

WOLFORD COLLEGE WOMBATS

Cor Unum, Via Una



Wellness Issue

THE OFFICIAL NEWSLETTER PUBLICATION OF WOLFORD COLLEGE

ISSUE #3



A HERO IN OUR MIDST....

by Leslie C. Hussey, Ph. D., RN



YOU'VE BEEN PASSED BY A WOLFORD WOMBAT...

by Kathleen McClenathan, MS, CRNA, ARNP

On October 7th, 2010, Wolford College participated in the Moe's Corporate Run for its inaugural Wellness event. Moe's Southwest Grill hosted the 5K run/walk to support the Naples Shelter for Abused Women and Children. Thirteen Wolford students and instructors were amongst the 500 competitors who raised more than \$7,000. There was great live entertainment and yummy free burritos afterwards.

The Wolford College team placed third under the Education division with Pine Ridge Middle School and Lely High School taking the first and second place, respectively. There were vendors and exhibitors present during this corporate run including Wolford College. A tent was set up and information materials were handed out to participants and spectators of this event. Congratulations to everyone who finished. We hope to see everyone at the next Wellness event!

For more information on running events in Naples, visit www.gcrunner.org. There is a scheduled race at least once a month.

We have a hero at Wolford College! Michael Sarber, Class of 2012A, recently helped save a life at Vanderbilt Beach. As he was setting up his beach equipment on a Sunday afternoon, he heard a blood curdling cry from the water. He started to head towards the water and then wondered if this was a shark attack. However, he decided he had to help so he swam out to the boat and found that a man who had been swimming near shore had been overrun by a boat. His foot had been severed. Michael and another person on a jet ski got the man into the boat. The victim was bleeding profusely so Michael took the captain's belt and tied it around the leg and applied pressure to the femoral artery. Michael tended to the victim until they got to the beach where the paramedics took over. Great job Michael!

The full story is linked to this article: <http://www.naplesnews.com/news/2011/feb/26/swimmer-lose-leg-boating-accident-vanderbilt-beach/>

For this wellness issue....

Every person has a story to tell. Everyone has a journey to tackle. Everybody has a task to accomplish. My task was to fulfill my wellness goal. Looking back, I was active growing up but I never really took care of myself in the true definition of wellness. I did participate in gym workouts but I did not really have a concrete goal in mind.

When was the decision made? In May 2009, I remember my decision to change my schedule around so that I can make it in the gym at least twice a week. It worked great during the first few weeks but unfortunately, there were many distractions and obstacles at the end of the day. More so, it became a challenge to get to the gym and work out when I had a busy day at work, aka tired. After a lot of soul searching and networking, a very wise Dr. Millard Brooks said, "Just go in the mornings. Simply get it done and over with." Well, prior to my gym days, it was already hard getting up at 6:00 am. Imagine my agony when I started waking up at 4:30 am to get to the gym before 5:30 and be done at 6:30. LOL. But just like everything else in life, you get used to it. Of course, I needed to make some minor adjustments. I did not go to bed at 10:00 pm anymore. Instead, I started wobbling towards it at 8:30 pm.

Did it work out ok? Going back to my goal, I went to the gym 3 times a week then. I got bored running on the treadmill and doing weights. Two angels came to my rescue. Keri Ortega and Suzie Thomas were attending spinning classes at 5:30 to 6:30 am during that time. I was mentored accordingly. I transitioned into my first spinning shoes with clips with the help of Jody Driver. Now, I am hooked! It does sound easy, doesn't it? Nope. I can remember those painful days when I could not sit nor pick up anything on the floor without easing my self down first. Again, the beauty of doing wellness or anything regularly is that – you get use to it.

How did I end up participating in races? In September 2009, our spinning instructor, Ryan Porucznik, started talking about the Gobble Gobble Thanksgiving Day 4 mile race and how much fun it was to participate. Fun is my magic word. I started training. Eddie Garcia helped me with a plan. It was difficult. Sort of like the plan: "From your couch to a 5K". Well this one is more than a 5K. It is 6.44 kilometers. That mentality got me stuck on a 5K rut for 3 weeks. Finally, I took my training outside and absolutely loved it. To this day, running from the downtown gym to Tommy Bahamas on 3rd Ave. is entitled: "My Fun Run" on my ipod. Long story short, I conquered my 5K rut and on race day, I ran with Stephanie Parsons and Van Obregon. It couldn't have been more perfect. ☺



Whats next? You know this one time, at band camp, they were talking about a Sprint Triathlon. I did four mini blogs about that journey. If you are interested, you can access the link at: <http://triathletism.blogspot.com/search/label/Naples2010>.

Subsequent horizon? I don't know. It has been and continually is a very difficult but fun journey. Having said that, I know that nothing in life is easy. Every person has an obsession. Everybody has a problem. Every one has an excuse and Nike has the best excuse - "Just do it!" ☺



Best of luck and remember to have fun doing it!

Jose D. Castillo III
Editor

TABLE OF CONTENTS

Extreme 2011

Wellness options for the novice, the beginner or the advanced. Take your pick!

Page 3



FNA Collier Meets

by: Brian Mears, SRNA

Florida Nurses Association meeting highlights IOM's report with our local nursing leaders.

Page 4

What FANA means to me...

by: Julie Franklund, SRNA

Page 5



Running for Student Representative to the AANA Education Committee

by: Kathryn Watterson, SRNA

Details of her work and accomplishment as Wolford College's representative to this event.

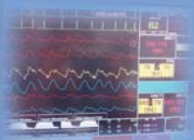
Page 6

Surfing the Curve with Narcotics - a Feature Article

by: Brian Mears, SRNA

A viewpoint research on narcotic use during emergence for a spontaneously ventilating patient.

Page 9



Case Studies I. Intraoperative Cardiac Arrest

by: Cole Burgess, SRNA

Page 10

II. Caesarean Section in a 32 Week Eclamptic Patient

by: Karlene DeMarco, SRNA

Page 11

Clinical MDA Instructor of the Year Awardee

by: Karl Horsten, M.D.

A speech for the class of 2010B.

Page 13

Did you know....

Page 12

WOMBAT



YOGA WITH LYNDA

Lynda Watterhouse is our own Chief Financial Officer. She is also a Certified Bala vinyasa Yoga Teacher, RYT200.

The first Yoga with Lynda will be on April 1, 2011 from 4:00 pm to 5:00 pm at Wolford College. She is very active on her wellness and teaches Yoga on Saturdays. For more information, go to www.bvyoga.com.

RUN WITH MATT

Matt Reedy is a certified USA Track and Field coach with Leapfrog Running based here in Naples, FL.

He coaches every day except Thursdays and Saturdays. Time and locations vary. SRNA discounted rate of \$106.25 per quarter is available.

For any questions, please email him directly at coach@leapfrogrunning.com.

THE WELLNESS CENTER

The Naples Community Hospital Healthcare System has 2 wellness centers that cater to the well-being of Collier county residents.

Located in the Greentree Plaza is the Whitaker Center and next to downtown NCH is the Brigg's Center. Both facilities have state of the art cardio and strength training equipment.

THE WELLNESS CENTER

Multiple fitness programs throughout the day will fit your work-out schedule.

Massage services, a swimming pool, locker rooms, and spa facilities are just a few of the multiple available amenities.

Wellness Center membership is offered at a discounted SRNA rate of \$22.00/month.

WWW.GCRUNNER.ORG

The goal of the Gulf Coast Runners as an organization is to promote the sport of running to all ages throughout the community.

GC Runner gives back to the community in ways that are applicable and appropriate to a running organization.

Feel free to visit their website for more information.

WWW.NATS.INFO

The Naples Area Triathletes (NATS) goals are to provide education, training, coaching, and community for multi-sport athletes - meet other triathletes, find training partners and join in social gatherings. They have multiple weekly workouts to choose from, informal socials and terrific discounts from great sponsors.

LOCAL NEWS

FNA Collier Meets by Brian Mears, SRNA

I had the privilege of attending the Florida Nurses Association (FNA) – Collier County Nurses Chapter on January 13, 2011. The Institute of Medicine (IOM) released a landmark consensus report October 5, 2010, ‘The Future of Nursing: Leading, Change, Advancing Health’. The primary objective of the FNA’s local chapter was to disseminate information related to the IOM’s recommendation. The IOM committee published four key messages:

- Nurses should practice to the full extent of their education and training.
- Nurses should achieve higher levels of education and training through an improved education system that promotes seamless academic progression.
- Nurses should be full partners, with physicians and other health care professionals, in redesigning health care in the United States.
- Effective workforce planning and policy making require better data collection and information infrastructure.



The meeting was conducted in a panel setting with two moderators and five panel participants. The panel consisted of nursing executives, educators and clinicians from Collier and Lee County. They discussed how they were actively engaging the IOM’s recommendations in redesigning and redirecting the nurse’s role in their facilities. There was unanimous consensus that all facilities are actively increasing the number of BSN prepared nurses. The panel discussed how BSN preparation provides entry-level understanding of literature review and research, both of which are required for improving the health care delivery model in the United States. Dr. Linda Strommen from Nova Southeastern University made an excellent point regarding how slow change occurs in nursing education. Dr. Strommen stated that university based nursing education historically takes a long time to change curriculum. By the time changes are approved and implemented, the change itself is outdated. However, private facilities have the ability to implement immediate change. The University system must streamline its committee processes to meet the needs of our changing health care system.



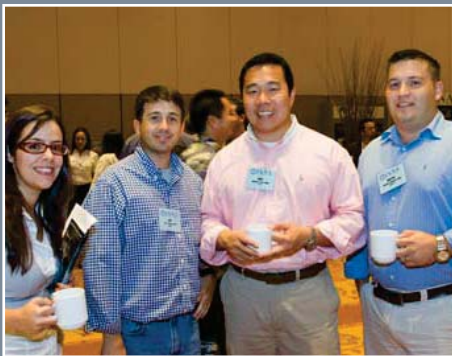
The IOMs report included a detailed explanation about the ARNPs scope of practice. Ruth Girlando, a NP in Collier County, discussed the IOMs statement that nurses should practice to the full extent of the education and training. As our health care system evolves, we will see the role and scope of practice of the ARNP increasing to meet the demands for safe, quality, and affordable care.

The CRNA role will change as our health care system changes. I encourage you all to attend as many meetings as you can. The information you will be exposed to is amazing, exciting, and will give you the tools you need to be an active participant in our profession.

Reference:

<http://www.iom.edu/Reports/2010/The-Future-of-Nursing-Leading-Change-Advancing-Health.aspx>

STATE NEWS



WHAT FANA MEANS TO ME....

by Julie Franklund, SRNA

The common emotion circulating around campus was one of pure fear. It was my first week of anesthesia school and was quickly becoming one of the most overwhelming weeks of my life. After reading the syllabus in each class, the assignments and required readings seemed like an impossible task. However, the initial fear was replaced with excitement after attending the October FANA conference in Orlando.

At first, the concept of a weekend conference immediately after the first week of school was intimidating. However, the meeting exposed us new students to other upper classmen and many gracious veteran CRNAs. It was reassuring and relieving to hear how other SRNA's have been doing and how they were adjusting to the requirements of being a SRNA. There was a sense of improved confidence after speaking with people who had once been in my shoes and experiencing that same "fear". This positive experience from the first meeting inspired me to attend several FANA meetings and events since. Aside from relieving the anxiety of being a new student, FANA's true goal is to unite the profession in order to educate and enlighten its members. CRNAs and SRNAs, who volunteer their time to FANA, serve to benefit themselves individually as well as to improve the entire profession.

FANA represents a team mentality in the sense that in order to become better individual practitioners, it is

essential to learn from each other in an effort to advance as a profession. This concept follows the saying that "the whole is greater than the sum of its parts". Also, being directly exposed to new research and developments provides a clear picture of the dedication many CRNA's have towards the advancements in anesthesia practice.

Staying politically aware also plays into the team concept. With today's ever-changing healthcare climate, it is imperative that CRNAs establish and keep excellent relationships with key state legislators and regulatory officials. FANA has lobbyists that work to spark and maintain these interactions. At each meeting FANA promotes understanding, discussion, and participation in professional and political health care issues. As a hopeful CRNA, it is important to be aware of advancements in anesthesia practice and current political health care issues.

FANA conferences are not entirely all business. The atmosphere is serious when it requires it, but loosens up to allow networking and information exchange between conference attendees. After a full day of learning about new concepts, many social events are hosted. These social events are always fun, entertaining, and provide a welcome relief from our hectic anesthesia curriculum. I have thoroughly enjoyed participating and attending FANA and would recommend to any new student who wishes to embrace knowledge, through participation, in place of that initial "fear".



RUNNING FOR STUDENT REPRESENTATIVE

TO THE AANA EDUCATION COMMITTEE *By: Kathryn Watterson, SRNA*

Running for Student Representative for the AANA education committee was truly a learning experience and a challenge in many ways. Hindsight always gives us the information we needed to know prior to the event. So, now that I can reflect on the entire experience of running for a national position, I can give you the advantage of insight and advice on what to expect and how to prepare when pursuing a competitive candidacy.

First, it is important to understand what the prestigious role of being student representative for the AANA education committee entails. The education committee's purpose is to "provide direction for programs associated with educating future nurse anesthetists, to improve education for interested anesthesia educators, to review and recommend changes in the standards of guidelines for the Council of Accreditation (COA) of Nurse Anesthesia Educational Programs" (www.aana.com). The committee members include the director of the COA, President of the AANA, an education specialist and other CRNAs. The student representative provides the committee with a student's perspective by being present at these meetings which take place in various cities. The other duties of being student representative include writing a Student News column mostly on

a monthly basis in the AANA News Bulletin, which is displayed on the AANA website.

Second, you have to apply for this position. Applying for this position includes filling out the application, submitting your current curriculum vitae, background, and most importantly, your position statement. Your curriculum vitae should include your Licensure, Education, Professional Memberships and Employment history. Your background is a brief description of where you are from, your work history, and where you currently attend school. This background portion is usually written in third person. The most important section of the application process is your position statement. When I initially wrote my position statement, I didn't have a clear idea of what the position statement was, nor did I know that this statement would be posted on the AANA website for everybody (including the education committee members) to review. This position statement should be used not only to boast your best assets (personality, major accomplishments), but also to provide the reader with your plan of how you will represent and serve the student nurse anesthetists of the country. You will essentially be the voice of your student peers and an advocate for promoting education for nurse anesthesia.

NATIONAL NEWS



Running for Student

(continued from page 6)

If you want to win, you must not be shy and promote yourself. Inform your classmates and students that are in the classes ahead and behind you that you are running for this position and they need to be present at your speech and most importantly, they need to vote! Running for this position is not a one-man band but really will require a team effort from your peers and the administrative body at Wolford.

Now comes the fun part of the application process. You are not only required to attend the annual convention, (the next one will be in Boston!!!), but you will also give a three minute speech to approximately 300-500 student nurse anesthetists and the education committee! Very few people "enjoy" public speaking, in fact, most people compare public speaking as being bad as or worse than death and divorce. Lucky for us, to graduate from Wolford, you will be required to speak in

front of at least fifty people as a group presentation. I dreaded speaking in front of fifty students during didactics at Wolford, so you can imagine my anxiety level about speaking in front of hundreds of people at a national conference.

However, I used my intense fear of speaking in public as a major source of motivation and prepared well in advance, practiced multiple times in front of my family and friends, videotaped myself give the speech and had many different people proof my speech, including Dr. Hussey. Once Dr. Hussey approved it and said it was good, I felt very confident and ready to deliver it. I also read "The Quick and Easy Way to Effective Speaking" which gave me helpful advice on public speaking. I am happy to report, that not only did I survive the public speaking experience, but I delivered a well prepared speech. Your speech itself can be as creative, formal or informal as you want. Ideally, it will be

geared to how you plan on being a student leader and liaison between the student body and the education committee. Remember, rather than dreading the speech, look forward to it as being your chance to shine!

Lastly and most importantly, I want to reinforce the need to utilize your peers and administrative staff at Wolford to help and support you with running for this student representative position, in other words, you need a "campaign". It helps to get ideas from others about what campaign materials you will have such as fliers, T-shirts, pens, logos, etc. Not only do you need to have a catchy logo and materials, you need to have money to pay for them and people to help you prepare them and hand them out to the students at the AANA convention just as the students are taking their seats for your presentation. This all sounds like a lot of work, but you will learn more

**SAVE THESE
DATES!!!!**



AMERICAN ASSOCIATION
OF NURSE ANESTHETISTS



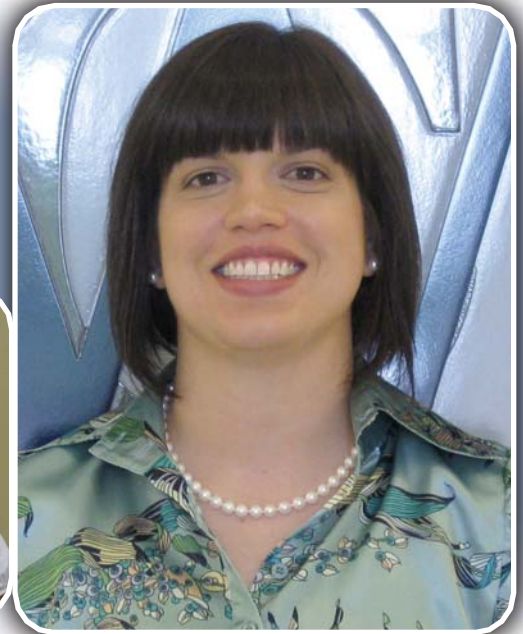
FANA 2011 SPRING MEETING
Marriott Tampa Waterside Hotel
Tampa, Florida
June 10-12, 2011

AANA 78th Annual Meeting
Hynes Convention Center
Boston, Massachusetts,
August 6-10, 2011



WOMBAT

Spring 2011



WOLFORD COLLEGE STARS



JENNY CONTAKOS, MLIS

Voted by 2010B

Didactic Instructor of the Year:

Dr. John Nolan

Clinical MDA Instructor of the Year:

Dr. Karl Horsten

Clinical CRNA Instructor of the Year:

Ms. Wendy Sparks

AANA 2010 College Bowl Contestants

Ms. Celine Kilian, SRNA

Mr. Brian Mears, SRNA

AANA Committee Applicants

AANA Writing Contest:

Mr. Brian Mears, SRNA

National Student Excellence in Education Contest:

Mr. Richard "Neil" Davis, SRNA

Student Representative to the Education Committee:

Mr. Michael Sarber, SRNA

Hello! I'm Jenny and I am the Librarian/ Program Effectiveness Manager and I have been at Wolford College for almost a year. I have lived in Florida since 2006 and previously lived in Virginia Beach, Pittsburgh, and Washington DC. I have a Masters Degree in Library and Information Science from the University of Pittsburgh and am working on an MBA at Florida Gulf Coast University. I have a diverse career background and have worked as a Bookbinder at the University of Pittsburgh, a Project Manager at the Law Library of Congress, and a Reference Librarian for the Lee County Library System.

I am married to an awesome guy, Eric, and we have three wonderful cats-Nate, Maggie, and Aella. In my spare time I like to cook, read (surprise!), and start craft projects that I never finish. I am really enjoying working with everyone here and learning about the field of nurse anesthesia.



Surfing the Curve with Narcotics

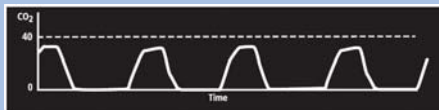
.....a feature article.....

by **Brian Mears, SRNA**

We often wonder how some patients emerge from anesthesia much smoother than others. Emergence is considered the most difficult portion of the case. We frequently see coughing, bucking, thrashing, tachycardia, and tachypnea. We are measured, not only by how well we perform on induction and maintenance, but, on how well our patient tolerates emergence and by how much pain they experience in PACU. A thorough understanding of how to appropriately dose narcotics in accordance with various EtCO₂ waveforms can significantly reduce the sympathetic discharge clinicians see during emergence. Appropriate utilization of narcotics in the OR is often difficult for students. Many are unsure of the correct timing and dosing of narcotics. All too frequently, we administer narcotics as we see heart rate and blood pressure increase, without assessing the full clinical picture. Prior to administration of narcotics during a case we should answer a few basic questions: 1. How much longer will case last? 2. Did the surgeon recently inject a local anesthetic with epinephrine? 3. Is an increase in HR and BP clinically significant? As we all know, narcotics can cause respiratory depression and

may significantly delay emergence if dosed incorrectly. Thus it is imperative that we understand the basics of narcotic administration. In the ventilated patient, narcotic administration can delay the onset of spontaneous respirations 30 minutes or longer. Multiple considerations occur prior to allowing a patient to spontaneously breathe. However, if the case indicates a return to spontaneous breathing we can then monitor respiratory rate and pattern as a means of determining adequate depth of anesthesia. Upon initial return to spontaneous ventilation we generally see variability in rate and pattern with small tidal volumes. Once a regular respiratory rate and pattern develop we will see an EtCO₂ waveform that has a rounded expiratory plateau phase with a fairly rapid rate (generally in the 20's). Figure 1 following depicts a regular hyperventilatory capnogram.

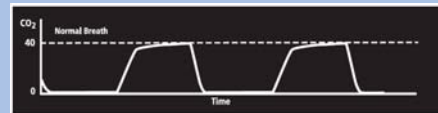
Figure 1



Once we see this pattern we are then ready to surf the curve with narcotics. By titrating a very small

amount of narcotic, Fentanyl 12.5 mcg, we will see the expiratory phase prolong and flatten. With the appropriate dosing of narcotic we will see a regular rate (10-16 bpm) with an adequate tidal volume (approximately 6 ml/kg) and a square EtCO₂ waveform as seen in Figure 2.

Figure 2



This is surfing the curve. By accomplishing this we are setting the patient up for a smooth emergence and a relatively pain-free ride to PACU.

References:

- Friderichs, E. (2002). Opioids. I. H. Buschmann, T. Christoph, E. Friderichs, C. Maul, & B. Sundermann, *Analgesics: From Chemistry and Pharmacology to Clinical Application* (pp. 127-245). Wiley-VCH.
- Dunbar, B., Ovassapian, A., Dripps, R., & Smith, T. (1967). The Respiratory Response to Carbon Dioxide During Innovar-Nitrous Oxide Anaesthesia in Man. *British Journal of Anaesthesia* (39), 861-866.

INTRAOPERATIVE CARDIAC ARREST

by: Cole Burgess, SRNA

It is well known that all surgical procedures and administration of anesthetics carry with them a certain risk of complications. With the addition of coexisting diseases these risks can rise substantially. It has been reported that worldwide perioperative death rates might be as high as 1.85%. Worldwide death from anesthesia related causes range from 1 in 5,000 to 1 in 200,000 (Noordzij, et al. 2010). In America, anesthesia related deaths have been reported to be about 1 in 200,000- 300,000 anesthetics (Lagasse, R., 2002). While these statistics are a great improvement from earlier studies, we must continue to strive for improvement in perioperative safety.

Case Report

This case involved an 84-year-old male who presented for ERCP. The patient's past medical history included hypertension, Parkinson's disease, type 2 diabetes, and GERD. Distant surgical history includes hernia repair and joint replacement. Current medications included sinemet, lexapro, glyburide, levaquin, metformin, zosyn, mirapex, ramipril, and verapamil. The patient had an ERCP five days prior to this ERCP and a cholangiogram the day before this ERCP. Also on the morning of this procedure, the patient underwent yet another ERCP. The patient was considered an ASA class 3 and was noted to have a mallampati grade 3 airway. Preoperative assessment included an EKG that demonstrated a sinus rhythm with first-degree AV block and an unremarkable chest x-ray. The patient's blood pressure was 192/90 mmhg and heart rate was 96 bpm in the pre-op holding area.

The patient was taken to the operating room and standard ASA monitors were applied. After adequate preoxygenation, a rapid sequence induction was performed with successful placement of an 8.0 ETT by use of a glidescope. End-tidal CO₂ and bilateral breath sounds were noted. Induction drugs included 130 mg propofol, 60mg lidocaine, and 100mg anectine. Desflurane and N₂O were used for maintenance of anesthesia. After proper positioning and padding, the airway was rechecked and surgery started. About 55 minutes into the procedure, the patient had an acute increase in peak inspiratory pressures. This lasted only about 4 or 5 breaths. Within 1-2 minutes following this transient episode of increased inspiratory pressures, ST segment depression was noted on the EKG. This event was followed almost immediately by a decrease in ETCO₂ despite adequate tidal volumes being administered. The procedure was immediately terminated and the patient was positioned supine. No pulse could be palpated and CPR was started. EKG showed pulseless electrical activity and standard ACLS protocol was followed. An arterial line was placed for accurate monitoring of pulse and BP. ACLS

interventions included epinephrine, vasopressin, calcium chloride, sodium bicarbonate, atropine and defibrillation. After 45 minutes of ACLS the efforts were terminated.

Discussion

This discussion is going to focus on the preoperative testing and theories about what lead to the cardiac arrest. ACLS protocol, which is well researched and defined, was followed after the patient was determined to be in cardiac arrest so we will save that discussion for another time. First, given this patient's age and coexisting diseases, it is recommended that the preoperative assessment should include an EKG and chest x-ray (Cook, 2010). The chest x-ray showed no acute disease and the EKG recording indicated nothing that should have postponed the procedure. It was also noted that the patient was diabetic and a preop glucose measurement of 95 was obtained and deemed to be within normal limits.

Recently, research has shown some value in preoperative functional assessment and cardiac risk index assessment. The ACC/AHA Guidelines on Perioperative Cardiovascular Evaluation and Care for Noncardiac Surgery outlines a method for determining the risk associated with performing surgery on a particular patient. By following the algorithms provided in this research, one can make recommendations concerning the evaluation, management, and risk of cardiac problems over the entire perioperative period. This assessment can provide a clinical risk profile that the primary physician, anesthesiologist, and surgeon can use in determining the preoperative tests that are needed to make treatment decisions (2007). By using these guidelines, the patient was deemed a candidate for surgery.

This case was not accepted by the medical examiner for autopsy so the actual cause of cardiac arrest may never be known. Given the patient's age and co-existing diseases, it can be speculated that the patient had underlying coronary disease and suffered a massive infarct. However, since the patient showed no clinical signs of cardiac abnormalities preoperatively, this theory may be unlikely. Another theory, and one that some evidence supports, is that the patient might have suffered from a large air embolism due to air entrainment into the liver. During this procedure, the surgeon insufflates air into the gastrointestinal tract to facilitate maneuvering of the endoscope and enhance surgical view. There are two hypotheses as to how air enters the circulation during ERCP: first, presence of severed venous radicles at the site of sphincterotomy that are exposed to high pressure gas, and second, the opening of functional communications between intrahepatic bile ducts and portovenous channels when

exposed to high insufflation pressure during endoscopy (Rangappa, et al., 2009). Also, during controlled ventilation of the lungs, sudden attempts by the patient to initiate breaths (gasp reflex) may be the first sign of venous air embolism (Ezekiel, 2008). This may be the explanation for the transient rise in inspiratory pressures. Other signs of venous air embolism include a sudden decrease in end-tidal CO₂, hypoxemia, hypotension, and distended neck veins. All of these signs were noted in this case except for the distended neck veins, which would have been hard to notice with the patient in the prone position.

Treatment of VAE is first aimed at preventing any more air from entering the vasculature. In this case the bowel should have been decompressed by the scope or via placement of a gastric tube. One hundred percent O₂ should be administered and the patient should be placed in a left lateral decubitus position. A central venous catheter should be placed into the right atrium or ventricle and attempts should be made to aspirate the air out into a syringe. Supportive treatment should include vasopressors, IV fluids, and even cardiopulmonary resuscitation if warranted (Ezekiel, 2008).

It is likely that we will never be able to determine exactly what caused this patient's demise. The ideas presented thus far are nothing more than speculation as to what might have happened so that we may suspect these types of event should this situation ever arise again. If I had to manage this case again, I would be very suspicious of the possibility of a VAE forming and I would be ready to diagnose and treat the complication.

References

- American Heart Association (2007). ACC/AHA guidelines on perioperative cardiovascular evaluation and care for noncardiac surgery. Dallas, TX: Fleisher.
- Cook, D. J., & Rooke, G. A. (2003) Priorities in perioperative geriatrics. *Anesthesia & Analgesia*. 96:1823-36.
- Ezekiel, M. R. (2008). Handbook of anesthesiology. Current clinical strategies publishing.
- Lagasse, R. A. (2002). Anesthesia safety: Model or myth? *Anesthesiology*. 97: 1609-1617.
- Noordzij, P. G., Poldermans, D., Schouten, O., Bax, J., Frodo A., Schreiner, G., Boersma, E., (2010). Postoperative mortality in the Netherlands: A population-based analysis of surgery-specific risk in adults. *Anesthesiology*. 112(5): 1105-1115.
- Rangappa P., Uhde B., Byard R., Wurm A., Thomas P. (2009). Fatal cerebral arterial gas embolism after endoscopic retrograde cholangiopancreatography. *Indian Journal of Critical Care Medicine*; 13:108-112.



CAESARIAN SECTION IN A 32 WEEK ECLAMPTIC PATIENT

by: Karlene DeMarco, SRNA

Preeclampsia is a disorder in pregnancy characterized by protein in the urine, high blood pressure, and edema which affects 5-8% of the population (Wagner, 2004). Eclampsia is the sudden onset of seizures during pregnancy following preeclampsia, for which the only absolute treatment is delivery of the fetus (Groopman, 2006). Eclampsia is much rarer and occurs in 1 in every 15,000 pregnancies, with about 80% of those occurring during childbirth (Morgan & Mikhail, 2006). The cause of preeclampsia remains unknown, however known risk factors have been identified as obesity, being older than 35, first pregnancy, multiple gestations, and a history of diabetes, hypertension, or kidney disease (Wagner, 2004). As the leading cause of maternal and infant deaths, these disorders are accountable for 76,000 maternal and 500,000 infant deaths every year (Groopman, 2006).

Patient was a 15 year old female, 165cm, and 69kg who came in from home at 0300 for an emergent c-section. Patient was found seizing and foaming from the mouth in the bathroom by the mother in the middle of the night. Duration of seizure was unknown. Patient presented 32 and 3/7 weeks pregnant, with an 8lb weight gain the week prior to the seizure, as well as fever and nausea the day before. The patient was receiving prenatal care and her only medicine was prenatal vitamins. No significant laboratory values noted, her Hgb, hct, and wbc were 12, 33, and 19 respectively. Patient was given .5mg versed en route to the OR and presented in post-ictal state with erratic behavior which prevented us from adequately assessing her airway. Patient's ASA was 3E and Mallampati 4 with full range of motion of her neck (as noted by her ability to flail her body) and a thyromental distance estimated to be 3 fingerbreadths. NPO status was unknown and she was deemed a full stomach at 32 weeks pregnant. Anesthetic plan was explained and consent was obtained from the mother in the ER. A #18 IV was placed in the left hand with Magnesium infusing, a second #18 IV was placed in the AC post induction. Patient received only the 0.5mg Versed prior to induction to break the seizure and calm the patient in an effort to try and pre-oxygenated the patient in while the monitors were being applied in the operating room. Preoperative blood pressure was 220/130- 199/119. Induction was completed as a RSI using only 200mg propofol and 180mg of anectine. No breaths

were given and the glidoscope was inserted with cricoid pressure being applied. Intubation was obtained using #3 glidoscope and a 6.0 Endotracheal tube [ETT]. Aretroids were visualized and ETT was placed at 23cm at the teeth. Patient was started on Desflurane and switched to Isoflurane to maintain anesthesia. Labetolol was given as needed in 5mg doses to maintain a pressure at 140/ 70 throughout the case. Vecuronium was administered once the baby was delivered. The baby emerged blue with an apgar score of 5, 7 and 8 at 1, 5, and 10 minute intervals respectively. Emergence included turning off the isoflurane, giving an additional 1mg of vecuronium and 2mg versed for transport, and bringing the patient to the ICU intubated.

Although the situation in this case was not quite critical, it was detrimental to the health of the patient that her airway be protected and the baby delivered immediately. The issue here was that the patient came in after an 8lb weight gain in one week, nausea, a fever times one day, and was found in the bathroom seizing. Severe pre-eclampsia is a blood pressure greater than 160/110 combined with proteinuria, and edema (Groopman, 2006). The cause of preeclampsia remains unknown, and delivery is the only definitive cure, which is exactly what was done (Groopman, 2006). To date magnesium sulfate is the best treatment and prevention against eclampsia, which the Emergency room had started on her arrival to the hospital (Wagner, 2004). The patient was unable to cooperate with the preop assessment process because she was post-ictal and erratic on arrival to the OR. The treatment for this is a benzodiazepine or barbiturate, for which we correctly chose versed. Also, adequate pre-oxygenation was not possible as a mask seal was unable to be maintained. Due to the urgency of the case and the assumed full stomach a rapid sequence induction using cricoid pressure was done using the glidoscope to ensure visualization. The reason for this is simply that pregnant women are considered high risk for desaturation due to airway edema, decreased FRC, and increased oxygen consumption (Belfort, 2010). On entering the mouth with the glidoscope there was a lot more edema than expected and visualization was not as easy as one would anticipate for a 15 year old. It's a fact that general anesthesia in obstetrics has a 16x higher rate of maternal mortality (which in itself

validates the use of the glidoscope), however the urgency of the case and uncontrollable nature of the patient made general anesthesia the only option (Mokriski, 2002). Concerns with regional anesthesia in these cases in which the mother is seizing should be obvious as there is no way to protect the airway, a sympathectomy can cause the blood pressure to drop too dramatically, and the risk of pulmonary edema due to fluid overload is increased (Mokriski, 2002). Fears with general anesthesia include the fact that laryngoscopy can increase the blood pressure further which may necessitate the use of labetalol or fentanyl to correct (Mokriski, 2002). Unlike labetalol, esmolol can cause adverse fetal affects, which is why labetalol was chosen in this patient (Morgan & Mikhail, 2006). Other concerns with general anesthesia are that magnesium sulfate drips can potentiate neuromuscular blockers, which in this case is fine since she was not being extubated prior to going to the floor (Mokriski, 2002). The added risk of pulmonary aspiration is due to the pressure of the fetus on the stomach and the decrease in esophageal sphincter tone, decreased gastric emptying and increased gastric pressures (Gogartan, 2010). In this case the glidoscope was clearly the best option since most anesthesia-related deaths are the result of cardiac arrest because of hypoxemia from difficulty securing the airway (Gogartan, 2010).

In addition, the presence of a second patient means that maternal drug concentrations and placental transfer have to be considered if delivery is not immediate. In this case, the time from incision to delivery of the fetus was less than 5 minutes, however in longer instances drugs that would cross through the placenta would need to be reconsidered. In conditions such as preeclampsia there is less hepatic metabolism and drug concentrations, such as lidocaine, are increased (Gogartan, 2010). This is important to remember since at term the placenta is receiving 10% of the cardiac output (Gogartan, 2010). An additional serious complication that can occur in these situations is HELLP syndrome, which is hemolysis, elevated liver enzymes and low platelet count which is increased in preeclamptic patients and carries a 25% mortality (Groopman, 2006).

(Continued page 12)

...from the office of the Wombat Whisperer...

Did you know that....

.... Woford College was featured once and mentioned twice in the news since December 2010?.....

Click on the links below to find out. :-)

Feature: Quietly, A College

<http://www.naplesnews.com/news/2011/jan/31/woford-colleges-move-naples-helps-grow-its-nurse/?partner=RSS>

Article: Injured Haitian youth on a healing path in Lehigh

<http://www.news-press.com/article/20101220/NEWS0103/101219043/Injured-Haitian-youth-healing-path-Lehigh>

Article: Swimmer's leg severed by boat propeller at Vanderbilt Beach

<http://www.naplesnews.com/news/2011/feb/26/swimmer-lose-leg-boating-accident-vanderbilt-beach/>

THE TEN MANTRAS OF ANESTHESIA BY: KNOWN

- I. THOU SHALL HONOR THY ANESTHESIA PRECEPTOR (AND SURGEON).
- II. THOU SHALL BE READY AND ON TIME.
- III. THOU SHALL HOLD THY CALL DAY SACRED; BEING IMMEDIATELY AVAILABLE AND READY.
- IV. THOU SHALL DO A COMPLETE PRE-OP EVALUATION, INCLUDING REVIEW OF THE CURRENT CHART, ANY ANCIENT CHART, OLD ANESTHESIA RECORDS, AND MOST RECENT LABS, EKGS AND IMAGING STUDIES BEFORE CALLING THY ATTENDING TO PREOP. THIS INCLUDES THE PREGNANCY TEST!!!
- V. THOU SHALL NOT KILL, MAIM, DAMAGE SOFT TISSUES NOR TEETH.
- VI. THOU SHALL HAVE AN I.V. WHICH FLOWS LIKE THE NILE ON ALL ADULT CASES PREOPERATIVELY.
- VII. THOU SHALL NOT FIDGET NOR UNNECESSARILY TOUCH AN AWAKE PATIENT.
- VIII. THOU SHALL NOT LIE ON YOUR ANESTHESIA RECORD NOR YOUR TIMESHEET.
- IX. THOU SHALL NOT ARGUE, WHINE, COMPLAIN, MOAN, NOR TRY TO WEASLE OUT EARLY.
- X. THOU SHALL NOT COVET THY NEIGHBORS CASE, EQUIPMENT NOR HIS/HER STUDENT.

Caesarean Section....

(Continued from page 11)

Although this case went smoothly, it could have been easier and safer had we had time to prepare, however it was a great learning experience. I thought this case was beneficial to my clinical experience because I was able to learn not only labor and delivery but in an eclamptic patient, which is rare. As a member of the anesthesia team I learned the importance of preparation and how using the glidoscope and avoiding a difficult intubation allowed us to secure her airway immediately. Had we not had the right anesthetic plan and not been able to maintain the patient's airway we would have had two patients suffer as a result. This experience will no doubt prove to be essential in the care of future patients.

References:

- Belfort, M., Saade, G., Foley, M., Phelan, J., Dildy, G. (2010). *Critical Care Obstetrics*. (5th ed.). Oxford, UK: Wiley-Blackwell, 446-448.
- Groopman, J. (2006). The Preeclampsia Puzzle: Making Sense of a Serious Pregnancy Disorder. *The New Yorker*, 64(8) 114-119.
- Gogartan, W. (2010). Current Opinion in Anesthesia: Preeclampsia and Eclampsia. *Journal of Obstetric and Gynecological Anesthesia*, 22(3) 347-351.
- Mokriski, B., & Malinow, A., (2002). Preeclampsia and Eclampsia: Anesthetic Management. *American Society of Anesthesia*, 3(20) 143-154.0
- Morgan, E., Mikhail, M., & Murray, M. (2006). *Clinical Anesthesiology*. (4th ed.) New York, NY: McGraw Hill, 910-912.
- Wagner, L. (2004). Diagnosis and Management of Preeclampsia. *American Family Physician*, 70(12) 2317-2324.

Dr. Karl Horsten

Clinical MDA Instructor of the Year Awardee



Dear Graduating Class of 2010 B!

You have worked hard to get to this moment: you have survived countless different teachings from various anesthesiologists and CRNA's;

I personally hope you will recall me saying that sometime in the future, when your "primary PLAN A" does not work, you will be happy to have had the exposure to a variety of approaches and also the knowledge of different ways to achieve your goal!

You have been transformed from *students*, who were "glad to see the epiglottis" and "get the A-line", to *nurse anesthetists*, worthy of the degree and the qualification you will receive today.

Over the past 2 plus years, you have probably understood more and more, that our job is not as easy as it might appear to be, and that it requires true professionalism to make it "look easy".

I would like to congratulate you today to several things:

Believing in yourself and being the best you can be.

You have strived for a goal that you have set. You were focused. You

were determined. And you followed through.

You have succeeded with courage and pride, and hopefully never regretted "going back to school" and "becoming a student" again.

You have shaped your own destiny; you have built your own professional world, your career; and you have created your own *success*.

Walt Disney once said: "All of our dreams can come true – if we have the courage to pursue them";

Ladies and Gentlemen: you have pursued, and you have reached -- your dream!

I would like to encourage you to "never be a cowboy" (or cowgirl), to always be SAFE and CONSERVATIVE, and to always treat your patients (and their families) like you and your family would want to be treated!

Always turn on your oxygen, have your suction at the right hand side, and be as efficient, safe and elegant – and "professional" as possible.

Ladies and Gentlemen: please always try to "look good doing your job"... because if you look good doing your job, you probably are

doing a good job, and you will be competent, organized, skillful, calm & collected, tidy and effective.

Not only *you* will notice, but also your patients and co-workers will notice your professionalism -- and respect and honor you.

Ladies and Gentlemen of the *Wolford College*, Class of 2010-B, I congratulate you, on my own behalf -- and also on behalf of all of my colleague-anesthesiologists of *Collier Anesthesia, P.A.* -- to your success of becoming a Certified RN Anesthetist!

Thank you very much for your hard work over the last 2-plus years!

Thank you for this award! I am honored!

Good luck professionally and personally for whatever you choose to pursue in your new life!

May God bless you and your families! Have a great day!

FUTURE ARTICLES

Do you have an idea for an article? Simply email your Editor: Jose D. Castillo III, MS, CRNA at jcastillo@wolford.edu.

My special thanks to our faculty and student contributors and proof readers. :-)



2011A GRADUATION

When: June 11, 2011

2011B GRADUATION

When: February 10, 2012



WHO'S WHO AT WOLFORD.....



ADMINISTRATION

John Nolan, M.D.
Dean

Lauren Corder, Ed. D., CRNA
Program Director

Keri Ortega, MSN, CRNA
Assoc. Director of Graduate Education

Leslie Hussey, Ph. D., RN
Assoc. Director of Doctoral Education

Gilberto Chang, MBA
Director, Financial Aid Services

Lori Ellison, BS
Director, Enrollment & Student Svcs.

Jenny Contakos, MLIS
Librarian & Program Effectiveness Manager

FACULTY

Ann Brenzel, MS, CRNA

William Caldwell, DO

Jose D. Castillo III, MS, CRNA

Thomas Cook, MD

Kathleen McClenathan, MS, CRNA

Barbara Murtagh, CRNA

Michael Nolan, MD

Michael Orlando, MSN, CRNA

Michael Staab, MD

Scott Woodward, CRNA

SUPPORT STAFF

John Sparks
I.T. Specialist

Megan Levitt
I.T. Specialist

Elizabeth Potter
Administrative Assistant

Victoria Coppard
Receptionist

WOLFORD COLLEGE

1336 Creekside Blvd., Suite 2

Naples, FL 34108
