucus:

MIT researchers have developed synthetic mucus. But why would they do that when the human body produces so much of it on its own? They believe the engineered mucus can help them study the body’s natural ability to control pathogenic bacteria and find ways to thwart the development of antibiotic resistant infections.



Infant response in the forecast:

Wavelet analysis technology is best known for predicting long-term weather patterns such as El Nino, but researchers at UT Southwestern Medical Center in Dallas, TX, believe it also has a role to play in predicting the effectiveness of therapies to reduce brain injury in newborns suffering from oxygen deprivation during birth. The noninvasive method produces real-time heat maps of the infant’s brain that can be used to determine whether therapies to prevent brain damage such as cooling blankets will work.

Short-Term Use of Oral Corticosteroids Linked to Serious Health Problems

A new study from researchers at the University of Michigan has found that people who take even a short course of oral corticosteroids to treat a medical condition are at higher risk for a bone fracture, blood clot, or life-threatening sepsis.

The research was based on data from 1.5 million non-elderly American adults with private insurance. One in five study participants filled a short-term prescription for oral corticosteroids such as prednisone sometime in the three-year study period. While the rate of serious events was small overall, it was highest in the first 30 days after a prescription and stayed elevated even three months later.

Half of the people who used these drugs took them for only six diagnoses related to back pain, allergies, or respiratory tract infections, including bronchitis. People who had used inhaled or injected corticosteroids or took oral steroids for more than 30 days were excluded from the study.

When the researchers compared the steroid users with a sample of non-steroid users who had the same respiratory conditions, the difference in rates of all three health problems were still higher. Steroid users had more than five times the rate of sepsis, nearly three times the rate of clots due to venous thromboembolism, and two times the rate of fracture. The investigators published their findings in a recent edition of *BMJ*. ■



Is This a “One and Done” Treatment for CF? Scientists Report the Possibility

An international group of researchers publishing in a recent edition of *Nature Medicine* believe they may have discovered a new drug capable of correcting the genetic and tissue defects seen in cystic fibrosis.

Specifically, the group found that Tα1, a synthetic version of a naturally occurring peptide first isolated from the thymus, corrected multiple tissue defects found in the lungs and small intestines in a mouse model of cystic fibrosis, as well as defects in the CFTR gene seen in cells isolated from cystic fibrosis patients. Tα1 not only significantly reduced the inflammation seen in cystic fibrosis, but also increased CFTR maturation, stability, and activity.

Due to this two-pronged action, they believe Tα1 offers a strong potential to be a single-molecule therapeutic agent to treat and stop the progression of cystic fibrosis.

“Right now there are multiple treatments for cystic fibrosis, and while these have improved life expectancy dramatically, there is still only a lifespan of about 40 years for patients. No one treatment can stand alone,” explains co-author Allan L. Goldstein, PhD, from George Washington University. “We developed a single treatment that can potentially correct the genetic defect that causes cystic fibrosis and decrease the inflammation that happens as a result.” ■





Secondhand Smoke Nicotine Found on Kids' Hands

Many studies have shown secondhand smoke is harmful to children, especially those with asthma, and respiratory therapists and other clinicians regularly advise the parents and caregivers of asthmatic children to avoid smoking around their kids. New research out of Cincinnati Children's Hospital Medical Center and San Diego State University suggests that "advice" may not be enough.

Researchers who used special hand wipes to measure nicotine levels on the hands of 25 children found high levels even among those with parents who refrained from smoking when their children were present. Saliva samples also showed detectable levels of cotinine in all but one of the kids. The investigators are now studying a larger group of 700 children to see if these results hold true in a more extensive trial.

"Parents may think that not smoking around their child is enough, but this is not the case," notes study author Melinda Mahabee-Gittens, MD, of Cincinnati Children's. "These findings emphasize that the only safe way to protect children from smoke exposure is to quit smoking and ban smoking in the home."

The study appeared in *Tobacco Control*. ■

Transitions

In the lives of AARC members



Honoring Members Who Have Passed Away

Submit news about your colleague's recent passing by providing information at <http://c.AARC.org/transitions>. Please inform us about the member's recent obituary so that we can share it with the membership and pay tribute in our Transitions column in this magazine. ■



There's a Simple Tool To Evaluate Pain in the ICU Anywhere in the World

A new pain scale based on eight observable pain behaviors has been found effective in measuring pain in intensive care unit patients who are unable to communicate, such as those on invasive mechanical ventilation. The Behavior Pain Assessment Tool (BPAT) is based on readily observable patient behaviors like facial expressions, verbal responses, and muscle responses and has been translated into 12 languages.

The BPAT tool was evaluated during more than 4,800 procedures in 3,850 patients who were hospitalized in 192 ICUs in 28 countries.

The eight-point BPAT score was significantly related to the pain ratings made by patients who could communicate. At a cutoff point of higher than 3.5, the BPAT performed well in identifying patients with severe levels of pain intensity and distress who might benefit from treatment with opioid medications. The study was published in a recent edition of *Pain*. ■

Early Warning Mouse

German researchers are working on a transgenic mouse model they believe may one day be able to help predict which new influenza virus strains will cause a global pandemic.

The transgenic mice produce the human form of the innate immune protein MxA that acts as a barrier against cross-species influenza A infection. "Our MxA-transgenic mouse can readily distinguish between MxA-sensitive influenza virus strains and virus strains that can evade MxA restriction and, consequently, possess a high pandemic potential in humans," explains study author Peter Staeheli. "Such analyses could complement current risk assessment strategies of emerging influenza viruses, including viral genome sequencing and screening for alterations in known viral virulence genes." The research appeared in a recent issue of the *Journal of Experimental Medicine*. ■





Industry Watch

Duke and BI team up for COPD progression study

Duke University's MURDOCK Study, the Duke Clinical Research Institute, and Boehringer Ingelheim Pharmaceuticals, Inc., have launched a new collaborative research effort that will closely follow 850 people living with COPD to measure changes to their health. The aim is to help researchers better understand how COPD progresses within a community, develop a better way for providers to assess COPD progression in their patients, and provide new insights into the correlation between lung function, exercise capacity, and COPD symptoms and disease progression. Participants will be followed for five years.

Immunovaccine announces positive results for RSV vaccine

Immunovaccine, Inc., has announced updated data on its investigator-sponsored Phase I clinical trial testing the safety and immunogenicity of its DepoVax™-based, small B-cell epitope peptide vaccine candidate for respiratory

syncytial virus (RSV). In the 25- μ g dose cohort, which was the only dose tested out to one year, 100% of older adults vaccinated with DPX-RSV maintained the antigen-specific immune responses one year after receiving the booster dose. At one year, the antibody levels measured were still at peak, with no sign of decrease. The 25- μ g dose was delivered in a volume of 50 μ L. A standard flu vaccine is typically 60 μ g delivered in ten times this volume.

Healthwise launches digital health education content initiative

To help organizations use digital information and communication technologies to achieve better outcomes, improve quality of care, and lower costs, Healthwise® has launched Healthwise Content as a Service (CaaS), a flexible new way to use health education wherever it can make the biggest impact. CaaS gives organizations the power to seamlessly present modular, concise content components — including text, video, and images — on websites,

inside mobile apps, in outreach campaigns, and more. With health education that's free of design constraints, they can choose from thousands of topics on medical conditions, wellness, symptoms, tests, and treatments, and then decide where it displays and how it looks. Organizations access the content through application program interfaces, ensuring their consumers automatically get the most up-to-date and accurate information when Healthwise makes changes.

Research on treating antibiotic-resistant bacterial infections

According to Arch Biopartners, Inc., the Cincinnati Veterans Affairs Medical Center will conduct an investigator-initiated Phase I human trial to evaluate the safety and pharmacokinetic profile of AB569, the company's inhalation drug candidate for treating antibiotic-resistant bacterial infections in the lungs. AB569 consists of two active ingredients, sodium nitrite and ethylenediaminetetraacetic acid, which have potent,

synergistic bactericidal properties. AB569, invented by Dr. Daniel Hassett at the University of Cincinnati College of Medicine, has a novel mechanism of action that differs from that of antibiotics. "My lab has shown AB569 to be very efficacious at killing all of the Gram-negative and Gram-positive bacteria strains we have collected over the years from numerous hospital patients, many of which are highly resistant to antibiotics," noted Dr. Hassett.

Welch named CEO of CHEST

The Board of Regents of the American College of Chest Physicians (CHEST) has finalized the appointment of Stephen J. Welch as executive vice president and CEO. Welch had been serving as the interim executive vice president and CEO since May 2016. Prior to this appointment, he served in a senior staff role at CHEST for 22 years, most recently as publisher and senior vice president of publications and digital content, which includes managing the organization's flagship scientific journal, *CHEST*®.

ATS and ResMed launch COPD research fellowship

The American Thoracic Society (ATS) has announced a new \$100,000, two-year research fellowship in noninvasive ventilation (NIV) in COPD. The ATS Foundation/ResMed Research Fellowship in Noninvasive Ventilation in COPD award is funded by ResMed. “This award comes at a time of high demand for increasingly effective treatments of COPD, which affects 65 million people worldwide and is the third leading cause of death in the world, behind only heart disease and stroke,” says Dean Schraufnagel, MD, chair of the ATS Foundation and a faculty member at the University of Illinois at Chicago.

Corbus Pharmaceuticals reports good results for CF drug

Corbus Pharmaceuticals Holdings, Inc. has announced positive topline data from its Phase II study evaluating multiple doses of anabasum (formerly known as JBT-101 or Resunab) compared to placebo for the treatment of patients with cystic fibrosis (CF). The 16-week study dosed 85 adult CF patients with baseline FEV₁ ≥ 40%, who were enrolled without regard to their specific CFTR mutation or infecting pathogens and continued with all baseline treatment regimens.

Anabasum successfully achieved the primary objective of the study by demonstrating an acceptable safety and tolerability profile at all doses with no serious or severe adverse events related to the study drug.

Teleflex acquires Pyng Medical

According to Pyng Medical Corp., the Supreme Court of British Columbia has approved the plan of arrangement whereby all of the issued and outstanding common shares of Pyng would be acquired by Teleflex Medical Canada, Inc., a wholly-owned subsidiary of Teleflex, Inc. Based in Richmond, British Columbia, Pyng Medical Corp. commercializes trauma and resuscitation products for frontline critical care and emergency medical personnel.

Report zeroes in on health care workforce

Researchers from the George Washington University’s Health Workforce Institute (GHWI) have unveiled a report that synthesizes new findings on the U.S. health care workforce from six research centers and a technical center, all funded by the Health Resources and Services Administration. “The report will help health policy leaders identify new strategies for increasing access to health care, especially

in remote or isolated regions of the United States,” says Patricia Pitman, PhD, co-director of the GHWI. “Telehealth, nurse-led clinics, and Medicaid-financing of graduate medical education are just a few of the ways health care leaders can ensure that the U.S. workforce is prepared for the future.”

ID Genomics’ test could dramatically reduce overuse of antibiotics

Newly published, peer-reviewed results of observational clinical research have demonstrated that ID Genomics’ “bacterial fingerprinting” technology has the potential to improve antibiotic prescribing. It is expected to reduce prescription errors and prevent the overuse of broad-spectrum antibiotics. Published in *PLoS ONE*, the paper revealed that ID Genomics’ surveillance-based diagnostics test, CLoNeT™, reduces antibiotic prescription errors to as low as 5%.

Aeolus Pharmaceuticals announces positive results for AEOL 20415

According to Aeolus Pharmaceuticals, Inc., a study completed at National Jewish Health showed that AEOL 20415 protects the lungs in a mouse model of cystic fibrosis. “This study confirms previous


in vitro studies indicating that AEOL 20415 is unique because it augments the body’s natural host defense system for fighting bacterial infection while limiting inflammation,” explains Brian Day, PhD, vice chair of research at National Jewish Health. He notes currently available anti-inflammatory drugs work by suppressing the immune system, which can be counterproductive during active infection. AEOL 20415 has demonstrated efficacy in killing drug-resistant clinical strains and improving bacterial clearance while diminishing lung inflammation.

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

Industry Update

Featuring information on products and equipment from manufacturers

BETTER IS FASTER




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PM361

Dunne R et al. Aerosol dose matters in the Emergency Department: A comparison of impact of bronchodilator administration with two nebulizer systems. Poster at the American Association for Respiratory Care, 2016.




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Calendar of Events

AARC & State Society Programs

July 19–21, 2017

Waco, TX

46th Annual TSRC State Convention and Exhibition

Contact: Mary.Hart@tsrc.org or www.tsrc.org

July 20–22, 2017

Savannah, GA

2017 GSRC Summer Symposium & Exhibition

Contact: arianna@gsrc.org

August 2–4, 2017

Biloxi, MS

Alabama Louisiana Mississippi TriState Respiratory Care Conference

Contact: tristaterespiratorycare@gmail.com or www.tsrcc.net

August 9–11, 2017

Litchfield Park, AZ

51st AzSRC Annual Conference

Contact: ajla.sutkovic@honorhealth.com

August 17, 2017

East Greenwich, RI

RISRC 33rd Annual Conference and Exhibition

Contact: mcarnevale@lifespan.org

September 5–8, 2017

Myrtle Beach, SC

46th Annual SCSRC Conference

Contact: program@scsrc.org

September 14–15, 2017

Charleston, WV

West Virginia Society for Respiratory Care Fall Health Care Conference

Contact: cynthia.keely@gmail.com

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IngMar Medical (412) 441-8228, Toll Free (800) 583-9910 www.ingmarmed.com Booth 320	3
Masimo www.masimo.com Booth 327	C4
Monaghan www.monaghanmed.com Booth 200	27
Sunovion Utibron www.utibron-neohaler.com/TC Booth 627	5
Teleflex (866) 246-6900 Booth 609	C2

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



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