ALANA News Bulletin

A Publication of the Alabama Association of Nurse Anesthetists

advancing quality anesthesia care, serving our members, promoting the nurse anesthesia profession

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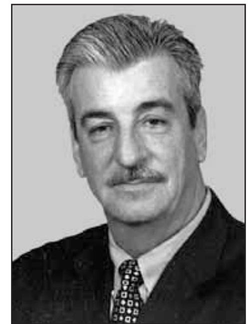

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From the Office of the ALANA President

David Hambright, MSN, CRNA

I can think of no better time than the Thanksgiving season for the transition of the ALANA leadership to occur. The opportunity to reflect on the investment of so many of our colleagues into our profession will hopefully motivate us to invest our time and energy in a similar manner Recently, I saw a simple cartoon, depicting a common breakfast combination of ham and eggs. The caption read "for one, a day's work; for another, a lifetime commitment." The words are simple, but the message is more profound. As a CRNA, I am particularly grateful to those who have paved the way with a degree of commitment and engagement significant enough to change our profession for the better. As we begin a new year, I encourage you to consider ways that you can truly make a difference in our profession to ensure a legacy for those who follow in your footsteps.

The 2011 ALANA Fall meeting at the Wynfrey Hotel in Birmingham offered our membership the opportunity to attend exceptional presentations on relevant topics. The special session Friday night on the Business Aspects of Anesthesia was presented by W. Steven Everett. The Funderburg Lectureship speaker was Mark Welliver. AANA District 7 Director, John McFadden, provided an update from a national perspective on AANA issues and Jackie Fortenberry provided a detailed update on the NBCRNA CPC Program. Thank you to the Program Committee for the outstanding job.

In November, I attended the AANA Fall Leadership Academy in Newport Beach, California. The meeting was packed with information on issues that CRNAs face in Alabama or are likely to face and strategies for success in a turbulent payment and practice environment. There was a great deal of emphasis on developing meaningful action plans for future leaders at the state level. The meeting was also packed with information on public relations, government relations, finance and federal government relations to assist state associations with these important areas of focus. November also provided the time for the ALANA Board of Directors to spend a long weekend identifying a strategic plan that represents the interest of our membership and promotes our profession. I was extremely pleased with the effort and focus with which the Board approached the weekend and the strategic plan that came from a very busy weekend.

As we face a year that will no doubt present opportunities, challenges and probably some unanticipated obstacles, I am more convinced than ever that your individual participation is an integral part of any success that we attain. The ALANA is no stronger than

the commitment of our individual members to exploit opportunities, confront challenges with determination, and utilize the human resources that are represented by each of you to negotiate obstacles in a wise and strategic fashion. Recently, the frustration of some members over the proposed CPC program has led them to discontinue their membership with AANA. The impact of this choice is profound at the state level and negatively impacts our ability to work on your behalf in a significant manner. Do you have friends or coworkers who are no longer members? If so, I hope you will encourage them to resolve that they will get involved, not abandon ship. There is opportunity for us, even in these challenges, to impact our profession in a meaningful way if we do not give up. Do you know your state senator or representative? Do they know you? When was the last time you sent a short note to your Congressman? Your voice as a CRNA is most powerful when shared as a constituent of these public servants. Does your hospital administrator know you? Are you the provider that your coworkers or administrators would want to care for their family members because of the high quality of care that you provide? Do you advocate for the anesthetized patients in your care?

As CRNAs, you are one of the few and elite, a profession that is highly respected. This status, in part, is a direct result of those in our past who determined that their commitment would be substantial... not be just for a day, but rather a lifetime...so simple, ham or eggs. Please take a moment and consider what talents and skills that you have to offer. Your determination may be the difference in how successful we are as a profession. What if your call, time, talent, letter, or skill set was the very thing that would have changed the outcome for our profession? I suggest to you, you are that important to our profession!

Important Notice Regarding Dues Non-Deductibility

In addition to the amount of your member dues determined by the American Association of Nurse Anesthetists, Inc. as not being tax deductible due to lobbying activities on the Federal level, the Alabama Association of Nurse Anesthetists, Inc. reasonably estimates that $50.00 of your dues is attributable to lobbying activities on the State level and is, therefore, not tax deductible.

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AANA Hard at Work for YOU in DC

"Never doubt that a small group of committed citizens can change the world… indeed, it is the only thing that ever has" - Margaret Mead

Amy Neimkin, DNP, MBA, CRNA

As part of the Budget Control Act that passed in August, Congress appointed a deficit reduction committee, made up of both Democrats and Republicans, charged with proposing concrete recommendations to reduce the deficit by $1.5 trillion. On November 21st, the Co-Chairs of the Joint Select Committee on Deficit Reduction released a statement that "after months of hard work and intense deliberations, we have come to the conclusion today that it will not be possible to make any bipartisan agreement available to the public before the committee's deadline," a move that triggers mandatory cuts to military spending and some social programs starting in 2013. The defeat is the latest sign of how hard it has been for Washington to come up with unpopular tax increases or spending cuts to rein in budget deficits that have totaled about $1.3 trillion or more over the last three fiscal years. Though mandatory spending cuts are supposed to take hold with the failure of the supercommittee, those can always be reversed by Congress, but that may not play well in the bond and stock markets (The Wall Street Journal, 11/21/11).

There are fundamental differences about extending the Bush-era tax cuts. Early on, each side offered to give on some sacred cows, with Democrats indicating a willingness to raise Medicare premiums and shift more of the burden onto wealthier recipients and Republicans offering to limit itemized tax deductions. But the tentative steps towards each other quickly unraveled. Democrats balked at extending the Bush tax cuts for people making over $250,000 a year, which expire at the end of 2012. Republicans complained that Democrats had pared their $1 trillion of spending cuts with $1 trillion of revenues, with a big chunk coming from tax increases (The Wall Street Journal, 11/21/11).

What is in store for CRNAs with the mandatory cuts? The cuts include 2 percent reductions to Medicare payments; 7-8 percent reductions to discretionary spending programs including Title 8 workforce development programs, nursing and medical research, law enforcement, and regulation of food and drugs; and 10 percent reductions from national security and homeland security accounts. The across-the-board cuts may not apply evenly as Congress or other agencies may direct cuts to apply more severely to some programs in order to spare others.

Another result of the supercommittee's failure: CRNAs and physicians will still face a 27 percent cut in Medicare Part B scheduled to take effect Jan. 1, 2012 unless Congress steps in. Acting at the request of AANA and other healthcare professional organizations, 94 U.S. Representatives wrote the bipartisan House leadership Nov. 16 urging the longest possible fix to the 26.2 percent Medicare Part B "sustainable growth rate" cuts to CRNA and physician payments, and to reject the Medicare Payment Advisory Commission (MedPAC) recommendation to cut Medicare CRNA and other specialty payments 17 percent over three years. "MedPAC's recommendation fails to value the role that all providers have in the continuum of care, and if implemented, the impact on access to care for millions of Americans would be devastating," the letter stated. "As a result, we strongly oppose the recommendation that an SGR fix should be funded by provider payment cuts that could endanger Medicare beneficiaries' access to care."

Health Care Innovation Challenge

The AANA was present at an event at the U.S. Department of Health and Human Services in Washington on Nov. 14th for the announcement of the Health Care Innovation Challenge. The Administration is challenging healthcare facilities and providers to competitively submit initiatives to make healthcare work better and cost less, and is sweetening the pot with $1 billion from the Centers for Medicare &

Medicaid Services Innovation Center. The grants will be awarded to applicants who will implement the most compelling new ideas to deliver better health, improved care and lower costs to people enrolled in Medicare, Medicaid and CHIP, particularly those with the highest health care needs.

Shari Dexter Leaving AANA Washington Office
Shari Dexter, Associate Director for Political Affairs in the AANA DC office, and director of the CRNA-PAC is leaving on December 9th to join the American Hospital Association as the director of their PAC. Many thanks to Shari for all her hard work on our behalf in Washington and I know you will join me in wishing her good luck in her new position.

CRNA-PAC Annual Campaign to Begin in January
The CRNA-PAC annual campaign will begin in January so please consider answering the call to join the CRNA-PAC to ensure that ongoing CRNA issues and concerns are heard in Washington, DC! The New Year brings both Presidential and Congressional elections and it is therefore vital that we remain a strong voice in Washington. One of the ways to accomplish that goal is to have a strong CRNA-PAC. Your CRNA-PAC is a non-partisan committee that supports U.S. House and Senate candidates and campaigns with influence over or commitment to the issues that affect us all. But why wait? Please "Care to be Counted" today by contributing to the AANA CRNA-PAC at www.caretobecounted.org (AANA member login required).

Federal Government Affairs Committee
If anyone is interested in politics or health policy, or knows one of the members of the Alabama Delegation, and would like to serve on the FGA Committee, please email me at: amyneimkin@mac.com. Thank you for your interest in serving the ALANA!

Amy Neimkin is the ALANA Federal Political Director. Follow ALANA FPD on Facebook and Twitter!!
Follow the ALANA for important communications and advocacy alerts on Twitter@ALANAFPD
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Are You Interested in Serving on ALANA's Board of Directors?

Pennie Nichols, Nominating Committee Chair

Are you interested in how new healthcare policies will affect you as a CRNA?

Have you been an Apatheticaholic for years and now would like to get involved?

Do you know someone who is passionate about being a CRNA?

Did someone's name just pop into your mind?

We are excited to announce the ALANA will have the President-Elect, Treasurer, four Board of Director positions and Nominating Committee Chair to be filled next election. Please forward names of potential candidates or any questions related to serving as a member of the ALANA Board of Directors to Pennie Nichols at Sixcents24@gmail.com.

Please consider serving your profession by joining the ALANA Board of Directors!

ALANA Fall Meeting Draws Great Crowd

One of the major goals of the Alabama Association of Nurse Anesthetists is to provide the membership with outstanding professional development opportunities.

Our Fall Meeting was successful this year because we had excellent speakers addressing the latest developments in anesthesia. The strength of ALANA programs keeps the association relevant and proves the value of our member's investment.

The Fall Meeting opened with presentations by Michael Humber and Scott Karr on pediatric and adult cardiology, followed by a special section on liability and ways nurse anesthetists can protect their assets. This year's Funderburg lecture was provided by Mark D. Welliver, CRNA, DNP, ARNP. Dr. Welliver is an Associate Professor of Professional Practice at Texas Christian University School of Nurse Anesthesia in Fort Worth. Dr. Welliver also maintains a clinical practice as a trauma call team member at UF & Shands Jacksonville, a Level I trauma center. His presentations were very popular and according to the evaluation results, we should have him return in the near future.

Other highlights of the Fall Meeting included outstanding presentations by John McFadden, David Fort, Seth Richardson and ALANA President Heather Rankin, who received a standing ovation in appreciation for her work on behalf of the membership.

Attendees were given a first hand update on the NBCRNA's proposal for changes to the Continued Professional Certification (CPC) program. NBCRNA member, Jackie Fortenberry thoroughly explained the objectives in proposing the changes and fielded questions from members. Perhaps the most impressive presentation came from CRNA Steve James on his work with KenyaRelief.org. There wasn't a dry eye in the room following his presentation and members were lined up afterwards to talk about ways they could help. What a great inspiration to the profession. Please visit KenyaRelief.org to see how you can get involved.

Program Committee Member Blair Perkins visits with ALANA Past President Jeff Brown.

NBCRNA's Jackie Fortenberry provided great information on CPC issues.

ALANA Lobbyist Susan Hansen thanks Christopher Orrell for his support of the ALA-CRNA PAC.

UAB's Michael Humber visits with ALANA President-Elect Phillip Kendrick.

ALANA Directors Patrick Hubbard, Jen Overton, Andy Morris, Heather Fields and Kyle Vanderford enjoy a moment with Past President John Morris.

Fall Meeting Highlights

New ALANA President David Hambright presents outgoing President Heather Rankin with a token of appreciation.

ALA-CRNA PAC Chair Albert Herrington (left) congratulates ALA-CRNA PAC raffle winners.

ALANA Exhibitor and long time supporter Joe Gribbin visits with ALANA Past President Shannon Scaturro in the tradeshow.

ALANA Program Director Bruce Von Hagel thanks AANA Region 7 Director John McFadden for his work on behalf of all CRNAs.

A picture is worth a thousand words. We had a packed house.

Students listen to remarks by President Rankin at the popular Student Welcoming Reception.

CRNAs

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Every day Certified Registered Nurse Anesthetists (CRNAs) provide anesthesia with the professional quality and personal care patients expect and deserve when facing surgery or other healthcare procedures that require anesthesia.

Whether a CRNA is at the head of the surgical table, caring for trauma patients in the emergency room, or easing labor pains for new mothers, patients can rest assured that they are in the care of an anesthesia professional committed to providing the safest, most comfortable anesthesia experience possible.

For more information about nurse anesthesia, visit www.aana.com or call 847-692-7050.

Celebrate National Nurse Anesthetists Week

January 22-28, 2012

Calendar of Events

February 7, 2012	**Regular Session of the Alabama Legislature Begins**	
February 15, 2012	**ALANA Day on Capital Hill**	Montgomery, AL
March 13, 2012	**Primary Election**	
April 15-18, 2012	**AANA Mid-Year Assembly**	Washington, DC
April 27-29, 2012	**ALANA Spring Meeting**	Destin, FL
May 21, 2012	**Projected Date for End of Legislative Session**	
August 4-8, 2012	**AANA Annual Meeting**	San Francisco, CA
TBA, 2012	**ALANA Annual Fall Meeting**	Birmingham, AL
November 6, 2012	**General Election**	

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PS Form 3526, September 2007 (Page 2 of 3)

Equipment & Technology

ACTIVATED CHARCOAL EFFECTIVELY REMOVES INHALED ANESTHETICS FROM MODERN ANESTHESIA MACHINES

Anesth Analg 2011;112:1363-70
Birgenheir N, Stoker R, Westenskow D, Orr J

Abstract

Purpose The purpose of this study was to determine the time needed to flush a modern anesthesia machine to < 5 parts per million (ppm) of potent inhalation anesthetic with and without an activated charcoal filter placed on the inspiratory and expiratory limbs

Background Malignant hyperthermia (MH) is a life-threatening complication triggered by volatile anesthetics. The mortality rate ranges from 6.5% to 16.9% despite administration of dantrolene. If a patient is identified preoperatively as being susceptible to MH the recommendation is to use a "clean" machine. Alternatively, one can flush the anesthesia machine with high fresh gas flow rates of >10 LPM for 10 to 104 minutes so that volatile anesthetic levels decrease below an acceptable level of < 5 ppm. If MH occurs during anesthesia the volatile anesthetic should be discontinued and the fresh gas flow increased to >10 LPM. The problem is that newer anesthesia machines, such as the Fabius anesthesia machine, have multiple internal elastomeric and plastic parts that capture and release volatile anesthetics. This makes it difficult to "flush" the machine in a reasonable period of time. Activated charcoal filters have recently been developed which may help decontaminate anesthesia machines quickly.

Methodology Activated charcoal filters (Vapor- Clean, Dynasthetics LLC, Salt Lake City, UT) were placed on the inspiratory and expiratory limbs of three different Aestiva and four Apollo anesthesia machines. A different anesthesia machine was used for isoflurane, sevoflurane and desflurane. The protocols were repeated for each gas on the two machines without the charcoal filters in place. Anesthesia machines were set to deliver a minute ventilation of 6.0 L and an inspiratory to expiratory ratio of 1:2. Carbon dioxide was added at 200 mL per minute to the expiratory limb. Isoflurane was set to 1.5%, sevoflurane to 2% and desflurane at 6% for each test. Fresh gas flow rates were initially set at 10 LPM then decreased to 3 LPM after 45 minutes and the charcoal filters were removed. In the control experiments the fresh gas flow rate was set at 10 LPM then decreased to 3 LPM when the volatile anesthetic decreased below 5 ppm.

To simulate a case of MH being diagnosed after 90 minutes of anesthesia, a flask with olive oil was used to simulate a patient's uptake and elimination of each of the volatile anesthetics. During a 90 minute "contamination" phase the oil absorbed the volatile anesthetic. When the vaporizer was turned off and the charcoal filter added the oil released the volatile anesthetic similar to that of an anesthetized patient.

Results During the control experiments on the Aestiva anesthesia machine, the initial volatile anesthetic concentration for each agent was approximately 110 ppm. The time to achieve an inspired concentration < 5 ppm during the control and charcoal protocols on each machine are presented in Figure 1. In the control protocol, the time to achieve a concentration < 5 ppm was shortest with desflurane, followed by sevoflurane, and isoflurane with the Aestiva machine. Concentrations of isoflurane and desflurane < 5 ppm were achieved

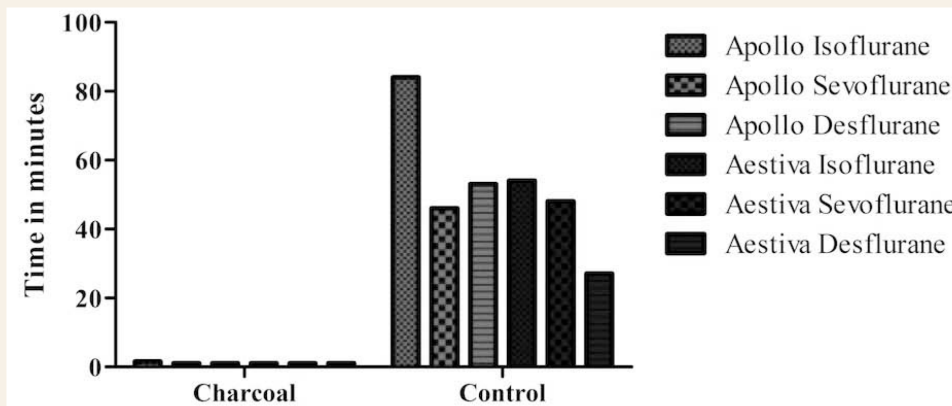
faster during the control protocol in the Aestiva machine than in the Apollo anesthesia machine (Figure 1). With charcoal filters in place it took < 2 minutes for the anesthetic concentration to decrease < 5 ppm for all volatile anesthetics. With the charcoal filters still in place, when the fresh gas flow was decreased from 10 LPM to 3 LPM at 45 minutes the volatile anesthetic concentration remained < 1 ppm.

When the filters were removed after 90 minutes inhalation agent concentrations increased quickly to > 24 ppm. With the simulated MH case using olive oil as a reservoir for volatile anesthetic, it took < 2 minutes for the charcoal filters to decrease the volatile anesthetic concentration to < 5 ppm. The concentration stayed < 5 ppm even with a reduced fresh gas flow rate of 3 LPM. The charcoal filters became saturated after at 67 minutes with isoflurane, 83 minutes with sevoflurane and 90 minutes with desflurane using the Apollo anesthesia machine.

Conclusion

Placing an activated charcoal filter on the inspiratory and expiratory limbs of Aestiva and Apollo anesthesia machines resulted in an immediate reduction of volatile anesthetic to < 5 ppm. With high fresh gas flow rates alone, it may take between 27 and 84 minutes to reduce the volatile anesthetic to an acceptable level. It was recommended that charcoal filters be placed on both the inspiratory and expiratory limb of contaminated machines when a “clean” machine is needed quickly.

Figure 1. Time to Achieve Inspired Volatile Concentration Below 5 PPM



Comment

This is the first time I have heard of using activated charcoal filters to remove volatile anesthetic from the breathing circuit. The manufacturer of the Vapor- Clean has obtained FDA approval for this purpose. This study demonstrated that the Vapor-Clean effectively decontaminates to newer anesthesia machines, the Fabius and Apollo. Having a “tool” that can be used to rapidly decontaminate an anesthesia machine would be an efficient alternative to having to flush an anesthesia machine. Additionally, having a way to rapidly eliminate volatile anesthetic during a suspected MH crisis is equally important. This finding has implications for military anesthesia providers in the U.S. Navy since the Fabius anesthesia machine is replacing many of the old Narkomed M field anesthesia machines on many of the deployment platforms.

If an MH crisis does occur and an activated charcoal filter is used it is important to point out that additional filters may be required. The Vapor-Clean filter may become saturated after approximately 60 minutes with isoflurane and up to 90 minutes with desflurane.

It is important to point out that two of the three authors on this manuscript reported receiving royalties from Dynasthetics, LLC, the manufacturer of the Vapor-Clean. I don’t necessarily think this biased the results, however, it would be nice to see the experiments replicated by investigators who do not receive royalties from the company in the future.

Dennis Spence, PhD, CRNA

The views expressed in this article are those of the author and do not reflect official policy or position of the Department of the Navy, the Department of Defense, the Uniformed Services University of the Health Sciences, or the United States Government.

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